

National Institute of Health Sciences Research Bulletin

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Improving Quality of Care for Acute Kidney Injury in the Irish Health System

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INTRODUCTION

Acute kidney injury (AKI) occurs in approximately 20% of hospital admissions and is associated with adverse clinical and cost outcomes. Patients are frequently under the care of non-renal specialists who may be unfamiliar with AKI optimum management. We conducted an audit to assess the quality of basic AKI care delivered by referring teams.

METHODOLOGY

Data was collected prospectively using a standardised instrument. Our renal department policy for AKI care was our audit standard and mandated that referring teams pursue the following bundle of care:

- Urinalysis
- Fluid input/output chart (FIOC)
- Discontinuation of nephrotoxic drugs
- Medication dose adjustment for estimated glomerular filtration rate (eGFR)<10ml/min
- renal imaging

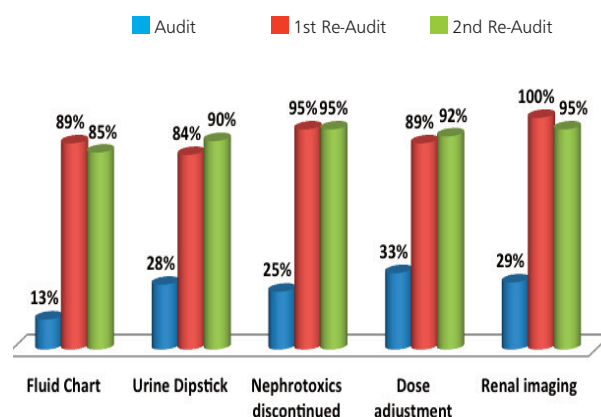
RESULTS

We included 143 AKI consults. The majority (41%) were referred by surgeons. Urinalysis was completed in 28%, FIOC in 13%, nephrotoxic agents discontinued in 25%, dosage adjustment in 33% and renal imaging in 29%. A standardised AKI guidance form was developed and communicated to all medical staff that included a checklist covering basic elements of AKI care. To complete the audit cycle, re-audits were conducted at 2 months (37 consults) and 6 months (40 consults) to ascertain quality improvement. Both audits demonstrated substantial improvement in early AKI management (P<0.001). (See Figure 1).

CONCLUSION

This audit identified core deficiencies by clinical teams in the early management of AKI. Following the introduction of an education programme with a standardised AKI checklist, substantial improvement occurred. A simple and cost-effective intervention can radically improve management of AKI in the hospital setting.


Figure 1 – Basic AKI Care Before and After Intervention (P<0.001)



PRESENTED

- Finalist in oral presentation for the David Mitchell Award for the best quality improvement project among the RCPI higher specialist trainees in Ireland on October 14th, 2015 in Dublin.
- As an oral presentation in the Irish Nephrology Society (INS) on March 11th, 2016 in Dublin.

Risk Factors in a Cohort of Young Adults who Developed a Myocardial Infarction



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ABSTRACT

The World Health Organisation reports that cardiovascular disease is the number one cause of death globally.¹

This study determined the most prevalent risk factors for developing a myocardial infarction (MI) in a cohort of adults younger than 45 years.

A retrospective study was carried out in a large Dublin University Hospital. This cross-sectional quantitative study involved convenience sampling (n=92).

Impaired fasting glucose on admission (77.2%), smoking (71.7%) and obesity (53.3%) were the most prevalent risk factors. Males (84.8%) were more at risk of developing an MI than females (15.2%). No single type of MI was significantly more common than any other. Single vessel disease (67.4%) was the most prevalent angiographic finding. Chest pain (58.9%) was the most common presenting symptom and the majority (35.9%) of adults had three risk factors.

Smoking (71.7%) was the next most prevalent risk factor after abnormal fasting glucose (82.6%). All types of MI had similar prevalence. Single vessel disease was indeed the most prevalent type of angiographic finding (67.4% n=62). Prevalence of types of MI showed no significant variation between genders. No risk factor showed significant variation between genders. The mean age for a man to have an MI was 39 years and for a woman was 40.1 years. Overall NSTEMI was the most common type of MI 37.0% (n=34). Anterior MI was marginally most common in men 37.6% (n=27). NSTEMI was most common in females 64.3% (n=9). No single type of MI was significantly more common than any other. The majority 46 (50.0%) had only one presenting symptom. However, most interestingly, the majority had three risk factors 35.9% (n=33).

Risk factors associated with MI in young adults are essentially modifiable. Prevention must be kept in the forefront of primary care, and prioritised and driven by healthcare policy.

SOURCE

British Journal of Cardiac Nursing. 2017 April;12(4):173-178.

Has the Introduction of the DOACs Moved Patients with Labile INRs from Warfarin Therapy?

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 Power, O.,²
 Holt, C.,²
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INTRODUCTION

Warfarin therapy is first line for long-term anticoagulation but patients with labile INRs, measured by TTR, should be considered for a DOAC, direct oral anticoagulant (NICE UK, MMP Ireland). If patients with low TTRs are switching to DOAC therapy, the mean TTR of the patients remaining on warfarin therapy should improve.

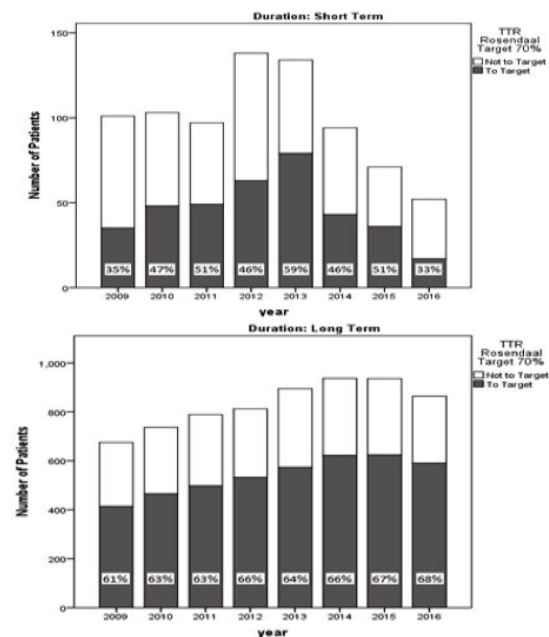
OBJECTIVE

This study investigates if the mean TTR of the warfarin clinic at University Hospital Limerick has been affected by the introduction of the DOACs to the market in 2011.

METHODOLOGY

A retrospective study of all INR tests performed by the clinic from June 2008 to July 2016 was conducted. The data was divided into years. TTR Rosendaal method was calculated for all patients with >2 months anticoagulation and ≥3 INR tests. The patients were divided into two groups short-term (≤4 months) and long-term (>4 months) anticoagulation. A one-way ANOVA of the yearly TTR was performed. The patients achieving TTR of ≥70% were identified.

Figure 1- Long and Short-Term Anticoagulation Patients and Percentage of Patients Achieving TTR Target of 70%



RESULTS

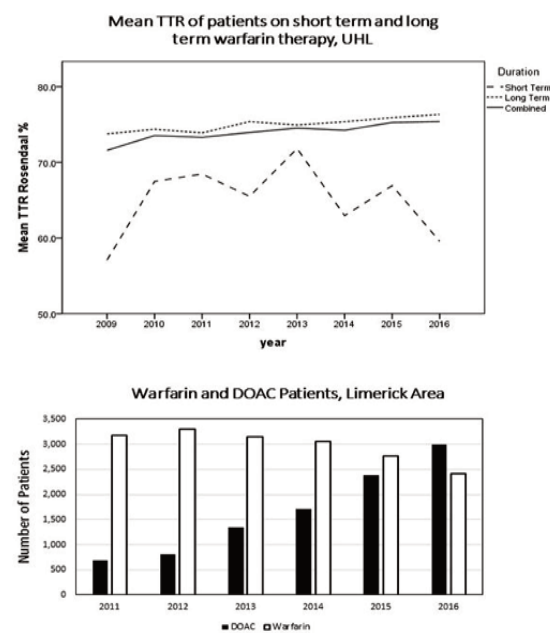
There is an overall reduction in patients on warfarin therapy since 2013.

The numbers of patients on short-term warfarin therapy has reduced (101-52) since 2013, although the percentage achieving target TTR has decreased (59-33%).

The numbers of patients on long-term warfarin therapy has reduced since 2013 (895-864). The mean TTR of the long-term group has increased (74.9% to 76.3%), a one-way ANOVA showed a statistical difference p=0.04).

The mean of the combined group increased from 74.5-75.3% since 2013 (ANOVA p=0.001).

Figure 2 - DOAC and Warfarin Use Shown with Mean TTR of the Long and Short-Term Anticoagulation Groups



CONCLUSIONS

The reduction of patients on warfarin therapy, is likely due to the introduction of the DOACs. The cohort on short-term therapy is relatively more affected.

There is a small increase in mean TTR for those on long-term therapy which may reflect some patients, with labile INRs, actively switching to DOAC therapy.

The combined TTR of the clinic has increased due to improved TTR in the long-term group and a reduction in numbers in the short-term group. There is clearly potential for improvement; 32% of patients in the long-term group have TTRs below target.

PRESENTED

As a poster presentation at the International Society on Thrombosis and Haemostasis (ISTH) in Berlin from July 8th to 13th, 2017.

Comparison of Applying TTR Proportion of Tests and TTR Rosendaal to a Sample Population Attending a Warfarin Clinic

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INTRODUCTION

Warfarin therapy is first line for long-term anticoagulation but patients with labile INRs should be considered for direct oral anticoagulant DOAC (NICE, MMP Ireland).^{1,2} TTR, time in the therapeutic range, is used as a method to identify patients with poor INR control. NICE refers to two methods to calculate TTR, Rosendaal and proportion of tests in range. While the Rosendaal method has been used extensively in research settings, it requires computer methods to calculate. The proportion of tests in range may be more practical clinically as it can be implemented by a lookup table or simple arithmetic and may be more easily understood by the patient.

OBJECTIVES

The objective of this research was to investigate the difference in patient selection, when TTR-Rosendaal and TTR proportion of tests in range, TTR-PT, are used on a population of patients attending the warfarin clinic at University Hospital Limerick.

METHODOLOGY

A retrospective study of all INR tests performed by the clinic from June 2015 to July 2016 was conducted. In all, 872 patients on long-term anticoagulation (INR tests spanning greater than 4 months) were selected. TTRs were calculated, using a bespoke computer programme, for all patients using the Rosendaal method and proportion of tests. Thresholds of TTR-Ros of 70% (MMP) and TTR-PT of 65% (NICE) were chosen to select patients for review. There is a mean difference, in our data, of 5.4 (stdev 8.8) between TTR-Rosendaal and TTR-PT which was similar to that reported by Caldeira,³ (2015). SPSS was used to cross tabulate patients in each data set.

RESULTS

Eighty five percent of the population are treated the same using either method (27% reviewed and 58% considered well controlled). Fifteen percent of the total population are treated differently.

Figure 1 - Patients Considered for Review using TTR-PT and TTR Rosendaal. (Pie chart showing percentages and a scatter plot with the number in each quadrant).

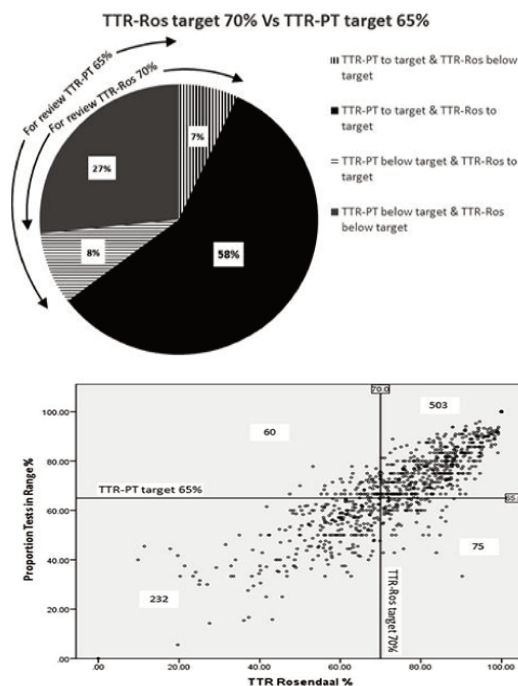


Figure 2 - A Look up Chart to Calculate TTR-PT with a Target of 65%

Number of INR tests in the last 6 months	Number of INR tests in Range												Target >65%	
	1	2	3	4	5	6	7	8	9	10	11	12		
3	33%	67%	100%											2/3
4	25%	50%	75%	100%										3/4
5	20%	40%	60%	80%	100%									4/5
6	17%	33%	50%	67%	83%	100%								4/6
7	14%	29%	43%	57%	71%	86%	100%							5/7
8	13%	25%	38%	50%	63%	75%	88%	100%						6/8
9	11%	22%	33%	44%	56%	67%	78%	89%	100%					6/9
10	10%	20%	30%	40%	50%	60%	70%	80	90%	100%				7/10
11	9%	18%	27%	36%	45%	55%	64%	73%	82%	91%	100%			8/11
12	8%	17%	25%	33%	42%	50%	58%	67%	75%	83%	92%	100%		8/12


CONCLUSIONS

The majority of patients are treated similarly when using TTR targets of 70%, Rosendaal, and 65% proportion of tests. TTR proportion of tests may be a more practical method to calculate TTR for patient selection for DOAC therapy.

PRESENTED

As a poster presentation at the International Society on Thrombosis and Haemostasis (ISTH) in Berlin from July 8th to 13th, 2017.

Can the Use of Sugammadex during Ambulatory Microlaryngoscopy Procedures Decrease Theatre Operating Time?



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INTRODUCTION

Microlaryngoscopy is a day procedure facilitated by neuromuscular blockade. Procedure duration varies and neuromuscular blockade reversal can lead to patient complications and delay in theatre exit.

OBJECTIVE

The aim of this audit is to assess whether sugammadex, a gamma cyclodextrin neuromuscular blockade reversal agent, has altered theatre operating times and unplanned admissions following microlaryngoscopic procedures.

METHODOLOGY

Sugammadex was introduced at UHL in 2010 and patients were divided into two groups; pre-sugammadex era (n=87), and post-sugammadex era (n=129). Information was collected from patient files under a single consultant regarding theatre operation times.

RESULTS

This audit supports the use of sugammadex in microlaryngoscopic procedures. Operating times were shown to decrease by 5.8 minutes and was statistically significant p-value <0.05.

CONCLUSIONS

The use of sugammadex in microlaryngoscopic procedures is relatively new at UHL, and appears to be showing promising results.

REFERENCES

Available on request.

PRESENTED

- At the Otorhinolaryngology Head and Neck Surgery Spring Meeting in April 2016 (Oral Presentation).
- At the Sylvester O'Halloran Symposium in March 2016 (Oral and Poster Presentation).

In Vitro Comparative Assessment of the Mechanical Properties of PMMA Cement and a GPC Cement for Vertebroplasty

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ABSTRACT

The objective of this research was to develop a Glass Polyalkenoate Cement that is suitable for vertebroplasty.

Testing was carried out to assess the effect of gamma irradiation used for sterilisation, on the glass transition temperature as well as its mechanical properties, including compressive strength and biflexural strength *in vivo* as well as testing GPC and PMMA cements post-injection in cadaveric human vertebral bone.


There was a trend to a higher failure load required for the GPC cement group compared to the current standard PMMA injected group but this was not statistically significant with this small sample size.

The results are encouraging for future research to continue on GPC cements for use in vertebroplasty.

SOURCE

Journal of Orthopaedics. 2016 Jun;13(2):81-89.

A First Cycle Audit of Epistaxis Management at a District General Hospital



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INTRODUCTION

Epistaxis is a very common presentation in otolaryngology. There is currently no consensus on the optimal management of patients presenting with this condition.

OBJECTIVE

The aim of this project was to identify current practice at a district general hospital to help develop local guidance for management of patients presenting with epistaxis.

METHODOLOGY

A prospective first cycle audit was conducted of all patients requiring inpatient admission for epistaxis during a thirty day period during late autumn 2016. Demographical data and data concerning patients' medical histories were gathered from the charts. Patients not requiring inpatient admission, those managed by telephone advice, those managed by future planned consultations e.g. in casualty clinics and those managed entirely by Accident and Emergency Department medical staff were excluded from analysis. Specific data regarding patient journeys and management undertaken was recorded. Data regarding readmissions and adverse events occurring within 30 days of each completed patient episode were also collected.

RESULTS

A total of 20 patient admission episodes were identified during the data collection period involving 16 patients. Four episodes were readmissions; 65% of patients were male and 35% were female. The mean age was 78.3 years (range 51-89). All patients were referred by Accident and Emergency Departments. In terms of associated comorbidities, 15% of patients had hypertension, 55% had ischaemic heart disease and 5% had diabetes mellitus. 35% of patients were taking anticoagulant therapy and 25% were taking antiplatelet medications. Seven patients had a history of previous epistaxis episodes (35%) during the preceding 12 months. 70% of patients had nasal packs inserted by Accident and Emergency Department staff prior to being referred to ENT because of failed nasal cautery (14.3%), because cautery was

deemed inappropriate e.g. because of a high rate of bleeding (50%) or because the patient was geographically distant from ENT services at initial presentation e.g. transfers from neighbouring hospitals (35.7%). Nasal packs were removed in two patients at initial ENT review. Patients were initially reviewed by junior ENT medical staff in the main (Foundation Year 2 doctor in 60% of cases and Core Surgical Trainee in 30% of cases). 10% of patients were definitively managed and discharged during their initial ENT review episode, 50% during their second ENT review episode, 25% during their third episode, 10% during their fourth episode and 1 patient (5%) during their seventh ENT review episode. The mean time from admission to achievement of haemostasis was 1.35 days and the mean length of hospital stay was 1.8 days. Two patients required operative intervention (electrocautery and sphenopalatine artery ligation respectively). In terms of complications, one patient died from ischaemic bowel and another patient who was previously independent developed confusion during the 30 day follow-up period.

CONCLUSIONS

Definitive epistaxis management is more likely to be undertaken by more senior medical staff and our results would recommend earlier involvement of consultant and middle grade doctors in order to help reduce length of hospital stay. We would recommend as a minimum anterior rhinoscopy with a headlight following nasal decongestion to be attempted in all patients at either initial presentation or following removal of nasal packs to help identify a bleeding point. Silver nitrate cautery would appear to be an effective treatment for epistaxis. Our data would suggest that patients in whom a bleeding point has not been identified or in whom cautery has not been undertaken have a high likelihood of requiring readmission. Management would be aided by clearer local and national guidelines for junior staff initially treating epistaxis patients.

FLACC Scale for Pain Assessment in Paediatric Post-Anaesthetic Care Unit

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INTRODUCTION

Pain is defined as an unpleasant sensory and emotional experience. Paediatric postoperative pain seems to be poorly treated, especially in preverbal and cognitively impaired children. Due to the subjective nature of pain, assessment of pain is always difficult. Pain assessment will not be accurate without using the right pain assessment tool. Therefore, use of a pain assessment tool like the Face, Legs, Activity, Cry and Consolability (FLACC) scale is fundamental to overcome challenges in pain assessment in paediatric post-anaesthetic care.

OBJECTIVE

The aim of this study is to evaluate the effectiveness of the FLACC scale in the assessment of pain in all postoperative children in a Post-Anaesthetic Care Unit (PACU).

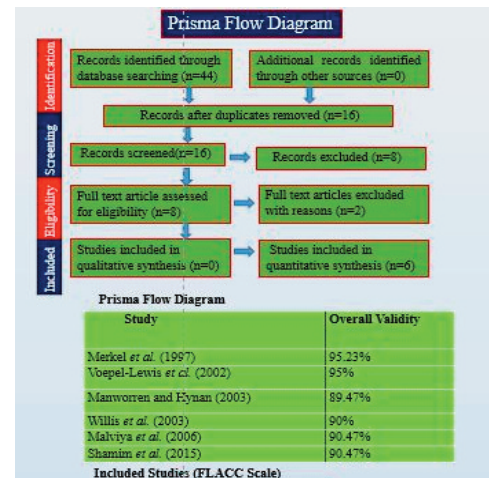
The primary objective of this systematic review was to assess the reliability and validity of the FLACC scale in the assessment of pain in children who had undergone different surgical procedures. Additionally, to explore the FLACC scale, collect data and compare findings on the reliability and validity of this tool. Furthermore, to provide guidelines and recommendations for postoperative pain assessment in a paediatric PACU.

METHODOLOGY

The RevMan 5.3 tool was used to analyse data for one quantitative study,¹ continuous data was analysed in terms of mean and standard deviation and represented in a forest plot. Content analysis was done for the rest of studies.^{2,3,4,5,6} The EBL (Evidence-Based Librarianship) Critical Appraisal Checklist was used for the quality appraisal of all of the included studies.⁷ A systematic review of the literature was carried out using the following databases: the Cumulative Index to Nursing and Allied Health Literature (CINAHL), Medline, Embase, Cochrane Library and Web of Science. Keywords: FLACC (Face, Legs, Activity, Cry and Consolability) tool, pain assessment, postoperative children and tool validity.

RESULTS

The results of the search retrieved 44 articles from the databases. No relevant articles were found from other resources. After removing the duplicates and other excluded study, 6 met inclusion criteria and those form the base for this review. All included studies supported the reliability and validity of Face, Legs, Activity, Cry and Consolability (FLACC) scale.



CONCLUSION

Assessment of pain in children can be extremely challenging because of the subjective and complex nature of pain. It is only a decade since standardised pain assessment tools have been introduced into the healthcare system. The acute pain such as postoperative pain is very difficult to assess and manage, especially in preverbal and cognitively impaired children. The FLACC scale is an observational/behavioural pain assessment tool, and has been recommended as a reliable and valid tool for the assessment of pain in postoperative children. The results of this review challenge the importance of further evidence supporting the reliability and validity of the FLACC scale, especially in postoperative preverbal and cognitively impaired children.

REFERENCES

Available on request.

PRESENTED

As an oral presentation at:-

- The 7th Annual Nursing Research Conference on March 21st, 2017 in Temple Street Children's University Hospital by Betsy Antony.

As a poster presentation at:-

- The Quality Improvement and Research Day, Temple Street on December 16th, 2016.
- The INMO Conference (March 24th to 25th, 2017).
- The EORNA Congress in Greece (May 4th to 7th, 2017).

FUNDING

The author wishes to gratefully acknowledge funding received from Temple Street Research Department to attend the EORNA Congress in Greece.

Acknowledgements

This research is part of a Masters Degree (RCSI) and the author wishes to thank Ms. Mary O'Neill (RCSI), who supervised this work, for her guidance.

Tissue Viability Wound Prevalence Survey



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INTRODUCTION

A wound point prevalence survey was carried out by the Tissue Viability CNS service on May 30th, 2017. Three acute hospitals; University Hospital Limerick, University Hospital Croom and University Maternity Hospital were included in the survey.

OBJECTIVE

The purpose of the survey was:

- To determine the number of inpatients with wounds and to identify the wound classifications in the three acute hospitals
- To determine the percentage of wounds in the hospitals which are under review by Tissue Viability

Total number of inpatients on May 30th, 2017:

- UHL - 424
- Croom - 25
- Maternity - 41

RESULTS

On the day of the survey there were 129 patients with a total of 145 wounds in the three hospitals surveyed. This accounts for 26.3% of all inpatients across the three hospitals. A total of 27% of patients in UHL had a wound (114/424); 68% of patients in Croom (17/25) had a wound and 34% of patients in the University Maternity hospital had a wound (14/41).

119 patients had 1 wound each and 10 of the patients surveyed each had between 2 and 5 wounds. 33% of the wounds required ongoing tissue viability input (n=47 wounds).

Wound Classification

Surgical sites were the most common for wounds (n=82). They accounted for 100% of the wounds in Croom (n=17) and the Maternity (n=14) and 27% (n=31) of wounds in UHL. Pressure ulcers were the second most common wound in UHL accounting for 21% (n=24) of all wounds in the hospital. This is a point prevalence rate of 5.6% for pressure ulcers in UHL.

Tissue Viability Reviews

Of the 33% of wounds reviewed by Tissue Viability, the most frequently seen wound was the pressure ulcer accounting for 16% (n=18). The second most frequently seen were complicated surgical sites 13% (n=15). Leg ulcers and diabetic foot ulcers were equal accounting for 5% (n=6 for each category). Skin tears (n=1) and cellulitis (n=1) accounted for less than 1% each.

CONCLUSION

The findings of this survey will be used to assist with development of the tissue viability service across the ULHG sites.



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A Nurse-Led Clinic's Contribution to Patient Education and Promoting Self-Care in Heart Failure Patients - A Systematic Review

INTRODUCTION

Heart failure (HF) is a condition whereby the heart's efficiency is compromised. Typical symptoms include: breathlessness, fatigue, ankle swelling, signs of tachycardia, lung congestion and raised jugular venous pressure (JVP) are possible. HF affects 1-2% of adults in developed countries¹ and in excess of 90,000 people in Ireland.² Nationally, the model of care for heart failure chronic disease management, launched in 2012, sets out heart failure management diagnosis and treatment.³ The model was instrumental in the development and expansion of nurse-led clinics and collaboration of the multidisciplinary team (MDT) to improve guideline implementation and patient outcomes. Educating patients on self-care skills and knowledge to control symptoms and avoid hospitalisation include daily weight, symptom monitoring and seeking timely medical care for deterioration.³

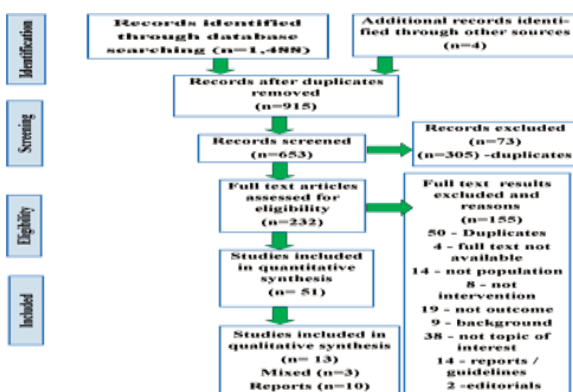
OBJECTIVE

The aim of the study was to examine the evidence for the role of the nurse-led clinic in patient education on the outcomes of self-care and quality of life (QoL) for HF patients.

METHODOLOGY

A database search of CINAHL, PubMed, Science Direct and Medline was conducted as well as journal databases and hand searching through secondary references limited to English language and published between 2006-2016. Inclusion criteria: Studies of heart failure patients who participated in nurse-led clinic education programmes. Also specialist nurse intervention programmes aimed at improving heart failure patients' knowledge of their condition, risk of heart disease, self-care symptom management, dietary advice, and referral to the multi-disciplinary team (MDT), were included. A PRISMA flow diagram was used to illustrate steps of the review. (See Figure 1). Critical appraisal of study designs and quality was conducted. The following keywords were used to search;- nurse-led, heart/cardiac failure, self-care, education.

Figure 1 - Flow of Information and Stages of the Review Adapted: Principles of PRISMA⁹



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RESULTS

Sixty eight studies spanning 12 countries were included. Study designs included randomised controlled trials, experimental studies, cohort case-control, cross-sectional and qualitative studies. Participant characteristics: adults, all classes of HF, group/individualised management programmes. Various components of disease management programmes, educational and self-care needs, barriers and facilitators were reported. Themes of learning needs;- knowledge, symptom recognition, barriers to learning, self-care skills, role of social/caregiver support and a therapeutic nurse/patient relationship were identified. Quantitative measures of self-care using tools and questionnaires are augmented by patient reported outcomes and rich qualitative data. Cognitive impairment and depression may interfere with learning, perception of symptoms and decision making.^{5,6} The patient's 'need to be connected' is highlighted.⁴

CONCLUSIONS

The evidence advocates patient-centred educational plans and management strategies, adherence to guidelines and supporting patient autonomy as paramount to good self-care. Patients must learn and understand the self-care required,^{7,8} gain the necessary skills to act on deteriorating symptoms and adjust activity to functional capacity and energy conservation. Screening for depression is advocated in symptomatic HF patients and routinely yearly.⁶ There is a need for individualised patient educational plans and strategies such as goal setting to promote self-care and improve QoL. Further research is needed into factors that affect QoL not related to symptoms, screening and the use of nursing taxonomies.

REFERENCES

Available on request.

PRESENTED

As an oral poster at the following events;-

- Health Service Executive (HSE) West/Mid-West Nursing and Midwifery Research and Innovation Conference 2017 in Limerick on March 1st, 2017.
- International Nursing and Midwifery Research and Education Conference in the Royal College of Surgeons, Dublin on March 2nd, 2017.
- International Conference for Integrated Care in University College Dublin on May 9th, 2017. Shortlisted Best Poster.
- Future Health Summit in the City West Conference Centre on May 24th, 2017. Winner Abstract Award for Cardiology.

ACKNOWLEDGEMENT/FUNDING

Thesis submitted in part fulfilment of MSc Nursing and Midwifery partially funded by HSE West/Mid-West.

The Role of Perinatal Pathology in the Investigation of Stillbirth

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ABSTRACT

In Ireland, stillbirth is defined as infants born over 24 weeks' gestation and weighing more than 500g, showing no signs of life. Based on the National Perinatal Epidemiology Centre's 2015 Perinatal Mortality Report, the prevalence of stillbirth in Ireland is 4.5 per 1,000 births, while an estimated 2.6million third trimester stillbirths occurred globally in 2015.

Stillbirth may be caused by a number of factors or events, including congenital and placental abnormalities. Fetal conditions may also be implicated, while maternal disease and other disorders of pregnancy have also been found to be associated with an increased risk. Although some causes of stillbirth can be readily identified, between 25-60% of cases in the developed world are classified as unexplained; the wide variation in this value being at least partially attributed to the degree and quality of post-mortem investigations performed.

An unexplained stillbirth may simply be an under-investigated one, as post-mortem examination is not always performed. When investigating the cause of stillbirth, cytogenetic analysis, placental pathology and post-mortem examination of the baby are recognised as being the three most important components to help attribute a cause of death, although risk factors and clinical information must also be considered. Perinatal pathology expertise provides valuable information, through specialised post-mortem examination of the stillborn infant and placenta and subsequent clinicopathological correlation.

Finding a cause of death in stillbirth is hugely important for both parents and clinicians. The aim of this project was to determine the impact of a specialised perinatal pathology service in Cork University Maternity Hospital (CUMH) along with a structured process for investigating stillbirth. The perinatal pathology service was established with the appointment of a perinatal pathologist in 2012. Prior to this there was no perinatal pathologist and we had limited access to cytogenetic testing. We therefore wanted to evaluate the impact perinatal pathology had on determining the cause of death and reducing numbers of unexplained stillbirths, as well as identifying contributing factors to stillbirth.

All stillbirths in CUMH from 2008 to 2015 were identified. A detailed chart review was performed including examination of post-mortem, placental and cytogenetic reports. Additional information was sought from pathology department records along with information submitted for perinatal audit. Statistical analysis of the data was performed on SPSS software. We analysed the data in two phases, from 2008-2011 prior to specialised perinatal pathology and limited availability of cytogenetic testing, and from 2012-2015 after the appointment of a perinatal pathologist and the implementation of standardised stillbirth investigation.

A total of 298 stillbirths were documented between 2008 and 2015. Of these, 290 cases were included in the analysis. The cause of stillbirth was unexplained in 20% (n=58). Between 2008-2011, 34% (n=51) were classified as unexplained while only 5% (n=7) were classified as unexplained between 2012 and 2015. There was a 29% decrease in the percentage of unexplained causes of stillbirth with statistically significant differences (p-value <0.0001). Overall, an increase in the main causes of stillbirth was found between the two sets of data 2008-2011 versus 2012-2015: congenital anomaly (n=35; 22% vs. n=35; 25.0%), placental problems (n=27; 18% vs. n=56; 40%), fetal causes (n=4; 2.7% vs. n=7; 5.0%) and infection (n=7; 4.7% vs. n=15; 10.7%).

		2008-2009		2010-2011		2012-2015	
		N	%	N	%	N	%
Post-mortem examination	No	38	47.5	30	42.9	43	30.8
	Yes	42	52.5	40	57.1	97	69.2
	Total	80	100	70	100	140	100
Placental examination	No	5	6.3	6	8.6	4	2.9
	Yes	75	93.8	64	91.4	136	97.1
	Total	80	100	70	100	140	100

The establishment of a specialist perinatal pathology service in CUMH has resulted in an increase in the number of post-mortem investigations being performed. As a result a significant decrease in the number of stillbirths whose cause of death is unexplained has been demonstrated in the period 2012-2015 with a marked improvement in identifying the main causes of stillbirth. Providing a standardised approach to investigating stillbirth as well as regular MDT meetings whereby the final cause of death is agreed after clinical and pathological correlation has also provided substantial information in determining cause of death.

PRESENTED


At the British Maternal and Fetal Medicine Society 18th Annual Conference in Birmingham, UK on April 21st and 22nd, 2016.

At the Hospice Friendly Hospital Annual Conference: 'Compassionate Care at the End of Life in Hospitals - Leading by example' in Limerick on April 27th, 2016.

SOURCE

British Journal of Obstetrics and Gynaecology. 2016;123 (Supplement 1):41.

Systematic Literature Review on the Role of the Palliative Care Clinical Nurse Specialist in Communication during End of Life



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INTRODUCTION

Effective communication is vital during the end-of-life stage. The advancement in palliative care has increased palliative care services including the development of the Palliative Care Clinical Nurse Specialist (PCCNS). The role of the PCCNS includes the five core competencies of clinical focus, patient/client advocate, education and training, audit and research and consultancy on a daily basis. One of the key functions of the PCCNS is to assist the promotion of effective communication with patients and their families during end-of-life.

OBJECTIVE

To review the literature relating to the role of the PCCNS in effective communication with nurses, patients and families during end-of-life care.

METHODOLOGY

A systematic review was undertaken using four databases: MEDLINE, CINAHL, PubMed and PsychInfo. A total of 181 studies were identified. Eighteen studies met the inclusion criteria. Wakefield (2014) Process was adapted in conducting this review. Critical Appraisal Skills Programme (CASP) tool was incorporated to appraise quantitative and qualitative studies of the review.

RESULTS

Thematic analysis adapted from Braun and Clarke (2006) was used to identify the themes. Four themes were identified: Palliative care nurse experiences in communication during end-of-life, Patient and family experiences of communication during end-of-life, Barriers to communication during end-of-life and Enablers of communication during end-of-life.

The lack of nursing research in relation to the role of the PCCNS and their perceived challenges in communication during end-of-life care is evident from the review.

CONCLUSION

Findings indicate that further research and audit is required regarding the role of the PCCNS within the specialist field of palliative care. Education and training is required for nurses on communication during end-of-life. There is a requirement for different levels of communication programmes for nurses to attend in order to become more confident and competent in end-of-life conversations.

REFERENCES

Available on request.

PRESENTED

- As a poster presentation at the IAPC Conference in February 2017.
- As an oral presentation at the Irish Nursing and Midwifery Research and Innovation Conference in April 2017.

Does Radiologist Experience Matter in CT Guided Lung Biopsies? A Retrospective Analysis of Patient Dose, Complication Rate and Diagnostic Yield

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INTRODUCTION

In general fluoroscopic guided CT (Computed Tomography) lung biopsies are regarded as safe procedures being performed on an outpatient basis with limited morbidity and rarely mortality. However, they are not without complications with pneumothorax and haemorrhage being the most common. This study documented any complications which resulted from the biopsies.

METHODOLOGY

Results of 107 consecutive patients undergoing CT guided lung biopsies were analysed over 6 years from January 2011 to August 2016 in UHL (University Hospital Limerick). This comprised of 40% female and 60% male with an age range of 42-85. The same radiologist performed all biopsies using CT fluoroscopy on a 16 slice Siemens Emotion using an 18F tru-cut technique. Radiation Dosimetry was analysed using Dose Length Product (DLP) to assess the dose to the patient for a particular CT examination protocol. DLP was then converted to Effective Dose (E) using conversion coefficient $k=0.014$.

RESULTS

Average nodule size 2.85cm (centimetre). There was no correlation between dose and nodule size ($r=0.12$ $p=0.21$). (r =correlation coefficient) (p =statistically significant). The rate of pneumothorax was 29% with 25% of these being clinically significant (chest drains). The rate of clinically significant pneumothorax decreased over time with 75% ($n=6$) seen in the first three years and only 25% ($n=2$) seen in the last three years. The patient dose in these cases averaged 20.25mSv (millisieverts) compared to the average of the entire group of 12 mSv. One patient had significant haemoptysis which settled conservatively. Diagnostic yield was 94%.

Figure 1 - Radiation Dosimetry and Standard Deviation over a Period from January 2011 to August 2016

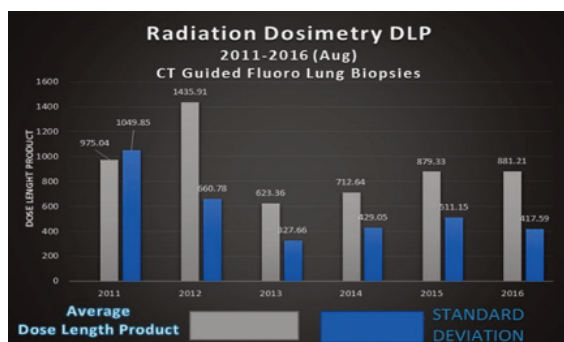
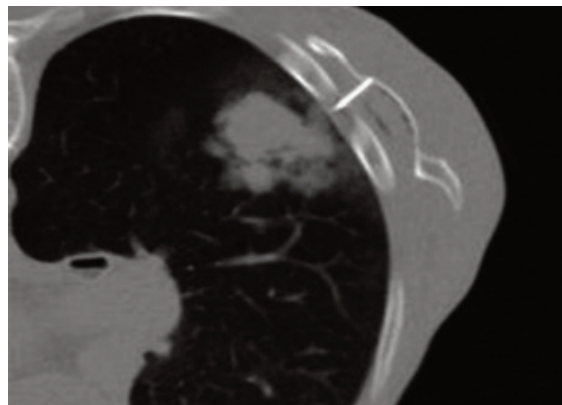


Figure 2 - Image of Trans-Scapular Access Lung Biopsy, done for other clinical reasons. This was associated with a Patient Dose of 18mSv. Local Haemorrhage and Absence of Pneumothorax Demonstrated



CONCLUSION

Our results show no correlation between patient dose and nodule size. Patient dose shows no reduction with operator experience. There is a correlation between dose and clinically significant pneumothorax. Complication rate and tissue yield correlate with published data. Operator experience does suggest a reduction in clinically significant pneumothorax over time. This may reflect better patient selection over time.

PRESENTED

As an electronic poster presentation at the European Congress of Radiology (ECR 2017) in Vienna, Austria from March 1st to 5th, 2017 by Mr William Anthony Moynihan. This poster may be accessed at the following link:-

http://posterng.netkey.at/esr/viewing/index.php?module=viewing_poster&doi=10.1594/ecr2017/C-1170

A Comparison of 100 kVp Versus 120 kVp CTPA Acquisition with Direct Comparisons of Test Bolus and Bolus Tracking at Same and Different Voltages in a Multidetector 64 Slice CT Scanner

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INTRODUCTION

This study focused on several aspects of CTPA (Computed Tomography Pulmonary Angiogram) imaging.

OBJECTIVES

One aim was to firstly reinforce and substantiate previous research done in the fields of low voltage CTPA acquisition and any radiation dose saving that can be achieved as a result. Once data was obtained a scientific analysis would occur in which the data would be assessed in order to see what effect the resultant reduction in kV (Kilovoltage) had on attenuation levels in the pulmonary vessels, and whether the decrease in signal intensity adversely effected image quality to any significant degree. Thirdly to test two methods of intravenous contrast media injection in CTPA scanning in which two methods dominate, bolus tracking and test bolus.

METHODOLOGY

A total of 150 patients were involved in this study. All patients were scanned between January 2015 and August 2015. Fifty patients were scanned at 100kVp with Test Bolus (Group A). Fifty patients were scanned at 120kVp (kilovolts potential) using Bolus Tracking (Group B). Fifty patients were scanned at 120kVp using Test Bolus (Control Group). Test Bolus was calculated by an initial contrast injection of 20mls and time to peak taken when 100 HU (Hounsfield Units) was reached. Vascular enhancement, Signal to Noise Ratio (SNR), Contrast to Noise Ratio (CNR), image noise, radiation dosimetry, and contrast use were recorded. Subjective image quality was assessed by two blinded radiologists. A total of 20 images were assessed independently by two radiologists which included 10 from Group A (100kV) and 10 from Group B (120kV). All injections took place at a rate of 4 ml/sec through an 18 gauge bore cannula sited at the ante-cubital fossa. Flow rate was kept constant at 4ml/sec throughout the procedure. At both 100 and 120kVp, the injected iodine concentration was the same (350).

RESULTS

The reduction in tube potential from 120 to 100kVp resulted in an increase in mean attenuation in the main pulmonary of 25.1% from a mean of 307.46 HU to 410.48 HU. Despite a 30% increase in image noise at the reduced kV level of 100 there was no impact on SNR or CNR values with almost identical values obtained to those obtained at the higher kV level of 120. Radiation dose was significantly decreased by 40% at 100kV with no significant difference in image quality in the images assessed by the radiologists. The use of Test Bolus in CTPA imaging significantly decreased contrast use by over 25% from the standard amount of 80mls but which had no effect on the attenuation values obtained in the pulmonary arteries.

CONCLUSION


Performing CTPA at 100kV significantly improves vascular enhancement in the pulmonaries as well as reducing radiation dose. Image quality can be maintained despite a higher level of noise in the average or slim patient. Test Bolus proved more effective than Bolus Tracking by attaining the same HU values but with a 25% reduction in contrast volume.

PRESENTED

As an electronic poster presentation at the European Congress of Radiology (ECR 2017) in Vienna, Austria from March 1st to 5th, 2017 by Mr William Anthony Moynihan. This poster may be accessed at the following link:-

http://posterng.netkey.at/esr/viewing/index.php?module=viewing_poster&task=&pi=136023&searchkey=

Quality Improvement Initiative - A Pathway to Manage Incidental Radiological Findings in the Clinical Decision Unit of the Emergency Department, Cork University Hospital



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INTRODUCTION

As imaging methods such as x-ray, computational tomography (CT) and ultrasound are being used frequently in the hospital setting there has been an increased rate of detection of incidental findings which are defined as findings unrelated to the initial clinical indication for the imaging exam performed. These incidental findings often confound physicians with how best to manage them. The evaluation of these incidental findings plays a crucial part in potentially diagnosing conditions that require treatment. The follow-up of these incidental findings varies greatly from place to place with no official follow-up system in place in many hospitals. Workup of these findings may be limited for several reasons such as lack of a radiological alert system, lack of communication among staff from different departments or hospital budget.

METHODOLOGY

Medical record numbers of patients who were in the clinical decision unit (CDU), a 12-bed unit based in the accident and emergency department in Cork University Hospital (CUH) from January 2016 to June 2017 who had incidental findings on finalised radiological reports were recorded. Patient records were accessed via the online radiology archive system iSoft Clinical Manager (iCM) in Cork University Hospital. Overall outcomes of these patients were recorded and analysed using a statistical software package. The inclusion criteria were patients who had an incidental finding defined as "as findings unrelated to the initial clinical indication for the imaging exam performed" and patients were excluded if they had a known history of this finding.

RESULTS

A total of 60 patients met the inclusion criteria. 64% were male, 36% female. 50% of patients were aged <60. The most common reason for an initial scan was chest pain (27%), followed by shortness of breath/cough (24%) and fall/collapse/seizure (15%). X-ray was the most common initial imaging modality (83%), followed by computational tomography (CT) (15%) and ultrasound (2%). The most common incidental finding was a lung abnormality consisting of lung nodule (15%) and irregular lung densities (60%). Renal/adrenal lesions made up 9% of findings. 53% of patients were advised to have a follow-up CT thorax, 14% were advised to have a chest x-ray and 7% were advised to have a renal ultrasound. 75% of follow-up imaging was performed in less than 21 days. Regarding follow-up findings, 37% were found to have an underlying benign explanation for the initial finding, 20% had a pulmonary nodule, 5% had pulmonary hypertension and 3% had brain plaques. There was one case of paget's disease discovered and 12% of patients had no findings on subsequent scans. 64% of patients did not need further follow-up, 7% were referred to a rapid access lung clinic, 19% were advised to have a further scan.

CONCLUSIONS

There has been an increased rate of detection of incidental findings in the CDU in Cork University Hospital. The most common incidental finding was the presence of a lung nodule/density in over 70% of this cohort. 75% had their follow-up imaging within 21 days of the initial imaging examination. Although most patients did not need further follow-up (64%), 19% were advised to have further imaging and 5% of patients were diagnosed with a malignancy. This study highlights that the follow-up of incidental findings plays a crucial role in the CDU and that by improving this system we may improve the quality of patient care.

Assessing the Impact on Management of MRI Brain in Elderly Inpatients



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ABSTRACT

A retrospective audit was conducted to collect data on elderly patients (>83 years) who had a CT brain scan and a MRI brain scan during their inpatient stay at University Hospital Limerick, by using RIS/PACS provided by NIMIS (National Integrated Medical Imaging System). Patients born before May 1933 and had both scans performed in 2015 were included in the study.

A simple data collection tool was created which recorded the key clinical indications noted by the requesting physician requiring each scan and the key findings present in the images, as noted by the radiologists. The date of scan ordered and the date of scan performed was also noted. After reviewing their medical notes, the direct impact MRI brain had on management of the patient was recorded. Impact on management was defined as changes in medication, changes in rehab planning or surgical intervention undertaken.

Forty five patients fit the selection criteria and a random sample of 35 cases was selected for this audit. The key indications for the MRI brain are listed below:

- 25 cases of evaluating symptoms of a stroke in the presence of a negative CT brain
- 6 cases of evaluating mass suspicious for tumour or for calcifications visualised on CT brain
- 1 case of visualising cranial nerves
- 1 case of evaluating intracranial aneurysm
- 1 case of evaluating severe post lumbar puncture headache
- 1 case of MRI brain booked alongside a MRI venography to rule out cerebral sinus thrombosis

There were 25 MRI brain scans requested for evaluating symptoms of a stroke, in the presence of a negative CT brain. Diffusion weighted imaging helped confirm the diagnosis of stroke in 13 of these cases. This, however, resulted in no major and immediate change in management. Management plans continued to revolve around stroke MDT involvement and rehab. Four of these scans were booked along with neurovascular imaging such as MR carotid angiography and MR venography.

There were 5 cases of MRI brain being used to evaluate cerebral mass or suspicious calcifications found on CT imaging. One case of subependymoma and 2 cases of frontal cerebral cavernous venous malformations were found. Intervention was ruled out after discussion with the neurosurgical department. Cerebral tumours were ruled out in 2 cases. There was 1 case of evaluating squamous cell carcinoma infiltration of left pinna, which was negative. MRI also helped confirm the diagnosis of an aneurysm, where intervention was again ruled out. In 1 case MRI was used to visualise cranial nerve in a patient with bilateral vocal cord palsy, which revealed no acute pathology.

There were 13 cases of CT and MRI both showing no acute intracranial pathology, 10 of which were stroke evaluation. 25 of the cases had the CT scan performed on the same day as the request and 7 were performed following day. The waiting time for MRI brain ranged from 1 day to 13 days with 4.2 days being the average.

- The majority of the requests are for evaluation of stroke symptoms in the presence of an inconclusive CT. Diffusion weighted imaging helped confirm clinical diagnosis of acute stroke in 12 cases and did not change management in any of the 25 cases.
- There is a need for increasing radiology resources to reduce waiting times and minimise delay in discharges. The use of rapid sequencing MR imaging in acute stroke may be an option in this regard.
- Conversely, there is a need to establish better imaging pathway protocols for elderly patients with suspected stroke.
- Discussion, also, needs to take place with neurosurgery with possible, feasible intervention in elderly inpatients prior to obtaining MR imaging.

SOURCE

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Awareness of Primary Care Physicians about Potentially Fatal Errors with Glucose Monitoring Technology in Peritoneal Dialysis Patients

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INTRODUCTION

Glucometers are widely used for self-monitoring of blood glucose levels in diabetic patients, both by patients themselves and by their healthcare providers. Glucose Dehydrogenase Pyrroloquinoline Quinone (GDH-PQQ) glucose test strips are commonly used, in glucometers, to measure blood glucose level. These type of strips cannot distinguish between glucose and other non-glucose sugars like xylose, maltose and galactose. These non-glucose sugars form an important constituent of various medications and biologic formulations including icodextrin (Extraneal) peritoneal dialysis (PD) solutions. It was reported that diabetic PD patients using icodextrin are prone to develop clinically significant, life-threatening, hypoglycaemia secondary to falsely high blood glucose level, detected by GDH-PQQ test strips, which was followed by the administration of a high dose of insulin. The Food and Drug Administration (FDA) recommended avoiding the use of GDH-PQQ glucose test strips in healthcare facilities.

OBJECTIVES

The intent of the current study was threefold. Our first objective was to test the knowledge and awareness of the primary care physician about the potentially fatal errors seen with the use of GDH-PQQ test strips in PD patients. Our second objective was to find out the commonly used type of glucometers and test strips in primary care facilities in Ireland. Finally, we aimed to assess the willingness of primary care physicians to switch to different glucometer/test strips if the one they are using is known to give false high glucose readings.

METHODOLOGY

A five-item survey-questionnaire was distributed to 1,000 primary care physicians in 25 different counties in the Republic of Ireland between May and September 2012. It captured information on the type of Glucometer and test strips used in their primary care facility; their awareness about the association between GDH-PQQ strips and false high glucose readings in PD patients; their knowledge about the impact of these false high readings on a patient's life; and their willingness to switch to a different glucometer type if the currently used glucometer is associated with false readings. All data were analysed using STATA Version 10.0 (College Station, Texas). Categorical variables are presented as numbers and percentages, while continuous variables are presented as mean \pm standard deviation (SD) or median with inter-

quartile range (IQR). Comparisons were assessed using chi-square and Fisher's exact tests for categorical variables. Students' t-test and ANOVA were used for continuous variables. P-value <0.05 was considered significant.

RESULTS

The response rate was 39.1% (391/1,000). Almost half of the respondents, 188 (48.1%), stated that they look after PD patients in their centres, and 60 (15.3%) stated that they are not sure if they look after this type of patient. The majority, 318 (81.3%), did not know that some glucometer test strips can give a falsely high glucose reading in diabetic patients. Similarly, most of the primary care physicians, 362 (92.6%) were not aware of any death cases (worldwide) associated with glucometer-related falsely elevated blood glucose readings in PD patients; 24 (6.1%) stated that this is a false statement and 5 (1.3%) stated that it is true. Strikingly, 330 (84.4%) of the glucometers used in primary care centres are using the GDH-PQQ Glucose Test Strips listed on the FDA warning report as of August 2009 (See Table 1). The most commonly used kit was ACCU-CHEK Aviva test strips, (for ACCU-CHEK Aviva meters models 525, 535, and 555). These were used by 78 (20%) of respondents. This was followed by Freestyle Lite test strips (for FreeStyle Lite meters and FreeStyle Freedom Lite meters), in 72 (18.4%). The least commonly used strips were TRUEtest test strips (for TRUEresult meters and TRUE2go meters); they were used by only 5 (1.3%) respondents. The majority of physicians, 325 (83.1%) stated that they will consider switching to another type of glucometer/test strips, a non-GDH-PQQ, if the one they are using is giving false high readings; 18 (4.6%) will not switch, and 48 (12.3%) were not sure.

CONCLUSION

This study showed that most primary care physicians are using GDH-PQQ glucose test strips that may result in false high glucose readings in PD patients using icodextrin solutions. Most of these physicians were unaware of hazards associated with these test strips. However, most of them were willing to switch to non-GDH-PQQ test strips to enhance patients' safety.



Table 1- FDA Published List of GDH-PQQ Glucose Test Strips (with associated meters) as of August 2009

Roche Diagnostics

ACCU-CHEK Comfort Curve test strips, for use with:

- ACCU-CHEK Inform meters [model 2001201]
- ACCU-CHEK Complete meters [models 200 and 250]
- ACCU-CHEK Advantage meters [models 888, 831, 850, and 768]
- ACCU-CHEK Voicemate meters [model 009221]

ACCU-CHEK Aviva test strips, for use with:

- ACCU-CHEK Aviva meters [models 525, 535, and 555]

ACCU-CHEK compact test strips, for use with:

- ACCU-CHEK Compact meters [model GF]
- ACCU-CHEK Compact plus meters [models GP and GT]

ACCU-CHEK Go test strips

- ACCU-CHEK Go meters [model GJ]

ACCU-CHEK Active test strips

- ACCU-CHEK Active meters [models GG and GN]

Abbott Diabetes Care

Freestyle test strips, for use with:

- Freestyle meters
- Freestyle Flash meters
- Freestyle Freedom meters

Freestyle Lite test strips, for use with:

- Freestyle Lite meters
- Freestyle Freedom Lite meters

Home Diagnostics

TRUEtest test strips

- TRUResult meters
- TRUE2go meters

Smiths Medical

Abbott Diabetes Care Freestyle test strips, for use with:

- CoZmonitor blood glucose module (for use with the Deltec Cozmo Insulin Pump)

Insulet

Abbott Diabetes Care Freestyle test strips, for use with:

- OmniPod Insulin Management System

An Audit of Combined Oral Contraceptive Pill First-Time Prescribing Practices in a Primary Care Clinic

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INTRODUCTION

The combined oral contraceptive (COC) pill is a main method of contraception in Ireland. COC contains synthetic estrogen (ethinylestradiol).¹ The majority of women can use COC without harm. However, there are some medical conditions and lifestyle factors that are associated with either theoretical or proven health risks, notably these include venous thromboembolism, breast and cervical cancer and cardiovascular events if a COC is used. Those who have a documented high-risk status as defined by Criteria Level 3 and 4 of the UK Medical Eligibility Criteria for Contraceptive Use (UKMEC) should be identified and advised against COC use, as risk outweighs benefit for these individuals.²

OBJECTIVE

This audit aims to assess first-time prescribing practices and record keeping regarding the COC pill in a general practice setting, compared to current good practice guidelines set forth by the Faculty of Sexual and Reproductive Healthcare of the Royal College of Obstetricians and Gynecologists (FSRH).²

METHODOLOGY

This audit was conducted at a primary care centre in Callan, Co. Kilkenny. HealthOne GP software was used to generate a random list of 150 patients prescribed COC who had been active at the clinic in the past year. Of the 150, 66 patients were found to be prescribed COC for the first time, within the past 5 years. Each file was individually searched for the following data and then analysed using Microsoft Excel and statistical software SPSS: patient age, name of first-time COC pill prescribed, smoking status, body mass index (BMI) and blood pressure (BP) at initial appointment and at follow-up appointment, number of months between initial and follow-up appointment, record of discussion of risks and contraindications to COC.

RESULTS

In the sample of 66 female patients, the average age was 23.6 years (range 13 to 42). First-time COC most often prescribed was Microlite (45%), followed by Ovranette (19%), Ovreea (8%) and Yasmin (6%). Yasminelle, Cilest, Logynon, Yaz, Mercilon and Dianette were each prescribed 5% or less. At initial prescribing appointment, 83% of patients had BP recorded, 55% had BMI recorded, 64% had smoking status charted and 42% had a risk discussion documented. At follow-up appointment, 79% of patients had BP recorded and 40% had BMI recorded. Fifty two out of 66 patients (79%) attended a follow-up appointment within one year of initial prescription. Overall, 42% of patients sampled were found to have specific risks charted for example, "No family history of breast cancer, no focal migraines, no family cardiovascular events, no history of deep vein thrombosis." 32% of patients had the words 'No CI' charted and 26% had no documentation. Of the 66 patients sampled, none were found to be high risk for COC use as defined by UKMEC Criteria Level 3 and 4.

CONCLUSION

Callan Health Centre follows safe practice guidelines for first-time prescribing of COCs. No sampled patients were found to fall within UKMEC high-risk criteria. Documentation of BMI, BP, smoking status and risk discussion with patients at both initial and review COC consultations is suboptimal, falling short of the 100% target set by FSRH guidelines.²

Follow-up consultations are scheduled within national recommendations. However, additional consideration should be given to decrease the number of missed review appointments. Future adjustments to improve documentation, including a standardised checklist for first-time COC prescribing appointments will be undertaken at Callan Health Centre, with a re-audit to evaluate the efficacy of such changes.

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Available on request.

A Multidisciplinary Approach to Management of Fussy Eating in Paediatric Primary Care

ABSTRACT

Fussy eating is one of the definitions used to describe the behaviour of a young child who is unwilling to accept new textures or tastes. It usually peaks between 18 and 20 months and subsides by 5 to 7 years of age.^{1,2} It can occur due to a variety of reasons, such as sensory sensitivities, emotional over-responsivity, rigidity about change or lack of experience with new foods through limited parent-led exposure. Review of literature suggests that exposure to a variety of foods during infancy has a positive effect on food acceptance.³ A multidisciplinary (MDT) approach, which addresses modifying sensory characteristics of foods, environment and using behavioural interventions to increase nutritional intake has the potential for the most favourable outcome for fussy eaters.⁴

OBJECTIVE

The aim of this project was to deliver and evaluate a pilot MDT parent education workshop for home management of childhood fussy eating.

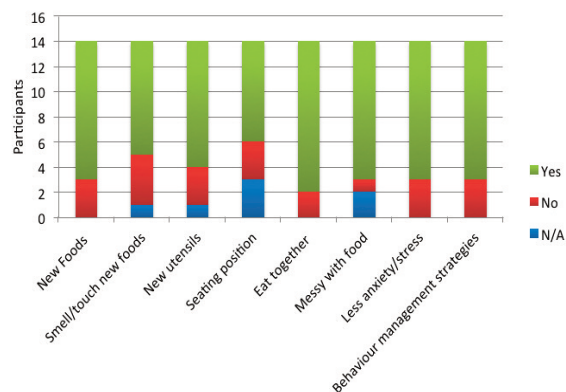
METHODOLOGY

The cohort of children included those referred to Dietetics, Occupational Therapy and Psychology for 'Fussy Eating' in Primary Care with no complex diagnosis or needs. This was corroborated with a locally developed screening questionnaire. Eighteen parents attended the course. Sixteen were parents of 1-4 year olds while 2 were parents of 5-7 year olds. Inclusion criteria: fussy eaters with persistent presentation >1 month. Exclusion criteria: complex developmental or medical needs, complex feeding problems, history of underweight or suspected allergies without prior dietician consultation. The intervention was delivered as a three week programme totalling 4.5 hours, employing group discussion, visual presentations and home information packs. Weekly evaluations were conducted and outcome measures in relation to behaviour changes were assessed one month post-intervention; 79% (n=11) of participants completed the questionnaire by telephone interview, while 21% (n=3) returned by post. Theoretical thematic analysis was applied to the transcripts of telephone interviews.

RESULTS

All three workshops were attended by 78% of participants (n=14). Weekly evaluations found that at least 75% of participants reported they had learned something new to try at home with their child. Some of the positive outcomes included improved mealtime behaviours ("We now eat together every night"), tolerance of new foods ("Making improvements and trying new things slowly") and decreased anxiety ("We realized it was us who needed to change in terms of anxiety and stress around eating and not our child").

Figure 1 - One Month Post-Intervention Outcomes



CONCLUSION


These findings indicate that a parental education workshop can make a positive impact on children's fussy eating as reported in literature.⁵ Eating together as a family was an important strategy adopted by parents. Research describes that caregivers should eat with their children in order to allow modeling and enjoyment of a social occasion to occur.⁶ Parents were also willing to offer a variety of foods and encourage repeated exposure. Previous research has reported that when offering new foods at least 8-15 repeated exposures are needed in order for that food to be accepted.⁷ After completion of the workshop parents reported that they and their children felt less stressed at mealtimes. Previous research has stated that parental pressure to eat can significantly predict food avoidance behaviours.⁸ Parents also reported taking comfort from meeting other families in the workshop and the group support was valued. Also the MDT workshop provided parents with improved access to and awareness of local paediatric health services available. A limitation of the group was that some parents reported that all of the information was not applicable to their child's developmental level. Future research should divide participants into different age cohorts. Parents also suggested a full day workshop may be more practical to facilitate attendance.

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McNamara, L.,¹
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 Quinn, S.,³
 McKenna, R.⁴
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Assessing and Diagnosing Children and Adolescents for Autism Spectrum Disorder - The Dynamic Team Approach



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INTRODUCTION

Contemporary discourses on the assessment and diagnosis of Autism Spectrum Disorder (ASD) indicate that a team assessment approach is best practice when assessing children for ASD. With a topic as broad as this one, it is not our intention to cover the wide diversity of styles and formats of assessment that already exist. According to best practice guidelines by the Psychological Society of Ireland (2010), the NICE guidelines in the UK (2011), among others, "a multidisciplinary team approach is optimum to provide a comprehensive assessment and diagnosis of an autistic spectrum disorder."¹ Thus, the gold standard for ASD diagnosis should be completed by paediatricians, child psychiatrists, or psychologists, and other professionals, often working in multidisciplinary teams, such as Psychologists, Speech and Language Therapists, Occupational Therapists, Physiotherapists and Social Workers. It is essential that these multidisciplinary teams have specific training in the diagnosis of, and, intervention for people with ASD. Furthermore, the shifting paradigms that have resulted from the introduction of DSM-V (APA, 2013) regarding the diagnosis of ASD, encapsulate the need for a multi-faceted team approach to assessment. For instance, a comprehensive framework for assessment should not overlook feeding difficulties, "most often in the form of food selectivity by type, texture, brand, presentation, and/or appearance,"² which require the experience and expertise of a Speech and Language Therapist, an Occupational Therapist and a Psychologist. Determining whether a feeding problem is due to sensory difficulties or restricted interests, for instance, is one that required collaborative teamwork due to the lack of "standardized and validated paediatric assessment tools" to better understand the strong association between feeding problems and ASD.³

OBJECTIVE

The aim of this paper is to outline the various factors associated with working as a team when diagnosing and assessing children for ASD. This paper presents how the team work collaboratively through the entire assessment process. It highlights the strengths of working on team-based assessments, which include assessing complex needs within a holistic approach of children's play/development skills, and it also highlights the challenges that it poses, such as overcoming the risk of over-assessing.

METHODOLOGY

As there are no biological markers for the assessment and diagnosis of ASD, the assessment and diagnosis of the disorder has to be a comprehensive one that relies on a multidisciplinary approach which integrates clinical evaluations with standardised tools and behavioural observations. Thus, to capture the broader context in which the person's developmental and behavioural

presentation occurs, a continuum of comprehensive assessments is needed.

For the initial screening of ASD, the team rely on behavioural and developmental information from family GPs, paediatricians, mental health professionals, educational psychologists, and community services, such as Speech and Language Therapy and Occupational Therapy.

RESULTS

A continuum of comprehensive assessments that involve clinical observations and standardised tools within a multidisciplinary team approach are then completed. The Autism Diagnostic Interview-Revised (ADI-R) is one of the core assessment tools used and, in most situations, the first assessment moment as it allows the team to complete an overall evaluation of the family's concerns and needs. Following this, the team meet and decide on the course of assessments that may be required for that specific child and family. Because of the acknowledged limitations of standardised testing with children and infants, the use of clinical observations through, for instance, a play-based assessment with the parents or the examiners, provides supplemental information on the developmental status of the child.

CONCLUSION

It can be concluded that no single assessment type is perfect. Careful consideration has to be given to ASD-specific diagnostic tools and observation measures that are accurate, reliable and valid instruments to determine a diagnosis of ASD, such as the ADOS and the ADI-R. However, these have to be used in conjunction with other standardised tests and clinical observations.⁴ Furthermore, a comprehensive clinical assessment within a multidisciplinary team approach should remain the gold standard for ASD diagnosis. Within this approach, challenges are faced. A critical challenge for the different team members is the integration of diverse test data and information from clinical observations into a comprehensive evaluation and final report. Time pressure and different backgrounds can also be identified as a challenge.⁵

However, the benefits of a multidisciplinary team approach appear to overrule the disadvantages. Multidisciplinary team assessments are also more cost-effective as a more comprehensive and holistic assessment is accomplished. An integrated team approach to the assessment and diagnosis of ASD facilitates a greater understanding of the child or adolescent's experience, behaviour, capacities and needs. This contributes to an improved picture of a child with a diagnosis of ASD and to a more accurate and reliable diagnosis of ASD, which is differentiated from other developmental disorders, such as language and sensory impairments, attention and hyperactivity disorders, anxiety disorders, behavioural



issues, among others, that can mimic ASD features or can co-occur with ASD.⁶ Parents are also more likely to trust a team of professionals who have used an integrated approach to determine a diagnosis of ASD than an approach which presents with disintegrated discipline-specific individualised assessments and reports. An integrated team approach also facilitates future collaborative goal setting for intervention and monitoring progress.

In 1995, Carrier & Kendall describe a team as “a group of people with complementary skills who are committed to a common purpose, performance goals, and approach, for which they hold themselves mutually accountable.” Thus, positive relationships based on trust and understanding amongst team members is crucial.

At a larger scale, multidisciplinary teamwork also leads to better skills in communication, collaboration, and professional abilities, a better understanding of the collaborative process and how different professions complement each other. Some researchers report that multidisciplinary team collaboration also has a positive effect on future career development and sense of achievement for the different professionals.⁷

REFERENCES

Available on request.

PRESENTED

At the ‘Working Together to Support Children and Young People with a Disability’ National Conference in Mary Immaculate College, Limerick on December 1st, 2017. Oral presentation by Dr. Maria Gomes, Patrick Hynes and Fiona Woods.

Training Programmes for Parents of Children with Autism Spectrum Disorder - A Way to Empower Parents and Target Goals in the Natural Learning Environment

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INTRODUCTION

There are many challenges faced by children's disability services and faced by families accessing services due to large caseloads and limited resources. Consideration of service delivery is required by multidisciplinary teams when working with children who have Autism Spectrum Disorder (ASD) and their families. In some instances, there is a need for a shift in service delivery from direct therapy, to a more indirect consultation/empowering model that considers the child's specific needs, such as level of functioning and age, within the natural learning environment. Research exists which indicates that a diagnosis of cognitive and behavioural impairments places additional strains on families,^{1,2} with the case being similar for children with ASD, including elevated levels of parenting-related stress.^{3,4} The research^{5,6} describes natural learning environments as experiences and opportunities that children experience as part of their daily living, child and family routines, family rituals, and family and community celebrations and traditions.

OBJECTIVE

The aim of this paper was to explore the published literature regarding training programmes for parents of children who have a disability with a particular emphasis on ASD. This formed part of development of the training programmes for parents of children who have ASD. It also presents the outline of the training programme content implemented by the authors that was delivered to parents of children who have ASD.

This paper details:

- the theory and practice of delivering training programmes for parents of children with ASD
- how to empower parents to develop their child's independence and functional skills through their interactions in the natural learning environment
- how to provide parents with the opportunity to form peer networks and problem solve together
- shifting from a multidisciplinary team approach to an interdisciplinary team approach by using multiple domains of knowledge to address skills relevant to support children with ASD

The different Training Programmes delivered, using an interdisciplinary model, addressed Emotional Regulation and Anxiety Management, Sensory Integration, Behaviour Challenges, Social Communication, Understanding Language, Structuring the Environment, and Long-Term Planning.

METHODOLOGY

A literature review was conducted to source relevant published literature which informed the discourse on the effectiveness of parent training programmes. This material was consolidated with evidence-based practice interventions which are used by Psychology, Speech and Language Therapy and Occupational Therapy to produce

the content for the training programmes. Reflections by the authors, based on Gibb's⁷ (1988) reflective cycle, were also included to optimise the clinical utility of the training programmes.

RESULTS

Research^{8,9} indicated that a link exists between parenting skills and practices, and the behaviour of their children. One treatment option that is utilised with children without developmental disabilities is parent training, with less research available on evaluating parent training for children with developmental disabilities and their families. However, some of the research reports that parent training can be based on social learning theory, with principles of operant theory and behaviour modification, accompanied by aspects of psychopathology.¹⁰ Parent coaching, which is embedded in family centred practice discourse, also offers a basis for determining the approach to take when devising parent training workshops. Positive findings on coaching are reported by Estes et al.¹¹ (2014), including lower levels of parent stress following parent coaching. Some of the parent training programmes which are reported on are used to reduce negative parent and child interactions and aim to reduce behavioural problems. Less is reported on addressing other parenting skills such as empowering parents to develop their child's skills to complete functional tasks.

CONCLUSION

Through these training programmes parents developed their sense of self-confidence, independence and autonomy. Subsequently, their ability to support their children and themselves in the different developmental phases advanced. By providing parents with training programmes it is possible for parents to implement goals in their child's natural learning environments. Using natural learning environment practices supports parents with their child's learning and development. The authors reflected on how best to implement parent training programmes in a children's disability service which included ensuring that parents understood goal setting and were facilitated in the determination, prioritisation and implementation of goals that they selected. Using elements of parent coaching and incorporating goal setting, practical sustainable strategies were developed with limited resources. Further research would be useful to gain a greater insight into this area of practice.

REFERENCES

Available on request.

PRESENTED

At the 'Working Together to Support Children and Young People with a Disability' National Conference in Mary Immaculate College, Limerick on December 1st, 2017. Oral presentation by Patrick Hynes, Dr. Maria Gomes and Fiona Woods.

Capturing Interactive Occupation and Social Engagement in a Residential Dementia and Mental Health Setting Using Quantitative and Narrative Data

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ABSTRACT

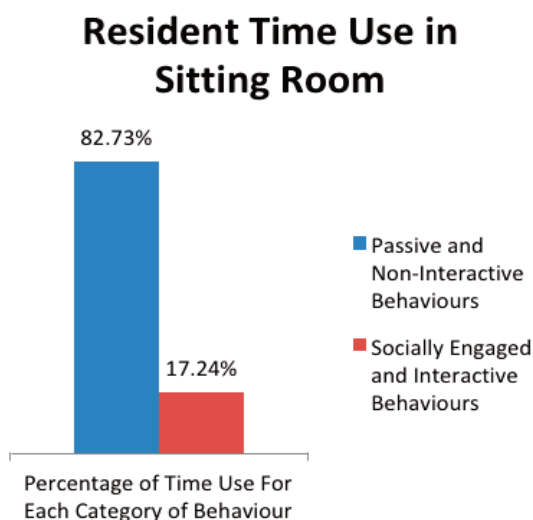
Despite an abundance of research acknowledging the value of interactive occupation and social engagement for older people, and the limits to these imposed by many residential settings, there is a lack of research which measures and analyses these concepts.

This research, which took place in a secure residential setting for older people with mental health problems and dementia, provides a method for measuring, analysing and monitoring interactive occupation and social engagement levels of residents and staff. It proposes suggestions for changes to improve the wellbeing of residents in residential settings.

In this case study design, the Assessment Tool for Occupational and Social Engagement (ATOSE) provided a 'whole room' time sampling technique to observe resident and staff interactive occupation and social engagement within the communal sitting room over a five-week period. Researchers made contemporaneous notes to supplement the ATOSE data and to contextualise the observations.

Residents in the sitting room were passive, sedentary, and unengaged for 82.73% of their time. See Figure 1.

Figure 1 - Comparison of Passive and Non-Engaged Behaviours with Active and Engaged Behaviours of Residents Observed when they were in the Main Sitting Room Area



Staff, who were busy and active 98.84% of their time in the sitting room, spent 43.39% of this time in activities which did not directly engage the residents.

The ATOSE assessment tool, in combination with narrative data, provides a clear measurement and analysis of interactive occupation and social engagement in this and other residential settings. The physical, social and occupational environments did not support interactive occupation or social engagement. Suggestions for change include a focus on the physical, social, occupational, and sensory environments and the culture of care throughout the organisation.

PRESENTED

At the COTEC-ENOTHE Joint Congress in the National University of Ireland, Galway in June 2016 as 'Quantitative Measures Informing Occupational Literacy', presented by Assistant Professor Joan Brangan.

SOURCE

Geriatrics.2016;1:15.
doi:10.3390/geriatrics1030015 online publication: June 28, 2016.

AWARD

This paper was overall winner of the 2017 HSE Open Access Research Awards.

Retrospective Study of Healing Times for Diabetic Foot Ulcers in a Community Podiatry Setting

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INTRODUCTION

This is a retrospective study on a cohort of patients from Co. Clare, Ireland, with active diabetic foot disease, who presented to a Primary Care Podiatry Clinic.

OBJECTIVE

The purpose was to determine the average healing times and profile of patients attending.

METHODOLOGY

This was a retrospective study with no randomisation of subjects who were selected from a previously consented, local database. A total of 56 patients who had presented with a diabetic foot ulcer (DFU) between 1/1/2015 and 31/12/2015 were reviewed. Subjects' demographics were recorded and their charts reviewed to determine dates of initial presentations of DFUs, number of incidences of DFUs, durations and locations. Patients who died during the study time frame were not included in this study.

Data was recorded and analysed in an excel sheet. Multiple ulcers on one patient were recorded as separate incidences.

RESULTS

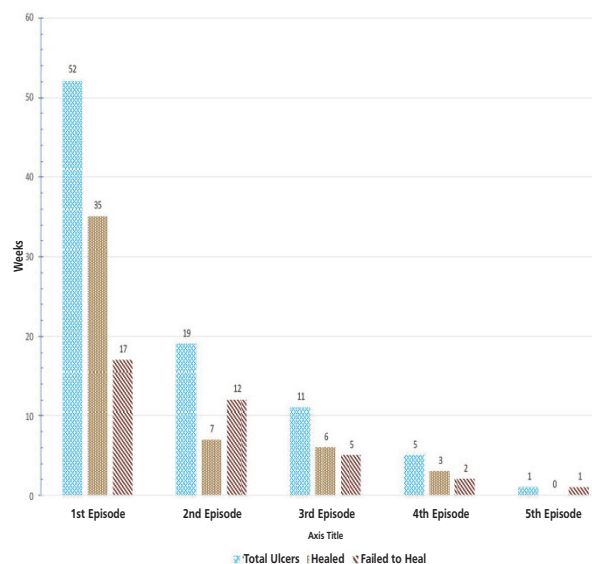
Table 1 - Results Overview

	Males	Females	Total
>Over 65 years old	30	9	39
<65 years old	11	6	17
Mean Age	71.4 yrs (36-90)	68.5 yrs (52-86)	70.51
Total amount of ulcers	73	19	92
Average # of ulcers	1.78	1.27	1.64
Total Visits (Average)	666 (16)	189 (13)	855

A total of 56 patients attended the clinic for review with a diabetic foot ulcer in the year 2015. This cohort exhibited a combined figure of 92 episodes of ulceration. With 855 appointments allotted to these episodes alone, it is estimated that there were approximately 44½ days of work spent treating these ulcerations exclusively.

From the cohort, 19 patients had a combined total of 36 subsequent episodes of ulceration within the year, 20 of which failed to heal. This is a re-ulceration rate of approximately 34%. Males, over 65 were at the biggest risk of ulceration.

Figure 1 - Healing Statistics of DFUs



CONCLUSIONS

This study highlights that healing times in diabetic foot ulcers vary greatly between patients during their initial ulceration, although this then levels in subsequent ulcerations whether that is due to early detection, education or general prevention put in place. The study also highlights the burden of DFUs on the Podiatry service and the continued pressure they put on services post healing due to their high recurrence rate. This study is a foundation for further research within the department regarding DFU classification and management.

PRESENTED

As a poster presentation at the National Primary Care Partnership Conference in Croke Park, Dublin on April 1st, 2017.

The First Occurrence of a CTX-M ESBL-Producing *Escherichia coli* Outbreak Mediated by Mother to Neonate Transmission in an Irish Neonatal Intensive Care Unit

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ABSTRACT

Escherichia coli (*E. coli*) comprise part of the normal vaginal microflora. Transfer from mother to neonate can occur during delivery resulting, sometimes, in neonatal bacterial disease. Here, we aim to report the first outbreak of CTX-M ESBL-producing *E. coli* with evidence of mother-to-neonate transmission in an Irish neonatal intensive care unit (NICU) followed by patient-to-patient transmission.

Investigation including molecular typing was conducted. Infection was defined by clinical and laboratory criteria and requirement for antimicrobial therapy with or without positive blood cultures. Colonisation was determined by isolation without relevant symptoms or indicators of infection.


Index case was an 8-day-old baby born at 34 weeks gestation who developed ESBL-producing *E. coli* infections at multiple body sites. Screening confirmed their mother as colonised with ESBL-producing *E. coli*. Five other neonates, in the NICU simultaneously with the index case, also tested positive. Of these, four were colonised while one neonate developed sepsis, requiring antimicrobial therapy. The second infected neonate's mother was also colonised by ESBL-producing *E. coli*. Isolates from all eight positive patients (6 neonates, 2 mothers) were compared using pulsed-field gel electrophoresis (PFGE). Two distinct ESBL-producing strains were implicated, with evidence of transmission between mothers and neonates for both strains. All isolates were confirmed as CTX-M ESBL-producers. There were no deaths associated with the outbreak.

Resources were directed towards control interventions focused on hand hygiene and antimicrobial stewardship, which ultimately proved successful. Since this incident, all neonates admitted to the NICU have been screened for ESBL-producers and expectant mothers are screened at their first antenatal appointment. To date, there have been no further outbreaks.

SOURCE

BMC Infectious Diseases. 2017;17(1):16.

Colonisation with Extended-Spectrum Beta-Lactamase (ESBL) not Detected in a Prevalence Study



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ABSTRACT

The Mid-West of Ireland has higher than average national rates of invasive extended-spectrum betalactamase (ESBL) bloodstream infections and carbapenemase-producing Enterobacteriaceae (CPE), with increasing numbers of ESBL isolates detected in community-dwelling patients.

The objective of this research was to conduct a point prevalence study in a convenience sample of the Mid-West population with the aim of determining the extent of ESBL colonisation.

Utilising anonymised community stool samples that had completed routine analysis, we conducted a point prevalence study over a 4 week period on all samples that met defined inclusion and exclusion criteria. Limited epidemiological data was recorded: (1) age of patient, (2) gender, and (3) sender location. From these stool specimens, rectal swabs were inoculated (eSwabTM 480CE, Copan, Italy), which were subsequently cultured on selective chromogenic agar (ColorexTM ESBL). Culture plates were incubated aerobically at 37°C for 24 hours.

Of 195 samples processed, 58% (n=112) were from females. The median patient age was 62.4 years (range 20-94 years). One hundred and eighty six samples (95%) originated from general practitioner clinics. During the study period, only 9 eligible stool samples were received from LTCF (6 public). From 195 ColorexTM ESBL chromogenic agar plates cultured, no ESBL-producing organisms were detected.

This community point prevalence study did not identify ESBL colonisation despite high numbers of patients with invasive ESBL bloodstream infections presenting for admission in our institution. We believe this may be because of our small sample size. Data regarding antimicrobial exposure and other risk factors for ESBL colonisation were also not available. We remain vigilant for ESBL-producing organisms.

SOURCE

Irish Journal of Medical Science. 2016;186(3):723-727.

An Optimized Work-Flow to Reduce Time-to-Detection of Carbapenemase-Producing Enterobacteriaceae (CPE) using Direct Testing from Rectal Swabs



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ABSTRACT

Rapid detection of patients with carbapenem-producing Enterobacteriaceae (CPE) is essential for the prevention of nosocomial cross-transmission, allocation of isolation facilities and to protect patient safety.

The aim of this study was to design a new laboratory workflow, utilising existing laboratory resources, in order to reduce time-to-diagnosis of CPE.

A review of the current CPE testing processes and of the literature was performed to identify a real-time commercial polymerase chain reaction (PCR) assay that could facilitate batch testing of CPE clinical specimens, with adequate CPE gene coverage.

Stool specimens (210) were collected; CPE-positive inpatients (n=10) and anonymised community stool specimens (n=200). Rectal swabs (eSwab™) were inoculated from collected stool specimens and a manual DNA extraction method (QIAamp® DNA Stool Mini Kit) was employed. Extracted DNA was then processed on the Check-Direct CPE® assay.

The three step process of making the eSwab™, extracting DNA manually and running the Check-Direct CPE® assay, took <5 minutes, 1 hour 30 minutes and 1 hour 50 minutes, respectively. It was time efficient with a result available in under 4 hours, comparing favourably with the existing method of CPE screening; average time-to-diagnosis of 48/72 hours. Utilising this CPE workflow would allow a 'same-day' result. Antimicrobial susceptibility testing results, as is current practice, would remain a 'next-day' result.

In conclusion, the Check-Direct CPE® assay was easily integrated into a local laboratory workflow and could facilitate a large volume of CPE screening specimens in a single batch, making it cost-effective and convenient for daily CPE testing.

SOURCE

Bioengineered. 2017;8(3):217-224.

Naturally Occurring and Synthetically Derived Isothiocyanates Display Anti-Cancer Capabilities



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INTRODUCTION

By 2040, it is predicted that both prostate and liver cancer cases will rise by greater than 100% in Ireland. Our previous studies have demonstrated the chemo-preventive capacity of short chain isothiocyanates (ITCs), derived from cruciferous vegetables, in cancer cells.

Isothiocyanates are phytochemicals derived from cruciferous vegetables such as cauliflower, broccoli and brussel sprouts. They exist in their glucosinolate precursor form until myrosinase cleavage resulting in the production of their respective ITC.

Therefore, we investigated the ability of both naturally occurring short chain ITCs (Benzyl isothiocyanate (BITC), Allyl isothiocyanate (AITC) and Phenylethyl isothiocyanate (PEITC)) and synthetic long-chain ITCs (Phenylbutyl isothiocyanate (PBITC) and Phenylhexyl isothiocyanate (PHITC)) to induce apoptosis in liver and prostate cancer cells *in vitro*.

Additionally, the two synthetically produced long chain ITCs (PBITC and PHITC) were investigated for their potential anti-cancer properties on four cancer hallmarks and compared to the short chain ITCs in both cancer types.

OBJECTIVE

We hypothesised that ITCs may induce apoptosis and that ITC structure influences the degree of apoptosis induction.

METHODOLOGY

The hepatocellular carcinoma cell line HepG2 and the prostate carcinoma cell lines (22Rv1, DU145) were exposed to increasing concentrations (2.5µM-15µM) of either Benzyl isothiocyanate (BITC), Allyl isothiocyanate (AITC), Phenylethyl isothiocyanate (PEITC), Phenylbutyl isothiocyanate (PBITC) or Phenylhexyl isothiocyanate (PHITC) *in vitro*. Cells were assessed in terms of apoptosis (cell fragmentation, formation of apoptotic bodies and nuclear condensation).

Additionally, HepG2, 22Rv1 and DU145 cells were exposed to increasing concentrations (2.5µM-15 µM) of either PBITC or PHITC. Cells were assessed for proliferation (MTT assay), colony formation (Clonogenicity), invasion and migratory capability (Wound-heal).

RESULTS

All cells exposed to ITCs presented evident signs of apoptosis (programmed cell death).

In HepG2 cells, 48 hours exposure to PHITC and PBITC ($p < 0.0001$) resulted in a decrease in cellular proliferation compared to vehicle alone. Exposure of both prostate carcinoma cell lines, 22Rv1 and DU145, to PBITC and PHITC also caused a reduction of cellular proliferation after 48 hours ($p < 0.05$).

Increasing concentrations of PBITC and PHITC resulted in a reduction of colony formation ability and migratory capacity to varying degrees in all three cell lines.

Isothiocyanate treatment reduced the ability of all cell lines to invade through the extracellular matrix (ECM) after 72 hours treatment compared to the control.

CONCLUSION

This study demonstrates that synthetic long chain ITCs have anti-cancer properties via the reduction of proliferation, colony formation, invasion and migration *in vitro*. This reduction in viability may be a consequence of apoptosis induction as demonstrated via short chain ITCs.

Further studies will address this discovery.

PRESENTED

As a poster presentation at the Irish Association for Cancer Research 2017 in Kilkenny by Emily Crowley.

FUNDING

This research has received funding from the President Seed Fund, Athlone Institute of Technology.

Attitudes and Practices of Irish Hospital-Based Physicians towards Hand Hygiene and Hand Rubbing using Alcohol-Based Hand Rubs, a Comparison between 2007 and 2015



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ABSTRACT

Hand hygiene is the cornerstone of infection prevention and control practices and reduces healthcare-associated infections significantly. Yet, international evidence suggests that medical doctors demonstrate poor compliance.

The objective of this research was to explore and compare practices and attitudes towards hand hygiene, in particular hand rubbing using alcohol-based hand rubs (ABHR), among hospital-based physicians in Ireland between 2007 and 2015.

In 2007, a random sample of doctors in a large teaching hospital was invited to complete a postal survey using a validated questionnaire. In 2015, the study was replicated among all doctors employed in a university hospital group, including the setting of the original study, using an online survey. Data were analysed using SPSS and Survey Monkey.

The research findings were predominately positive and improving attitudes and practices were found, with 86% of doctors compliant with hand hygiene before patient contact in 2015, compared to 58% in 2007. Ninety one percent were compliant after patient contact in 2015, compared to 76% in 2007. Just 39% of respondents in 2015 were using ABHR for hand hygiene almost always. However, this represents 13.5% more than in 2007. Stated barriers to use included dermatology issues and poor acceptance, tolerance and poor availability of ABHR products.

Greater awareness of hand hygiene guidelines and greater governance appear to have positively impacted practice. However, despite this, practice remains sub-optimal and there is scope for substantial improvement. Continued and sustained efforts are required in order to build on progress achieved since the publication in 2009 of the World Health Organisation Hand Hygiene Guidelines.

SOURCE

Journal of Hospital Infection. 2017 Sep;97(1):17-25.

Survey of Attitudes and Practices of Irish Nursing Students towards Hand Hygiene, Including Hand Rubbing with Alcohol-Based Hand Rub



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ABSTRACT

Hand hygiene is widely recognised as the most important measure a healthcare worker can take in preventing the spread of healthcare associated infections. As a member of the healthcare team, nursing students have direct patient contact during clinical practice; hence, good hand hygiene practice among nursing students is essential. Low to moderate levels of hand hygiene knowledge and poor attitudes and practices are reported among nursing students. However, less is known about their attitudes and practices of hand rubbing with alcohol-based hand rub, even though hand rubbing is the recommended optimum practice in most situations.

The aim of this study was to explore attitudes and practices of hand hygiene, in particular hand rubbing with alcohol-based hand rub, among nursing students in Ireland.

This survey employed a descriptive, self-report design using a questionnaire to gather data. It was administered electronically to all undergraduate nursing students (n=342) in the Department of Nursing and Midwifery at the University of Limerick, Ireland in March and April 2015.

The response rate was 66%. Attitudes towards hand hygiene were generally positive. Compliance with hand hygiene after contact with body fluid was high (99.5%) and before a clean or aseptic procedure (98.5%). However, suboptimal practices emerged, before touching a patient (85%), after touching a patient (87%) and after touching patients' surroundings (61%), with first year students more compliant than fourth year students. Sixteen percent of students were not aware of the clinical contraindications for using alcohol-based hand rub and 9% did not know when to use soap and water and when to use alcohol-based hand rub.

Educators and practitioners play an important role in ensuring that nursing students develop appropriate attitudes towards hand hygiene and engage in optimal hand rubbing practices. Raising awareness among nursing students of their responsibility in preventing the occurrence and reducing the transmission of HCAI as an ongoing endeavour is required, with the laudable aim of preventing complacency and ultimately improving patient outcomes.

SOURCE

Nurse Education Today. 2017 May;s2:57-62.

An Irish Outbreak of New Delhi Metallo-Beta-Lactamase (NDM)-1 Carbapenemase-Producing Enterobacteriaceae - Increasing but Unrecognised Prevalence

ABSTRACT

Carbapenemase-producing Enterobacteriaceae (CPE) may cause healthcare-associated infections with high mortality rates. New Delhi metallo-beta-lactamase-1 (NDM-1) is among the most recently discovered carbapenemases.

The objective of this research was to report the first outbreak of NDM-1 CPE in Ireland, including microbiological and epidemiological characteristics, and assessing the impact of infection prevention and control measures.

METHODOLOGY

This was a retrospective microbiological and epidemiological review. Cases were defined as patients with a CPE-positive culture. Contacts were designated as roommates or wardmates.

RESULTS

This outbreak involved 10 patients with a median age of 71 years (range: 45-90), located in three separate but affiliated healthcare facilities. One patient was infected (the index case); the nine others were colonized. Nine NDM-1-producing *Klebsiella pneumoniae*, an NDM-1-producing *Escherichia coli* and a *K. pneumoniae* carbapenemase (KPC)-producing *Enterobacter cloacae* were detected between week 24, 2014 and week 37, 2014. Pulsed-field gel electrophoresis demonstrated similarity. NDM-1-positive isolates were meropenem resistant with minimum inhibitory concentrations (MICs) ranging from 12 to 32 µg/mL. All were tigecycline susceptible (MICs ≤1 µg/mL). One isolate was colistin resistant (MIC 4.0 µg/mL; *mcr-1* gene not detected). In 2015, four further NDM-1 isolates were detected.


The successful management of this outbreak was achieved via the prompt implementation of enhanced infection prevention and control practices to prevent transmission. These patients did not have a history of travel outside of Ireland, but several had frequent hospitalisations in Ireland, raising concerns regarding the possibility of increasing but unrecognised prevalence of NDM-1 and potential decline in value of travel history as a marker of colonisation risk.

SOURCE

Journal of Hospital Infection. 2016 Dec;94(4):351-357.

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Spatial Discrimination Testing in Older Sequentially Implanted Children - A Virtual Reality Approach



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INTRODUCTION

The cochlear implant (CI) is a device which partially restores hearing by interacting directly with the auditory nerve through electrical impulses which are delivered by an electrical array placed in the cochlea.

OBJECTIVE

This study aimed to develop a tool which measures spatial sound discrimination in cochlear implant recipients. The speaker arrays currently used are large, expensive and cumbersome. The tool developed, the VEST (Virtual Environment for Sound Testing) is a portable and economically viable alternative to the speaker array which replicates all essential elements. The results found could indicate the level of bilateral advantage exhibited by the subject.

METHODOLOGY

The VEST incorporates head related transfer functions (HRTF) with the Oculus DK2 virtual reality headset to recreate all elements of the speaker array. The Oculus presents an array of 13 targets in a semicircle around the participant, spaced 15° apart, starting at 0° directly in front of the subject. When a one second burst of white noise is presented to the subject, they are required to focus on the target they believe the sound to have emanated from for two seconds. The stimuli were presented under three conditions, first implant only, second implant one and bilateral presentation. A green flash from the target confirmed selection and the subject would look back to the front for the next presentation. The sound with the perception of direction was created using HRTF-processed sounds, which were presented via bilateral personal audio cable to CI users in the direct connect (DC) method. All participants of the study were over the age of 10 with at least one year bilateral experience.

CONCLUSION

Root mean squared errors were on average 61.1° under the bilateral condition, 73.83° under the first implant only condition and 79.24° under the second implant only condition. Subjects with an inter-implant delay (IID) under eight years showed greater bilateral advantage than subjects with a longer IID. Those with an IID over eight years performed similarly under both the first implant only condition and the bilateral condition. The tool developed was successfully used to measure spatial discrimination in older sequentially implanted children.

REFERENCES


Available on request.

PRESENTED

As a poster presentation at;

- The 8th International Institute of Electrical and Electronics Engineers (IEEE) EMBS on Neural Engineering in Shanghai in May 2017 by Professor Richard Reilly.
- At the 13th European Symposium on Pediatric Cochlear Implants (ESPCI) in Lisbon in May 2017 by Dr. Cristina Simoes-Franklin.

Audit of the Recording of Demographic, Contact and Consent Information for Inpatients in an Acute Psychiatric Unit, and Completion of Discharge Summaries



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INTRODUCTION

Patient demographic and contact information is important for patient identification, research, and for contacting patients once they leave an inpatient unit. Contact details for a patient's First Contact Person are important for obtaining collateral information and occasionally for ensuring the safety of the patient or others, and it is also important to record whether or not the patient gives Permission to Contact this person. Collecting this information at each admission is vital whether to record it for the first time or in case previous records require updating. Discharge Summaries ensure communication between Psychiatrists and General Practitioners and provide useful information for future treating clinicians. Recording of a diagnosis on Discharge Summaries improves their value.

METHODOLOGY

A cross-sectional review was performed on 21/10/'16 of recording of demographic, contact and consent information on standardised Mid-Western Mental Health Assessment forms for all current inpatients in the Acute Psychiatric Unit, Ennis Hospital (APU). Also, a retrospective comparison of hand-written Discharge Summaries to a computer-generated list of discharges over a three month period (11/07/'16 – 09/10/'16), and a retrospective review of recording of diagnosis and ICD-10 code on those Discharge Summaries were completed.

RESULTS

Initial data regarding demographic details, contact and consent were collected for all inpatients in the APU on 21/10/'16. Only two items were recorded on all 33/33 (100%) of forms. A First Contact Person was identified on 31/33 (94%) of charts, but whether or not the patient had given Permission to Contact this person was poorly recorded (48%). A number of items were recorded less than 50% of the time.

Hand written Discharge Summaries were locatable for 108/159 (68%) of patients discharged. A diagnosis was recorded on 104/108 (96%) of Discharge Summaries, but ICD-10 Code only on 45/108 (42%).

The above findings were presented at an in-house training meeting. Subsequently, this audit's supervising consultant sent an email to all consultants and NCHDs highlighting the issues and the need to improve.

A re-audit was performed three months after the first phase, which included 25 inpatients.

In general, the level of recording improved on most items. First Contact Name was recorded on 23/25 (92%) of charts, a decrease from 94%. Permission to Contact was recorded on 16/25 (64%) of charts, an increase from 48%.

There were 102 Discharge Summaries locatable for the re-audit, representing 102/144 (71%) of discharged patients. This represents a minimal improvement from 68% to 71%. A total of 102/102 (100%) of locatable discharge summaries had Diagnosis recorded, improved from 96%. A total of 57/102 (58%) had ICD-10 code recorded, improved from 42%.

CONCLUSIONS


In general, recording of demographic details, contact and consent information improved significantly following intervention. However, of particular concern are the low percentage of Discharge Summaries locatable for discharged patients and the poor recording of Permission to Contact a First Contact Person.

The authors suggest inclusion of a segment on the MHA form and Discharge Summaries in mandatory induction for each rotation of NCHDs, highlighting the importance of full completion of both forms. Regular audits should highlight improvements and failings, and future interventions should be designed and delivered if necessary.

PRESENTED

Initial results were presented at in-house teaching in the APU on November 10th, 2016. Subsequent results were presented on February 1st, 2017 following completion of the audit cycle.

Experiences of Clinical Psychologists Using the Scientist-Practitioner Model in Routine Practice



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OBJECTIVE

The aim of the current study was to explore the experiences of clinical psychologists' understanding and application of the scientist-practitioner model in routine practice.

METHODOLOGY

This was achieved using a concurrent triangulation design with quantitative and qualitative measures so as to corroborate findings. Participants who were working as a clinical psychologist for at least 12 months after training took part in the study. An employment questionnaire was used to record information on waiting lists, type of workplace, and weekly work activities of the participants. Concurrently, participants' understanding and application of the scientist-practitioner model, and the barriers and facilitators of conducting research, were explored using semi-structured interviews.


RESULTS

The employment questionnaire highlighted that participants spent the most amount of time each week in direct contact with clients, while the least amount of time was spent on research activity. The overarching themes that were identified from the qualitative data were 'developing professional identity' and 'facilitating research.' The former related to participants' changing understanding of the scientist-practitioner model and their efforts to apply it to practice, while the latter related to the struggles they faced both in trying to conduct research, and for that research to be robust.

CONCLUSION

Participants identify themselves with the scientist-practitioner model, and have developed flexibility in how they apply this to their practice. However they reported being unable to conduct research, a key component of the model. Recommendations are made to promote the unique skills of clinical psychologists in order to distinguish from similar professional fields.

An Evaluation of the 'On the Level' Group-CBT Intervention for Bipolar Affective Disorder



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INTRODUCTION

The delivery of psychoeducational group programmes is a National Institute for Clinical Excellence recommended treatment for Bipolar Affective Disorder (BPAD) for which there is good evidence for effectiveness, acceptability, and cost-effectiveness. 'On the level' (OTL) is a group CBT based psychoeducational intervention for adults experiencing BPAD developed by the North Lee Adult Mental Health Service (AMHS).

OBJECTIVE

The present study aimed to evaluate the OTL group as implemented at a HSE South AMHS serving a primarily rural population.

METHODOLOGY

Participants consisted of seven adults with a diagnosis of BPAD who attended the OTL group at the service in which this research was undertaken between October 2016 and January 2017. The study used a mixed methods approach with a quantitative and qualitative arm. The quantitative arm employed a repeated measures design using outcome measures assessing depressive and manic symptomatology at two time points: pre-intervention and post-intervention. For the qualitative arm, participants were invited to participate in a focus group which probed for pertinent issues with regard to access, positive and negative experience of the group, and perceived effectiveness of the group.

RESULTS

While pre-intervention scores on measures of depression and mania were low, results nevertheless suggested that the OTL group was effective in either maintaining symptoms at this level or reducing them further. A small to medium effect size was observed in relation to depressive symptomatology ($d=0.48$), while a medium effect size was observed for symptoms of mania ($d=0.62$). Participants reported that they believed that the group served an important function with regard to care in the post-hospital discharge period, that the process of accessing the group along with its location, time, frequency, duration and setting were all acceptable to them. They also noted that the group was facilitated in a manner which fostered a sense of a safe environment which allowed for open discussion. Benefits of the group were discussed in terms of connecting with other individuals experiencing BPAD, of improved self-management skills and an increased sense of self-efficacy, as well as benefits with regard to receiving psycho-education.

Participants made a number of suggestions with regard to the improvement of future offerings such as the scheduling of sessions with due regard to parenting commitments, the revision of the language used in the programme material to better reflect the lived experience of BPAD, and the sensitive delivery of suicide prevention material. Participants also expressed a desire for material related to diet and nutrition, and money management to be included in future offerings as they felt that these topics were particularly relevant to the BPAD experience.


CONCLUSIONS

The present study provides evidence for the effectiveness and acceptability of the OTL group programme as delivered at this HSE South AMHS. The effect sizes observed are larger than those observed in a previous evaluation of the OTL group,¹ and are in line with effect sizes revealed in meta-analyses of CBT and psychoeducational interventions for BPAD^{2,3} and international trials of other group psychosocial interventions targeting this disorder.⁴ A number of important issues have also been highlighted which will be used to inform future offerings of the programme. Results suggest that the OTL group may provide a less resource intensive, and thus more cost-effective, avenue for support outside of individual therapy which is both effective and acceptable to participants.

REFERENCES

Available on request.

Examining the Effectiveness of a Cognitive-Affective Stress Management Programme in Individuals Attending a Community Mental Health Service



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INTRODUCTION

Cognitive-Affective Stress Management Training¹ (CASMT) is an emotion-focused coping skills programme that can be delivered in a group or an individual basis. This 6 week intervention is informed by theoretical and empirical developments in emotional regulation and combines a number of practical techniques. It aims to teach individuals a range of strategies to cope with stress; such as breathing techniques, productive thoughts, mental images, positive self-statements, relaxation and cognitive components to control emotional arousal, ultimately increasing resilience.

OBJECTIVE

This research aims to qualitatively determine the effectiveness and usefulness of CASMT as a therapeutic intervention to alleviate symptoms of stress among individuals attending a Community Mental Health Service.

METHODOLOGY

This research project made use of a qualitative method in order to elicit rich data of the lived experiences of participants who attended CASMT. Clients who attended at least 4 of 6 sessions of CASMT were invited to participate in this research. Nine participants took part in semi-structured interviews in a setting familiar to them and these lasted approximately 30 minutes each. Questions were designed in order to gain insight into participants' experiences of CASMT and their personal outcomes from the intervention. Interviews were recorded and transcribed and were analysed using Thematic Analysis with the aid of ATLAS qualitative software. Ethical approval was obtained from Sligo University Hospital.

RESULTS

Two main themes emerged from the interviews; The Perceived Benefits of CASMT and Tips for Facilitators.

The perceived benefits of offering CASMT as a therapeutic treatment for symptoms of stress were evident in the interviews. Participants noted the benefits of openly discussing common difficulties, learning and motivating each other to attend sessions and practice skills, the opportunity to learn a range of coping skills and preventative techniques as well as having a folder to revise the programme material after the programme has finished.

Individuals found the skills helpful, but difficult to practice at home in between sessions. The facilitator should continuously aim to increase and encourage motivation and discipline in practicing the skills and techniques between sessions. The facilitator should also acknowledge the difficulties of implementing changes to thinking and patterns of behaviour. This may increase the likelihood of individuals practicing the skills at home long-term and prevent the build-up of frustration if skills do not work immediately. Encourage individuals to remain flexible in executing coping strategies and being able to judge their applicability to a range of stressful situations.

CONCLUSION

All of the participants in this research recommended that CASMT be continually offered as a therapeutic intervention to alleviate symptoms of stress. Community Mental Health Services as well as other support services working with a population at risk of experiencing high levels of stress should consider offering this type of brief, yet effective intervention.


REFERENCES

Available on request.

FUNDING

The authors were awarded a SEED Grant from Sligo University Hospital to fund this research project.

Parents' Experiences of Attending a Child and Adolescent Primary Care Psychology Service



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INTRODUCTION

The present study explored parents' experiences of attending a child and adolescent primary care psychology service (CAPCPS) with the aim of gaining insight and providing guidance for those wishing to make improvements. A number of Irish reports have emphasised the urgent need to improve youth mental health services.

Parents play a key role in terms of facilitating young people to access and engage in mental healthcare; it is important that we listen to their views.

METHODOLOGY

Five semi-structured interviews were conducted with parents. Data was analysed using thematic analysis.

RESULTS

The findings demonstrate that, overall, parents considered their experiences of attending the CAPCPS to be beneficial.

However, it was also an emotive and challenging experience at times. Six main themes emerged which represented participants' key opinions:-


1. All of the parents spoke about their initial apprehension regarding their first visit to the CAPCPS
2. Parents emphasised the importance of clinicians being easy to talk to and having an ability to establish a good rapport
3. Parents reported that after attending parenting support sessions, they felt as though they were the cause of their child's problems
4. Parents expressed that, overall, their experience of attending the CAPCPS was beneficial
5. Parents described how their child's condition had a significant impact on their own wellbeing and upon family life; parents reflected upon how they would have benefitted from additional support
6. When asked what suggestions they had for improvements, parents spoke about the importance of services being better resourced

The Child Outcomes Research Consortium (CORC) adapted parent experience of service questionnaire was completed by 18 parents/caregivers.

CONCLUSION

Findings from these questionnaires indicate that, overall, parents considered attending the service to be a positive experience. Future studies should include a larger sample of parents, children and adolescents and should adopt a longitudinal approach.

Evaluation of a Dialectical Behaviour Therapy (DBT) Informed Skills Group for Adolescents - A Qualitative and Quantitative Research Study



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OBJECTIVE

This study aimed to explore adolescents' experience of participating in a Dialectical Behaviour Therapy (DBT) Informed Skills Training Group, and to evaluate its effectiveness in reducing emotional distress and improving adaptive coping through teaching DBT behavioural skills use in a clinical setting.

METHODOLOGY

Participants were four adolescents exhibiting difficulties regulating their emotions who were attending the Child and Adolescent Mental Health Service (CAMHS) in the catchment area of North Lee East, Co. Cork. The DBT Informed Skills Training Group ran once a week for six consecutive weeks. An exploratory mixed methods design was employed.

RESULTS

Three main themes emerged; positive experience of engaging in the group, positive impact of skills training on adolescents' lives and restriction of parental inclusion in the group. Quantitative results revealed mixed findings with some adolescents reporting improvements in emotional distress and increased DBT behavioural skills use.

CONCLUSION

Those participants who utilised more DBT behavioural skills showed a trend towards experiencing less emotional distress. These findings are discussed in the context of the wider literature, strengths and limitations, clinical implications for services and recommendations for future research.

Personal Mental Health Recovery, Mayo Recovery College and Place

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INTRODUCTION

The mission of the Mayo Recovery College is to advance personal mental health recovery through vibrant adult education in a third level education setting. The modules undertaken by students are co-produced and co-facilitated collaboratively by individuals with lived experience, professionals, family members and the wider community. This adult education initiative responds to the recovery principles set out by ARI (Advancing Recovery Ireland). ARI is a National Mental Health Division that brings together service providers, those who use services, family members and community supports, to work on how mental health services can become recovery focused.

This research explores the social, educational and environmental conditions in which individual recovery occurs. There is a particular emphasis placed on the relationship between Mayo Recovery College and personal mental health recovery.

OBJECTIVE

The aim of this inductive research is to explore the relationship between personal recovery and place for students who are attending the Mayo Recovery College. For the purpose of this research, 'place' will signify not just location but the wider social and educational environment (Mayo Recovery College) in which the students live and the services, resources and conditions within it.

METHODOLOGY

The paper will draw on the Grounded Theory methodology formulated by Glaser and Strauss. The qualitative data is collected using a mixture of one-to-one interviews, questionnaire and facilitated research group feedback. This feedback is based on semi-structured predetermined questions allowing for natural diversion occurring in an open dialogue setting.

RESULTS

The research identified that personal recovery could be identified by all of the respondents as: moving on from illness, functioning with or without illness, identifying personal uniqueness, self-acceptance, regaining control of one's circumstance, improving self-esteem, accepting setbacks as part of life, being heard, learning from one another, using learnt recovery skills in daily life, opportunity to progress, regaining confidence and learning to cope.

The personal accounts also point to wider social and environmental factors which contribute to their own personal recovery including social integration, connectedness, autonomy and self-agency. The Mayo Recovery College environment provides conditions in which recovery is supported by facilitating non-judgemental dialogue and fostering recovery relationships allowing for authentic communication to occur. Peer support is at the heart of the experience for each module as students who meet have similar lived experience.

College life provides students with social roles and gives opportunities for students to create social goals. Some students have identified wanting to take new paths in life stemming from their recovery college and personal recovery experience. Some wish to return to work, others to full time education and some just want to take their time and fully enjoy the current recovery point.

CONCLUSION

To conclude there are six specific factors which support personal mental health recovery:-


1. Safe space/non-judgemental environment
2. Peer support/recovery relationships
3. Social interaction/social inclusion/connectedness
4. Acceptance
5. Exploratory Open Dialogue
6. Hope/Opportunity

It is suggested by the findings from the research carried out that ARI is meeting its recovery principles with the Mayo Recovery College initiative. Students with lived experience are experiencing personal mental health recovery. Families, communities and service providers are working in collaboration to support personal mental health recovery.

REFERENCES

Available on request.

Clinical Audit of Knowledge, Behaviour and Attitudes Towards Smoking and Smoking Cessation in an Acute Psychiatric Unit



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INTRODUCTION

From October 1st, 2015 all mental health settings within the HSE Mid-West were expected to operate a Tobacco Free Campus Policy. The policy has been introduced in mental health settings in Limerick, Clare and North Tipperary on a phased basis since October 1st, 2014 with approved centres being the final mental health settings to go tobacco free on October 1st, 2015.

Smoking is the single most preventable cause of disease, disability and death with known associations with cardiac, vascular and respiratory diseases and presents a significant burden on national healthcare budgets.

OBJECTIVE

The aim of this audit was to assess the knowledge, behaviour and attitudes of inpatients towards smoking and smoking cessation in an Acute Psychiatric Unit prior to and following full implementation of the Tobacco Free Campus Policy. The objectives were to explore the trend changes in provision of cessation advice in the Acute Psychiatric Unit following implementation of a smoke-free hospital policy and to determine the prevalence of smoking amongst inpatients in an Acute Psychiatric Unit.

METHODOLOGY

The survey was conducted prior to the implementation of the Tobacco Free Campus Policy. All eligible inpatients in the Acute Psychiatric Unit were asked to complete a questionnaire on their behaviour and attitudes towards smoking and smoking cessation. The survey was then repeated one year later after the implementation of the changes and following an educational session for Consultants and NCHDs. The survey was performed 1:1 using pen and paper. This audit received ethical approval from the UHL Research Ethics Committee. The HSE operates a National Tobacco Free Campus Policy which sets standards for smoking and smoking cessation within its hospitals and approved centres and that was the national standard used to perform the audit.

RESULTS

There were 25 people surveyed in 2015 and 26 people surveyed in 2016. The overall prevalence rates of smokers had reduced from 64% to 46% with numbers receiving smoking cessation advice increasing from 0% to 33%. The rate of nicotine replacement therapy prescribing increased from 0 patients in 2015 to 1 in 2016.

CONCLUSION

Smoking remains a significant health issue in Acute Psychiatric Units. Attempts to implement the Tobacco Free Campus Policy have been challenging for doctors, nurses, patients and hospital managers. The prevalence of smoking cessation support remains low and is an area that must be further supported in the future. The following recommendations were suggested: Smoking cessation training for staff, Nicotine replacement therapy prescribing guidelines for staff, Group education sessions for patients, Smoking cessation support leaflets available on wards.

PRESENTED

This study was presented as a poster presentation at the Joint Conference of the College of Psychiatrists of Ireland and the Royal College of Psychiatrists in Northern Ireland on November 10th and 11th, 2016 in the Slieve Russell Hotel, Cavan.

Psychological Factors Related to Sleep Paralysis and Exploding Head Syndrome

INTRODUCTION

Sleep Paralysis (SP) is an intense and unpleasant parasomnia occurring predominantly during the rapid eye movement (REM) stage of sleep, characterised by a state of involuntary immobility (atonia) often coinciding with somatic and hallucinatory hypnopompic (when awakening) and hypnagogic (when going to sleep) episodes (HHEs). Exploding head syndrome (EHS) is a benign parasomnia characterised by an individual's perception of sudden loud noises which are often compared to explosions or slamming doors, when going to sleep or whilst awakening.¹ There is a dearth of literature in relation to this phenomenon.²

OBJECTIVE

This study sought to identify potential psychological explanations of the HHEs that often coincide with SP, while also investigating the correlates of EHS, a parasomnia that has been previously linked to SP.³ The specific aim was to find that sleep hygiene, catastrophic type thinking and depersonalisation are significant predictors of HHEs and that such predictors are also significantly correlated with the experience of EHS.

METHODOLOGY

A cross-sectional design was employed, with validated scales for SP and EHS distributed to registered NUI Galway Students online via SONA Systems. The Catastrophic Cognitions Scale ($\alpha=0.96$) and Cambridge Depersonalisation Questionnaire ($\alpha=0.97$) were also applied, while sleep hygiene, gender, alcohol, stimulant and anti-depressant consumption were controlled for.

RESULTS

Of the 229 participants, 47% reported experiencing at least one episode of SP in their lifetime, with 100% of those who experienced SP also reporting experiencing hallucinatory experiences (HHEs) to some degree. A total of 24% reported EHS at least once in their lifetime, of which 63% also reported experiencing SP. A hierarchical regression revealed that the overall model was significant ($F(3,224)=6.81$, $p=0.000$, $R^2=0.08$, $Adj R^2=0.07$), suggesting that sleep hygiene, catastrophic cognitions and depersonalisation were predictive of HHEs, with catastrophising the experience accounting for the largest beta value (0.11). A number of independent t-tests revealed that those who reported experiencing EHS had significantly higher levels of catastrophic thinking and depersonalisation as well as the number of HHEs than those who did not experience EHS (See Table 1.)

Table 6 - Summary of Total Scores of Both Exploding Head Syndrome and No Exploding Head Syndrome Groups

Exploding Head Syndrome	EHS		No EHS		Cohens d	p
	Mean	SD	Mean	SD		
Sleep Hygiene	38.82	6.69	36.89	7.63	0.27	>0.05
Catastrophic Type Thinking	34.09	11.97	27.39	12.91	0.54	<0.01
Depersonalisation	48.91	44.91	32.41	32.44	0.42	<0.05
HHEs	29.91	7.55	26.49	7.68	0.45	<0.05

CONCLUSIONS

The results support and provide evidence for the aims of this study as it was found that sleep hygiene, catastrophic type thinking and depersonalisation were all significantly predictive of HHEs. Specifically, poorer sleep hygiene was predictive of HHEs, suggesting that poorer sleep hygiene may trigger, maintain or intensify HHEs. Additionally, catastrophic thinking during SP may further add to the intensity of their HHEs and possibly even maintain such a hallucinatory state. Findings also indicate that the tendency to depersonalise was predictive of HHEs during SP. Now that a relationship between depersonalisation and HHEs has been established more research is needed in this area to understand this complex relationship. EHS is shown to be influenced by catastrophic type thinking, depersonalisation and also the experience of HHEs. Sleep hygiene failed to be significantly correlated to the experience. A total of 56 participants have indicated experiencing EHS of whom 35 also experienced SP. However, more research is needed to understand such a phenomenon and to establish widespread prevalence rates. Findings suggest the possibility that similar psychological mechanisms may be responsible for both EHS and SP. Thus, additional research is required as research investigating both parasomnias is limited, with the present research currently being the first to investigate EHS among Irish college students. The current study postulates that psychological mechanisms are at play in both parasomnias, therefore, it would be fruitful if future research would further investigate the psychological mechanisms of EHS and also explore the relationship between SP and EHS.

REFERENCES

Available on request.

PRESENTED

As a poster presentation at the 39th Annual All-Ireland Psychology Student Congress held at the National University of Ireland, Galway on April 8th, 2017 by Ms. Labhaoise Clynes.

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Integrated Care - Utilising the Stepped Care Model to Enhance Access to CBT Resources

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INTRODUCTION

The evidence base for integrated healthcare is beginning to be explored internationally. Integrated care keenly suggests that specialist mental health clinicians have a very significant interface role between secondary and primary care. Cognitive Behaviour Therapy was integrated by a secondary care CBT clinical nurse specialist and nurse prescriber into primary care through endorsement of the stepped-care model. The clinician is an accredited Cognitive Behavioural Psychotherapist and Nurse Prescriber in a service development role employed by the HSE (Health Service Executive) in a rural setting. The CBT clinician provides resources in the form of a CBT bibliography listing in GP practices made available through the local town library, eServices (internet CBT, CBT apps and CBT audio resources), regular communication of CBT treatment planning and guidance on medication management. A stepped-care model utilises the least intensive intervention that is likely to result in significant improvement.

OBJECTIVE

The aims of this research were as follows:-

- To examine the experience of rural GPs of the integration of CBT resources into primary care and subsequent changes in their practice
- To increase access to CBT-specific psychological resources in primary care
- To promote a stepped-care approach supporting integration between primary and secondary care
- Rationalisation of combination therapy (medication and CBT)

METHODOLOGY

Each GP was contacted by letter to advise of new service provision in secondary care during 2016. The CBT clinician requested to meet sector GPs to discuss ways of working together in order to use the resource as efficiently as possible.

Each GP was provided with recommended CBT Bibliotherapy and guidance on up to date evidence based resources which patients can avail of online.

The research was conducted in 2017. Using a mixed methods approach, each GP was invited to complete a questionnaire containing 28 items. This questionnaire focused on GP use of the CBT resources, GP role in the provision of mental healthcare, GP prescribing behaviour and awareness of the value-added skill of nurse prescribing within CBT practice. Two thirds of GPs responded out of a sample of 15.

RESULTS

GPs in the Tipperary/Cashel sector are more informed in terms of disorder-specific treatment via CBT. GPs can refer their patients to the 'Overcoming' series of CBT books as a first-line approach to psychological intervention or refer them to the advised online CBT resources which are readily available. As this demographic is a socially deprived catchment area, provision is made to ensure that all material advised is free to access and that there is also provision for audio CBT materials.

This study showed that provision of CBT resources resulted in half of rural GPs now considering these options at the first point of contact. The provision of CBT resources also had an effect on their prescribing behaviour. GPs do not utilise CBT eServices regularly and there remains a continued preference to refer patients for one-to-one CBT. GPs wish to have direct access to the CBT clinician, without having to refer patients to the secondary care mental health services to gain access.

GPs are also aware that the CBT clinician is utilising prescriptive authority since 2011. Thus in the spirit of stepped-care, care planning rationalises the patients medication alongside CBT treatment, reducing medication or stopping, as appropriate. All CBT referrals are triaged and on receipt of a referral, a 'waiting' letter is sent to the patient directing them also to these resources in order that the patient has a clinically specific self-help intervention, whilst waiting to be seen.

GPs are also invited to become involved in the patients' psychological recovery through collaborative goal setting and also in engaging the GP if they are becoming part of the maintenance cycle of a particular problem e.g. Health Anxiety Disorder, where there are high levels of reassurance-seeking patient behaviour.

CONCLUSION

By integrating CBT expertise and resources into primary care, it offers more first-line treatment choices for the GP and creates a change in prescribing behaviour.

Through continued trust, rapport building and ease of access to the CBT clinician in secondary care, the GP and primary care patient are being supported to have greater access to CBT-specific interventions in a timely manner - when the person is in most need. This stepped care intervention aims to give the person relief of their symptoms and a sense of control that they can 'self-help' independently or whilst waiting to be seen by the CBT clinician.

Continued integration of CBT resources into primary care expands GP choice, changes prescribing behaviour in the treatment of mental health difficulties, enhances the GP role as a mental health provider and is in line with a partnership approach to mental healthcare through the use of a stepped-care model.



PRESENTED

1. As a poster presentation at the National Clinical and Integrated Care Forum in Kilmainham, Dublin in November 2016.
2. As a poster and oral presentation at the Medicines Management Masterclass in Kilkenny in March 2017.
3. As a poster presentation at the CBT in Ireland Conference in Dublin in May 2017.

FUNDING

This research has received funding from the Nursing and Midwifery Planning and Development Unit (NMPDU).

Obesity, Diet and Lifestyle in 9 Year Old Children with Chronic Diseases - Findings from the Growing Up In Ireland Longitudinal Child Cohort Study



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INTRODUCTION

The Growing Up In Ireland (GUI) study is a nationally representative cohort study of children living in the Republic of Ireland. The study has collected information from 8,568 nine year old Irish children on their experiences within their families, childcare settings, schools and communities, and how these impact on all aspects of childrens' development.

OBJECTIVE

This study aims to analyse data from GUI to establish the prevalence of chronic disease in children in Ireland and to describe their diet and lifestyle.

RESULTS


Overall 954 parents in the sample (11.1%) reported that their child had a chronic illness and 43.4% of these children are hampered by it in their daily activities.

Respiratory disorders were the commonest type of chronic disease (46%). Children with a chronic illness were more likely to be overweight or obese (32.9%) compared to 25% of those without a chronic illness, $p < 0.001$. Children with a chronic illness were also found to have a poorer diet, take less exercise and experience significantly more social isolation than their peers (all $p < 0.05$).

CONCLUSION

Public health measures to address diet and lifestyle choices need to be cognisant of the needs of children with chronic diseases and to tailor activities offered to be inclusive of all children. Medical professionals having contact with children with chronic conditions need to remember to reinforce the importance of diet and lifestyle whenever possible, and to explore with families solutions to barriers to making healthy diet and lifestyle choices.

Chronic Disease and Self-Management - An Evaluation of the Self-Care to Wellness Programme



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INTRODUCTION

Long-term conditions are leading causes of death worldwide and their prevention and management has been a core focus of health policy. Within the Health Service Executive (HSE), emphasis is given to the concept of self-management, which refers to a person's ability to manage the symptoms and consequences of living with a chronic condition. The Self Care to Wellness Programme is a community based self-management training programme for those with long-term health conditions in Co. Mayo. It is a joint partnership between the HSE, Mayo Centre of Independent Living, Disability Federation of Ireland and the Multiple Sclerosis Society. The six week programme follows the Stanford Model for Chronic Disease Self-Management. The programme is generic and focuses on the person, as opposed to a particular disease or condition. It is suitable for individuals with one or a range of chronic health conditions.

OBJECTIVE

The aim of the study was to obtain feedback from participants in terms of its impact on managing their condition.

METHODOLOGY

All those who attended the programme between January and December 2015 were invited to complete a questionnaire at the beginning and also six months after completing the programme (n=89). A number of validated measures were utilised including Self-Rated Health, Stanford Exercise Behaviour Scale, Stanford Chronic Disease Self-Efficacy Scale, Stanford Energy/Fatigue Scales, Stanford Visual/Numeric Pain and Quality of Life Rating Scales, and the Stanford Healthcare Utilisation Visits to Providers Scale. Open ended questions were also included to determine the main reasons for attending, perceptions of the programme and to provide the opportunity to give additional comments. Oneway Anova, independent and paired t-tests, and the Wilcoxon signed ranks tests were undertaken to assess the significance of any differences between key variables. Data was entered into Microsoft Excel and then imported into IBM SPSS statistics V23 for analysis.

RESULTS


A total of 89 completed questionnaires were received at the beginning and 60 were received six months after the programme. The average age was 56.7 years. Three quarters were female. Two thirds were living with more than one long-term condition. The most frequently stated conditions were mental health conditions (33%), musculoskeletal disorders (31%), and cardiovascular/circulatory conditions (24%). Positive rating of health

significantly changed from 49% before the programme to 72% post-programme (p=0.004). Quality of life significantly improved from 5.27 out of ten to 6.26 after the programme (p< 0.001). Participants were significantly less limited after the programme in terms of social roles/activities that they could undertake (p<0.001). Visits to the GP significantly reduced from 5.9 visits on average at the beginning of the programme to 3.17 after the programme (p=0.008). Time spent undertaking aerobic exercise and stretching and strengthening increased, but changes were not significant (p>0.05). Similarly no significant changes were found in terms of pain scores (p>0.05). On average less than one person visited the Westdoc out of hours GP service, and less than four attended or stayed in hospital before or after the programme (p>0.05).

CONCLUSIONS

With good self-management support, people living with long-term conditions can be helped to maintain an independent, healthy and active life. The evaluation demonstrated an overall positive impact in terms of meeting the needs of those with chronic conditions. However, scope for improvement was identified. Key recommendations included the need to consider the development of goal setting and empowerment (to increase physical activity), considering mental health needs, providing support after the training, developing additional initiatives for those with low self-efficacy scores, improving assessment and monitoring tools, and developing mechanisms to increase participation in the programme by men.

An Audit of Availability and Accessibility of E-Cigarettes - A Case for Considering Regulation



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ABSTRACT

Anecdotal evidence suggests that e-cigarette use has increased in Ireland in recent years. The health effects of e-cigarettes however are unclear, and it is difficult to determine whether they help smokers quit or deter them from quitting.¹ This lack of clarity has contributed to a relative absence of legislation and regulation concerning their use and sale. Existing Irish legislation does not restrict the sale and advertising of e-cigarettes at point of sale.² There are concerns in terms of the potential for e-cigarettes to be accessible to groups such as children and that e-cigarette marketing may influence the decision to smoke tobacco, acting as a 'gateway' to cigarettes. Currently, information is limited in Ireland in terms of the availability and accessibility of e-cigarettes.

The study aimed to determine the availability and accessibility of e-cigarettes and assess the implications in terms of regulating their sale and distribution.

A convenience sample of three locations was selected to broadly represent the main types of shopping areas in Galway County. These included Galway City, a large town (population over 3,000) and a small town/village (population under 3,000). Selected premises at each location were visited to determine if e-cigarettes, regular cigarettes, or alcohol were being sold (availability audit). Those that had been identified as selling e-cigarettes were then subject to an accessibility and advertising audit. This examined e-cigarettes in terms of location in store, number of brands and range of products, type of products in proximity to e-cigarettes, signage displaying restrictions on sales and advertising.

Availability Audit

In total, 176 availability audits were conducted (130 in Galway city, 41 in the large town and 5 in the village). A total of 5% of premises in Galway city, 32% in the large town and 20% in the village sold e-cigarettes. Types of premises included supermarkets, garage forecourts, newsagents, a pharmacy and specialised e-cigarette outlets.

Accessibility and Advertising Audit

Of the 176 availability audits, the 20 premises that sold e-cigarettes were selected for the accessibility and advertising audit. In three quarters of premises e-cigarettes were located either on or behind the cashier counter. Over half of premises located e-cigarettes in direct proximity to confectionary or tobacco. No premises had introduced any age restrictions on e-cigarette sales. With the exception of the e-cigarette specialist shop (which stocked

more brands and products but were not audited in detail) there were nine different brands and 21 different product types. A total of 40% of premises displayed posters, primarily located at the main point of sale. One in five premises also advertised special offers for e-cigarettes or e-cigarette products. Examples of e-cigarette advertising of concern included advertisements beside confectionary and childrens' toys, oversized posters, those close to the main point of sale, advertisements showing e-cigarettes that look similar to tobacco products and advertisements suggesting that e-cigarettes are 'safer,' 'healthier,' and 'cheaper' than tobacco.

E-cigarettes are widely available, and are located at highly visible locations within premises, in close proximity to confectionary. The wide variety of brands and products requires more display space, making them very visible, exposing customers to package advertising, in addition to those found on posters and display stands. This mirrors tobacco advertising patterns. Given the uncertainty in terms of the health effects of e-cigarettes and the potential 'knock on effect' of cigarette consumption on vulnerable groups such as children, the current lack of legislation and regulation in terms of their sale and use is a significant concern. The implementation of the Tobacco Products Directive³ and subsequent regulations stemming from it provides an opportunity to regulate the sale and promotion of e-cigarettes.

REFERENCES

Available on request.

SOURCE

The Environmental Health Association of Ireland Yearbook. 2017:43-47.



Establishment of a National Cervical Screening Programme in Ireland - CervicalCheck: The First Six Years

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ABSTRACT

The national cervical screening programme, CervicalCheck, commenced in Ireland in 2008. Free cervical smear tests are offered to over 1.2 million women aged 25-60 every three (aged 25-44) and five (aged 45-60) years.

The objective of this research is to highlight the achievements and document the experience of the first six years of a new cervical screening programme.

Data was extracted from the programme screening register and colposcopy management systems. SAS Version 9.4 was used for statistical analysis.

Over 1.98 million smear tests were performed in over one million women, during the first six years of the programme. Overall five year coverage at the end of year 6 was 77% where coverage is presented for the target population of women aged 25-60 years, and is adjusted for hysterectomy rates. The numbers of women attending colposcopy increased significantly from 10,000 new patients attending for the first time in year one to a peak of almost 17,500 in year three. Increased capacity in colposcopy has delivered significant improvements in waiting times; the percentage of women referred to colposcopy offered an appointment within 8 weeks increased from 41.5% in year one to 93.4% in year four and has remained above the >90% standard thereafter. The numbers of biopsies increased markedly, with 33,768 women being diagnosed as having CIN2, CIN3 or adenocarcinoma *in situ* and 860 being diagnosed with invasive cancer by the end of the sixth year (See Figure 1).

Much has been achieved in the first six years of the CervicalCheck programme. The programme continues to evolve, particularly with the increased usage of Human Papillomavirus (HPV) testing and planning for future testing of the HPV vaccinated cohort. Careful attention to capacity planning, co-ordination and delivery of quality assured services, as well as screening promotion have been key components of the programme's success to date. Recent data from the National Cancer Registry Ireland (2015) show that incidence of CIN/cervical cancer continued to rise to 2009 as prevalent disease was identified. European comparisons have shown Ireland to be midway in the ranking of incidence of cervical cancer.¹ The ultimate objectives of the programme are reductions in cervical cancer mortality by 50% and in incidence by 30%.

SOURCE

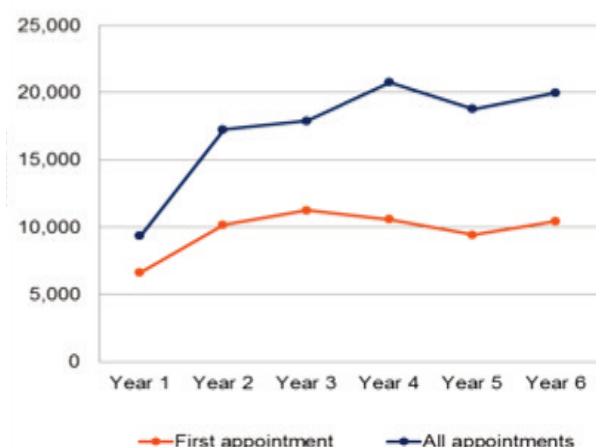
European Journal of Cancer Prevention. 2016 Nov 7. [Epub ahead of print]

PRESENTED

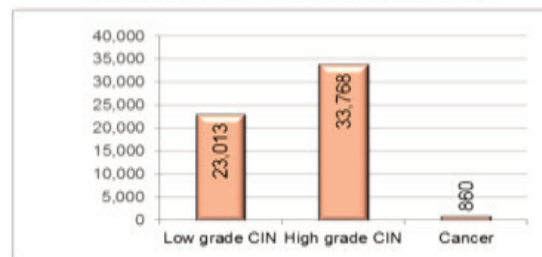
Presented at the World Cancer Congress in Paris on October 31st, 2016 by Dr. Therese Mooney. 'Implementing a National Programme in Ireland, the experience of the first years of CervicalCheck – the Irish National Screening programme.'

Figure 1 - CervicalCheck Biopsies and Cancer Detection during the First Six Years of Programme Activity

Biopsies at CervicalCheck Colposcopy



Detection of CIN and cancer



	Detection rate per 1,000 women screened
Detection rate Low grade CIN	12.54
Detection rate High grade CIN	18.41
Detection rate Cancer	0.47

Intervention Trial of Previous Non-Attender Invitation for Breast Screening

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ABSTRACT

BreastCheck, the National Breast Screening Programme in the Republic of Ireland invites women for screening every two years at four static units and at a number of associated mobile units. A pilot intervention trial of invitation for screening of women not attending the previous appointment (PNA) was carried out aimed at maximising efficiency of resources in terms of radiographer workload and scheduled appointment slots. The trial was performed during Organisational Screening Round (OSR) 5 in two of the regional units. The intervention arm implemented an alternative process for inviting PNA women whereby they were sent a letter inviting them to phone their screening unit to make an appointment at a convenient date/time (See Figure 1).

The control arm continued usual practice i.e. all PNA women were sent a single invitation letter with a scheduled appointment slot at a predetermined date/time.

In the intervention arm fewer PNAs took up their appointment (15.5%) than in the control arm (18.3%) ($p < 0.001$). Uptake among PNAs fell in both arms between Screening Rounds 4 and 5 (Intervention Arm 22.0% OSR4; 15.5% OSR5) (Control Arm 21.4% OSR4; 18.3% OSR5). There was a significant increase in mobile unit

screening days saved due to the intervention and a significant improvement in percentage of women re-invited for screening within 27 months in the intervention arm (85.5%). PNA re-call and cancer detection rates were significantly higher compared with the general screened population.

This trial showed an improvement in efficiency of resource use through asking PNA women to call to make an appointment rather than being issued an appointment with a screening slot assigned. However there was a higher cancer detection rate in PNA women. There is little published evidence on best practice in invitation of PNA women; hence this trial provides much-needed robust scientific evidence of the effect of policy changes in screening.

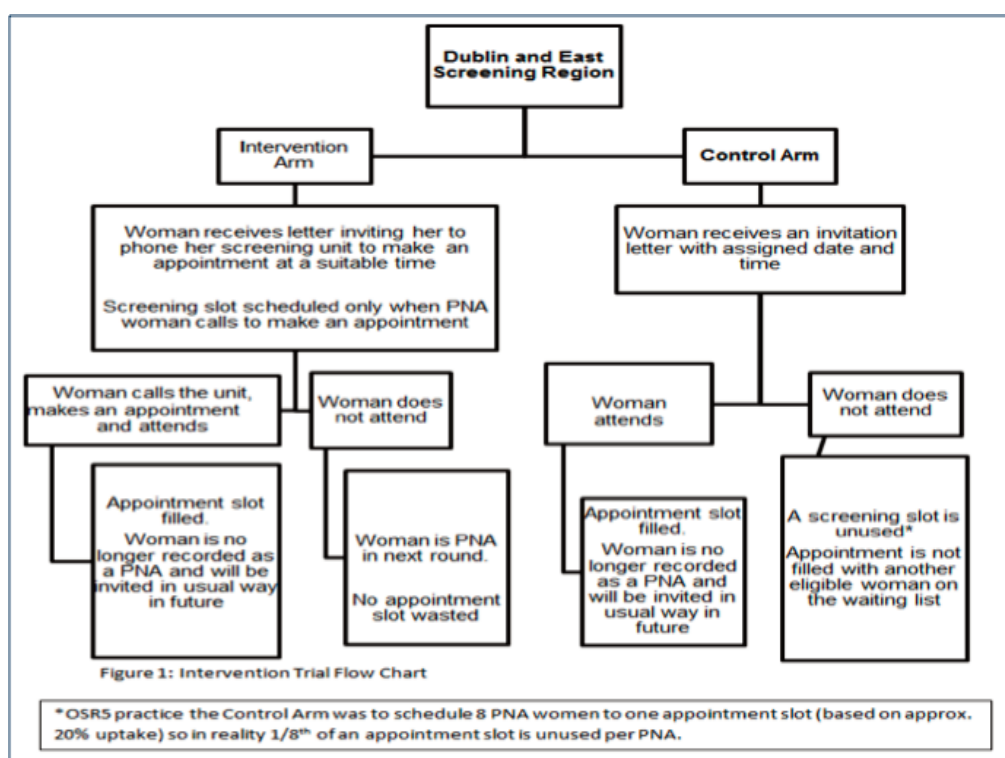
PRESENTED

As a poster presentation at the Symposium Mammo-graphicum 2014 in Bournemouth International Centre, UK by Professor P. Fitzpatrick.

SOURCE

European Journal of Cancer Prevention 2016 Nov; 25 (6):533-7.

Figure 1- Intervention Trial Flow Chart



BowelScreen - Results from Round One of The National Bowel Screening Programme

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ABSTRACT

BowelScreen was launched by the National Screening Service, part of the Health Service Executive, in October 2012 with the aim of offering free screening to men and women aged 55 to 74, on a two-yearly cycle. The purpose of BowelScreen is to identify the population most at risk of colorectal cancer and to target those most likely to benefit from early detection and treatment. The first cycle or 'round' was carried out over approximately three years from 22nd October 2012 to 31st December 2015, starting with men and women aged 60 to 69. A catch up for clients who were within this age bracket on the date the programme was launched allowed some screening participants, who were over 70 years old during the first round of the programme to be invited in this round. The programme will be expanded over time until the full 55 to 74 age group is reached.

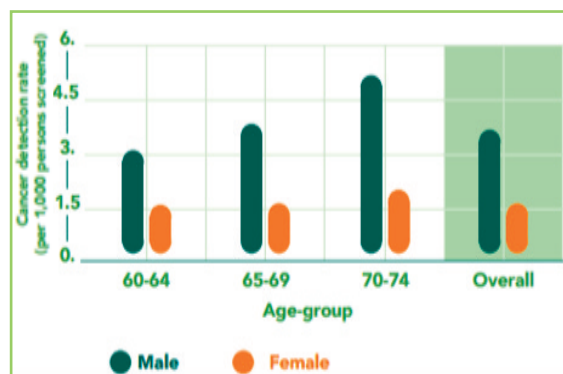
Data from Round One of the BowelScreen Programme is now highlighted. During the period 1st October 2012 - 31st December 2015, BowelScreen invited 488,628 people for screening; 196,238 people took up the invitation, resulting in a screening uptake rate of 40.2% (See Table 1).

Table 1 - BowelScreen Screening Performance 2012-2015

Performance Parameter	2012/2013	2014	2015	Total	QA Standard
Number of eligible clients invited	59,684	205,899	223,045	488,628	
Number of clients consented	27,164	87,595	92,494	207,253	
Number of FIT returns	25,775	83,228	87,437	196,440	
% FIT returns by consent	94.9%	95.0%	94.5%	94.8%	
Number of FIT satisfactory	25,749	83,118	83,371	196,238	
% Uptake	43.1%	40.4%	39.2%	40.2%	≥50%

Uptake of screening for females was higher than in males (44.1% compared to 36.4%). In all, 8,062 people attended for a colonoscopy and 521 cancers were detected, giving an overall cancer detection rate of 2.65 per 1,000 people screened (See Figure 1).

Figure 1 - Cancer detection rate (per 1,000 screened) by gender and age-group



There were 355 colon cancers, 159 rectal cancers and 7 cases of cancer where the site was unconfirmed. Over 71% of all cancers detected were stage I or II, meaning that disease was detected at an early stage and therefore, easier to treat. In addition, there was a total of 4,369 clients with adenomas detected (2,869 men and 1,500 women) and approximately 13,000 pre-cancerous adenomas were removed.

Over time, full participation in the BowelScreen programme should result in a reduction in mortality from colorectal cancer and fewer patients requiring cancer treatment in hospitals. The maximum benefit in terms of reduction in mortality will occur only when the programme targets the full 55 to 74 age population. The programme team remains resolutely focused on making continual improvements in both the quality of the programme and in other key areas of success, such as client uptake. Although there remains a number of years before the programme is fully embedded and delivering to its maximum potential, it is clear from the results above that a strong foundation has been created, upon which to build further success. All eligible men and women should check that they are on the BowelScreen register by calling Freephone 1800 45 45 55.

SOURCE

BowelScreen Programme Report 2012-2015: Round One. Published April 2017. <https://www.bowelscreen.ie/>



The Involvement of Alcohol in Hospital-Treated Self-Harm and Associated Factors - Findings from Two National Registries

ABSTRACT

Self-harm is an important public health issue. The relationship between alcohol and suicidal behaviour is well established. Alcohol is often involved in self-harm acts presenting to hospital emergency departments, and this poses specific challenges for the management and assessment of self-harm patients in acute hospital settings. Therefore, it is important to establish a profile of self-harm patients who present to emergency departments (EDs) following self-harm where alcohol is involved. The specific objectives of this study were to establish the extent to which alcohol is involved in self-harm in Ireland and Northern Ireland; and to investigate the factors associated with alcohol involvement in self-harm acts.

Data on self-harm presentations to hospital emergency departments from national registries in Ireland and Northern Ireland from April 2012 to December 2013 were analysed. The National Self-Harm Registry Ireland and the Northern Ireland Self-Harm Registry are two national systems that record and monitor all self-harm presentations presenting to hospital EDs in Ireland and Northern Ireland. Data for both registries are collected by independently-trained data registration officers using standardised case-definitions and inclusion and exclusion criteria.

The intake of alcohol prior to or during the act of self-harm is recorded in a systematic way by the data registration officers, according to the standard operating procedures. Alcohol involvement is ascertained through hospital case notes – if it was recorded on registration or by the attending clinician, or if present on toxicology reports. The prevalence of alcohol consumption in self-harm was calculated. Using Poisson regression models, we identified the factors associated with having consumed alcohol at the time of a self-harm act. Adjustment was made for the clustering in the data associated with multiple presentations by self-harm repeaters. We explored whether associations differed by country and gender.

Of 34,429 self-harm presentations recorded, alcohol was present in 43% of acts, and more common in Northern Ireland (50%vs.37%). The factors associated with alcohol being involved were being male, aged between 25-64 years, and having engaged in a drug overdose or attempted drowning. Time of presentation to the emergency department was also associated with having consumed alcohol, in particular for women, with those presenting out-of-hours and at the weekend more likely to have done so. Patients with alcohol on board were also more likely to leave without having been seen.

This study has highlighted the prevalence of alcohol in self-harm presentations, and has identified factors distinguishing presentation with alcohol present from those without. The findings underline the need for

increased awareness among medical staff about the link between alcohol and self-harm as well as for increased availability of mental health teams out-of-hours. In particular, appropriate out-of-hours services in emergency departments for self-harm presentations could reduce the proportion of presentations leaving without being seen by a clinician and facilitate improved outcomes for patients.

They also reinforce the need for services to address patient issues relating to co-existing alcohol misuse and alcohol-related disorders among self-harm patients.

PRESENTED

At the 16th European Symposium on Suicide and Suicidal Behaviour in Oviedo, Spain on September 10th, 2016 by Dr. Eve Griffin.

FUNDING

The National Self-Harm Registry is funded by the HSE's National Office for Suicide Prevention. The Northern Ireland Self-Harm Registry is funded by the Public Health Agency, Northern Ireland.

SOURCE

Griffin, E., Arensman, E., Perry, I.J., Bonner, B., O'Hagan, D., Daly, C., Corcoran, P. (2017). The involvement of alcohol in hospital-treated self-harm and associated factors: findings from two national registries. *J Public Health (Oxf)* 2017 1-7. doi:10.1093/pubmed/fox049

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National Cervical Cancer and CIN Trends Reflect Screening Coverage

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INTRODUCTION

CervicalCheck, which is funded by the Department of Health and Children through the National Screening Service, provides free smear tests through primary care settings to the approximately 1.2 million women aged 25-60 years who are eligible for screening. With a coverage target of 80%, a successful national programme in Ireland has the potential to cut current mortality rates from cervical cancer by up to 80%. While overall coverage has risen from 61% to 79% since 2008, it has consistently been lower in older (51-60 years) than younger (25-50 years) women. Screening offers considerable cancer protection in older women; women screened in their early 50s have 75% lower risk of developing cervical cancer between the ages of 55-59 than women not screened in their early 50's.

METHODOLOGY

Data from the National Cancer Registry for the period 2001-2014 was examined in relation to the national trends in cancer and Cervical Intraepithelial Neoplasia (CIN)-3 detection in older and younger women. Provisional data for 2015 registrations has also been examined and is detailed below.

RESULTS

The total number of cancers fell from the year 2009 in younger women. In women aged 25-50 the percentage of cervical cancers presenting with symptoms fell (64% in 2001; 49% in 2007) to 43% in 2014 (preliminary data for 2015= 22%), while that of screen-detected cancers rose from 25% in 2001 to 49% in 2014 (preliminary data for 2015= 49%) (See Figure 1).

In women aged 51-60 the pattern is different with no change in the proportion of symptomatic cancers detected from 2001 (75%) through 2008 (76%) followed by a more gradual drop in 2013 (59%), (48% in 2015). For CIN3, the rates rose dramatically in younger women in the period 2008-2011, with a smaller increase in older women. In both age groups, there was a fall in CIN3 rates from 2012-2014. Smaller numbers of CIN3 were detected in older women.

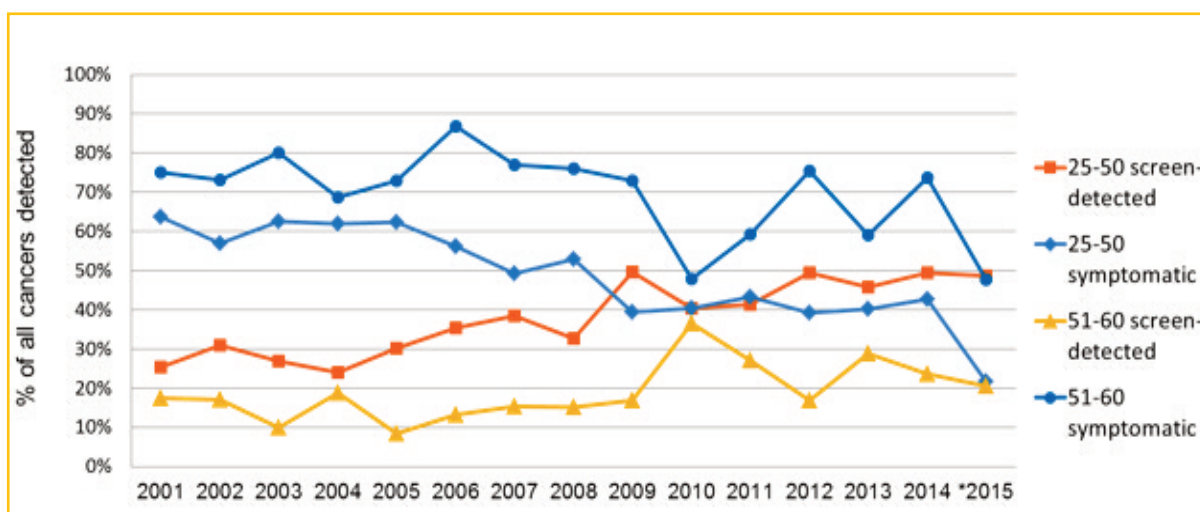
CONCLUSIONS

We report an overall decline in symptomatic cancer presentation and a rise in screen-detected cancers since the beginning of CervicalCheck, the national cervical screening programme. These results reflect the early positive impact of screening. In addition, findings reflect the outcomes of lower uptake of cervical screening in older women. As screening offers considerable cancer protection in older women, targeted strategies are in development to address the coverage rates in the over 50's.

PRESENTED

As a poster presentation at BSCCP, Cardiff in May 2017 by Dr. Gráinne Flannelly, Clinical Director, CervicalCheck.

Figure 1 - Cervical Cancer Detection Mode by Age Group





IT Innovation to Improve Participation in Cervical Screening with Cervical Check, The National Cervical Screening Programme

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INTRODUCTION

CervicalCheck, The National Cervical Screening Programme offers regular free smear tests to 1.2 million women aged 25-60 years. For the programme to be successful at least 80% of the population should be up to date with their cervical screening. To maximise participation among eligible women and among 'harder-to-reach' women, direct programme entry was introduced in year three of the programme. An online eligibility tool was also introduced to make it easier for women to register and participate in CervicalCheck. This tool can be accessed both by women and smear takers. Using the woman's PPS number and date of birth, the tool confirms the woman's details including the due date of her next smear test. Consequently this tool integrates service access and subsequent delivery of screening between the national programme, smear takers and clients themselves.

METHODOLOGY

Access to Google Analytics for the CervicalCheck website was obtained and analyses were performed to determine the activity on the eligibility tool webpage during 2015.

RESULTS

In 2015, there were 909,637 unique visits to the CervicalCheck website, with 197,811 visits to the eligibility tool (See Figure 1). This resulted in 37,272 new registrations to the programme (conversion rate 7.5%).

CONCLUSIONS

Participation in cervical screening reduces the incidence of and mortality from cervical cancer. This innovative IT tool enables women to access their own healthcare record and empowers women to take charge of their own health. The tool is an example of successful integration of access between all parties in the screening process and in addition it provides a link between women and a national health service.

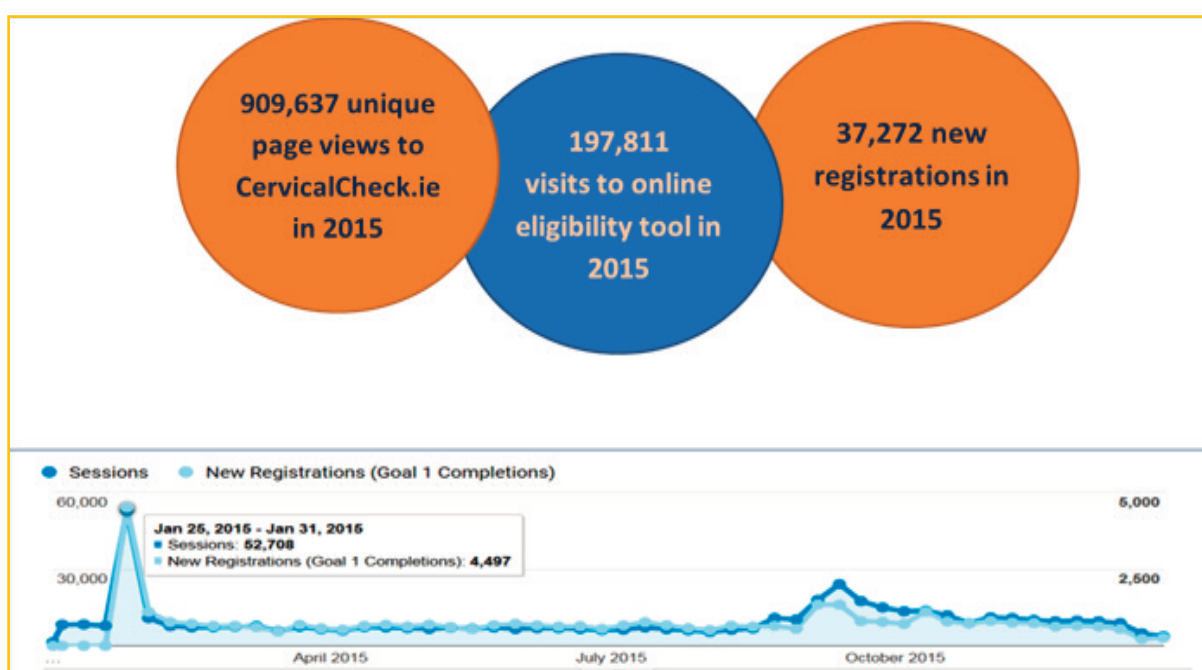
This successful IT tool was developed to support CervicalCheck to achieve population coverage of 80%, which has the potential to reduce the incidence and mortality rates of cervical cancer in Ireland. CervicalCheck will continue to actively monitor the impact of new technology and develop further to improve access to the programme.

This work provides baseline data on the usage of the CervicalCheck eligibility tool and an opportunity to analyse its future usage. One avenue for future research is to evaluate the effect of this tool on actual subsequent screening.

PRESENTED

As a poster Presentation at the Conference on Integrated Care in University College Dublin in May 2017.

Figure 1 - Number of New Sessions and New Registrations during 2015



Sitting Time among the Irish Population - A Future Focus for Health?

INTRODUCTION

Many current public health initiatives in Ireland aim to increase physical activity in order to improve health and wellbeing. However, sitting and other sedentary behaviours are a distinct health risk¹ and it may prove beneficial to identify the associations between sitting time and other health indicators in the Irish population.

This information would serve to inform best practice in health promotion interventions to reduce sitting time. As workplaces are a source of high levels of sedentary time, focusing interventions to reduce sitting time in the workplace may be highly effective.

METHODOLOGY

Using data from the Healthy Ireland Survey 2015, an ANCOVA was conducted to attempt to explain the variance in sitting time in the Irish population.

RESULTS

The ANCOVA model accounted for 8.5% of total variance in sitting time. Statistically significant observations were found for 10 of 13 variables included in the final analysis. Socio-economic group, gender, BMI, and mental health and wellbeing constructs had small but significant effects on sitting time.

CONCLUSIONS

Health promotion practices should incorporate the reduction of sitting time in multi-faceted interventions. As a high socio-economic class was associated with high levels of sitting time, interventions to reduce sitting time should be aimed at managers and employers. More objective measures of sitting time and general health in future studies would further validate any associations between sitting time and various health outcomes in the Irish population.

PRESENTED

As a poster presentation at the Health Promotion Conference in the National University of Ireland, Galway in June 2017.



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Don't Just Sit There - Sit Less and Move More at Work

INTRODUCTION

Physical inactivity is the 4th leading cause of premature death across the globe, accounting for 6% of premature deaths globally.¹ Adults spend a third of their lives at work, making the workplace an ideal environment to promote health and physical activity amongst working adults.

Sedentary work is increasingly being engineered and designed into everyday living; this is particularly evident within the workplace. The average EU worker spends 5 hours sitting at work,² but Irish workers sit for 5.3 hours per working day,³ whilst an internal HSE survey found that staff are sitting in excess of 6 hours per working day and 52% were not meeting the recommended physical activity levels.⁴

OBJECTIVE

In response to the growing awareness of the health risks associated with physical inactivity, the HSE commissioned this health promotion project with the aim of identifying effective approaches to increasing physical activity levels in the workplace.

METHODOLOGY

Using systematic search methodology (PICO) the main databases including PubMed, CINAHL, EBSCO, Cochrane, NICE etc. were searched for high quality research published between 2010 and 2017, which raised in excess of 500 publications. A total of 66 publications met the inclusion criteria (46 reviews/meta-analysis and 20 primary research publications) for the rapid review. The researchers utilised a thematic analysis approach to review the literature, which informed the findings and recommendations of the rapid review.

RESULTS

Sitting is the new smoking as prolonged sitting now presents the same health risk as smoking.⁵ Prolonged sitting increases the risk of premature death (from all causes) by 30% independent of physical activity levels.⁶ The research literature recommends that prolonged sitting now needs to be identified as a separate health risk and as such it needs to be included in public health guidance and campaigns.⁷

Well designed, multi-component, integrated workplace health promotion programmes are effective in increasing physical activity levels amongst employees; interventions that contain individualised initiatives (i.e. pedometers) in combination with organisational and/or environmental initiatives are more effective than single component interventions.⁸ Short, simple, physical activity interventions are effective in increasing physical activity levels

in the workplace, especially if short bouts of physical activity are integrated into employees' routine work.⁹ E-health interventions and in particular passive prompts on computer screens found to be effective.¹⁰ Internet-based physical activity programmes are more effective if combined with onsite personalised or organisational interventions.¹¹ Motivational signage directing employees to use the stairs are also effective.¹² Promoting active commuting to work increases employees' physical activity levels and improves health outcomes.¹³ Workplace champions are found to be an important component in effective workplace health promotion programmes, these champions need to be supported in their roles.¹⁴

Alternative workstations, i.e. treadmill and pedal desks have the greatest potential to influence energy expenditure with an effect that does not seem to be limited to working hours. Sit-stand desks demonstrate the most potential to reduce prolonged sitting times at work; sit-stand desks found to reduce sitting times from 77 minutes up to 2 hours over an 8 hour working day with no detrimental impact on employees comfort or productivity.⁹

Workplace health promotion programmes need to promote awareness of the health risks associated with prolonged sitting at work. An expert statement commissioned by Public Health England in 2015 recommends that: "Employees whose work is predominantly desk-based, should aim to progressively accumulate 2 hours of standing or light activity during an 8 hour working day, eventually working towards accumulating 4 hours over an 8 hour working day. To achieve this, seated-based work should be regularly broken up with standing-based work, through the use of standing desks or taking short active standing breaks..."⁷

CONCLUSIONS

Reducing prolonged sitting needs to be identified as a separate health risk and this needs to be included within public health policies and guidance. There is a need to raise awareness and understanding amongst Irish workplaces of the health risks associated with prolonged sitting: Prolonged sitting needs to be recognised as an occupational health risk and it is recommended that it should be included in work safety statements.¹⁵ Further research is required to fully understand the health impacts of prolonged sitting and sedentary work practices.

PRESENTED

As a poster presentation at the 'Promoting Health in the Workplace Conference' in the National University of Ireland Galway on June 15th, 2017.

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First Time Fathers' Experience of Breastfeeding

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INTRODUCTION

Despite the known influence of fathers on infant feeding decisions and practices, there is a dearth of international and national research based on the 'voice' and expectations of fathers themselves.

OBJECTIVE

This study was designed to 'explore first time fathers' experience of breastfeeding.'

METHODOLOGY

The study drew on the 'Interpretivist paradigm'¹ using a 'Hermeneutic phenomenological'² approach and Van Manen's Framework³ to assist in the interpretive phase of data analysis. Thirteen fathers were interviewed using in-depth semi-structured interviews.

RESULTS

The decision to breastfeed is made before or early in the pregnancy and is influenced by the father. Whilst the final decision regarding infant feeding rests with the mother, the strength of influence that fathers have on the infant feeding decision is strong. The key factor which influenced the decision to breastfeed was the health benefits to the infant. Although many of the fathers appeared to be supportive of the breastfeeding decision in a 'passive way', it was evident that they knew instinctively that breastfeeding was their preferred feeding option. Breastfeeding was associated with good parenting and a high value was placed on the act.

The reality of breastfeeding was more demanding, time consuming, physically and emotionally exhausting in the early weeks than expected. There was a mismatch between the expectations of breastfeeding and the reality of breastfeeding. The high levels of frustration and helplessness reported by the fathers is directly linked to this mismatch. Antenatal education classes did not meet the needs of fathers nor prepare them for breastfeeding. The reported 'rosy' image of breastfeeding portrayed in the media accentuated this mismatch. However, whilst the fathers' experience of the reality of breastfeeding was challenging, it was a very positive experience overall.

Breastfeeding did not significantly disrupt bonding between father and baby nor impact negatively on the fathers' relationship with his partner. Whilst breastfeeding delayed bonding for seven fathers, the importance of the infant getting the best possible start in life superseded this 'delay' in bonding.

The fathers did not feel 'excluded' in the breastfeeding process by their partner. On the whole, they accepted that breastfeeding was a 'team sport' and that they, as fathers, had a 'different' but important supportive role to play in the establishment and maintenance of breastfeeding.

However, a number of fathers did feel 'excluded' or 'sidelined' by the health professionals. They reported a lack of health promotion materials written by fathers for fathers, the absence of a 'father's perspective' in the antenatal education classes, and their exclusion from discussions about breastfeeding between health professionals and their partners in the early postnatal period. One father summed this up by saying that "The health service definitely needs to look at how they treat fathers because we are not just spectators."

CONCLUSIONS

The decision to breastfeed was made before or early in the pregnancy therefore breastfeeding educational and promotional activities should commence as early as preschool and involve a population health approach.

The benefits of breastfeeding to the infant were known to the participants but the benefits to the mother, the environment and the economy were not acknowledged. Highlighting the benefits of breastfeeding to the mother, the environment and the economy is an obvious area for future breastfeeding promotion campaigns.

The participants highlighted educational, informational and communication gaps in their interactions with Health Professionals. Health Professionals need to be cognisant of these issues so as to ensure that the father's experience of breastfeeding is positive and his support for breastfeeding is strengthened and maintained.

REFERENCES

Available on request.

PRESENTED

- At the 2011 La Leche League Conference in Kilkenny by Liz Martin.
- At the 2011 Research and Education Foundation Annual Conference in Sligo by Liz Martin.



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The Power of Self-Management - Diabetes Education and Self-Management for Ongoing and Newly Diagnosed Individuals with Type 2 Diabetes (DESMOND)

INTRODUCTION

With the level of Type 2 Diabetes and the burden of the cost of chronic disease increasing there is a need for effective self-management education programmes. DESMOND is an evidenced-based structured group education programme for individuals with Type 2 Diabetes. DESMOND is based on the principle of empowerment and self-management. The style of the DESMOND education programme is designed to support the participants to become experts on their own lives and diabetes management. Embedded in the programme is the promotion of partnership working between the individual and health professional and the realisation that small changes make a big difference to managing diabetes.

OBJECTIVE

To determine if DESMOND is effective in promoting a self-management approach with individuals with Diabetes.

METHODOLOGY

This study examined biometric data of 114 participants who attended DESMOND and a review session. Data gathered included pre- and post- bloods e.g. HbA1c and lipids. Statistical analysis involved using t-tests, with a significance level of 5%. Qualitative data was collected at review sessions with 34 participants using participatory learning appraisal methodology.

RESULTS

There was a significant reduction in mean HbA1c of 8 mmol/mol from 62 mmol/mol before DESMOND attendance to 54 mmol/mol after DESMOND. There was a significant reduction in mean total cholesterol levels of 0.18 mmol/l from 4.44 mmol/l to 4.26 mmol/l and a significant reduction was found in mean triglyceride levels of 0.2 mmol/l from 1.5 mmol/l to 1.3 mmol/l. Eighty eight percent of participants rated 5 and above on a scale of 1-10 on how well they were managing their diabetes since attending DESMOND. Positive lifestyle changes achieved included improvements in diet, an increase in physical activity, an increase in blood monitoring, self-reported weight loss ranging from 7-25kg and blood pressure reductions. In addition, the participants were empowered to highlight further needs in relation to lifestyle and maintaining weight loss.

CONCLUSION

This study highlights that DESMOND is effective in the management of diabetes and as a self-management programme for chronic disease management.

PRESENTED

As a poster presentation at the Diabetes UK Professional Conference from March 8th to 10th, 2017.

Acknowledgments

The author wishes to thank her colleagues and co-DESMOND Facilitators within Health Promotion and Improvement and Community Nutrition and Dietetics, Health Service Executive Mid-West and the DESMOND participants.



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Lifestyle Risk Factors for Cardiovascular Disease for Cardiac Nurses and the Perceived Barriers They Face in Achieving a Healthier Lifestyle

INTRODUCTION

Cardiovascular disease (CVD) is the leading cause of death nationally and internationally which diminishes quality of life and places a burden on healthcare services.

OBJECTIVE

The overall aim of this study was to assess the lifestyle of cardiac nurses working in an acute setting for the first time in Ireland. Risk factors for CVD and perceived barriers these nurses face in achieving a healthier lifestyle were identified.

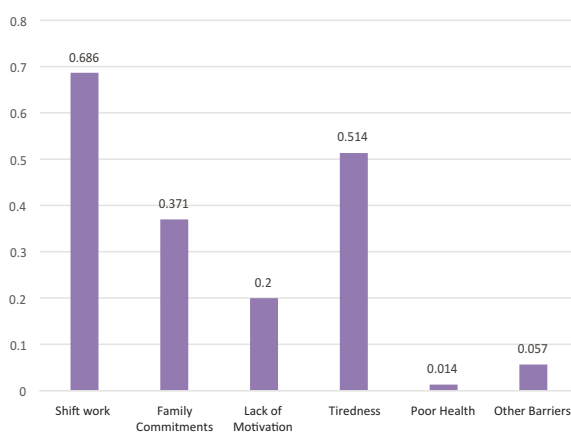
METHODOLOGY

This was an observational cross sectional pilot study. Quantitative data were collected using a modified validated questionnaire, perceived barriers to a healthier lifestyle and a knowledge assessment of the then current 2012 European Society of Cardiology guidelines. Body Mass Index (BMI) was also analysed.

RESULTS

Most nurses studied faced barriers in achieving a healthy lifestyle (85.7%). Shift work was the most prominent barrier (68.6%). These barriers experienced can be seen in Figure 1.

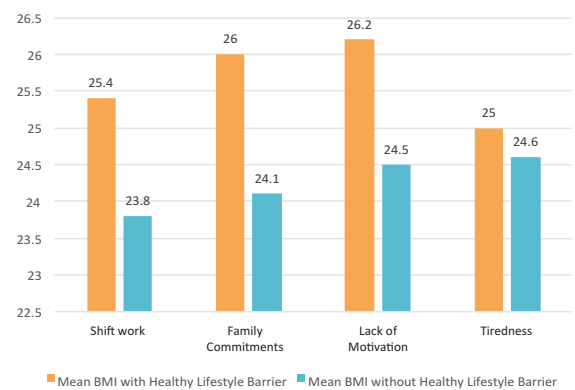
Figure 1- Barriers Experienced by Nurses (%)



Nurses who did experience barriers tended to be overweight (mean BMI 25.2 kg/m², SD 4.37) (See Figure 2). Many nurses showed poor knowledge and adherence to CVD prevention guidelines.

Risk factors noted were, smoking, poor diet, inadequate physical activity and obesity.

Figure 2 - Mean BMI of Participants With and Without Healthy Lifestyle Barriers



CONCLUSION

Numerous studies have taken place internationally regarding the topic of nurses' cardiovascular health. In Ireland this research is lacking. This study provides a valuable insight into the risk factors for CVD which cardiac nurses experience. Nurses' educational needs regarding their own health behaviours should be investigated further. Initiatives to promote nurses' cardiovascular health are needed. These must consider the healthy lifestyle barriers nurses' encounter. Nurses must realise that their health not only affects themselves but also their patients in terms of the quality of care they provide and their credibility as role models.

PRESENTED

At the Annual Cork University Hospital Nursing Research Conference, 'Leadership in Clinical Nursing' on Tuesday May 23rd, 2017 by Emma Donlon.

FUNDING

This research has received HSE funding for Masters completion in Preventive Cardiology at the National Institute of Ireland, Galway.

Caring for the Caregivers - Evaluation of the Effect of an Eight-Week Pilot Mindful Self-Compassion (MSC) Training Programme on Nurses' Compassion Fatigue and Resilience

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INTRODUCTION

Nurses vicariously exposed to the suffering of those in their care are at risk of compassion fatigue. Emerging research suggests that self-compassion interventions may provide protective factors, and enhance resilience.

OBJECTIVE

This study examined the effect of a pilot 8-week Mindful Self-Compassion (MSC) training intervention on nurses' compassion fatigue and resilience and participants' lived experience of the effect of the training.

METHODOLOGY

This observational mixed methods study, adopted an evaluation design framework. It comprised a single group, and evaluated the effects of a pilot MSC intervention by analysing pre to post change scores in self-compassion, mindfulness, secondary trauma, burnout, compassion satisfaction and resilience. The sample of nurses' (n=13) written responses to the question, "How did you experience the effect of this pilot MSC training"? were also analysed.

RESULTS

Pre to Post scores of secondary trauma, and burnout declined significantly, and were negatively associated with self-compassion, ($r=-0.62$, $p=0.02$) ($r=-0.55$, $p=0.05$) and mindfulness ($r=-0.54$, $p=0.05$), ($r=-0.60$, $p=0.03$) respectively. Resilience and compassion satisfaction scores increased. All variables demonstrated a large effect size, Mean (M) Cohen's $d=1.23$. Qualitative emergent themes corroborated the quantitative findings, and expanded understanding of how MSC on the job practices, enhanced nurses' coping.


CONCLUSION

As a new area of research this is the first study to examine the effect of a pilot (MSC) training programme on nurses' compassion fatigue and resilience. It provides some initial empirical evidence in support of the theorised benefits of self-compassion training for nurses. Further research is required however such as a Randomised Control Trial (RCT) with a larger sample size and a longitudinal study to see if the benefits of self-compassion training are maintained.

PRESENTED

At the UK Mindfulness Association Annual Conference (in collaboration with the University of Aberdeen, Scotland) on June 15th, 2017 by Martin Delaney.

Providing Culturally Sensitive Care in the Neonatal Setting to Infants Born to Parents from the Traveller Community - An Exploration of the Perspectives of Nurses and Midwives



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INTRODUCTION

With admission to Neonatal Intensive Care Unit (NICU), parents struggle with an unfamiliar environment whilst dealing with fears for their infants' wellbeing. These challenges are further heightened for parents who do not perceive themselves to be fully integrated into the society in which they are receiving care, e.g. the Traveller population. The Traveller population have traditionally had a number of well-recognised disadvantages, which include poor education, poor literacy and socioeconomic deprivation with high levels of unemployment and poverty. Their culture, ethnicity and nomadic lifestyle makes them untrusting of institutions and lends itself to poor attendance, engagement and compliance with health services. Cultural sensitivity involves developing an interpersonal relationship, partnership, empathy, interpersonal communication skills, trust, respect, acceptance, appropriateness and recognition of the barriers to cultural sensitivity. If nurses/midwives are to practice with cultural sensitivity they must understand cultural beliefs, patients' perceptions of illness, handed down information on healthcare and past experiences with healthcare providers.

OBJECTIVE

To explore nurses' and midwives' perspectives on the provision of culturally sensitive care in a neonatal setting to infants born to parents from the Traveller community.

METHODOLOGY

A descriptive qualitative approach was used. Following ethical approval, ten nurses/ midwives were interviewed from a neonatal unit in the Mid-West of Ireland. Interview transcripts were analysed using Burnard's analysis framework (2011) and four themes with associated subthemes were identified.

RESULTS

The first theme to be identified: **Barriers to breastfeeding for women from the Traveller community** included sub-themes of cultural influences, impact of the Beutler test and nurse/midwife assumptions. **Rigidity of the healthcare service** was also a theme and incorporated reference to subthemes of effects of visiting policy, lack of support and religion. The third theme to materialise from the data was **Lack of education among the Traveller population**. This had three sub-themes: poor literacy, health promotion and trust. The fourth theme identified was **Nurses'/Midwives' concerns**. This theme incorporated issues surrounding infant discharge, domestic violence and lack of education for staff.

CONCLUSION

The findings provide information on the nature and extent of the challenges encountered by staff in providing culturally sensitive care to the Traveller population within a neonatal setting and identify strategies to enhance cultural sensitivity for this group.

The need for routine screening of all Travellers for Galactosaemia which impacts on breastfeeding should be investigated and a quicker result from the Beutler test is required. An increased focus on how to support neonatal nurses/midwives in supporting and motivating Traveller mothers to express breast milk whilst awaiting Beutler test results should be beneficial. Further investigation into the effects of a restrictive visiting policy in the neonatal setting is also recommended. Research to determine the experiences of Traveller parents in the neonatal setting could also help to enhance provision of culturally sensitive care for this group of people.

Transfer of Tasks at University Hospital Limerick - Working Towards Full Implementation in 2017

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INTRODUCTION

The Health Service Executive (HSE) and unions agreed to transfer four key tasks from Non-Consultant Hospital Doctors (NCHDs) to nurses in 2016.¹ It is recognised that implementation of this agreement will have better outcomes for patients.² Evidence from an audit from September 2016 suggests that Transfer of Tasks is not fully implemented at University Hospital Limerick (UHL), particularly in relation to intravenous cannulation (IVC) and Phlebotomy³ which are classified under the agreed four Transfer Tasks. A Transfer of Tasks Hospital Committee was set up in 2017 to acknowledge this deficit and to implement change.

OBJECTIVE

This study aimed to:-

A. Identify the portion of IVC and Phlebotomy which make up the NCHD workload, by obtaining data from four selected wards. These wards were then re-audited after a period of nursing staff training, which was to be facilitated by UHL Nursing Managers.

B. Calculate the estimated percentage time for tasks during the audited periods based on data from the 2016 study.

METHODOLOGY

A. Retrospective data was collected from four wards for two weeks; May 1st to May 14th, 2017 inclusive. This was repeated for the same wards from June 1st to June 14th, 2017. Inclusion criteria: written requests in the Intern Job Book for 'IVC', 'Phlebotomy' for the 14 hour on-call period. Exclusion criteria: tasks not written in the book, illegible writing, phone call or verbal task requests.

RESULTS

- A.
- 555 tasks were requested for the two week period in May 2017 across the four selected wards
 - 27.7% (n=154) were Transfer Tasks; IVC 50.6% (n=78) and Phlebotomy 49.3% (n=76) were the most common requests
 - 774 tasks were requested for the two week period in June 2017 for the same wards
 - 31.1% (n=241) of total tasks were Transfer Tasks; IVC 61.4% (n=148) and Phlebotomy 38.6% (n=93)

B.
Based on data obtained by the 2016 audit on the duration of time to complete tasks; IVC 18.8 minutes per task and 14.6 minutes per phlebotomy task, it is estimated that 24.4 hours was spent during the two week period in May 2017 carrying out IVC and 18.5 hours for Phlebotomy. The re-audit data from June 2017 showed

that 46.3 hours were spent by NCHDs completing IVC and 22.6 hours for Phlebotomy over the two week on-call period.

CONCLUSION

NCHDs still spend a significant proportion of on-call periods completing tasks that the HSE has agreed would be transferred to nursing staff, reducing time available for clinical assessments and complex prescribing. Nursing staff competence and training was identified as a prominent barrier to Transfer of Tasks by the 2017 UHL Committee. However, although planned training of nursing staff was supposed to have occurred, the data suggests that a significant improvement in the transfer of phlebotomy and IVC has not occurred during the period addressed. A scheduled re-audit is planned for August 2017 with hopes for an increased number of nurses trained in the tasks and hence a reduction in the time spent by NCHDs. The slow progress of this process no doubt impacts negatively on the work burden of NCHDs, and hence on patient care. It is therefore clear that moving forward, strategies that would hasten change in UHL are imperative. Effective reallocation of these tasks may require changing systems at numerous levels.³ Barriers to implementation should be investigated and addressed as a matter of urgency.

REFERENCES

Available on request.

PRESENTED

The findings from the original audit in September 2016 were presented in a poster format at the RAMI (Royal Academy of Medicine in Ireland) Intern Study Day on January 14th, 2017 at the Royal College of Physicians in Ireland, Setanta House, Dublin.

PUBLISHED

An abstract of the original audit from September 2016 has been published in the Irish Journal of Medical Science. 2017;186(Suppl 6):S171-S280. DOI 10.1007/s11845-017-1629-5

The findings from the audits in May and June 2017, following on from the formation of the Transfer of Tasks Committee, have not been previously published.

The Implementation of a Guideline on the Management of Childhood Constipation and Faecal Impaction into Public Health Nursing Practice

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INTRODUCTION

Childhood constipation has been defined as fewer than three complete stools per week with the exception of exclusively breastfed babies.^{1,2} There is variance in risk factors and symptoms.^{3,4,5,6} Local anecdotal evidence suggests that secondary referrals to paediatric clinics are estimated to be up to ten children per week and annually are estimated to be 15% of all referrals to enuresis clinics.^{7,8} Constipation affects up to 30% of the child population and the impact on the child and on family life is largely underestimated and can affect the child on many levels: physical, psychological, social and it can affect their educational engagement.^{9,10} No clear guideline exists to address this problem in public health nursing in Donegal.

OBJECTIVES

The objectives of this research were to highlight and seek to achieve the following:-

1. To benchmark the standard of care for childhood constipation in public health nursing practice utilising current international and national evidence-based practice.
2. To highlight the need to standardise training on offer and delivered to PHNs in this area.
3. To implement successfully a policy that would enable PHNs to deliver a high quality service to the public in the management of childhood constipation.^{11,12,13,14,15}

METHODOLOGY

The author looked at the role of the Public Health Nurse (PHN) as a change agent to implement successfully a policy on the management of childhood constipation. Lewins' Forcefield Analysis was utilised to identify driving forces and restraining forces in the implementation of this policy.

RESULTS

Drivers to change included; evidence-based practice, the PHNs' role in child and family health,^{16,17} key legislation and policies, professional accountability and responsibility, practice development, focus on integrated care pathways, patient safety, clinical governance, cost-effectiveness and quality improvement.

Restraining forces included; staff readiness to change, poor communication, staff engagement, understanding and commitment, custom and practice, staff competencies, time, resources and poor teamwork.

Following the Lewins Forcefield Analysis the author categorised the stages behind the implementation of the policy utilising a traffic light approach.

Red;- Unfreezing-Identifying a gap analysis, linking with

key stakeholders, the development of a working group, resource and fiscal planning, training schedule identified for staff.

Yellow;- Moving- Rollout of staff training within a specified time frame. Motivation and team building/commitment vital at this stage. Role with resistance. Resolution of problems highlighted before moving out of this stage.

Green;- Refreezing-Making the change sustainable and permanent. Continue to support colleagues.

Evaluation of the change to be conducted after 6 months to measure quality improvement, cost-effectiveness and sustainability.¹⁸ Clinical audit. Key stakeholders to be presented with a copy of the findings and concerns addressed and amended as appropriate. Annual appraisal of guideline to update policy as new evidence presents.¹⁹ Quality Improvement is an ongoing process.²⁰

CONCLUSIONS

Author Recommendations;-

1. Implementation of a guideline amongst relevant professionals in primary care on the management of childhood constipation.
2. Integrated care pathway linking acute sector and primary care sector amongst relevant professionals.
3. The development of a parent/child information leaflet.
4. The development of an advice-line i.e. phone or web-based.
5. Ongoing research and staff training in this area.
6. The development of a care pathway specifically for the management of constipation in the disabled child.

REFERENCES

Available on request.

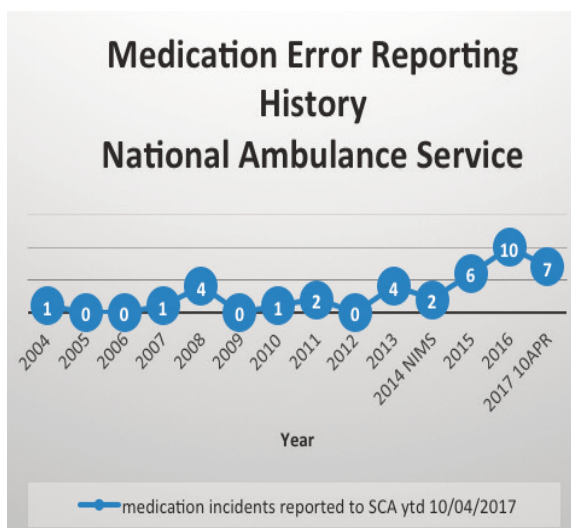
Attitudes of NAS Paramedics and Advanced Paramedics to Medication Errors and the Medication Error Reporting Process

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ABSTRACT

In 2014, the National Ambulance Service (NAS) brought about systemic changes to its reporting processes. The State Claims Agency (SCA) managed National Incident Management System (NIMS) was adopted. Although there has been an increase in medication errors (ME) reported, with nearly 1,700 staff responding to over 300,000 calls,¹ levels remain well below what would be expected.²

Figure 1 - National Incident Management System (NIMS) Report, April 2017



A focus group methodology was used to investigate the attitudes and awareness of staff to medication error (ME) and the Medication Error Reporting Process (MERP). A total of 102 staff were contacted by individually addressed text message; 28 staff were available on the days chosen and there were 10 no shows. This convenience sample of 18 frontline Paramedics and Advanced Paramedics participated in one of four independently led focus group sessions. Each session was audio recorded. The groups were asked to define a ME, to establish the good and bad points of the MERP and to suggest improvements to the MERP. Replies were fed back to groups by the moderator to confirm understanding. Data was anonymised and processed using thematic analysis informed by phenomenological principles and described by Larsson & Holmstrom,³ and Dall'Alba.⁴

"I wouldn't be positive about the system; I think we'd all be positive about the benefits of reporting." Reasons to report included the desire to regard a patient as if they were a relative, development of standards and enhancement of client treatment. Patient welfare, professional obligations and practitioner honesty were also cited.

"... if you did make a medication error, there is a learning point from it and it could be for everyone ... but then if it was your medication error, would you like everyone in the tea room talking about it?" There was a conflict between a desire for organisational learning and a desire to maintain anonymity. There was a perception that the wider health service norm was to deny any transgressions. Pre-hospital Emergency Care Council's clinical practice guidelines and the rights of medication administration formed the basis of what was considered correct medication procedure.

Anecdotally delays in treatment or failure to treat occurred regularly and were not always recognised as errors. Explanations varied from clinical and training concerns to matters that required further ethical investigation.

Documentation, seen as confusing and complicated, was avoided. Informal reporting to hospitals and training departments was common and putting it 'into writing' was considered an escalation of an event.

"I self-reported ... That's six months ago ... I haven't had a reply yet." Fear of consequences and ridicule, procedural ambiguity, lack of feedback and a perceived lack of both consistency and confidentiality were cited as barriers to reporting. There was a perception of a personality driven punitive system within the service. Peer support among workers and hospital staff was positive.

Recommendations to improve reporting rates included simplification, independence, timely feedback and the introduction of a safety bulletin to facilitate organisational learning. Other suggestions included a no blame culture, a positive first experience, fear of punishment for not reporting and "Money!" (Whispered with Laughter.)

Although incident reports have fallen out of favour as a metric of patient safety,^{5,6} pre-hospital medication safety issues will be mainly highlighted via practitioner engagement.^{2,7} While systemic changes have brought about some improvement to ME reporting rates, cultural and professional issues identified may need to be addressed.



REFERENCES

Available on request.

PRESENTED

This research has been presented to:-

- NAS Management Team West, Shearwater Hotel, Ballinasloe, Co. Galway, May 30th, 2017 by Mr. E. Byrne
- NAS Management Teams Dublin North East and Dublin Mid-Leinster, NAS Headquarters, Rivers Buildings, Tallaght, May 29th, 2017, Mr E. Byrne
- NAS Patient Safety Group, Southern Area, St. Mary's Hospice, November 3rd, 2016, Mr E. Byrne
- NAS Paramedic Supervisors Southern Area, St. Mary's Hospice Cork, October 11th, 2016, Mr E. Byrne
- York Teaching Hospital, NHS Foundation Trust, Patient Safety Conference 2017 poster presentation 'Pre-hospital still needs a way to identify safety issues!'
- Highest scoring oral abstract submission, poster and oral presentation to EMS Gathering, Kinsale, 2017, 'Maybe Irish Pre-hospital staff don't make mistakes? Medication errors, their reporting and ambulance service attitudes.'
- Poster and oral presentation at the BMJ Quality and Safety, Institute for Healthcare Improvement, International Forum on Quality and Safety in Healthcare, London 2017 on 'The attitudes of National Ambulance Service Paramedics and Advanced Paramedics to the medication error reporting process. A qualitative study using focus groups.'
- Poster presentation at the 1st National Patient Safety Office Conference, National Clinical Effectiveness Committee, Dublin, 2016. 'Medication errors, their reporting and Ambulance Service attitudes. A Focus Group Thematic analysis.'
- First prize for poster presentation at the Quality, Clinical Risk and Safety Conference, Dublin, 2016 'Maybe Irish Pre-hospital staff don't make mistakes? Medication errors, their reporting and Ambulance Service attitudes.'
- The National Ambulance Service Inaugural Conference, Ashbourne, November 14th, 2017. 'The Attitudes of National Ambulance Service Paramedics and Advanced Paramedics to the Medication Error Reporting Process. A Qualitative Study using Focus Groups.' Oral and Poster presentation.
- The Irish Association for Emergency Medicine, Annual Scientific Meeting, Salthill, Galway. October 2017. 'Medication errors, reporting and attitudes. A N.A.S. qualitative study.' Selected for moderated poster presentation.

FUNDING

The author is employed by NAS in a frontline non-managerial role. The co-author is a General Practitioner and University Professor. NAS funded attendance at BMJ/IHI Conference, International Forum on Quality and Safety in Healthcare, London 2017 for the main author.

SOURCE

Byrne, E. & Bury, G. Ir J Med Sci (2018). Barriers to the medication error reporting process within the Irish National Ambulance Service, a focus group study. <https://doi.org/10.1007/s11845-018-1745-x>

Facilitating Paramedic Continuous Professional Competency - The #IrishEMS Chat

ABSTRACT

Social Media is growing in popularity, quickly becoming the go to medium for keeping up to date, collaborating, networking & sharing knowledge. In November 2015 we registered a hashtag, #IrishEMS, with the express aim of hosting a one hour chat each Monday night. While it was open to all and its success relied upon international and multidisciplinary contributors, the hashtag was chosen to give it a focus based in Irish prehospital guidelines and Irish EMS practice.

The purpose of this study was to outline the objective of the hashtag #IrishEMS and to offer insight into the extent of its reach. We hypothesised that practitioners in Ireland and abroad contributed to, and benefited from this venture. It remains our view that this simple measure is a valid source of verifiable continuous professional competency (CPC) for practitioners.

An analytical report of all tweets containing the hashtag #IrishEMS was generated from the date of registration of the hashtag. This allowed for analysis of impact using several variables such as number of tweets, impressions etc. Transcripts and the analytics of each Monday night's chat were analysed to explore the number of contributions, the overall reach of these tweets and the professional background of the participants.

In the study period from November 2015 to June 2016, we recorded over 6,000 tweets which included the hashtag #IrishEMS. A total of 590 contributors from a range of healthcare professions and voluntary backgrounds were involved with a total potential reach of almost 7 million users. Topics of discussion varied from clinical, to leadership, to service delivery and professional development issues. The majority of participants involved in each chat were National Ambulance Service EMTs, Paramedics and Advanced Paramedics.

#IrishEMS chats encouraged practitioners to engage with prehospital topics with an Irish perspective. An opportunity exists for individuals to record chats with a similar focus as the #IrishEMS chats, on a regular basis, either electronically or simply by printing a transcript of the discussion as evidence of continuing professional competency activity.

PRESENTED

As an oral presentation at the EMS Gathering in Killarney on June 8th, 2016 by James Ward.

SOURCE

Irish Journal of Paramedicine. 2016;1(s1):5.
<http://irishparamedicine.com/index.php/ijp/article/view/25>

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Trends in Emergency Inpatient Hospitalisations Among Those with No Fixed Abode (Homeless) - What Lessons Can Be Learned?

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ABSTRACT

Estimates show that homelessness is increasing in Ireland. The impact on emergency inpatient hospital admissions is unclear.

This study analysed the epidemiology of emergency hospitalisations among those experiencing homelessness between 2005 and 2014.

All inpatient admissions to acute hospitals classified as 'no fixed abode' were extracted from the Hospital Inpatient Enquiry System. Data were analysed using JMP and SPSS.

There were 2,051 inpatient emergency admissions of people classified as 'no fixed abode' during the study period, an increase of 406% since 2005 (78 in 2005 vs. 395 in 2014). The mean age was 40.6 (SD 13.2). (Table 1) In examining socio-demographic patterns of emergency hospital admissions, it can be seen that within the 'no fixed abode' group men are five times more likely to be admitted than women. This reflects the larger proportion of men that are homeless compared to women (40% as opposed to 60% overall)² but also that men are more likely to be 'roofless' while women are more likely to reside in 'hidden homeless' situations (friends, family etc.) where they are more likely to give an address.

Because of the hidden nature of womens' homelessness¹⁷ caution is needed in interpreting the gender differences in the study.

Table 1 - Demographic Profile of Homeless with Emergency Inpatient Hospital Admission over a 10 Year Study Period

Year of discharge	No. of emergency admissions by those with no fixed abode		Male: Female Ratio	Mean (SD) age*	No (%) admitted to a Dublin Hospital**
	Fixed abode	No. (%) Male			
2005	78	64 (82.1%)	5:1	42.0 (13.5)	56 (71.8%)
2006	167	140 (83.8%)	5:1	41.6 (14.3)	106 (63.5%)
2007	234	188 (80.3%)	4:1	40.7 (15.6)	186 (79.5%)
2008	236	193 (81.8%)	4:1	41.0 (12.5)	199 (84.3%)
2009	199	178 (89.4%)	8:1	39.3 (10.5)	178 (89.4%)
2010	168	141 (83.9%)	5:1	40.3 (13.4)	133 (79.2%)
2011	184	165 (89.7%)	9:1	40.8 (13.0)	153 (83.2%)
2012	195	152 (77.9%)	4:1	40.1 (14.2)	170 (87.2%)
2013	195	160 (82.1%)	5:1	40.8 (12.9)	174 (89.2%)
2014	395	319 (80.8%)	4:1	40.4 (12.3)	370 (93.7%)
Total	2051	1700 (82.9%)	5:1	40.6 (13.2)	1725 (84.1%)

* T-test = F ratio 0.55, p=0.87
 ** Cuzick test for trend one sided p=0.02; two sided p=0.053

The majority of the patients (1,176 /2,051) 57% had a mental/behavioural diagnosis. Over one in ten (280; 13.7%) were admitted for ambulatory care conditions including convulsions/epilepsy (n=92/280; 32.9%) and cellulitis (62/280;22.1%).

With over half experiencing mental health disorders of which up to a third experience alcohol and substance misuse, it is clear that pathways to care need to be established as such health issues will have a significant impact on the cycle of homelessness if not addressed.

Table 2 - Clinical and Hospital Characteristics of those Homeless with an Emergency Inpatient Hospital Admission for Years 2005-2014 Inclusive

Year of discharge	Mean (SD) Length of Stay (LOS)**	% with Intensive Care Unit (ICU) care	Mean (SD) LOS ICU***	No. (%) died in hospital	No. (%) with Ambulatory Care Sensitive Condition (ACSC)***	No. (%) with any mental and behavioural disorders****	No. (%) with mental and behavioural disorder due to alcohol misuse.	No. (%) with mental and behavioural disorder due to psychoactive substance use (excluding alcohol)
2005	7.1 (13.8)	5.1%	6.8 (1.9)	0 (0.0%)	16 (20.5%)	38 (48.7%)	25 (32.1%)	14 (17.9%)
2006	6.0 (12.6)	3.0%	4.4 (4.5)	5 (3.0%)	21 (12.6%)	75 (44.9%)	54 (32.3%)	18 (10.8%)
2007	8.4 (24.7)	6.4%	3.8 (3.0)	3 (1.3%)	22 (9.4%)	112 (47.9%)	65 (27.8%)	29 (12.4%)
2008	7.6 (20.9)	3.8%	9.2 (7.3)	4 (1.7%)	26 (11.0%)	134 (56.8%)	83 (35.2%)	51 (21.6%)
2009	9.1 (31.7)	6.0%	3.0 (3.5)	3 (1.5%)	29 (14.6%)	135 (67.8%)	91 (45.7%)	54 (27.1%)
2010	6.2 (11.2)	8.9%	2.7 (1.9)	4 (2.4%)	21 (12.5%)	94 (56.0%)	48 (28.5%)	44 (26.2%)
2011	6.4 (16.4)	6.0%	7.4 (12.1)	2 (1.1%)	23 (12.5%)	115 (62.5%)	73 (39.7%)	31 (16.8%)
2012	5.5 (11.6)	2.1%	1.0 (0.0)	1 (0.5%)	34 (17.4%)	109 (55.9%)	61 (31.3%)	38 (19.5%)
2013	4.7 (9.4)	4.1%	4.5 (6.2)	2 (1.0%)	25 (12.8%)	122 (62.6%)	64 (32.8%)	56 (28.7%)
2014	5.1 (9.9)	3.0%	6.1 (5.3)	5 (1.3%)	63 (15.6%)	242 (61.3%)	138 (34.9%)	96 (24.3%)
Total	6.5 (17.7)	4.6%	4.8 (5.9)	29 (1.4%)	280 (13.6%)	1176 (57.3%)	702 (34.3%)	431 (21.0%)

*ACSC= Ambulatory Care Sensitive Condition: i.e. condition that should not warrant emergency inpatient hospitalisation

Since 2005 there has been a 406% increase in emergency hospital admissions for homeless people. This figure is likely to be an underestimate as 'no fixed abode' was used to capture homeless populations. While there are some variations around the country, emergency accommodation is classified broadly into STAs (Supported Temporary Accommodation) in which a person who is assessed as homeless will typically be provided with a bed, along with case management, for a six month period and TEAs (Temporary Emergency Accommodation) where the person is accommodated on a 'one night only' basis and must reapply each day to the local authority for a bed. In Dublin at least, there is considerable movement of people between 'rough sleeping' and TEA accommodation. It seems likely that the 'no fixed abode' categorisation



would capture only those who are accommodated in TEAs and those who are 'roofless' or rough-sleeping either periodically or on a regular basis. It is likely that those with a six month emergency homeless bed will give the address of the STA as their home address. As shown in Table 2, the average length of stay was high at 6.5 days with no significant difference over the ten year study period. A small number, 95 (4.6%) of the homeless required intensive care and the average length of stay in intensive care was almost 5 days with no significant difference over the 10 year study period. A total of 29 homeless persons died in hospital over the study period with the majority 25 (86.2%) being male. The mean age of those who died was young at just 48.2 years (95% CI 43.4 years-53.0 years) and although the numbers were small (n=4), the homeless women who died were significantly older than the males (77.5 yrs vs. 43.6 yrs, $p < 0.001$). The majority of this cohort had a mental or behavioural disorder diagnosis (1,176/2051, 57.3%) and of those 702 (34.3%) had an alcohol misuse diagnosis and 431 (21.0%) had a substance misuse diagnosis recorded.

Of course the best solution to this problem involves ending the homelessness of the individuals involved. There is growing international evidence that providing housing and intensive support using the Housing First Model has high success rates and has significant positive impact on patterns of accessing health services for people who are chronically homeless. The Dublin Housing First project (run jointly by Focus Ireland and the Peter McVery Trust) has provided long-term homes for 50 people with long histories of rough sleeping. But this approach will not be able to assist everyone in the foreseeable future and there is clearly scope for substantial improvements in the interaction between homeless and health services.

REFERENCES

Available on request.

PRESENTED

At the Focus Ireland Conference in October 2016.

SOURCE

Irish Medical Journal. 2016 Oct 12;109(9):464.

Compassionate End of Life in Residential Settings - A Quality Improvement Approach

INTRODUCTION

Over 7,500 people die in residential care in Ireland every year, accounting for 25% of total deaths in the country. The Irish Hospice Foundation introduced a quality improvement (QI) programme to assist staff in residential care settings to reflect on, identify and implement changes to enable delivery of compassionate end of life care (EOLC) as part of their service to benefit residents, families and staff. This QI programme, CEOL (formerly A Journey of Change) commenced in 2015, and over 100 residential care settings in Ireland participated in the programme.

OBJECTIVE

The programme aims to provide a mechanism for residential care centres to embed a continuous quality improvement approach to the development of EOLC and to raise awareness of the importance and role of quality EOLC at an individual staff level, across the culture and in the practices of the residential care centre.

The findings of the evaluation of the JOC programme are reported here.

METHODOLOGY

The evaluation framework comprised of outcome achievement, measuring the impact of participation, and assessment of outcomes and learning. A utilisation focused evaluation approach was used, which combined desk research and field work. Five sites were chosen as case studies and interviews and focus groups were carried out with relevant stakeholders.

RESULTS

Where all elements of the programme have been implemented, there have been significant changes in practice in relation to EOLC planning, at time of death and after death, with staff less likely to want to transfer patients to hospital towards end of life.

Staff directly involved with the programme were found to have increased levels of awareness and understanding of what constitutes good EOLC, reporting that their confidence and communication skills in relation to EOLC had improved as a result of their participation in the programme. Key to the success of the programme is support from management, sites to agree and own their vision for EOLC, multidisciplinary participation, and availing of external support for the CEOL facilitators.

CONCLUSION

The establishment of an end of life network will support the sustainability of the programme into the future, and the content of the workshops needs to be condensed.

The future governance of the programme must ensure that as well as addressing the culture of EOLC, the programme must also concentrate on improvements in clinical care, to ensure delivery of holistic compassionate care.

FUNDING

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Valuing Staff Knowledge and Creativity Using Staff Listening and a Front-Line Ownership Methodology to Improve Quality

INTRODUCTION

In 2017, in partnership with the Quality Improvement Division (QID), the Mercy University Hospital commenced a programme to test the 'Valuing Voices Programme' as a staff engagement methodology designed to build leadership capacity by training and mentoring four local facilitators to engage staff and enhance teamwork using a combination of staff listening, action planning and Front-Line Ownership techniques. Non-Consultant Hospital Doctors (NCHDs) had an opportunity to share and act on their ideas and suggestions for improvement with the facilitators through a series of listening, action planning and implementation sessions.

OBJECTIVE

The focus of the work was to improve NCHD wellbeing.

METHODOLOGY

The QID Lead for Staff Engagement trained four facilitators in the methodology and provided mentoring throughout the process. The Lead NCHD (LNCHD) and Medical Manpower Manager (MMM) led the project on site. Twenty NCHDs participated in staff listening sessions with the goal of improving NCHD wellbeing. Twelve NCHDs participated in an action planning session. The action planning session focused on 4 themes identified at the listening sessions. Using a front-line ownership ethos, LNCHD and MMM coached 12 NCHDs to act on these themes.

The executive management team agreed to support and act on the top suggestions for improvement.

RESULTS

The top 4 themes identified at the listening sessions were:-

1. Introduction of a handover/ward jobs book
2. Review and improvement of the bleep policy
3. Enhancing the on-call rota and distribution of work on night/weekend call
4. Introduction of additional computers to improve efficiency on the ward

NCHDs selected their area of greatest interest to develop and implement the required changes. The facilitators gave direction and mentorship to the groups.

CONCLUSION

Through front-line ownership using the 'Valuing Voices Programme' the MUH is improving the efficiency of the hospital, the work life of NCHDs and aiding staff wellbeing.

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The Status of In-Hospital Cardiac Arrest Data Collection in Irish Hospitals

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INTRODUCTION

Currently, in the event of a cardiac arrest, many hospitals in Ireland use a data collection tool/form based on the internationally accepted data set Utstein Template. However we cannot know the true effectiveness of in-hospital resuscitation in Ireland as there is no uniformity of the data collected and no means of evaluating data centrally of In-Hospital Cardiac Arrests.

The Report of the Sudden Cardiac Arrest Task Force (2006)¹ identified the need for data collection on resuscitation in the prehospital and hospital setting stating that it "would quantify the frequency and geographical spread of cardiac arrest and support service planning. Such data could also provide a basis for audit of the outcome of resuscitation."

Cummins et al.¹ stated that the task force defined a set of data elements that are essential or desirable for documenting in-hospital cardiac arrest. Data categories are hospital variables, patient variables, arrest variables, and outcome variables. The In-Hospital Utstein-Style Template was developed to summarise these data and provide recommendations for reporting a specific set of survival rates and outcomes.

As a result of this recommendation the National Out-of-Hospital Cardiac Arrest Register OCHAR was established in 2007. An in-hospital cardiac arrest register (IHCAR) has yet to be agreed. However, it is internationally accepted that for health services to provide high quality safe care they need to measure and monitor the quality of that care.² Collection of the recommended variables will enable intra-hospital and inter-hospital comparisons and support national and international research.

OBJECTIVE

The aim of this study is to:

- Establish the current status of data collection in Ireland
- Based on international best practice identify the similarities/differences in essential data collected nationally

METHODOLOGY

A list of hospitals by group was identified through the HSE website. The Irish Association of Resuscitation Officers (IARO) members were asked to submit the data, if any, which was collected in their area of responsibility for correlation. Those not represented through the forum were accessed through the Irish Heart Foundation affiliated training sites. For sites that did not return completed cardiac arrest flow sheets, follow-up phone calls to the Resuscitation Training Officers (RTOs) completed the task of identifying the current status regionally. Collected data was entered into an excel datasheet for correlation based on internationally agreed essential datasets which have been identified as essential patient variables, essential event data, essential arrest data and essential outcome data.

RESULTS

The following results are based upon the response of 45 hospitals in Ireland and represent hospitals from each of the 6 hospital groups. We were unable to confirm data collection in 11% (n=5) hospitals.

The Essential Patient Data includes name, ID number, date of birth, date of admission, age, gender, height and weight. We found that essential patient variables fluctuated from 100% compliance in patient ID and date of birth to 0% compliance for height measurement. Patients name is currently collected in 94% (n=32) of hospitals whereas gender (n=10), age (n=2), weight (n=3) and date of admission (n=4) are collected in less than 30% of hospitals.

The Essential Event Data; witnessing/monitoring, location, ACLS interventions in place at time of event, immediate precipitating cause, resuscitation attempted, initial resuscitation condition, initial rhythm, timed events and intervals, time of collapse, time team called, time team arrived established less variance nationally in the data collected. 97% (n=33) of hospitals collected timed events and intervals while 53% (n=18) collected data pertaining to the time the team arrived.



The Essential Arrest Data identified for collection includes time arrest confirmed, time CPR started, time CPR stopped, time first defibrillatory shock, time advanced airway achieved, time of 1st dose of medication, time to ROSC, time to end of ROSC. Analysis of the collected data form indicates a high level of collection of 3 essential datasets across all hospitals. These are time CPR started and time of first defibrillator shock 88% (n=30) respectively and time to first dose of medication 85% (n=29). Alternatively there was poor 50% or less in the other internationally identified datasets outlined above.

The Essential Outcome dataset includes short and long term outcomes of cardiac arrest which include date and time of in-hospital death, date and time of hospital discharge or transfer, Glasgow Coma Scale, CPC, time of awakening, alive at 6 months, at 1 year, date of death after hospital discharge, immediate mechanism of death, principal cause of death. We found that the collection of data for these variables is largely neglected in the 34 hospitals that were surveyed. Only one hospital collected any of the variables identified above.

CONCLUSION

It has been established that there is a healthy culture of cardiac arrest data collection nationally with 75% (n=34) of the surveyed hospitals using cardiac arrest reporting forms/flow sheets to record the data and a further 4% (n=2) documenting the events in incident forms.

Similarly, we found that there is a substantial variance in the dataset used to collect cardiac arrest data; however it is obvious that the Utstein Template was the basis for the majority of the cardiac arrest reporting forms/flow sheets.

We also know from this research that there is no one place all cardiac arrest data is collected for in-hospital cardiac arrest audit of resuscitation outcomes in Ireland.

The Use of Outsourcing and External Service Providers - A Case Study of Costs and Experience



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INTRODUCTION

Recent public sector reforms have encouraged the examination of the use of external service providers (outsourcing) to supply public sector services in order to deliver improved service quality, enhanced cost-effectiveness and enhanced service flexibility and adaptability.¹ In line with this development the HSE decided in certain geographical areas to use external providers to manage aids and appliances including the collection, delivery, cleaning, storage, repair, recycling, maintenance and asset tracking of equipment.

OBJECTIVE

This research focuses on the cost and experience of using external service providers to manage the aids and appliances used by health professionals in a primary care environment in order to maximise the potential benefits from the current approach, to inform future outsourcing decisions and the successful implementation of these decisions.

METHODOLOGY

The issue of costs were examined through the use of a cost minimisation analysis and a net present cost analysis. The costs of running an existing fully in-sourced service was determined as were the activity levels of this service. This data was then used to determine what it would have cost to provide this service if it had been provided on a fully outsourced basis.

The perceived drivers, benefits and challenges of the external service delivery option was examined through the use of semi-structured interviews with clinicians and managers who use the services of the external service provider in the course of their work.

RESULTS

This study finds that in this case the use of an external service provider to supply the services that are currently provided in-house would not be cost-effective.

It also found that it is perceived that the decision to use an external service provider was driven by political factors and that the benefits included improved service quality and the ability to circumvent bureaucratic structures in order to develop services. Challenges include a perceived reduction in productive efficiency, perceived expense, a lack of trust and cohesion among HSE service coordinators and the absence of a unified information technology (IT) and procurement strategy to support the use of the outsourcing service.

CONCLUSION

This study recommends that further studies are completed to examine the cost-effectiveness of outsourcing approaches prior to their implementation and that significant efforts are made to improve social capital and cohesion in organisations which are introducing an outsourcing model to ensure that the maximum utility is extracted from the approach.

Determinants of Efficiency in Irish Nursing Homes - A Double Bootstrap DEA



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INTRODUCTION

This paper examines the determinants of technical efficiency in long-term care provision using a primary data set with 59 public and 93 private Irish nursing homes for the period 2008-2009.

OBJECTIVE

These homes were found to be inefficient to a large extent. Hence, an analysis of the factors which explain the technical efficiency of nursing homes in Ireland is very necessary.

METHODOLOGY

This study applies a very comprehensive set of determining variables, and of considerable interest are the objective output characteristics of nursing homes in relation to quality – e.g. staffing levels, the ratio of nurses to non-medical staff, nurse turnover and single rooms as a proportion of total beds. Quality indicators are notable from a policy perspective as they can affect technical efficiency negatively or positively. Other conventional determinants such as size, ownership, location, case mix and the age of the nursing homes are also taken into account.

RESULTS

The results suggest that ownership has a significant effect on efficiency with private nursing homes being more efficient than the public units. Consequently, the sample was split into two groups – private and public nursing homes – and the impact of the output characteristic variables and the conventional factors on technical efficiency for both were examined. The determinants of efficiency are investigated using the semi-parametric two-stage double bootstrap Data Envelopment Analysis (DEA) method.

CONCLUSION

Among the output characteristic variables, the findings of this research show that staffing levels have a negative and significant effect on technical efficiency. In contrast, staff flexibility levels and the labour to capital ratio have significant positive effects on efficiency.

PRESENTED

At the Spring Seminar Series in the University of Limerick on March 21st, 2017 by Shiovan Ní Luasa.



News & Events

Research Bulletin
Volume 8 Issue 1



Sylvester O'Halloran

26th Sylvester O'Halloran Perioperative Scientific Symposium

Thursday, March 1st, 2018

CERC Building, University Hospital Limerick

Annual Hands-On Courses in Robotic Surgery

&

Vascular Surgery - Diabetic Foot/Tibial Disease Masterclass

Video Abstract on Laparoscopic and Robotic Surgery/Urology Session

Friday & Saturday, March 2nd & 3rd, 2018

The Graduate Entry Medical School, University of Limerick

Sylvester O'Halloran Lecture

Dr. Jerome Coffey,

National Director of the NCCP (The National Cancer Control Programme)

The Sylvester O'Halloran Debate

'Surgery is going in reverse'

Sir Thomas Myles Lecture will be presented by

Professor Rajnish Gupta,

Director of Cancer Services at University Hospital Limerick

Sessions

Clinical, General Surgery, Plenary Prize, Orthopaedic, Anaesthesia, UHL Point of Care Ultrasound Course, ENT, Radiology, Association of Surgeons in Training (ASiT) Prize Session, ASGBI/SOH Published Paper Prize & Session, Nursing

Link to submit abstract: <http://isrs.e/soh2018>

The Sylvester O'Halloran Perioperative Scientific Symposium qualifies for CPD Credits

For more information: kara.leddin@hse.ie





SYLVESTER O'HALLORAN 2017 - PERIOPERATIVE SCIENTIFIC SYMPOSIUM

The annual event, now one of the major meetings in the annual perioperative calendar in Ireland, is jointly run by the Graduate Entry Medical School (University of Limerick) and the Perioperative Directorate (UL Hospitals Group). Up to 500 people attended the 25th anniversary symposium, which featured over 300 presentations and research papers from Ireland and overseas. The meeting, now widely regarded as the "the trainees' meeting" was generously supported by industry, the IHSTG, ASGBI and the RCSI. The multidisciplinary nature of the meeting was reflected in a three day-long schedule featuring a hotly contested and controversial debate, numerous named lectures with internationally renowned guests, and hands-on practical courses.

CERC played host on Thursday, March 2nd, where the first Minimal Invasive Surgery Video Session (organised by Mr Subhasis Giri) which was won by Mark Broe, UHL and hands-on courses in vascular surgery (delivered by Mr Tony Moloney and Mr Eamonn Kavanagh), and on robotic surgery (delivered by Mr Colin Peirce) took place.

Mr Peirce, who delivered the Inaugural Lecture on Robotic Surgery on the same day, said UHL was well on the way to establishing itself as a national centre of excellence in this regard.

The symposium switched venue on Friday and Saturday, March 3rd and 4th to the GEMS (Graduate Entry Medical School) Building at the University of Limerick. Sessions took place on numerous perioperative specialties including breast, gastrointestinal, colorectal, vascular, orthopaedics, ENT, nursing, anaesthetics, critical care, radiology and more.

Several internationally renowned clinicians delivered lectures over the course of the symposium. Dr. Mariana Berho, a pathologist at the Cleveland Clinic in Florida, delivered the Royal Academy of Medicine in Ireland lecture on 'The Challenges Facing the Pathologist with Emerging Techniques in Rectal Cancer' on Thursday, March 2nd. The Sylvester O'Halloran Lecture was delivered on Friday by one of the world's foremost colorectal surgeons, Dr. Steven Wexner, also of the Cleveland Clinic Florida, who spoke on 'The Quest to Improve Outcomes in Rectal Cancer Surgery: Past, Present and Future.'



Dr. Steven Wexner and Dr. Mariana Berho



Dr. Steven Wexner giving the Sylvester O'Halloran Lecture



Professor Colette Cowan, CEO, UL Hospitals Group

The meeting culminated with the Sir Thomas Myles Lecture, delivered by Professor Colette Cowan, CEO, UL Hospitals Group. Professor Cowan spoke on 'Overcoming Challenges in Health Service Delivery: the ULHG Approach' and outlined their joint vision for the future of health service provision.

The Sylvester O'Halloran Debate with Professor Des Winter and Professor Arnold Hill entitled 'It is the Robotic Era' took place on Friday, March 3rd with Dr. Steven Wexner as the chair. The topic was contentious and not surprisingly generated heated argument. The SOH 2017 Debate was won by Professor Des Winter (St. Vincent's University Hospital).



Professor Des Winter and Professor Arnold Hill



Several national and international awards were presented throughout the course of the meeting. The now established ASGBI published paper prize was awarded to Helen Mohan from St. Vincent's Hospital, Dublin. The title of the winning paper was 'Microsatellite instability is associated with reduced disease specific survival in stage III colon cancer.'



Professor Calvin Coffey with Helen Mohan, Winner of ASGBI Prize

Jessie Elliott from St. James's Hospital Dublin was successful in winning this year's Sylvester O'Halloran prize for best research presentation in the Plenary Session. The title of her work was 'Pathophysiologic gut hormone and bile acid signaling after oesophagectomy: implications for appetite, postprandial hypoglycaemia and nutritional status in survivorship.'

Rebecca Weedle, Galway University Hospital won the Sylvester O'Halloran Poster Prize. The title of her poster was 'The use of simple biomarkers to predict complications post-cardiac surgery.'

In recognition of the quality of Irish research, the ASGBI will now invite the previous mentioned winners to present their work at the forthcoming Annual Meeting International Surgical Congress to be held in the Scottish Event Campus (SEC), Glasgow from Wednesday 3rd to Friday 5th May, which represents a significant honour for Irish surgical trainees.

Professor John Fenton organised and co-chaired a very successful and interactive Head and Neck Session of presented papers. The co-chair was Mr Peter O'Sullivan from Cork University Hospital.

Daniel Westby from University Hospital Limerick won the oral prize for work entitled 'Incidence of otomycosis in paediatric patients after use of ciprofloxacin.' Aisling Moriarty from University Hospital Kerry won the mini oral prize. The title was 'The moving bog.' Siofia Flannery-McDermott from University Hospital Limerick won the poster prize for work entitled 'The opinions of medical professionals on integrity in medical writing; from professor to medical student.'

The orthopaedic sessions provided interesting debates on many of the presentations and posters. The chairs were, Mr Dermot O'Farrell, Mr Lester D'Souza and Mr Tom Burke.

The Orthopaedic 1st prize went to Matthew Lee, Our Lady's Children's Hospital Crumlin, Dublin for work entitled 'Botulinum- An intramuscular injection in orthopaedic paediatric patients: service restructure analysis.' The Orthopaedic 2nd prize went to Evelyn Murphy, Galway University Hospital, for work with the title 'A prospective evaluation of the efficacy of bone marrow aspirate concentrate injection with microfracture in osteochondral lesions of the talus.' The Orthopaedic Poster prize was won by Patrick Carroll, University Hospital Waterford. The title was 'Shish kebab technique used to treat severe trauma to the foot – a case report.'

The Anaesthesia papers were presented on Saturday and the chair was Professor Dominic Harmon. The prize winners were Daniel Lorigan from University Hospital Limerick who won the O'Shaughnessy Prize, for work entitled 'Outcomes in regional vs general anaesthesia in emergency hip fracture,' and David Roche, University Hospital Limerick won the Anaesthesia Poster Prize. His winning poster was titled 'An audit of perioperative anaemia and associated blood transfusion in patients attending the pre-operative assessment clinic at University Hospital Limerick.'

UHL Department of Anaesthesia, Critical Care and Pain Medicine ran an ISRA Foundation course on Friday, March 4th as part of the 2017 Sylvester O'Halloran Perioperative Symposium. ISRA (Irish Society of Regional Anaesthesia) council members on faculty included Dr. Patricia Ecimovic and Dr. Mark Johnson. Local faculty members included Professor Dominic Harmon, Dr. Joe Lee, Dr. Saad Mahdy, Dr. Orla Ryan and Dr. Catherine Nix. Short lectures were followed by a number of hands-on sessions with an average of 5-6 learners per group. Both scanning and needling sessions were included. A link to the lectures delivered will shortly be available on www.pocusireland.org. The ultrasound sessions were sponsored by GE and the block needles were provided by B-Braun. The College of Anaesthesia provided phantoms for needling practice. Additional funding was received from ISRA and MELG.

This year's meeting also featured a Masterclass in 'Robotic Primer for Nurses' organised by Professor Fiona Murphy and Katherine Tierney. Presenters were Ms. Maura Tully, Mr Subhasis Giri, Professor J. Calvin Coffey and Ms. Suzanne Dunne. The keynote speaker was Ainna Fawcett-Henesy, International Consultant in Nursing and Health Systems and former regional adviser in Nursing and Midwifery for the World Health Organisation – European Region.

Commenting on SOH 2017 Professor J. Calvin Coffey said "It is wonderful to bring together the Irish Perioperative community, under the heading of one common symposium and one goal – improvement of training and service delivery. It was wonderful to see the trainees return in force to dominate all aspects of the programme. We were particularly delighted to host Mr Peter Delaney's family to the meeting. The Sylvester O'Halloran Perioperative Symposium was established in 1992 by Mr Delaney and its enduring success is his legacy to Irish surgery."



INAUGURAL HSE MENTAL HEALTH QUALITY AND SERVICE USER SAFETY SEMINAR TAKES PLACE

Best Practice Guidance for Mental Health Services published and discussed at Seminar

The inaugural HSE Mental Health Quality and Service User Safety Seminar (QSUS) took place on Thursday, April 6th, 2017 from 10am to 3pm at Dublin Castle.

The seminar was an opportunity for attendees to become familiar with the new HSE Best Practice Guidance for Mental Health Services, explore national level quality and safety trends and hear from mental health professionals working on quality and safety in Ireland and further afield. This, in turn, will support mental health professionals to meet regulatory requirements and to work towards continuous quality improvement. There was also an opportunity to discuss regulatory and compliance challenges and current trends in Service User Safety.

The Best Practice Guidance document informs mental health professionals on what they need to do to ensure that children and adults in the care of mental health services receive a high quality, safe service that meets their needs. The development process from clinical and service user perspectives was discussed at the event, as well as how the guidance will be supported in practice. Practical examples of best practice will be shared, both from Ireland and also overseas.

Speakers at QSUS included:

- Dr. Sabina Fahy CD, Consultant – Psychiatry of Later Life
- Linda Moore, National Quality, Standards and Compliance Officer, Mental Health, HSE
- Dr. David Hall, Clinical Director Mental Health, Healthcare Improvement Scotland
- Samantha McEwan, Associate Improvement Advisor, Scottish Patient Safety Programme
- Con Buckley, Service User Representative
- Clare O'Neill, Risk and Incident, Monitoring, Learning and Support Officer, Mental Health, HSE
- Anne O'Connor, National Director Mental Health, HSE
- Siobhán McArdle, Head of Mental Health Services CHO8
- Pat Tyrrell, Compliance Officer

There was also time for discussion and an opportunity to meet colleagues from across the country, building on the HSE's commitment to foster a supportive community of practice in quality and safety in the HSE Mental Health 2017 operational plan.

Speaking about the Seminar and Guidelines, Anne O'Connor, HSE National Director Mental Health, said, "For the past year a collaborative process has been ongoing to develop a set of Best Practice Guidance for our services. This is now complete, and over the coming years it will become a valuable tool for services – improving their ability to navigate policy and regulatory obligations more easily, while allowing those working in our services to get to know their service better. Special thanks to all our stakeholders;

the steering group, sub-committees and pilot sites, and in particular, thanks to the service users who were part of the development process, generously giving their time and sharing their experiences."

"Quality and safety are at the heart of national and regional service plans, and at this inaugural QSUS seminar we will address local and regional issues faced in ensuring services are safe and of the highest possible quality, and national trends that demonstrate improvements. We believe that we will get to know our services better and so improve safety and quality. In doing so we will ensure regulatory compliance as a result of day to day practice rather than a separate area of work" she added.

Any member of staff who can't make the Seminar can follow proceedings on Twitter using the hashtags #bestpracticeguidance #MentalHealth.

See www.hse.ie/mentalhealthguidance to download a pdf of the Best Practice Guidance for Mental Health Services.

THERE ARE NOW MORE QUITTERS THAN SMOKERS IN IRELAND - YOU CAN JOIN THEM AND WE CAN HELP

HSE QUIT campaign builds on momentum in our community toward a Tobacco Free Ireland.

The HSE launched the latest phase of the award-winning QUIT campaign on Thursday, April 6th, 2017. The campaign uses powerful real-life stories to encourage smokers to quit for good. Launched by Minister for Health, Simon Harris TD, the new campaign builds on the success of previous testimonial adverts, and celebrates the fact that today in Ireland, there are more ex-smokers than current smokers - and if you smoke and want to quit, the HSE will help you to join them.

Martina Blake, National Tobacco Control Lead for the HSE, said "Our new TV and radio adverts celebrate the growing, supportive community of quitters across the country, many of whom work hard to support each other as they face their next quit attempt. The campaign features a cast, including some real life ex-smokers, who generously share their experience of quitting to inspire others."

"Like real-life quitters, some people in the ad are in the moment of giving up, others are in a moment of truth around the effect smoking has had on their life; but all are defiant in the face of cigarettes and the harm they do. For this campaign, we have taken a new approach to telling these stories, using the words and music of Gloria Gaynor's much loved song, 'I Will Survive', which we found mirror the feelings and stages many quitters go through on their journey to being free of cigarettes. We also believe that using music in this campaign will mirror the uplift, pride and joy that we know people feel when they quit for good."

Amanda White from Nenagh, Co. Tipperary, quit smoking



over a year ago and features in the new campaign. Describing the support from the HSE QUIT service, she said 'They rang me every single week for the first four weeks, and every morning I woke up to a text, which was brilliant because it was really motivational - they were there for me. I can firmly say that I'm never going to smoke again and if I can give one piece of advice to anybody - just take one day at a time, because that's all you can do.'

Launching the campaign, Minister Harris said "We know half of all smokers in Ireland report making a quit attempt. Therefore, smoking cessation is key to achieving a Tobacco Free Ireland. I have no doubt that the QUIT campaign played a big part in the reduction that we have seen in the numbers who smoke. The campaign, through TV, radio and, very importantly, social media, has continuously reached out to smokers. We know that support and information is central to helping smokers to succeed.

Six thousand of those lives are taken from us every year because of tobacco addiction. Six thousand preventable deaths every year. Our Tobacco policy, Tobacco Free Ireland, sets a target for Ireland to be tobacco free by 2025. In practice, this means a smoking prevalence rate of less than 5%. This is an ambitious target. But Ireland's ambition has made us international leaders in this policy area and, with 6,000 lives at stake each year, ambition is the only option."

In relation to tobacco measures the Minister stated that, "8% of our children report that they currently smoke. Four years previously this was 12%. The current generation of young people have grown up without knowing what it was like to smoke in pubs and restaurants. They have grown up without seeing tobacco packs displayed behind shop counters. Those reaching school-age now will grow up without the heavily branded tobacco packs and see cigarette packs in plain packaging. This is the denormalisation of smoking - which is one of the key themes in our tobacco policy."

Smoking is the single biggest cause of illness, disability and death in Ireland.

- 23% of the Irish population smoke; and about 19% smoke every day
- 6,000 deaths in Ireland per year are attributable to smoking; every day, 16 people die, and every week, 115 extended families grieve the loss of a loved one, all due to tobacco related disease
- Many hundreds of thousands more live with long-term illness and disability caused by smoking
- The largest group of smokers are aged 25-34 year olds (33%). Most smokers are aware of health implications and the majority of them are planning to, thinking about, or trying to quit. Smoking costs the publicly funded health services in Ireland €500 million annually. In the acute hospital sector alone, smoking was responsible for more than 100,000 inpatient episodes; 1 in 3 due to respiratory disease, 1 in 5 due to cardiovascular disease and 1 in 10 due to cancer – all attributed to smoking

This campaign aims to encourage smokers to make a quit attempt, to join the friends around them who have made the leap. It reminds them that when they make that decision to try to quit that there are people and supports available free of charge from the HSE to help them – support that will double their chances of success.

The HSE QUIT service provides personalised, free, proven support by phone, email, SMS and live chat. The new ad encourages smokers to **Free Call 1800 201 203** to talk to the QUIT Team or to visit www.quit.ie to view personal stories from the campaign, get smoking cessation tips and create a personalised quit plan. Quitters can also get peer-to-peer support at the HSE **QUIT Facebook Page** www.facebook.com/HSEQUIT and follow on **Twitter at HSE QUIT @HSEQuitTeam #QUIT #IWillSurvive**

View the new QUIT TV ads here:

https://www.youtube.com/playlist?list=PLsQK32cdMW_w6X1OiaNXOjwbD2XKbcS1r

HSE APPOINTS PROFESSOR DONAL O'SHEA AS CLINICAL LEAD FOR OBESITY

The HSE announced the appointment of Professor Donal O'Shea as Clinical Lead for Obesity on Thursday, September 7th, 2017.



Professor Donal O'Shea

Welcoming Professor O'Shea to his new role, Dr. Stephanie O'Keefe, National Director of Health and Wellbeing said, "The HSE is committed to large scale reform, to do all that we can, to stabilise and reduce levels of chronic disease in our population. We are building momentum with hospitals and community health services to make every contact count with our patients and service users. We are working to bring the prevention message to the coalface of the Irish health service and to our own staff. We are also working to use our partnerships across the State to support external

agencies and organisations to play their part. Clinical engagement and leadership is key to our efforts. The appointment of Professor Donal O'Shea as Clinical Lead for Obesity to work with our Healthy Eating Active Living Programme will do just that. It will target effective clinical leadership to strengthen our capacity to prevent and intervene early to halt the progression of overweight and obesity across our population."

Commenting on his appointment Professor O'Shea said, "I am delighted to be taking up this post as Clinical Lead for Obesity. There is a real commitment within the health service now to act at every stage in the cycle of obesity – from vital prevention right through to recognising and then managing overweight and obesity. It is coming up to 1 year since the publication of the Healthy Weight for Ireland: Obesity Policy and Action Plan by the Department of Health. That plan is a comprehensive roadmap that outlines the multi-sector and whole of government efforts that will be needed to help communities and individuals make sustainable lifestyle changes. It simply has to happen. There is no magic bullet for the challenge posed by obesity. Somehow we have to get this whole of government, whole of industry and whole of society approach to come alive – and take obesity on."

Professor O'Shea is a consultant endocrinologist and physician based in St. Vincent's University Hospital and St. Columcille's Hospital. Qualified from University College Dublin in 1989, he moved to Hammersmith Hospital in London and was awarded a Wellcome Trust Training Fellowship to study how the brain controls appetite. Since 1999, he has been the lead clinician for a hospital-based multidisciplinary obesity service that includes bariatric surgery. In recent years he chaired the health impact assessment group on the potential benefits and harms of a tax on sugar-sweetened drinks and co-chairs the Royal College of Physicians Policy Group on Obesity. He is a regular commentator on the importance of preventing overweight and obesity, advocating for changes in how nutrient poor, energy dense food is promoted and marketed to children and young people as well as the need to re-engineer regular physical activity into everyday life.

As Clinical Lead for Obesity, Professor O'Shea will be seconded from his clinical post 2 days a week to work with the HSE Healthy Eating Active Living Policy Programme. A key focus of the role will be the development and integration of evidence-based models of care that strengthen prevention, early intervention and treatment for overweight and obesity across primary care and acute services for both children and adults.

The Government's Healthy Weight for Ireland: Obesity Policy and Action Plan sets out a 10 step multi-sectoral action plan to address one of the biggest public health challenges in Ireland. The appointment of a Clinical Lead for Obesity is a key action for the HSE under the policy.

DEMENTIA: UNDERSTAND TOGETHER LAUNCHES TV CAMPAIGN FEATURING REAL-LIFE STORIES OF PEOPLE WITH DEMENTIA

Maureen's story: https://youtu.be/_Qb4kVIE1yQ

Paddy's story: <https://youtu.be/k5UKhZYIOt8>

Only 1 in 4 of us is confident that we understand dementia, and nearly half of us are unsure people could stay friends with someone with dementia.

This campaign aims to increase understanding and keep friendships, community and family connections alive, so that more people can live well with dementia.

Dublin, Ireland: Thursday October 26th, 2017 at the National Gallery of Ireland.

A new TV, radio and online advertising campaign to increase understanding and support for people living with dementia was launched by the Minister for Health, Simon Harris TD, as part of the Dementia: Understand Together initiative. The launch saw the unveiling of two new TV adverts telling the stories of Maureen O'Hara and Paddy Butler, both from Kilkenny, who have generously shared their experience of living with dementia for the campaign.

Launching the new campaign, Minister Harris said: "The Dementia: Understand Together campaign seeks to raise awareness, increase understanding, and address the loneliness often experienced by people living with dementia and their families. We want to open up conversations in homes, workplaces and communities across the country about dementia, increasing understanding and reducing the isolation that people with the condition frequently experience. It aims to show that people with dementia can be supported to live well, and that each of us can play our part by maintaining friendships and including people in our shared community life.

Professor Brian Lawlor, Consultant Psychiatrist and Chair of the Dementia: Understand Together campaign said today: "There are an estimated 55,000 people living with dementia in Ireland today and this number is expected to more than double to 113,000 by 2036. Half a million people in Ireland have had a family member with dementia, yet we know that despite this widespread experience, only 1 in 4 of us is confident that we understand dementia. According to people living with dementia, fear and uncertainty often leads to friends, family and neighbours feeling awkward or embarrassed, so often they say and do nothing. It can leave people with dementia and their loved ones feeling alone. This stigma was reflected in our quantitative research, which shows that close on half of us are unsure we can stay close friends with someone with dementia.

"I Don't Like 'Wasting' Time. I Like 'Spending' Time"

Maureen O'Hara, age 57, from Clongowen, Kilkenny, is one of the two people living with dementia to feature in the first phase of the TV campaign. For Maureen, who was



diagnosed with Young Onset Dementia in 2014, staying connected with neighbours and friends is all-important. This connectivity allows her to live well and independently with the condition:

"For me the diagnosis wasn't a shock as I had been living it. It was nearly a relief to know. What's most important for me is being connected with people. It's about being out there – whether that's enjoying hill-walking or keeping in touch with neighbours and friends. I don't like wasting time –rather, I like spending time. It makes my life worthwhile."

Paddy Butler, age 70, and also from Kilkenny, was diagnosed with dementia due to Alzheimer's disease in recent years. For Paddy, it was important to be up-front with people about his diagnosis:

"When I was diagnosed with Alzheimer's, at the start, I didn't know what I was doing, what was happening. I asked myself do I hide it or do I be straight up? Kilkenny is a small place and I know a lot of people. I decided I had to go and face it and to be straight with people. Trying to hide things would have been worse. It should be out there. More people talk to me now than before and everyone says 'hello' when I pass by. It's important to show that people with Alzheimer's can keep going. I like to keep up my interests as best I can. I like to go walking, to go for a cuppa, to go to Nolan Park to support the Cats. You have to live your life."

Dr. Stephanie O'Keeffe, National Director of Health and Wellbeing, at the Health Service Executive said: "This campaign is about looking at some of the people behind the difficult statistics and facts that we know. It's about bringing dementia out of the shadows and into the open and changing understanding and attitudes for the better. The result will, we hope, be a greater willingness by people worried about dementia to seek help and access supports and services at an earlier stage, and, secondly, a greater sense of solidarity by including people with dementia more in our lives. Whether it's calling in on a neighbour for a chat, or as a business, undertaking dementia awareness training and services for customers – each one of us can make a difference in our personal and community lives, while our health service takes on the ongoing challenge of meeting the clinical and professional needs of people living with dementia."

Mr Michael Fitzgerald, Head of Operations and Service Improvement - Services for Older People, at the Health Service Executive said: "Dementia is one of the biggest challenges facing our society; as our ageing population increases the number of people with dementia will grow in the coming years and decades. This campaign is important so that dementia can be better understood and accepted, and so that we can all support people to live well and independently for as long as possible. We have many thousands of people in our health service working to provide diagnostic, community, home and residential care to people with dementia and their families; meeting the full needs of today's population is a challenge, and our needs as a society are growing each year. Our teams are

working to carefully manage the services and resources we have, and together with this campaign's stakeholders, advocate for increased investment in the clinical and community support needs of people with dementia in Ireland.'

The campaign is part of the Dementia: Understand Together initiative, which is led by the HSE in partnership with the Alzheimer Society of Ireland and Genio. The campaign is funded by the HSE and The Atlantic Philanthropies, and began in 2015. This new phase of the campaign will run on national television, national and regional radio stations, and digital and social media from today, and continue until the end of 2018.

The launch of the campaign coincides with the official unveiling of a new "go-to" website for people who want to find out more about dementia - www.understandtogether.ie. The website features a service finder detailing county-by-county the dementia supports and services available. It also offers a range of training resources for carers, and for businesses and organisations in the retail, transport, public and financial sectors. Support packs, including posters, leaflets and badges, can be ordered also.

For more information on the **Dementia: Understand Together initiative**, visit www.understandtogether.ie or Freephone 1800 341 341.



HSE LAUNCHES 'A FUTURE TOGETHER – BUILDING A BETTER GP AND PRIMARY CARE SERVICE'

- *6,000 people provided feedback making this one of the largest engagement initiatives undertaken by the HSE*
- *Overall 90% of patients in the consumer studies were satisfied with their last GP visit*
- *The traditional model of hospital-dominated care is becoming unaffordable and indeed inappropriate for modern societies*
- *What is needed is to provide a more patient-centred primary care service for patients and the healthcare system*

The HSE launched 'A Future Together - Building a Better GP and Primary Care Service' on Monday, November 13th, 2017.

This report will inform the development and planning of the new GP contract and will help to formulate the thinking required to provide a more patient-centred primary care service for patients and the healthcare system.

The report was commissioned by the HSE's Primary Care Division and was conducted by a team from Trinity College Dublin, led by Professor Tom O'Dowd, Emeritus Professor of General Practice who is also a practicing General Practitioner.

This report provides the HSE with a deeper understanding of consumer satisfaction levels, the priorities and concerns of current and future GPs, and the perspectives of a range of professionals working within and or close to the Primary Care field. Collectively these inputs have provided valuable insight into how GPs can contribute to an enhanced Primary Care service and identified key areas for consideration and discussion.

Welcoming the publication of this report, HSE Director General Tony O'Brien said, "This report, 'Building a Better GP and Primary Care Service', contributes to the whole-of-society discussion on the future of our health services which I spoke about during the publication of the Sláintecare Report. The key message from this report is that, only through the appropriate development and expansion of the capacity of general practice in Ireland, can we provide the type of healthcare system that our society now needs. It is in keeping with the work that the HSE is doing in reconfiguring our services away from a hospital centric system to a primary care-led system and it lays the foundations for the changes that we will need to see in primary care and GP care over the next ten years. The report has important information that will enable us to plan together - those of us in the HSE, those of us in the political system and our colleagues in general practice - to re-shape the way we provide primary care in a much more effective and fundamental way that is going to meet the needs of our changing population."

Professor Tom O'Dowd, Emeritus Professor of General Practice, Trinity College Dublin said, "This is an extensive piece of research that places Ireland's primary care and general practice in an international context. It confirms that investment in primary care leads to better health outcomes at lower costs. There is an international and national consensus on the value of primary care as confirmed in the Sláintecare report. Freeing up GPs to spend more time on what they are trained to do requires orientating more nurses, physios, psychologists and social workers towards primary care. There is a lot of scope for investment in Irish primary care to enable it to play a full part in the healthcare system."

HSE National Director of Primary Care John Hennessy, said, "This report reinforces the need for decisive change in Irish healthcare and provides useful pointers for service planning and targeted investment. Strengthening general practice and primary care to provide more enhanced services makes sense if we want to reduce the reliance on hospital care, improve the quality of services and patient satisfaction, and improve the performance of the overall health service. The research is clearly signalling that a strong primary care system is vital to the delivery of high quality healthcare."

Findings in the report include:-

- Overall 90% of patients in the consumer studies were satisfied with their last GP visit
- 42% of the population has various levels of General Medical Services (GMS) coverage
- Ireland has 6.26 GPs per 10,000 population, broadly similar to Denmark, Germany and the Netherlands but significantly lower than Scotland
- Countries that are rated highly on measures, like access and services, have higher numbers of practice-based staff - Ireland has the lowest rate of practice-based staff ratio of the countries studied
- Access to diagnostics, in particular radiology, is an ongoing issue for GPs
- GPs in training are not interested in single-handed practice
- Practice nurses were highly rated in the consumer surveys and are central to delivering high quality care and ensuring continuity of care
- Pharmacists see themselves as being able to share some aspects of chronic disease management with GPs
- An increasing interest among allied health professionals (AHPs) in playing a part in caring for patients in primary care

Research was conducted by Coyne Research on behalf of the HSE and findings are presented in 'Research Findings from Service Users and Providers.'

Further information and copies of the reports are available at www.hse.ie/enhancingGPservices



HSE LAUNCHES NEW PALLIATIVE CARE DEVELOPMENT FRAMEWORK 2017-2019

- *New Framework informs the development of Irish Adult Palliative Care Services for the next 3 years*
- *Aims to ensure a seamless care pathway across inpatient, homecare, nursing home, acute hospital and day care services*
- *Recommends that specialist palliative care services should be available to all patients in need, wherever they are, and whatever their disease*
- *Proposes targeted investment to develop service provision over 3 year time frame and align service levels as recommended in the 'Report of the National Advisory Committee on Palliative Care' (2001)*

The HSE launched 'Palliative Care Services Three Year Development Framework - 2017 to 2019' on November 14th, 2017. The Framework informs the development of adult palliative care services, both generalist and specialist, in Ireland for the three year period from 2017 to 2019. Its aim is to ensure a seamless care pathway across inpatient, homecare, nursing home, acute hospital and day care services.

Palliative care is an active and total approach to care from the point of diagnosis through to death and beyond. It embraces the physical, emotional, social and spiritual elements of care and engages with patients and families as equal decision-makers in that care. The Framework aims to enhance palliative care service delivery in both community and acute hospital services, with a major focus being placed at all times on the delivery of quality person-centred, safe care for patients and their families.

Speaking at the launch Minister for Health Simon Harris said, "Palliative care is a key part of our health service and it is essential that when it comes to end of life people are treated with dignity and respect. These values must be enshrined in the quality of care which is provided to patients and their families. We must also work to ensure that palliative care services are accessible across the country and that there is an integrated pathway across inpatient, homecare, nursing home, acute hospital and day care services. As Minister for Health I welcome the publication of this important three year Framework and I am assured that my Department will continue to work closely with the HSE on the implementation of its recommendations and actions."

Welcoming the publication, John Hennessy, HSE National Director for Primary Care said, "The focus of the Framework was to identify the gaps that exist in the current level of service provision and to present a set of recommendations and actions which over the duration of the Framework (and at times beyond) would seek to address these service issues/deficits, subject to available resources. The Framework looks at palliative care service delivery in both community and acute hospital services, with a major focus

being placed at all times on the delivery of quality person-centred, safe care for patients and their families.

"A key objective for the Steering Group was to seek to improve access to palliative care services across the country, particularly in those areas which for the last number of years have been identified as inpatient service 'blackspots.' There are clear recommendations contained in the Framework which, on implementation, will achieve this objective."

Sheilagh Reaper-Reynolds, HSE National Lead for Palliative Care said, "This Framework captures the core issues that face us in improving palliative care services for people living with life limiting illnesses and their families. Focused consultation took place with many key stakeholders, including service user representative bodies and organisations, healthcare staff and management. This feedback enables us to plan together the development of palliative care services in a much more effective way that is going to meet the needs of our changing population."

The Framework recommends that specialist palliative care services should be available to all patients in need, wherever they are and whatever their disease. It highlights that there are still areas of the country without an inpatient unit, most notably in the Midlands, the South East, and the North East. Other areas do not have the recommended bed complement and/or the recommended staffing levels. In addressing these shortcomings, the Framework sets out recommendations to ensure that by 2021, there will be equitable access to specialist inpatient palliative care services throughout the country.

It notes that full access to palliative care services for patients with non-malignant disease is now the norm in the sector, with service providers accepting referrals based on need rather than condition. While the work of making palliative care available to patients with non-cancer conditions must continue, attention should now also extend to the needs of vulnerable populations such as people with disabilities, migrants, and prisoners.

The Framework states that by investing in properly resourced community services to care for patients with both malignant and non-malignant diseases, particularly in the last three months of life, this leads to reduced inappropriate hospital admissions, more appropriate care pathways and improved experience for patients and their families.

This Framework complements and builds on the government's palliative care services policy document 'Report of the National Advisory Committee on Palliative Care', published in 2001. It proposes targeted investment to develop palliative care service provision over its time frame and align service levels with those recommended in the 2001 Report.

This publication is available on www.hse.ie



THE RESULTS OF IRELAND'S FIRST EVER NATIONAL SURVEY OF PATIENTS' EXPERIENCES IN HOSPITAL LAUNCHED

The results of the first ever National Patient Experience Survey were launched on Monday, December 11th, 2017 by An Taoiseach Leo Varadkar TD and Minister for Health Simon Harris TD in Dublin.

Welcoming the survey, the Taoiseach said: "We are constantly striving to improve our health service, so it is important that we have an accurate picture of the average patient's experience. This survey, the first of its kind here, provides us with very useful information on what works well within our health service, and what needs to be improved. I am glad to see that there is such a high level of trust in our doctors, nurses and other healthcare staff, and that most people who enter the health service have a good experience. The survey also underlines the fact that access remains the biggest challenge facing our health service.

In 2018, with the largest ever budget for our health service, we will be introducing a range of measures to make it easier to access our health service at the times in your life when you need it." The survey, a partnership between HIQA, the HSE and the Department of Health, took place during the month of May, and gave almost 27,000 patients discharged from a public acute hospital throughout Ireland an opportunity to describe their experiences in order to improve our health service. It is the largest single survey of the healthcare system in Ireland and received an exceptional 51% response rate. This is the first time the survey has been conducted and this information will be used as a baseline in order to track progress on patients' experiences over the next number of years.

Some 84% of the patients who completed the survey indicated that their overall experience of acute healthcare was either "good" or "very good". However, one of the main objectives of the survey was to listen to the patient voice and understand how their experience of services could be improved. It is now important that these experiences are listened to and understood in order to make improvements to the quality and safety of Irish healthcare. Key areas identified for improvement are:

1. **Waiting times in the Emergency Department** - 79% of people surveyed described the admission to hospital phase as good or very good. Only 30% of people said that they were admitted to a ward within the target waiting time of six hours. Long waiting times have been linked with negative health outcomes and as a result pose a threat to patient safety.
2. **Communication on the ward** - 49% of patients said that they could not always find a member of staff to talk to about their worries or fears. Patients needed doctors to have more time to discuss their care and treatment.
3. **Involving patients in decisions about their care** - 36% of patients said that they were not involved as much as they would have liked to be in the decisions about their care.

4. **Discharge or transfer showed the greatest need for improvement** - better communication with patients in relation to the side effects of medication, the danger signals to watch out for after discharge or how patients should care for themselves at home were identified.

Key areas identified as areas of good experience include:-

1. **Clear answers from doctors and nurses** - 97% of people said that nurses and 94% of people said that doctors always or sometimes answered questions in a manner that they could understand.
2. **Respect and dignity** - 82% of people said they were always treated with respect and dignity throughout their hospital stay.
3. **Confidence and trust in the hospital staff** - 83% of people who answered this question said that they always had confidence and trust in the hospital staff who treated them.

Speaking at the launch, Minister for Health Simon Harris TD said: "The findings of the National Patient Experience Survey are very encouraging in a number of respects. The fact that so many of our patients indicated that they were treated with respect and dignity is testament to the commitment and hard work of our staff. I think this shows that the efforts which have been made in recent years to put the patient at the heart of the health service, and to transform the culture in our hospitals, are bearing fruit. For those areas where improvement has been identified, I know that the HSE has already moved to develop its response, both at a national and an individual hospital level. I look forward to seeing those plans successfully implemented and reflected in further iterations of this survey."

Commenting on the launch of this initiative, Sheila O'Connor of Patient Focus, the national patient advocacy organisation, said: "Patient Focus welcomes the results of this first independent National Patient Experience Survey. It is imperative that the voices of the patients, the people who experience our healthcare system at first hand, are heard. Patient Focus is relieved to see that a large number of patients said that they were treated with dignity and respect during their stay in hospital; however, Patient Focus emphasises that this should be a right for all patients.

"Over one third of patients who responded to the survey said they were not involved enough in decisions about their care, and this issue needs to be addressed. We know from research that patients who are engaged in their healthcare decisions have better outcomes. We now have the opportunity to hear what the patient is saying and address these issues so that our health service can be improved for the benefit of all."

Tony O'Brien, Director General of the HSE said: "The results of the National Patient Experience Survey 2017 provide acute hospital services in Ireland with tangible evidence about what matters to patients about their journey through Irish hospitals and real practical examples of areas for improvement.



“Since August 2017, our acute hospital teams have reviewed the real-time findings of the survey to create quality improvement plans at national and local levels. These plans published today - Listening, Responding and Improving - outline the initiatives and actions that each hospital will undertake to improve patients’ experiences of their services.”

Rachel Flynn, HIQA’s Director of Health Information and Standards and Programme Director for the National Patient Experience Survey, said: “The results of this first patient experience survey show that although many patients experienced good care, there is certainly room for improvement in key areas. While the majority of patients said that doctors and nurses on the ward always answered questions in a manner that they could understand, almost half of the patients said that they could not always find a member of staff to discuss their concerns with and also said that the doctors and nurses did not have enough time to discuss their care and treatment. We must now listen carefully to the voices of patients, the service users, and use these results and those of future annual surveys as the building blocks to drive continuous improvement in Irish healthcare.”

The HSE has established a new governance structure to lead the development of a national plan to improve the quality of care in Irish hospitals. This quality improvement plan will describe the steps the HSE will take to address the issues raised by the people who responded to the survey. Individual quality improvement plans will be published by each hospital and hospital group that took part in the survey. Individual hospital reports are also being published today. Quality improvement initiatives have already started in many hospitals across the country.

Further information about the survey can be found at www.patientexperience.ie

HSE PUBLISHES NATIONAL SERVICE PLAN 2018

Every day in 2018 the HSE will:

- Spend €30.2 million on delivering services
- Provide 46,800 home support hours
- See 3,000 people in GP out-of-hours services
- See 3,700 patients in emergency departments

Following approval from Government, the HSE published its National Service Plan 2018 on Wednesday, December 20th, 2017. The Plan sets out the type and volume of health and personal social services to be provided in 2018, within the funding available. It also recognises that underpinning all of these actions is the goal of improving the health and wellbeing of the population and of ensuring that the services delivered are safe and of high quality.

The 2018 budget of €14.5 billion represents an overall increase of €608 million (4.4%) compared to the 2017 budget allocation. The additional investment has allowed us to make a number of significant investments in new services in 2018 including:-

- An investment of €9m to support the expansion of paediatric/adolescent orthopaedic services including scoliosis
- An investment of €25m in primary care to support the GP contract, GP training, diagnostics, therapies, nursing, Advanced Nurse Practitioner appointments and community nursing
- An investment of €15m in mental health to support a range of key service developments
- An investment of €10m for respite care, providing support in 2018 to 400 individuals with a disability and their families

A total of €40.2m will be invested in acute hospital services. The HSE will be using this funding to improve access to critical care services along with investment in services for people with Spina Bifida and spinal conditions. Women and infant health services will be expanded through increased scanning and gynaecology services.

Cancer Services nationally will receive a total of €5.5m and this will allow for the expansion of services including radiotherapy treatment. This funding will provide ongoing investment in cancer drugs, and with the numbers of patients now surviving their cancer following improved treatments and services, there will be further investment in the ongoing care for those who are surviving cancer.

With our population increasingly living longer, the HSE continues to invest in services for older people, with continuing emphasis on maintaining individuals in their own homes and with as much independence as possible. Next year will feature an additional investment of €32m in additional home support, transitional care and bed capacity in rehabilitation settings. Home support and transitional care will be increased over the full year. This will allow for:-



- €18.25m for home support services to provide 754,000 hours to support 1,170 people to leave hospitals
- €1.4m for rehabilitation and step down beds in Limerick (four beds) and Cork (30 beds)
- €0.85m for complex case discharges from acute hospitals
- €0.65m for an additional six beds in the National Rehabilitation Hospital
- €0.45m for an out-reach specialist team and day hospital in Our Lady's Campus, Cashel

Funding has also been provided on an ongoing basis to support older people with dementia with high needs to continue to live in their own homes. A further €9m is being provided for Intensive Home Care Packages (IHCPs). This follows the innovative investment provided over the past number of years as a joint agreement between Atlantic Philanthropies, the DoH and the HSE and will be sustained on an ongoing basis.

The Nursing Homes Support Scheme (NHSS) is anticipating they will support 23,334 people in residential care at year end with a budget of almost €962m.

Within Primary Care an additional investment of €25m will allow for the expansion of Community Intervention Team support and OPAT support (IV care in patients' homes). This will mean an additional 4,682 referrals. For children being discharged from hospital, the HSE will provide an additional 60 homecare packages representing an investment of €2.1m. There will also be improved access to Occupational Therapy Services, an expansion of the GP out-of-hours service and the commissioning of 15 additional primary care centres, with an investment of €10m.

A total investment of €42.6m will allow for the reduction of prescription charges from €2.50 per item to €2 and reduce the monthly cap on prescription charges from €25 to €20 per month. It will further allow for the reduction of the drug payment scheme family threshold from €144 per month to €134 per month; provide for GP Visit Cards for Carers and increase the GP Visit Card income threshold by €25.

Supporting those individuals whose needs are broader than just the health and support services the HSE directly provides, an additional €6.5m will be invested in additional services, with €1.5m invested in Homeless Services along with €1m in primary care services for refugees in emergency reception and orientation centres.

The provision of €2.75m for the National Ambulance Services will allow for developments including an increase in the recruitment and training of additional paramedic staff; the expansion of aeromedical services; the implementation of a clinical hub. The investment will further support the National Transport Medicine Programme.

In the area of Mental Health €15m will be allocated to initiate new developments including enhancing community mental health team capacity, expanding out-of-hours responses for adult services, expanding specialist responses for patients with severe and enduring mental health

difficulties, and the continuing implementation of 'Connecting for Life.'

Speaking at the launch, Mr. Tony O'Brien, HSE Director General stated: "For several years we have been aware of the need for a shift in health service delivery in order to move from the more traditional focus of treatment and cure, to that of prevention and treatment, when required. The challenges referenced in this service plan are recognised fully in the recent Sláintecare report, which signals a new direction of travel in relation to eligibility, delivery, and funding of health and social care in Ireland into the future.

"The cross-party support for Sláintecare presents a huge opportunity and, appropriately resourced and governed, it has the potential to transform the health and wellbeing of the population, and how and where they access services."

While the additional level of funding is to be welcomed, the growing cost of delivering core health and social services is such that the HSE faces a very significant financial challenge in 2018 in maintaining the existing level of services. The HSE is fully committed to meeting this challenge. It is estimated that there will be a financial challenge within the operational service areas of approximately €346m brought about by:-

- Changing demographics - Ireland has an ever-increasing older population. Forecasting indicates people aged over 65 will increase by 110,000 in the next 5 years.
- Increased demand for services - this changing demographic brings increased demand for health and social services
- Increasing costs - including workforce, new and existing drugs, and regulatory requirement costs
- Our health services model and design, as it currently exists, is no longer fit for purpose and cannot meet the needs of our citizens now and into the future

Commenting on the cost pressures Mr. O'Brien added: "As we seek to grow our service levels to a greater extent than our resources are growing, we must continuously strive for operational efficiencies. This is the sign of a mature and ambitious health system that is doing everything it can to deliver the maximum volume of services to patients and service users within the budget we have to work with."

To mitigate the estimated operational financial challenge for 2018, the HSE has developed a comprehensive Value Improvement Programme which will come into effect from the beginning of 2018. The Value Improvement Programme will be a single over-arching programme, but with three broad priority themes - improving value within existing services, improving value within non-direct service areas, and strategic value improvement. Robust governance and appropriate support arrangements will be established to manage the programme.

Value will be judged in terms of improvement of services and service user experience alongside evidence of economy, efficiency and effectiveness.

The 2018 HSE National Service Plan can be accessed [here](#).



INTERNATIONALLY - RENOWNED ACADEMIC APPOINTED PRESIDENT OF THE UNIVERSITY OF LIMERICK

The Chancellor of the University of Limerick, Mr. Justice John Murray, is pleased to announce that, at a specially-convened meeting on October 6th, 2016, the Governing Authority of the University of Limerick, accepted the recommendation of the Presidential Selection Board that Professor Desmond Fitzgerald, a Vice-President of University College Dublin, be appointed as the next President of the University of Limerick.

Professor Fitzgerald was most recently Vice-President for Health Affairs at University College Dublin as well as Chief Academic Officer of the Ireland East Hospital Group. His term as President of UL commenced on May 1st, 2017 when he succeeded Professor Don Barry whose term of office ended in April 2017.



[Professor Desmond Fitzgerald](#)

Speaking of the appointment, the Chancellor of the University of Limerick, Mr. Justice John Murray said: "I am delighted to welcome Professor Fitzgerald as the next President of UL. He is a widely-respected scholar and leader in the academic world, with an enviable international research reputation and unrivalled experience gained at strategic levels in a number of highly-ranked universities. I know I speak for the Governing Authority and the broader UL community in stating how much we look forward to working with Professor Fitzgerald to build on UL's fine foundations as we realise the institution's vision and objectives for the future."

Professor Fitzgerald said: "I am delighted. The University of Limerick has had remarkable success in its short history due to its staff, its students and the support it has from the community and the Foundation. I am honoured to lead UL

during the next phase. I look forward to working with colleagues and partners to secure a strong national and international academic profile. UL has unique strengths - its staff, students, alumni and friends; its powerful local, national and international partnerships; its stunning campus and its excellent reputation. I want UL to establish and lead pioneering initiatives that will deliver real impact in a range of important areas that are critical to Ireland's future and the future of the Mid-West."

Professor Fitzgerald previously served as Vice-President Research at UCD (2004 – 2014), playing a pivotal role in the institution's restructuring and the transformation of UCD's research performance in competitive, internationally-judged research programmes funded by the EU, PRTLI and Science Foundation Ireland. Achievements include the establishment of the UCD Science Centre, the National Institute of Bioprocessing Research and Training, the National Digital Research Centre, Systems Biology Ireland, the UCD Precision Medicine Facility and the Charles Institute for Dermatology Research and Training, while also securing UCD the national leadership position in EU FP7 funding. Professor Fitzgerald has developed a strong range of international networks and collaborative partnerships, in particular in the US, China and Malaysia.

In his role as Chief Academic Officer within the Ireland East Hospital Group (IEHG – UCD's affiliated hospital group) Professor Fitzgerald has led the Group's education and training initiatives, with noteworthy successes including the Learning Hospital at the UCD Beacon Hospital Academy and the development of an Academic Health Sciences Centre (AHSC) to align the strategy and mission of the Group with the academic mission of UCD. Prior to UCD, he also held senior leadership roles in the Royal College of Surgeons in Ireland, including as Director of Research in recognition of his profound personal commitment to research and education, especially in medicine and health sciences.

Professor Desmond Fitzgerald – A Brief Profile

Professor Fitzgerald obtained his medical degree from UCD, subsequently training in Cardiology and Clinical Pharmacology at Vanderbilt University in the US. He has also held positions as Consultant Lecturer in Medicine and Therapeutics at the Mater Misericordiae University Hospital and UCD, Professor of Clinical Pharmacology at the Royal College of Surgeons in Ireland, Consultant in Clinical Pharmacology at Beaumont Hospital and Visiting Cardiologist at the National Maternity Hospital. In 2004, he was appointed UCD Vice-President for Research and Professor of Molecular Medicine and he is currently Vice-President for Health Affairs and Chief Academic Officer of Ireland East Hospital Group.

With over 450 research publications and an h-index of 57, Professor Fitzgerald is a well-respected clinical academic in translational medicine and founder of two biomedical companies. His research is in Vascular Biology, with a particular focus on platelets and thrombosis in coronary artery disease. He was Chairman of the Health Research Board of Ireland (2004-2007), has held committee positions



in the Irish Medicines Board and is a member of several professional bodies, including the American Heart Association and the European Society for Cardiology, where he chaired the Working Group on Platelets and Thrombosis. He is currently a Governor of the Mater Misericordiae University Hospital. He has been a member of the Editorial Boards of several journals, including *Circulation*. He is Deputy Chairperson of the National Institute of Health Research TCC and is a member of the Scientific Advisory Board of the Institute of Translational Medicine and Therapeutics. He has been an Adjunct Chair in Medicine and Pharmacology at the University of Pennsylvania and was elected to the Association of American Physicians in 2006.

NEW SFI-FUNDED RESEARCH CENTRE FOR UL

Science Foundation Ireland is to invest €72 million over the next six years in four new world-class SFI Research Centres in Ireland including one at the University of Limerick. The new SFI Research Centres will be supported by 80 industry partners who will provide an additional €38 million to support cutting-edge basic and applied research with strong industry engagement, economic and societal impact. The decision follows a comprehensive international peer review process involving leading industry and academic experts over the last 12 months.

The announcement marks the third tranche of funding under the SFI Research Centres Programme. The first seven SFI Research Centres were established in 2013 and a further five were established in 2015. These twelve world-leading SFI Research Centres have a number of advantages. They are recognised internationally for research excellence; attract talent and capital to Ireland, attract spin-out businesses, consolidate excellent basic and applied research across higher education institutions, and secure EU and other international funding.

The four new SFI Research Centres announced in May 2017 will address the following:-

- 'Smart manufacturing IT and industrial automation systems,' led by Professor Conor McCarthy, University of Limerick (Project Title – Confirm);
- 'Biological resources as alternative materials to finite fossil resources,' led by Professor Kevin O'Connor, UCD (Project Title - BEACON);
- 'Innovative techniques and processes in Additive Manufacturing,' led by Professor Denis Dowling, UCD (Project Title - Deantus);
- 'Diagnosis, monitoring and treatment of chronic and rare neurological diseases' - led by Professor David Henshall, RCSI (Project Title - Future Neuro).

Professor Mark Ferguson, Director General of Science Foundation Ireland and Chief Scientific Advisor to the Government of Ireland said: "Our existing twelve SFI Research Centres are outstanding international examples of applied and basic combined (ABC) research. They are making important scientific advances, enhancing enterprise and industry, developing critical skills, supporting regional

development, and enhancing Ireland's international reputation. They are drivers of Ireland's increased rankings in research and innovation over the last number of years. They are also an important engine for the economy; companies engaged with the SFI Research Centres are located all over Ireland and globally. The commitment of industry and academic bodies to come together to develop these new SFI Research Centres clearly demonstrates the potential economic and societal impact of the planned research. I look forward to working with the four new SFI Research Centres on their road to becoming world-class centres of research excellence."

The four new SFI Research Centres involve strong collaborative partnerships between research bodies in Ireland with funded researchers participating from institutions including Athlone Institute of Technology, Beaumont Hospital, Cork Institute of Technology, Dublin City University, Mater Hospital, Maynooth University, NUI Galway, the Royal College of Surgeons in Ireland, Teagasc, Temple Street Children's Hospital, Trinity College Dublin, Tyndall National Institute (UCC), University College Cork, University College Dublin, University of Limerick and Waterford Institute of Technology.

Four further SFI Research Centre proposals were approved in principle by the SFI Board following stringent assessment by international peer review. SFI is seeking additional funding to support these centres over the next six years. These proposed SFI Research Centres involve collaborative partnerships with over 100 companies who have committed €60 million funding to the centres. These proposals address the following:-

- Innovative technologies to support the production of dairy products: 'From Pasture, To Cow, To Food,' led by Dr. Donagh Berry, Teagasc (Project Title - Future Milk);
 - 'Mapping the molecular causes of human diseases using Systems Biology' led by Professor Walter Kolch, UCD (Project Title – H-SYS)
 - 'Inflammation and Innate Immunology' led by Professor Andrew Bowie, TCD (Project Title - INNATE)
 - 'Advanced Biopharmaceutical Manufacturing' led by Professor Michael Butler, NIBRT (Project Title - Bio-Logic)
- Commenting on the SFI Board decision, Professor Ferguson, stated: "We need to be ambitious and invest in areas of real potential to ensure our future economic competitiveness. In line with Innovation 2020 we have identified through the SFI Research Centre programme a further four proposals of strategic national importance that meet the high criteria of scientific excellence and impact. Over the coming months we will be working to seek additional funding to support these four SFI Research Centres that have been approved in principle. I am greatly encouraged by the high quality of research and the significant level of industry and international engagement in the proposals."

Innovation 2020, the Government's five-year strategy for research and development, science and technology, directs that the network of SFI Research Centres should be further developed to build critical mass in strategic areas of research strength and address enterprise needs.



BERNAL CHAIR RECEIVES WALES' HIGHEST ACADEMIC HONOUR

Bernal Chair of Crystal Engineering at UL, SFI Professor Michael Zaworotko has been admitted to the Learned Society of Wales (LSW) in honour of his world-class contribution to science.

Election to fellowship of the society is a public recognition of academic excellence and achievement and is the highest academic honour in Wales.

Professor Zaworotko leads a group of researchers on the design and development of crystalline structures. From fundamental discoveries to applied industry innovations, these projects seek to design materials from first principles using 'molecular building blocks,' which allow for close control of the properties and in turn characteristics of the resulting materials.

Professor Zaworotko is internationally recognised for his work, contributing important theoretical models and practical demonstrations of how crystalline materials can address grand challenges such as energy sustainability and enhancing processes within the pharmaceutical industry.



Professor Michael Zaworotko

In 2011, Thomson-Reuters listed Professor Zaworotko as the 20th highest impact chemist since 2000 and in 2014, 2015 and 2016 the organisation listed him as a highly-cited researcher.

Amongst those also admitted to the Learned Society of Wales were Professor Mary McAleese, former President of Ireland, currently Distinguished Professor in Irish Studies at St Mary's University, Twickenham.

Those elected are entitled to use the designation FLSW after their name. This latest admission brings to 460 the number of fellows of the Learned Society, and together the

fellowship are tasked to help promote awareness of how the sciences and the arts, humanities and social sciences benefit society. Professor Zaworotko is the first member of the Learned Society from UL.

UL TEAM WINS US-IRELAND RESEARCH INNOVATION AWARD

University of Limerick, 3D4Medical and IBM Research were the winners of the 2017 US-Ireland Research Innovation Awards, jointly presented by the American Chamber of Commerce Ireland and the Royal Irish Academy at the Chamber's Annual Dinner in the Clayton Burlington Hotel, Dublin.

The team from UL led by Dr. Eamonn de Barra, in collaboration with Stryker Orthopaedics, received the award for developing a new type of bioactive bone cement for neurosurgery, which has advantages over existing products on the market in terms of ease of use, speed of surgical placement and reduced workload on the OR team which is a positive outcome for all.

Dr. de Barra said, "We are proud to reach this milestone and to continue to assist our research partner Stryker in their corporate mission, via the exchange of ideas, technology and people. We at the University of Limerick are delighted to have our collaboration recognised by the American Chamber of Commerce Ireland and the Royal Irish Academy in their Innovation Awards 2017."

Among the 700 strong audience at the awards ceremony were leaders of many of the US companies in Ireland, representatives from academia and a range of innovation stakeholders. In addition to hearing from the President of the American Chamber James O'Connor and President of the Royal Irish Academy Professor Michael Peter Kennedy, the event was also attended by US Chargé d'Affaires Reece Smyth and Conrad Tribble, Deputy Assistant Secretary of State at the State Department in Washington DC.

Speaking about the need for Ireland's innovative approach, James O'Connor, President of the American Chamber said: "To be successful in the digital age, we need to continually upgrade and invest in our physical infrastructure. We need to increase the supply of residential and commercial accommodation for the current and next generations who want to come to work and live here. We need to seize the opportunity to develop cloud technologies. And most importantly, we need to continue to invest in our skills and talent. The battle for FDI will centre on digital skills that are needed to unleash innovation in our 21st century data-driven economy. A key part of producing the best graduates is ensuring that our young people are equipped with the skills that enable them to participate in a digital world. Whether working in a medical field, as a fashion designer, as an architect, in the arts, the ability to harness digital technology will help them to do more and achieve more."

"Ireland, through the government's policies and the approach of its agencies, has constantly embraced



innovation. It is this innovative approach to doing business which has ensured the strength of the US-Ireland business relationship over the 55 years since the foundation of the American Chamber of Commerce. The work we are celebrating tonight continues to be done through amazing collaboration built over many decades of US companies investing in Ireland, companies who constantly re-invent themselves and move up the value chain to provide high quality products and services for customers around the world. We can all be incredibly proud of the work of tonight's award winners and indeed all of those who entered this year's awards.

Through the efforts of this Chamber and State Agencies such as Enterprise Ireland, Science Foundation Ireland and the IDA, Ireland is the place to 'make it happen'. This is a message that is clearly understood by our members here tonight and in boardrooms throughout the US. The potential of over 150,000 of Ireland's best educated and highly talented innovative people is being realised daily by over 700 US companies that are invested here. Every day, they work at the leading edge, producing the goods and services that are transforming our world today, and imagining and developing the goods, services and ideas that will change our world tomorrow. I am very proud of the powerful reputation we have built as a country that delivers for the companies who have invested here," he continued.

According to Anna Scally, Partner, KPMG in Ireland: "These awards are a great opportunity to showcase innovation in Ireland today. Companies all over the world are looking for competitive advantage, and innovation is critical to that. If Ireland can be at the forefront of innovation, then that will help us to retain our place as the leading location in the world for FDI. KPMG works with innovative companies in every sector of Irish business and we strongly believe in supporting innovation at every opportunity. We are delighted to support these awards."

Stephen Masterson, Ulster Bank Head of Corporate Banking and Markets said: "We know the tangible benefits US multinationals bring to Ireland in terms of investment, expertise and talent. But what the awards really shine a light on, is highlighting a less known benefit for the SME sector which is the lifeblood of the Irish economy. The awards show how this community has embraced innovation and technology and collaboration with the FDI sector. That is why we at Ulster Bank are delighted to support the initiative."

The evening also saw the presentation of the American Chamber Special Recognition Award to CoderDojo, the global network of free, volunteer-led, community-based programming clubs now available in 63 countries for young people founded in 2011 by Bill Liao and James Whelton in Cork.

THREE TIMES A CHARM FOR BERNAL INSTITUTE AT IRISH LAB AWARDS

Professor Gavin Walker and the Process Engineering Lab team at the Bernal Institute, University of Limerick scooped three top honours, including the prestigious Academic or Research Lab of the Year at the Irish Laboratory Awards 2017 held in Dublin in May. This event recognises and celebrates the successes and achievements of Ireland's internationally renowned scientists in areas such as innovation, leadership and collaboration.



Professor Gavin Walker of the Bernal Process Engineering Lab at the Bernal Institute, University of Limerick which was recently named the Academic or Research Laboratory of the Year

The Process Engineering Lab was honoured in the Chemical Laboratory and Pharmaceutical Laboratory categories, and most notably as the Academic or Research Laboratory of the Year for 2017.

In awarding these honours, the jury described the lab as "unrivalled", a reflection and recognition of the positive impact of the research activities undertaken by Professor Gavin Walker and his team at the Bernal Institute.

The Bernal Process Engineering Laboratory, uniquely hosts three international leading research centres based in the University of Limerick: the Science Foundation Ireland funded Synthesis and Solid State Pharmaceutical Centre (SSPC); the industry and Enterprise Ireland (EI) funded Dairy Processing Technology Centre (DPTC); and, the EI and IDA funded Pharmaceutical Manufacturing Technology Centre (PMTC).

The Bernal Process Engineering Laboratory is the largest process engineering research group in Ireland. The group is led by Professor Gavin Walker, Bernal Chair of Process Engineering and supported by several young research-active staff including: Dr. Denise Croker; Dr. Emmet O'Reilly; Dr. Luis Padrela; Dr. David Egan; Dr. Darren Whitaker; and Dr. Ahmad Albadarin.

The Bernal Institute nurtures Ireland's research leaders of the future and it will support Ireland's progress for many generations to come. The Bernal Institute is named after John Desmond Bernal, one of Ireland's most influential



scientists, who is regarded as one of the founding fathers of crystallography, a technique that is extensively used in a wide range of scientific disciplines. In addition to his scientific strengths, Professor Bernal had a reputation as a selfless supporter of, and mentor to, young scientists.

UL CONFERENCE FOCUSES ON PUBLIC HEALTH ISSUE

More than 150 practitioners, students and researchers in speech and language therapy, education and psychology recently attended a conference on child language difficulties held in UL.

Co-hosted by the Department of Clinical Therapies UL and EU COST Action IS1406, the conference outlined the importance of assisting children with difficulties learning their first language, aiming to enhance children's oral language skills across Europe and beyond.

Speakers from all over the world came together to share their research, initiatives and views on this pressing global issue that affects 5.8 million children across Europe socially, emotionally and academically. Professor Ann Kaiser (Vanderbilt University, Tennessee) opened the conference with a keynote address on the positive influence of parent involvement in interventions.

Chair of COST Action Professor James Law (University of Newcastle), and Dr. Carol-Anne Murphy (Department of Clinical Therapies, UL and vice-chairperson of working group one of COST Action), outlined the work of the network's programme in informing and improving the understanding of interventions across Europe.



Attending the Conference at the University of Limerick on child language difficulties were Professor James Law, University of Newcastle and Dr. Carol-Anne Murphy, University of Limerick

Dr. Cathy Adams (University of Manchester) focused on interventions for children with social communication difficulties, while Dr. Susan Ebbels, (Moor House School and University College London) presented evidence-based interventions for severe language disorders in school age children and adolescents.

The work of Dr. Cristina McKean (University of Newcastle and Murdoch Children's Research Institute, Melbourne), uses longitudinal population data, advances knowledge of the risks for persistent difficulties, and assists policy makers and practitioners to identify the children who most need intervention, and the factors most amenable to change. Professor Law delivered the closing presentation, discussing the importance of a population focus to improve language outcomes.

"Child language difficulties are a public health issue. They place a large burden on society, a burden that appears to be getting larger; the burden of these difficulties is distributed unfairly, with children from poorer communities more affected and we have growing evidence that preventive strategies could substantially reduce this burden," he said.

Following the conference, members representing 34 of the COST network's 40 countries met in UL over two days. The groups involved are halfway through a four-year programme seeking to increase the effectiveness of interventions for children with language impairment and to improve understanding of the contexts in which those interventions are delivered.

Details of the COST Action are available [here](#).

EDISON OF MEDICINE DELIVERS BERNAL DISTINGUISHED LECTURE AT UL

Researchers from around Ireland gathered in the University of Limerick (UL) on June 2nd, 2017 to listen to one of the world's top engineers discuss his work in the area of biomaterials and biotechnology.

Described by Harvard Business Review as the 'Edison of Medicine', Professor Robert Langer is credited with improving the lives of more than two billion people worldwide through his work in developing novel drug-delivery systems.

The David H. Koch Institute Professor at Massachusetts Institute of Technology (MIT) was in UL as part of its Bernal Distinguished Lecturer Series at the university's Bernal Institute. The university's new president Professor Des Fitzgerald described Professor Langer as an "outstanding academic" and a "great educator."

"Professor Langer's career is not just about his exemplary track record in multidisciplinary research, it is also about his success in bringing his research from the lab to the market and his innovation in the design of novel therapies for treatments with high societal impact," Professor Fitzgerald stated.

Chair of Friday's event and lecturer in chemistry at UL, Dr. Sarah Hudson was a postdoctoral researcher in Professor Langer's lab from 2006 to 2008.

"While working in Professor Langer's lab at MIT, I saw how



he was able to pinpoint the crux and/or the potential of your work or ideas immediately. I discovered that innovative science comes from the unexpected - you can plan your experiments but you cannot plan your results but that by looking at things from different angles, unexpected ideas and solutions will evolve," Dr. Hudson said.



Pictured with MIT's Professor Robert Langer on his recent visit to UL to deliver the second in the Bernal Distinguished Lecture Series, is Dr. Sarah Hudson

"Professor Langer is an inspirational speaker and his work is an exciting example of what can be achieved when you integrate medical doctors, engineers, physicists, biologists, histologists, vets, pharmacists and chemists together in a research environment. The Bernal Institute and UL has created a similar cross-disciplinary research environment and I believe listening to how Professor Langer's work came about, his numerous inventions and discoveries for new therapies to treat disease, will demonstrate just how much can be achieved in such an environment.

I believe it will inspire many people here and also reassure the public that we, as researchers, are concerned with the same things that worry them and that we are pulling together to combat many of the health and environmental issues we face worldwide today," Dr. Hudson concluded. Professor Langer's lecture at UL was entitled 'Biomaterials and Biotechnology: From the discovery of the first angiogenesis inhibitors to the development of controlled drug delivery systems and the foundation of tissue engineering.' The lecture included discussions on Professor Langer's research, how it led to new drug delivery technologies including nanoparticles and nanotechnology that are now being studied for use in treating cancer, other illnesses and in vaccine delivery. It also touched on ways of developing systems for treatment of brain cancer and other diseases and new approaches for engineering tissues such as cartilage, skin and blood vessels.

€1.3M INVESTMENT IN PHARMACEUTICAL MANUFACTURING RESEARCH

New research projects being carried out at a leading national technology centre will help biopharmaceutical companies in Ireland improve their manufacturing processes and increase competitiveness.

Enterprise Ireland has awarded €1.3 million worth of funding to the Pharmaceutical Manufacturing Technology Centre (PMTC), hosted at the University of Limerick, for economically important Innovation Partnership Projects involving multiple industry partners.

This funding will primarily focus research towards improving cleaning processes in the industry and contributing to network competitiveness in areas such as product-to-product changeover. The research effort will lead to increased efficiencies, cost savings and will ensure improved effectiveness in the biopharmaceutical industry helping to secure jobs.

The PMTC is part of the Enterprise Ireland IDA Technology Centre Programme and works with industry partners to provide advanced technology solutions for the biopharmaceutical sector in Ireland. The centre currently assists more than 30 companies on pharmaceutical manufacturing projects, including continuous manufacturing, plant cleaning and process engineering.

According to Dr. Chris Edlin, Centre Director of PMTC: "Our primary focus in PMTC is to advance cutting-edge innovation; bringing forward novel technologies to advance Irish-based biopharmaceutical companies. These additional funds from Enterprise Ireland will help strengthen our capabilities and expand our services to more partners. Furthermore, this investment will deliver highly-skilled postgraduate jobs, driving enterprise and employment growth in the region."

Pfizer is the lead industrial collaborator on the multi-partner EI Innovation Partnership Programme. Dr Liam Tully, Director Pfizer API Technology said, "The PMTC focus on delivering advanced technical solutions to the pharma manufacturing industry enhances our competitiveness and ensures, through direct engagement on innovative partnership projects, a sustained focus on applying innovative science and technology in our manufacturing facilities."

Outstanding project performance relating to industry-informed research activities at the PMTC led to the allocation of the additional €1.3 million funding from Enterprise Ireland through the Innovation Partnership programme. Declan McGee, Programme Manager for the Innovation Partnerships at Enterprise Ireland congratulated PMTC on its performance to date and looks forward to PMTC's increasing connections to companies.

"The new cleaning and validation process being developed will lead to more efficient and productive manufacture of pharmaceutical active ingredients. It will be key to ensuring that the Irish operations increase their competitiveness, relevance and reputation," Mr McGee stated.

MORE THAN 200 CELEBRATE UL CONFERRING

More than 200 students graduated from the University of Limerick's Graduate Entry Medical School (GEMS) and the Departments of Nursing and Midwifery and Clinical Therapies on Friday, June 16th, 2017.

One hundred and sixty six students were conferred with medical degrees at the ceremony as they became the sixth graduating class of GEMS. As well as the 133 Bachelor of Surgery graduates, students of the second graduating Bachelor of Science (BSc) in Paramedic Studies class received their awards. All 33 Paramedic Studies graduates are operational paramedics from a variety of organisations including the National Ambulance Service, Dublin Fire Brigade, Irish Coastguard and the private ambulance service.

Thirty one people graduated with BSc in Physiotherapy, MSc in Speech and Language Therapy and MSc in Occupational Therapy. UL's GEMS was established 10 years ago and is the only medical education programme in the country founded on the modern pedagogical principles of Problem Based Learning (PBL).

Professor Desmond Fitzgerald congratulated all of the graduates at what was his first conferring in his new position as UL President.

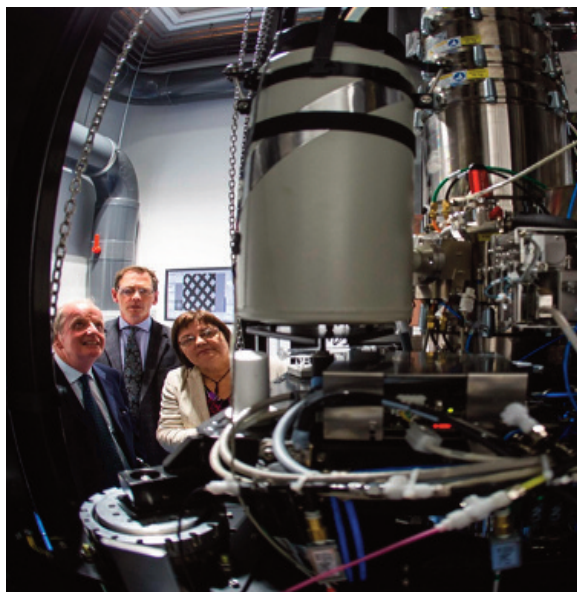


Amanda Keegan, Knocklyon, Dublin and John Sehl, Toronto, Canada who graduated Bachelors of Surgery from the Graduate Entry Medical School, University of Limerick

"These graduates join a group united with a shared passion to improve the health and wellbeing of people locally, nationally and internationally. They graduate in important fields, because all will become able to change peoples' lives forever ...that's quite a significant responsibility, but one I am confident that they are more than equipped to take on. They have all had to work hard over the course of their studies, acquiring the professional knowledge, skills and behaviour needed, not only for successful careers, but for making a real difference to those who will depend on their competence and humanity," he said.

ONE-OF-A-KIND MULTI-MILLION-EURO MICROSCOPE UNVEILED

A multi-million-Euro microscope funded by Science Foundation Ireland and the University of Limerick (UL) was recently unveiled at UL's Bernal Institute. The new microscope will allow researchers to study materials at an atomic level in real-world conditions and is one of only a handful of microscopes with these capabilities worldwide.



The Titan Themis is a double-corrected, monochromated Transmission Electron Microscope (TEM) and is valued at €6 million. A further €3 million worth of specialist equipment has been added to the UL machine including *in-situ* microscopy and ultra-fast and sensitive detectors, as well as environmental holders, which allow for the behaviour of materials to be studied in real-time across a range of environments.

"The holders for the specimens are especially interesting. For the past 70 years, we have been observing materials in a vacuum and not in the conditions these materials are used on a day-to-day basis. The holders allow us to introduce specific triggers into samples allowing us to see how these materials, at an atomic level, interact with the world, for example, how they react when exposed to different gases, liquids, heating, biasing or cryo-cooling," explained Dr. Andrew Stewart of UL's Department of Physics and the Bernal Institute.

"This TEM is also equipped with a detector which allows us to capture the atoms' reactions at a rate of 1,600 frames per second. Up until now, we have only been able to detect 10 frames per second so effectively this new camera will allow us to record the processes at a sub-millisecond timescale and capture that information as it unfolds. It is the difference between seeing time-stamped stills of a process and seeing a movie of what is happening at an atomic level. It is the combination of all of these features, that makes this microscope quite unique," he continued. The microscope could be used in the drug discovery and design processes in the pharmaceutical industry; medical



device development; in the electronics industry; and, in materials characterisation in the nuclear and aviation industries.

President of UL, Dr. Des Fitzgerald, officially unveiled the microscope at a ceremony in the Bernal Institute on Wednesday.

“At a total value of €9 million, the acquisition of the Titan Themis marks the biggest single investment in a piece of instrumentation by University of Limerick. TEM is a fast evolving area of research that is moving towards automation and structural dynamics at shorter timescales - these new facilities will place UL at the forefront of this directional change, and will create a generation of postgraduate students who will have world-class skills in electron microscopy. This, in turn, will strengthen UL’s international academic profile by attracting overseas students and programmes,” Dr. Fitzgerald stated.

The equipment is funded by University of Limerick in partnership with Science Foundation Ireland (SFI) through its Infrastructure and Opportunistic funds and has already enabled funding to be received from FET Open via Horizon2020.

Professor Mark Ferguson, Director General of Science Foundation Ireland (SFI) and Chief Scientific Adviser to the Government of Ireland, said: “Science Foundation Ireland is delighted to support Irish researchers by providing them with world-class facilities and equipment, such as the new Transmission Electron Microscope at the University of Limerick. These investments, which enable the research community to keep exploring the frontiers of STEM, are vital for attracting investment and talent to Ireland and ensuring we remain at the forefront of scientific research and development.”

BERNAL INSTITUTE CHAIRS ANNOUNCED AS SYNTHESIS AND SOLID STATE PHARMACEUTICAL CENTRE DIRECTORS

A global hub of pharmaceutical process innovation and advanced manufacturing has appointed two University of Limerick professors as its co-directors.

Synthesis and Solid State Pharmaceutical Centre (SSPC), the Science Foundation Ireland (SFI) funded centre based at UL, has appointed Professor Michael Zaworotko and Professor Gavin Walker as co-directors of the organisation. Professor Zaworotko joined UL in 2013 as the Bernal Chair of Crystal Engineering. He is among the world’s top 20 research chemists and secured the first award under the relaunched Science Foundation Ireland (SFI) Research Professor programme. His research interests focus on designing crystal structures that can be used in the pharmaceutical and energy industries.



Pictured: Synthesis and Solid State Pharmaceutical Centre (SSPC), the Science Foundation Ireland (SFI) funded centre based at UL, has appointed Professor Gavin Walker and Professor Michael Zaworotko as co-directors of the organisation

Commenting on his appointment Professor Zaworotko said, “Taking up this position and working with the SSPC to make strategic collaboration a top priority will help to potentially push the frontiers of knowledge. We are looking forward to 'going global' by delivering results through national and international partnerships with industry to enable innovation throughout all areas of SSPC.”

Professor Gavin Walker is Bernal Chair of Pharmaceutical Powder Engineering and a principal investigator in the SFI Investigators Programme at UL and the SSPC Spokes Project, MOMEnTUM. His expertise is in pharmaceutical process engineering and modelling of particulate systems. Professor Walker’s Process Engineering Lab is the largest process engineering group in Ireland and is based in UL’s Bernal Institute. Recently, it was named Academic or Research Laboratory of the Year, Pharmaceutical Laboratory of the Year and Chemical Laboratory of the year at the Irish Laboratory Awards.



Professor Michael Zaworotko and Professor Gavin Walker

Professor Walker said, “It will be a privilege to lead the SSPC, which is now an internationally recognised Centre of Excellence. The SSPC is particularly committed to breaking down traditional boundaries across academia and promoting new research and I am looking forward to pioneering further partnerships in the future.”



The co-directorship marks a new departure for the world-leading SFI centre as Professor Kieran Hodnett stands down as the first director of SSPC after 10 years. The centre, established as a first large-scale, multi-partner research collaboration, now boasts a critical mass of world-class people and established global presence.

The SSPC transcends company and academic boundaries and is the largest research collaboration in Ireland, and one of the largest globally, within the pharmaceutical area. The role of the SSPC is to link experienced scientists and engineers in academia and the pharmaceutical industry, to address critical research challenges.

PHARMA LEADERS GATHER FOR PHARMACEUTICAL MANUFACTURING TECHNOLOGY CENTRE KNOWLEDGE DAY

Leaders in the pharmaceutical manufacturing sector in Ireland gathered at University of Limerick on August 31st, 2017 for the third annual Pharmaceutical Manufacturing Technology Centre (PMTC) Knowledge Day.

The event provided a showcase for the cutting-edge research supported by the centre with keynote addresses from industry leaders who shared their vision of the future for the pharmaceutical sector.

Speakers included industry experts and academic leaders from international organisations such as Hyde Engineering, Pfizer, University of Cambridge, Novartis and Ecolabs, among others.

“Ireland has a renowned pharmaceutical sector: Research and development in pharmaceutical manufacturing and process efficiencies is critical to strengthening and developing it. PMTC research is bringing forward novel technologies to advance Irish-based biopharmaceutical companies which ultimately will deliver highly-skilled postgraduate jobs, driving enterprise and employment growth in the region,” PMTC Director, Chris Edlin said.

“This annual event brings together academic groups, industry and government agencies to showcase state-of-the-art applied research into contemporary industry problems. It was extremely pleasing to welcome established partners plus a growing cohort of new companies interested in collaboration,” Dr. Edlin continued.



Professor Gavin Walker, Bernal Chair in Pharmaceutical Powder Engineering, UL, Sean Kelly MEP and Chris Edlin, PMTC Director

In his address at the Knowledge Day, Seán Kelly, MEP, said: “The idea of BIOPHARMA in Europe is one I fully support and want to help make a reality. It can fill a unique position in driving innovation in pharmaceutical manufacturing: indeed, without innovation in this area we will not be able to achieve our objectives in Europe to realise the ambitions of personalised and targeted medicine. For this to happen we need to understand better the manufacturing process and drive innovation to reach a new, more flexible and productive manufacturing paradigm.”

Commenting on the Knowledge Day, Fearghal Downey, Technical Director Europe, Hyde Engineering, said “It was great to see such a diversity of delegates and also that the PMTC has become a centre of excellence in pharmaceutical research and indeed a focal point for industry to congregate and network. I believe in such a fast changing market environment driven by scientific and technology advancements. From Hyde’s perspective, the PMTC provides the potential for us to access highly-skilled workers and technology which can support our R&D activities and our business growth strategy around the world. This is an invaluable service to industry and one that Ireland can be very proud of.”

Professor Ian Wilson of the University of Cambridge described the Knowledge Day as “a great opportunity to present to a wide range of industry and academic delegates with the shared vision and key science for improving pharmaceutical manufacturing.”

Speaking at the Knowledge Day, Dr. Majella Maher from Enterprise Ireland discussed the supports available from Enterprise Ireland. Dr. Jay Chopra from Making Shift Happen spoke about inspiring creativity and innovation in organisations. Sean Kelly, MEP addressed the audience and gave valuable insight on the importance of collaborative research and accessing European Union funding vehicles to address Biopharma requirements collectively.

More than 250 delegates attended the event with more than 40 pharmaceutical companies and key Government agencies represented.

PMTC is funded through the Technology Centre Initiative, a joint programme between Enterprise Ireland and IDA Ireland allowing Irish companies and multinationals to work together.



NEW SFI CENTRE A 'GAME CHANGER' FOR MANUFACTURING COMPETITIVENESS

An Taoiseach, Leo Varadkar, TD, together with the Minister for Training, Skills, Innovation, Research and Development, John Halligan, TD, launched four new world-class Science Foundation Ireland Research Centres on September 7th, 2017.

The four new SFI Research Centres, including CONFIRM led by University of Limerick (UL), represent an investment of €74 million from the Government over the next six years, with a further investment of €40 million from industry.

CONFIRM, the new €47 million centre for smart manufacturing, seeks to add intelligence to production systems, creating the factories of the future, where products can be fully customised and adaptable. The overall SFI investment supports cutting-edge basic and applied research with strong industry engagement, driving economic benefits and positive societal impact.

Speaking at the launch of the four new SFI Research Centres, An Taoiseach, Leo Varadkar, said: "Investing in leading-edge scientific and technological research is good for our economy and helps us to discover new innovations which can improve our quality of life. Our SFI Research Centres represent a virtuous triangle between government, industry and higher education, and show just what can be achieved when there is a shared vision about reaching your ambitions.

"These four new SFI Research Centres will be centres of activity where Irish and international researchers are trained and collaboration with private companies is facilitated to deliver new ideas and innovation. This in turn helps to create high-value jobs and drives economic growth and regional development. The SFI Research Centres show the value of investing in today, so we can imagine the world of the future."

According to Professor Mark Ferguson, Director General of Science Foundation Ireland and Chief Scientific Advisor to the Government of Ireland, "For young science researchers, like students undertaking PhDs or those progressing to post-doctoral research, these centres will provide opportunities for them to develop in key strategic areas of scientific research, while also providing unparalleled training in entrepreneurship and science communication."

The CONFIRM centre will be led by University of Limerick and UL Professor Conor McCarthy, with Tyndall National Institute, University College Cork, Cork Institute of Technology, NUI Galway, Athlone Institute of Technology, Maynooth University and Limerick Institute of Technology as academic partner institutions.

Commenting on this announcement, Professor McCarthy, Director of SFI Research Centre CONFIRM, said: "CONFIRM truly is a game-changer for Irish manufacturing competitiveness. The establishment of this SFI research centre, will position Ireland to play a leading role in the global smart manufacturing revolution, whereby products,

machines, production systems and supply chains are digitally connected and making smart decisions. This innovation will enable consumer-driven mass customisation, where future Irish products will be tailored to individual needs, and delivered directly to them just hours after placing orders.

"CONFIRM will act as a beacon for international talent in the areas of advanced manufacturing from robotics to artificial intelligence. Ireland enjoys a highly-skilled and highly-motivated workforce in the manufacturing sector; this workforce is the envy of other nations. CONFIRM builds upon this reputation and seeks to establish a world-leading centre for smart manufacturing," Professor McCarthy added.

The four SFI Research Centres will be involved in 80 industry collaborations with partners ranging from multinationals to SMEs. CONFIRM has 42 industry partners across these sectors including: Johnson & Johnson; Analog Devices; Action Point; Modular Automation; SL Controls; United Technologies Research Centre Ireland; KUKA; and Medtronic.

"CONFIRM will allow us to enable customer-driven customisation. So it's not just about automation, it's about tailoring more customer-focused solutions so that we can add more value and bring more business back into Ireland," said Barry O'Sullivan, General Manager, Johnson & Johnson Vision Care.

The manufacturing sector is the second largest employer in Ireland accounting for €112 billion in exports. CONFIRM aims to transform Ireland's manufacturing industry to become a world-leader in smart manufacturing.

According to Shane Loughlin, Chief Technology Officer, SL Controls: "CONFIRM can deliver for Irish industry something that it couldn't possibly achieve itself. As an SME, we can never really achieve scale on a global basis, but with the assistance of the senior researchers in key topic areas, and other SMEs in similar service sectors, we can totally transform the service offering we can provide out to our multinational customers on a global basis."

Launched with CONFIRM in Dublin Castle, were three other new SFI research centres, two of which will be led by University College Dublin and one by the Royal College of Surgeons Ireland.

UL AND JOHNSON & JOHNSON PARTNER TO BUILD WiSTEM2D COMMUNITY

Global healthcare company, Johnson & Johnson (J&J) and the University of Limerick (UL) have entered the second year of their collaborative education WiSTEM2D programme. The acronym refers to Women in Science, Technology, Engineering, Mathematics, Manufacturing and Design, and is part of J&J's commitment to building a diverse WiSTEM2 community by mobilising brilliant minds that ignite great ideas.

"The research outputs from the first year of the WiSTEM2 programme identified a lack of female role models in STEM-related fields and confirmed that men outnumber women in most STEM careers," according to the President of UL, Dr. Des Fitzgerald.



UL students Niamh Sheahan, aeronautical engineering, Jessica Silva, biomedical engineering and Janice O'Gorman pharmaceutical and industrial chemistry are pictured at the launch of the second year of the university's WiSTEM2 collaboration with global healthcare company, Johnson & Johnson

"Of particular concern, however, is that female students participating in the study reported feeling isolated in male-dominated classes and, perhaps most worryingly, females' perception of their own intelligence was poor, even though their grades were equal to those of their male counterparts. "We need to build on these findings, which mirror other national research, and affect change in order to attract women into STEM courses," said Dr. Fitzgerald.

"UL is a national leader in promoting gender equality and diversity across all academic disciplines. We are delighted to be involved once again with Johnson & Johnson in this fantastic initiative and we look forward to a doubling of the numbers of students involved in the WiSTEM2 programme in year two."

At a national level, just 25% of people currently working in STEM-related careers in Ireland are women. Student research carried out at UL during Year 1 of the WiSTEM2 programme highlighted that in 2016/2017 female students accounted for just 26% of undergraduates in the Science and Engineering faculty.

The research also found that less than 6% of female students opted for Electronic and Computer Engineering,

9% for Computer Science, 18% for Financial Mathematics, and 35% for Environmental Science.

Johnson & Johnson currently partners with 10 Universities around the world to encourage and support female undergraduates enrolling in STEM-related disciplines. UL is the only Irish University chosen to participate in the global initiative which focuses on the importance of peer networking and mentoring support. The University of Limerick is at the forefront of STEM education in Ireland with EPI*STEM, the National Centre for STEM education based in UL.

Speaking on behalf of the Year 1 students, Niamh Sheahan said, "Being part of the WiSTEM2 programme has provided so many amazing opportunities for me and I look forward to passing on all I've learned, and to passing on the empowering message to those following in my footsteps". Speaking at the event, the Minister for Higher Education at the Department of Education, Mary Mitchell-O'Connor TD, said, "Many of the world's most innovative enterprises are in the STEM disciplines and we need more women choosing to pursue STEM careers in Ireland. The under-representation of women in the STEM workforce has to be addressed. This partnership between Johnson & Johnson and UL, which focuses on increasing the number of female STEM graduates, is an excellent example of higher education and business working together to address this problem."

A key aim of the programme is to inspire young women to bring diversity of ideas and opinions to typically male-dominated STEM careers. Speaking on behalf of Johnson & Johnson at the event, Mark Benson, VP Supply Chain, Consumer Medical Devices said, "Recognising that increasing female participation in STEM subjects remains a global challenge and women are greatly under-represented in the STEM workforce in Ireland, we are very excited to be partnering with the University of Limerick to help close these gaps and build the professional STEM talent pipeline. At Johnson & Johnson, diversity and inclusion is a core tenet of our management philosophy. We are focused on bringing unique perspectives and a sense of belonging to the workplace. It's about all backgrounds, beliefs and the entire range of human experience coming together."

Leisha Daly, PhD and Country Director of Janssen Ireland, the pharmaceutical company of Johnson & Johnson, said "As we look towards the workforce of the future, we are more committed than ever to supporting women in STEM, particularly as we see that increased pipeline needs will not be satisfied by current graduation rates or population mix of STEM leaders. There is palpable excitement across Johnson & Johnson in Ireland for WiSTEM2D - upwards of 300 employees have come forward to volunteer their time and energy to this great initiative. I very much look forward to continuing this exciting collaboration with UL and building on our significant achievements as we embark on Year 2 of the programme."



UL RESEARCHERS RECEIVE SFI PRINCIPAL INVESTIGATOR AWARDS

Minister for Training, Skills, Innovation, Research and Development, John Halligan TD has announced an investment of €43 million in 26 research projects through the SFI Investigators Programme. The 26 research projects will support 94 research positions over the next five years. Professor Michael Zaworotko of the Bernal Institute received an award to investigate Green Adsorbents for Clean Energy. Professor Zaworotko currently serves as Bernal Chair of Crystal Engineering and Science Foundation of Ireland Research Professor at UL. Professor James Gleeson and his team in UL will develop new mathematical models to help revolutionise the understanding of how information spreads online. UL's Dr. Sean Fair has also received an award as part of a multidisciplinary group with Teagasc and University College Dublin to revolutionise dairy cattle breeding through the application of state-of-the-art technology.



Professor Michael Zaworotko of the Bernal Institute

Minister Halligan said, "This funding recognises some of Ireland's top researchers and enables them to advance vital research areas in Ireland including health, technology, agriculture and energy. I am confident that the teams being supported will generate important new scientific breakthroughs. In addition, today's investment provides 20 companies with access to invaluable expertise and infrastructure across the country. These collaborations between industry and academia are integral to further enhancing Ireland's reputation for research excellence." Projects that will be supported by the SFI Investigators Programme include research that will:-

- Control the electrical properties of materials and their performance in devices
- Elucidate the causes of inflammatory diseases, and develop treatments
- Develop personalised treatment approaches for cancer
- Find ways to spread important information more quickly on social media (e.g. for health or terrorism alerts), and to control undesirable aspects (e.g. spreading of misinformation)
- Develop new types of antibiotics
- Create novel magnetic materials for next generation data processing

- Develop theoretical and computational tools to mitigate risk and optimise business processes in the financial industry
- Generate insect-resistant Brassica crops
- Design, discover and develop a new generation of advanced materials, sorbents, for low-cost, energy-efficient carbon capture and natural gas storage

To strengthen and accelerate research in key strategic areas of national interest, Science Foundation Ireland collaborates with several funding agencies and public bodies through the SFI Investigator Programme. Six of the research projects received co-funding worth a total of €3 million from Teagasc, Geological Survey Ireland (GSI), the Marine Institute (MI), and the Environmental Protection Agency (EPA).

Along with the 26 research projects that will be funded, the international peer review panel recommended a further 33 scientifically excellent projects for funding. These projects are on a reserve list to be supported if budgets permit later in the year.

Professor Mark Ferguson, Director General of Science Foundation Ireland and Chief Scientific Adviser to the Government of Ireland added, "The Science Foundation Ireland Investigators Programme funds outstanding individuals performing excellent, impactful research. The standard of applications for the SFI Investigators Programme was exceptionally high. The quality and quantity of excellent projects on the reserve list is clear evidence of the increasingly high standard of research in Ireland. I have the highest expectations for the projects funded today, and look forward to seeing the benefits to Ireland's society and economy."

Under the Science Foundation Ireland Investigators Programme, 26 research projects will be funded through ten research bodies, as follows: Dublin City University (2), Dublin Institute for Advanced Studies (1), National University of Ireland Galway (2), National University of Ireland Maynooth (2), Trinity College Dublin (9), University College Cork (3), University College Dublin (3), University of Limerick (2), Teagasc (1) and Royal College of Surgeons Ireland (1).

GEMS CELEBRATES 10 YEARS

The Graduate Entry Medical School (GEMS) at the University of Limerick celebrated its 10th anniversary on Saturday, September 30th, 2017.

GEMS, the first medical school established since the formation of the Irish State, has graduated 640 doctors who are now working in Ireland and all over the world. Since its foundation, research undertaken at GEMS has been at the cutting edge of medical advances globally.

To mark the 10th anniversary, the medical school invited its founders, its inaugural students, alumni, leading academics in medical education from across the world and members of the public to a celebration in the University Concert Hall.



President of UL, Professor Des Fitzgerald and Professor Niall O'Higgins attending the 10 year celebrations

As part of the event, the Foundation Head of GEMS, Professor Paul Finucane, reviewed the rationale behind the establishment of the first Graduate Entry Medical School in Ireland, the mission, and the vision which drove the project. Panel discussions included representatives of the faculty, HSE, patients and students.

"What has been achieved at GEMS in ten short years is really remarkable. The impact of the school's engagement with the healthcare community all across Ireland is immeasurable," said Professor Des Leddin, Head of GEMS, University of Limerick.

"With UL Hospitals Group, GEMS brings the opportunity for in-depth, patient-centred research which is benefiting not only the members of the medical community in the region but also patients and their families," Professor Leddin continued.

Every year more than 200 GEMS students undertake clinical placement rotating through five disciplines in six hospitals across Ireland. Additionally about 70 students undertake GP placements across the extended Primary Care networks reaching from Clare to Kerry and Westmeath to Wexford.

IRISH SCIENTISTS DISCOVER METHOD TO PRODUCE ELECTRICITY FROM TEARS

Pressure produces electricity in crystals of enzyme found in tears and egg whites

A team of Irish scientists has discovered that applying pressure to a protein found in egg whites and tears can generate electricity. The researchers from the Bernal Institute, University of Limerick (UL) observed that crystals of lysozyme, a model protein that is abundant in egg whites of birds as well as in the tears, saliva and milk of mammals can generate electricity when pressed. Their report was published on October 2nd, 2017 in the journal, Applied Physics Letters (<https://doi.org/10.1063/1.4997446>).

The ability to generate electricity by applying pressure, known as direct piezoelectricity, is a property of materials such as quartz that can convert mechanical energy into electrical energy and vice versa. Such materials are used in a variety of applications ranging from resonators and vibrators in mobile phones to deep ocean sonars and ultrasound imaging. Bone, tendon and wood are long known to possess piezoelectricity.

"While piezoelectricity is used all around us, the capacity to generate electricity from this particular protein had not been explored. The extent of the piezoelectricity in lysozyme crystals is significant. It is of the same order of magnitude found in quartz. However, because it is a biological material, it is non-toxic so it could have many innovative applications such as electroactive anti-microbial coatings for medical implants," explained Aimee Stapleton, the lead author and an Irish Research Council EMBARK Postgraduate Fellow in the Department of Physics and Bernal Institute of UL.

Crystals of lysozyme are easy to make from natural sources. "The high precision structure of lysozyme crystals has been known since 1965," said structural biologist at UL and co-author Professor Tewfik Soulimane.

"In fact, it is the second protein structure and the first enzyme structure that was ever solved," he added, "but we are the first to use these crystals to show the evidence of piezoelectricity."

According to team leader Professor Tofail Syed of UL's Department of Physics, "Crystals are the gold-standard for measuring piezoelectricity in non-biological materials. Our team has shown that the same approach can be taken in understanding this effect in biology. This is a new approach as scientists so far have tried to understand piezoelectricity in biology using complex hierarchical structures such as tissues, cells or polypeptides rather than investigating simpler fundamental building blocks."

The discovery may have wide reaching applications and could lead to further research in the area of energy harvesting and flexible electronics for biomedical devices. Future applications of the discovery may include controlling the release of drugs in the body by using lysozyme as a



physiologically mediated pump that scavenges energy from its surroundings. Being naturally biocompatible and piezoelectric, lysozyme may present an alternative to conventional piezoelectric energy harvesters, many of which contain toxic elements such as lead.

Professor Luuk van der Wielen, Director of the Bernal Institute and Bernal Professor of Biosystems Engineering and Design expressed his delight at this breakthrough by UL scientists.

"The Bernal Institute has the ambition to impact the world on the basis of top science in an increasingly international context. The impact of this discovery in the field of biological piezoelectricity will be huge and Bernal scientists are leading from the front the progress in this field," he said.

The full paper, The Direct Piezoelectric Effect in the Globular Protein Lysozyme, by Aimee Stapleton, Mohamed R Noor, John Sweeney, Vincent Casey, Andrei Kholkin, Christophe Silien, Abbasi A. Gandhi, Tewfik Soulimane and Syed A M Tofail, is published in Applied Physics Letters (October 02, 2017). The article can be accessed at <https://doi.org/10.1063/1.4997446>

SSPC NAMED PHARMA RESEARCH CENTRE OF THE YEAR

Synthesis and Solid State Pharmaceutical Centre (SSPC), a Science Foundation Ireland (SFI) funded research centre was recently named Pharma Research Centre of the Year at the Pharma Industry Awards 2017 for the third consecutive year.

Hosted at the Bernal Institute, University of Limerick, the national research centre was presented with the award for its outstanding national and international industry-academia, inter-industry, and inter-academia collaborations.



Synthesis and Solid State Pharmaceutical Centre (SSPC) team members, Kristy Butler, Louise O'Neill, Jon O'Halloran, General Manager and Aisling Arthur

SSPC offers many benefits to industry partners from research activities, including the development of scientific and technological advances, a shift in emphasis for the Irish sites within their corporations, and advanced education and training of company employees.

The centre was also shortlisted in the top four nominees for Pharma Industry Company of the Year and Partnership Alliance of the Year.

Speaking after the event, Jon O'Halloran, SSPC General Manager, commented: "We are delighted to have won this award, as it is a great chance to celebrate the unique partnerships within the SSPC.

"It is a great honour that we, a national research centre, have been recognised for our continued commitment to this type of collaboration, particularly one that closely engages with industry partners. To win this category for the third time successively is a great honour," Mr O'Halloran added.

Since launching in 2014, the Pharma Industry Awards has established itself as the benchmark for excellence for those operating in Ireland's pharma industry.

For the fourth year SSPC have been fortunate to win, and this year marks the third consecutive year being awarded Pharma Research Centre of the Year.

The SSPC transcends company and academic boundaries and is the largest research collaboration in Ireland, and one of the largest globally, within the pharmaceutical area. The role of the SSPC is to link experienced scientists and engineers in academia and the pharmaceutical industry, to address critical research challenges.

ROBOTIC SURGERIES TO BE STREAMED LIVE TO GEMS

UL Hospitals Group began live-streaming robotic surgical procedures from the operating room in University Hospital Limerick (UHL) to the new Clinical Education and Research Centre (CERC) on Saturday, November 25th, 2017 as part of the educational component of the Group's robotic surgical programme. The next step is to live-stream to lecture theatres in University of Limerick's Graduate Entry Medical School (GEMS).



Three-hundred-and-sixty degree live streaming will now form part of surgical training and medical education for GEMS students and students across all healthcare and medical disciplines from University of Limerick (UL). It will also form a strong educational component for non-consultant hospital doctors/registrar, nursing staff and



allied health professionals working in the UL Hospitals Group.

On Saturday, November 25th, 2017, more than 100 consultant urologists, colorectal surgeons, senior registrars, gynaecologists and health professionals from around the country watched the inaugural live-stream of a robotic surgical procedure at the annual South West Urological Meeting held in the state-of-the-art CERC building which was jointly funded by the Health Service Executive and University of Limerick

The surgery was carried out by renowned consultant urological surgeon and honorary senior lecturer, Guy's Hospital and King's College London, Mr Ben Challacombe, who was invited by the UHL robotic team to perform this surgery with them.

"It is a great honour to come to UHL and to demonstrate complex robotic kidney surgery using the new live streaming technology, I would like to thank the team at UHL for inviting me, the teamwork and professionalism of the whole surgical team here in Limerick is second to none," Mr Challacombe said.

In November last year, UHL became the first public hospital in Ireland to perform colorectal, kidney and adrenal surgical procedures using the Da Vinci Xi Dual Console Robot. One year on, over 110 colorectal, adrenal, kidney and other urological cases have been performed.

The Da Vinci Xi technology has particular advancements not available with standard keyhole surgery. 3D-HD visualisation provides surgeons with a highly magnified view, virtually extending their eyes and hands into the patient, almost as if the surgeon were 'standing inside the abdomen and reaching out to the organs'. The robot is secured or 'docked' to the patient and has four working arms (each requiring only an 8mm skin incision) to which operating instruments are attached. Once docked, the robotic arms and instruments are controlled by the surgeon, or surgeons, who are seated at the consoles nearby. The instruments are extremely precise, with no tremor, and they can in fact achieve activities not possible with the human hand, though they would never replace the human hand, they are completely controlled by the surgeon.

Professor J. Calvin Coffey, Foundation Chair of Surgery GEMS, UL and general and colorectal surgeon, UHL, explained the enormous benefits of the live-streaming technology for students: "To date, surgical lectures at GEMS have taken place using video or powerpoint presentations; students do not have access to cadavers. Now, with our new live-streaming technology, students can observe complex operations live and interact from the classroom with the surgeons in the theatre. They can view the anatomy of the patient close up and observe the robotic arms and instruments, providing an unrivalled educational opportunity."

"The robotic programme at UL Hospitals has been developed to bring the highest international quality

standard of robotic surgery to the Mid-West Region providing equity of access to all patients. Up to now, robotic surgery has been embedded in the private sector, apart from gynaecologic surgery. For the past year, it has been available to public and private patients alike with over 110 cases performed across colorectal, adrenal, kidney and gynaecological disciplines," said Professor Coffey.



Speaking about the benefits to surgeons (trainee and trainers), consultant urologist, robotic surgeon at UHL and Chair of the South West Urological Meeting Mr Subhasis Giri added, "The Da Vinci dual console allows two surgeons to operate in synergy with pooling of expertise and maximising patient benefit in complex cases in a multidisciplinary setting.

This also greatly facilitates dedicated robotic training for the surgeons of tomorrow, which to date is not available anywhere else in Ireland. Now, with 360 degree live-streaming from the operating room, all of our residents can not only observe this surgery and 360 degree perspective of the operating theatre, but can also see a 'robots-eye-view' of the inside of the patient and ask practical questions to the surgeon or any member of the theatre team in real time. While technical skills are important, young surgeons also need to learn how to manage the stresses of the actual operating room, it's difficult to learn this from a simulated environment."

The next step is to live-stream to lecture theatres in UL, the other hospitals within UL Hospitals Group and then globally using the new technology, where students, doctors and medical professionals will be able to log onto the web based live-stream system using a password. Whilst the current live-streaming technology is in 2D, it is envisaged that this will soon be available in 3D.

UL, academic partner to UL Hospitals Group, donated €135,000 to the project for audio visual and training equipment and a further €22,000 was donated from the UL MELG (Medical Education Liaison Group) Fund for live streaming equipment this year.

Des Leddin, Head of the Graduate Entry Medical School (GEMS) at University of Limerick commented: "At UL, we are delighted to have access to this marvellous teaching tool for our students, allowing them to observe complex operations 'live' alongside our top surgeons. Not only will this experience be educationally enriching but I believe that



it will also inspire the next generation of high-tech surgeons”.

Colette Cowan, CEO of UL Hospitals Group commented, “Since the robotic programme commenced last year, we have begun to substitute keyhole surgery with robotic surgery where it’s possible at UHL and the benefits to our patients are enormous. Today, we have seen the huge educational benefits of the robotic programme for our young surgeons and for medical students alike, which is enhanced with the new live streaming technology. I know that I am immensely proud to see this come to fruition and I hope that it will serve them well in their careers into the future.”

Robotic surgery represents the highest international standard of surgery worldwide and is the most advanced form of keyhole surgery available to patients. Data from UL Hospitals Group demonstrates that post-operative recovery is twice as fast with robotic surgery than with standard keyhole surgery, with an average post-operative hospital stay of approximately four days. There is also minimal blood loss and a reduction in post-operative pain with robotic surgery.

The Da Vinci Xi program continues to develop under the guidance of Ms Suzanne Dunne, head of strategy UL Hospitals Group and Project Manager for the Robotic Surgery Programme. According to Suzanne, “Three components have been fundamental in the programme’s success to date; team collaboration and engagement, the multidisciplinary Robotic Assisted Surgery (RAS) forum and the significant data analysis which is collated weekly. The data is crucial in term of patient outcomes, quality improvement, performance and financial monitoring.”

The robotic programme was recently further strengthened by Mr Colin Peirce who has developed the robotic assisted programme for colorectal surgery. Mr Peirce has also co-ordinated educational courses, published in Techniques of Coloproctology on the usage of the Dual Console, and delivered international lectures on the topic.

The Da Vinci Xi robotic programme at UL Hospitals Group cost €2.8 million in total and was supported by the Mid-Western Hospitals’ Development Trust, the JP McManus Benevolent Fund, University of Limerick and UL Graduate Entry Medical School. Valued at approximately €2.6m, the Da Vinci Xi robot and equipment was donated by the Mid-Western Hospitals Development Trust and funded with the generous support of the JP McManus Benevolent Fund. The CERC development is a partnership project between UL Hospitals and the University of Limerick (UL) and is co-funded by both the HSE and UL with an overall project cost of circa €12.75m. The CERC accommodates and supports the comprehensive educational, training and research needs of both the UL Graduate Entry Medical School and the UL Hospitals medical community across all disciplines.

UL MAKES KEY SENIOR ACADEMIC APPOINTMENT

Professor Kerstin Mey, Pro Vice-Chancellor and Dean at the University of Westminster has been appointed to the new role of Vice-President for Academic Affairs and Student Engagement at University of Limerick.



Professor Kerstin Mey

In this new Vice-President position, Professor Mey, who is from Germany, will direct a number of key UL services, including the Library, Centre for Teaching and Learning, Quality Support Unit, Academic Strategic Planning, Graduate and Professional Studies, Co-operative Education and Careers Division and will oversee the academic faculties and graduate studies through the Deans.

According to UL President Dr Des Fitzgerald: “Over the past 25 years Kerstin Mey has built a track record of successfully initiating and implementing pioneering academic and research initiatives and cultural projects in higher education. As an experienced leader and senior manager, she led major infrastructure and culture change programmes and set up a range of strategic external partnerships. We are very much looking forward to welcoming Professor Mey to UL and to Limerick.”

On her appointment, Professor Mey stated: “Having been attracted by UL’s values and its innovations in co-operative and entrepreneurship education, advanced research, academic programmes and rich offerings in culture and sport, I feel very privileged to join its community. I am very excited to work with UL staff, students, alumni, employers, partners and the wider community of Limerick and the region to shape the next generations of inquisitive and imaginative, engaged and resilient professionals, who make a difference in the world. I look forward to moving to Ireland and to continuing to promote a Europe that embraces openness and mobility, inclusion and equality.” Professor Mey is due to take up the UL post in April 2018.

About Professor Kerstin Mey:

After studying for an MA equivalent in Art and German language and literature at Humboldt University of Berlin, Germany, and obtaining a PhD in Art Theory and Aesthetics there, Kerstin Mey held academic positions in universities in Germany and the UK. Before she joined the University of Westminster as Pro-Vice Chancellor and Dean of Media, Arts and Design, and Professor of Contemporary Art and Theory in 2013, she was Director for Research and



Enterprise at the University for the Creative Arts, UK. From 2009-2013 she led the research strand 'Art and its Locations in Interface: Centre for Research in Art, Technologies and Design' at the University of Ulster and was Director of the Research Institute of Art and Design there.

At present, Kerstin Mey is Vice Chair of CHEAD (Council for Higher Education in Art and Design), UK, a member of the Austrian Science Board and member of the Supervisory Board of the EU funded European Centre for Press and Media Freedom. Previously, she was Director of CREST, Consortium for Research Excellence, Support and Training, in GuildHE, the interest group of small and specialist HEIs in the UK. She also served as member of the UK HE International Unit's Community of Practice for European Research and Higher Education and was a member of the Information Commissioner's Office Higher Education Sector Panel.

Her own research is concerned with contemporary art practices in relation to identity formation, digital literacies, cross-disciplinary connectivities, documentation and archives. She gives consideration to participatory and socially engaged creative practices and public pedagogies more generally. Publications include the authored book *Art and Obscenity* (2007); and, amongst others, the edited volumes: with Smite and Smites, *Artistic Research* (2011); with Kroenke and Spielmann, *Kulturelle Umbrüche: Identitäten, Räume, Repräsentationen* (2007); *On-Site/In-Sight*, special issue *Journal of Visual Art Practice*, Vols. 4.1/4.2 (2005); *Art in the Making. Aesthetics, Historicity and Practice* (2004) and *Sculpsit* (2001). She was Artistic Director of ISEA 2009, the International Symposium of Electronic Arts, which was held on the island of Ireland under the umbrella theme *Engaged Creativity in Mobile Environments*. She acts as reviewer for national and international funding bodies, academic institutions and publishers.

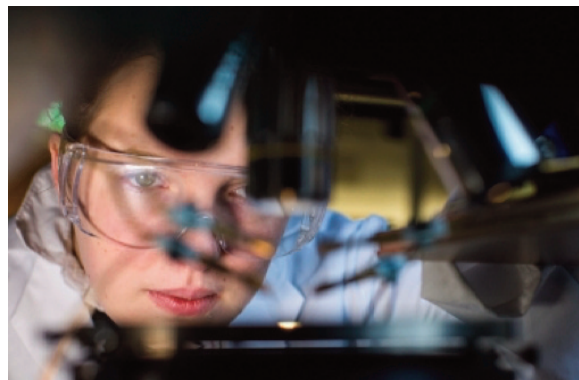
RESEARCHERS SQUEEZE LOW-COST ELECTRICITY FROM BIOMATERIAL

Mobile phone speakers and motion detectors in cars and video games may soon be powered by electricity generated from low cost and sustainable biomaterials, according to research carried out at University of Limerick (UL), Ireland. Scientists at UL's Bernal Institute have discovered that the biomolecule glycine, when tapped or squeezed, can generate enough electricity to power electrical devices in an economically viable and environmentally sustainable way. The research was published on December 4th, 2017 in leading international journal *Nature Materials*.

Glycine is the simplest amino acid. It occurs in practically all agro and forestry residues. It can be produced at less than one per cent of the cost of currently used piezoelectric materials.

Piezoelectric materials generate electricity in response to pressure, and vice versa. They are widely used in cars, phones, and remote controls for games consoles. Unlike glycine, these materials are normally synthetic and often contain toxic elements such as lead or lithium.

"It is really exciting that such a tiny molecule can generate so much electricity," said lead author and SFI-funded post-graduate researcher at the Department of Physics and the Bernal Institute, UL, Sarah Guerin.



Pictured is Sarah Guerin a post-graduate student at the Department of Physics and the Bernal Institute, UL

"We used computer models to predict the electrical response of a wide range of crystals and the glycine number was off the charts. We then grew long, narrow crystals of glycine in alcohol," she added, "and we produced electricity just by tapping them."

Sarah's PhD supervisor Dr. Damien Thompson, adds, "The predictive models we are developing can save years of trial-and-error lab work. The modelling data tells us what kinds of crystals to grow and where best to cut and press those crystals to generate electricity."

Co-author and Science Foundation Ireland (SFI) Centre for Medical Devices (CURAM) investigator Professor Tofail Syed said: "We also have a patent pending that translates our findings to applications such as biodegradable power generation, devices detecting diseases inside of the body and physiologically controlled drug pumps."

Previously, Bernal scientists discovered piezoelectricity in the globular protein lysozyme, found in tears, egg-white and saliva, and hydroxyapatite, a component of bone.

"The current finding extends the technology towards pragmatic, low-cost, renewable sources for electricity generation," according to Professor Luuk van der Wielen, Director of the Bernal Institute and Bernal Professor of Biosystems Engineering and Design. "The finding translates the earlier Bernal scientists' world-leading contribution in bio-piezoelectricity towards a large-scale and affordable application potential."

Professor Edmond Magner, Dean of Science and Engineering at UL, said: "UL's Department of Physics and Bernal Institute researchers continue to pioneer the use of biological crystals for electrical applications. This work places them at the forefront in the development of bio-piezoelectric devices."



The full paper, Control of Piezoelectricity in Amino Acids by Supramolecular Packing, by Sarah Guerin, Aimee Stapleton, Drahomir Chovan, Rabah Mouras, Matthew Gleeson, Cian McKeown, Mohamed R Noor, Christophe Silien, Fernando M F Rhen, Andrei L Kholkin, Ning Liu, Tewfik Soulimane, Syed A M Tofail and Damien Thompson, is published in Nature Materials, December 4, 2017.

UL RESEARCHERS TAKE ON GLOBAL PHARMA'S BIGGEST CHALLENGE

Enterprise Ireland Commercialisation Fund Programme investment aims to have next generation nano-medicines developed in Ireland.

Scientists at University of Limerick (UL) are teaming up with Enterprise Ireland (EI) to commercialise continuous nanomanufacturing technology which promises to transform the pharmaceutical market.

The project, which launches in January 2018, aims to tackle the biggest challenge facing the pharmaceutical industry today. While pharmaceutical companies are continually developing new drugs, seven out of ten of those drugs never reach the patient. This is not because they are ineffective at treating disease but because they are not soluble enough to be absorbed in the body.

Dr. Luis Padrela, lecturer in industrial biochemistry in UL's Bernal Institute, aims to change that. The key, according to Dr. Padrela, lies in nanotechnology. EI's Commercialisation Fund Programme has invested nearly half a million euro to enable Dr. Padrela and his team bring their solutions to market.



Dr. Luis Padrela, UL

Dr. Padrela explained, "When poorly soluble drugs are produced at microscopic levels, or nanoparticles, they dissolve much more easily and can be targeted more effectively at disease. However, the manufacture of these nanotech drugs on a commercial scale remains a major challenge. That is the problem that we intend to solve."

Dr. Padrela and his UL team are developing continuous scalable methods of drug manufacture at the nano-level. Their research has attracted both national and international attention. Success in this area would mark a significant

advance in the treatment and prevention of global ill-health.

The commercialisation project starts this month and will run for two years. The aim will be to establish a technology-based start-up/spin-out close to the end of the project. This new technology will meet the need of the next generation of (nano) medicines by generating faster-working drugs and leading to significant patient benefit.

The global pharmaceutical industry is a \$1 trillion sales business with about 35% of sales in US and 15% in Europe, representing more than €30 billion in exports within Ireland. Ireland is one of the leading locations for the pharmaceutical industry in Europe with nine of the top 10 global pharmaceutical companies with operations in Ireland.

It will also have significant impact on revenues of pharmaceutical companies based in Ireland, increase Ireland's competitiveness and enhance Ireland's position as a location of choice for manufacturing.



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