National Institute of Health Sciences

Research Bulletin

IN THIS ISSUE:

- Blood Transfusion - A Hybrid Solution to Replenish the Diminishing Donor Pool
- Isolated Nocturnal Hypertension and Subclinical Target Organ Damage - A Systematic Review
- Radical Prostatectomy for Locally Advanced Prostate Cancer - Functional and Oncological Outcomes
- The Burden of Uncontrolled Diabetes on the Acute Hospital Services in Ireland 2008-2013. An Important Prevention Quality Indicator
- Psychological Distress and Lifestyle of Students - Implications for Health Promotion

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| CONTENTS |

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| CONTENTS |

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Contents

Feature Article

CLINICAL RESEARCH

Medical

Medical (Ongoing)

Medical (Published)

Contents

CLINICAL RESEARCH

Medical (Published)

Obstetrics & Gynaecology (Ongoing)

Urology

Dermatology

Nursing and Midwifery

Contents

CLINICAL RESEARCH

Mental Health Services

Mental Health Services (Ongoing)

Drug and Alcohol Services

Speech and Language Therapy

Physiotherapy

Physiotherapy (Ongoing)

Physiotherapy (Published)

Bioengineering (Ongoing)

Bioengineering (Published)

Contents

CLINICAL RESEARCH

Pharmaceutical (Published)

POPULATION HEALTH

Public Health (Ongoing)

Public Health (Published)

POPULATION HEALTH

Health Promotion

Health Promotion (Ongoing)

Health Promotion (Published)

HEALTH SYSTEMS RESEARCH

Medical Education (Published)

Contents

HEALTH SYSTEMS RESEARCH

Continuous Professional Development

Continuous Professional Development (Published)

Communication

Communication (Published)

Primary Care

Pre-Hospital Care

Nursing Home Sector (Ongoing)

Mental Health Services (Published)

Nursing and Midwifery

Nursing and Midwifery (Ongoing)

Public Health

Abstracts

Abstracts

Research Bulletin
Volume 7 Issue 3

| CONTENTS |

Swelling, Erythema and Induration in the Genitalia of Paediatric Patients?
Think of Metastatic Crohn's Disease - Delay in Diagnosis can Cause Significant Morbidity

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INTRODUCTION

Metastatic Crohn's Disease (MCD) is a cutaneous manifestation of Crohn's Disease (CD) characterised by noncaseating granulomatous inflammation of the skin at sites distant from the gastrointestinal tract.[1] It is the least common dermatological manifestation of CD but likely to be under-diagnosed due to its varied clinical presentation. Although well recognised in adults, there has been limited published literature on children with MCD. In children, MCD most commonly manifests with genital involvement. We report on two children who presented with cutaneous dermatoses of the genitalia, and after significant delay were diagnosed with MCD resulting in physical and psychologic morbidity. We reviewed the literature on MCD of the Genitalia in Paediatrics, summarising the most relevant clinical aspects of the disease, aiming to increase awareness of the clinical features of MCD in order to prevent future delay in diagnosis.

Case Report 1

In **September 2011**, a 14 year old girl with a 2 year history of vulvar swelling and itch, was referred by her GP to Dermatology at University Hospital Limerick. Examination revealed moderate vulvar swelling and lichenification. A putative diagnosis of eczema was made and she was treated with topical clobetasone and emollient soaks resulting in minimal improvement. Standard series patch test was negative. She was referred to gastroenterology to investigate the possibility of CD. A vulvar biopsy showed no evidence of granulomatous inflammation.

By **February 2012**, her vulvar swelling had worsened significantly. She was reviewed at a Dermatology meeting and treatment with a 2 week course of oral prednisolone was recommended, resulting in some initial improvement. She was also referred to a lymphoedema therapist for treatment but did not respond to decongestive therapy. Findings on a MRI pelvis suggested left iliac AV malformation causing vulval varices. As a result she was reviewed by a paediatric dermatologist and a vascular specialist. Vascular involvement and the possibility of May-Thurner Syndrome were subsequently ruled out. Colonoscopy performed in August 2012 was normal. She remained under the care of Paediatric Dermatology for 10 months. Treatment during this time consisted of topical potent steroids, resulting in temporary improvement and intermittent courses of oral steroids resulting in significant improvement. Due to suspected attacks of cellulitis she was treated with a 3 month trial of penicillin with modest results.

In **May 2013** a consultant dermatologist from St. George's Hospital in London reviewed the patient at a specialised lymphoedema clinic. At this stage the patient was suffering from alternating bouts of diarrhoea and constipation. Clinical examination revealed lymphoedema, erythema and indurated skin. Despite normal findings on a recent colonoscopy, the patient was clinically diagnosed with anogenital granulomatous secondary to CD and it was suggested the patient have 3 further vulvar biopsies. Three months later 3 vulvar biopsies were taken which showed granulomatous inflammation suggestive of Cutaneous Crohn's. The patient was commenced on an 8 week tapering dose of Prednisolone and on Azathioprine 50mg twice daily. Due to minimal improvement, Azathioprine dose was increased to 75mgs twice daily. Despite some improvements she continued to have midline cutaneous Crohn's with lymphedema.

By **April 2014**, she was suffering from severe constipation alternating with diarrhoea which was affecting her quality of life and resulting in missed days from school. A repeat colonoscopy confirmed the presence of CD of the bowel. The patient's vulvar condition was largely refractory to courses of steroids and continuous azathioprine. In **August 2014,** the patient was assessed by a Plastic Surgeon at St. George's Hospital, London. She was successfully treated with interlesional Triamcinolone to the vulvar area, resulting in a 75% reduction in swelling, and surgery to remove some redundant skin and a vulvar polyp.

In **January 2015** to prevent relapse she was restarted on azathioprine. She was able to tolerate 25mgs daily taking with an antiemetic. On last review in **June 2015**, her skin had returned to normal.

Case 2

In **July 2011**, a 15 year old boy, with a 2 year history of severe scrotal and penile swelling, presented to Dermatology at University Hospital Limerick. He had previously been diagnosed with flexure eczema by his GP and referred to Urology who suggested a diagnosis of cutaneous CD or Hidradenitis Suppurativa. He had no history of gastrointestinal symptoms. On presentation to Dermatology, clinical examination revealed diffuse penile and scrotal swelling suggestive of lymphoedema. There were marked erosions of skin in both groins and in his umbilical area. The differential diagnosis included pemphigus and cutaneous Crohn's. The results of a skin biopsy were non-specific but raised the possibility of CD and ruled out pemphigus. The patient was referred for gastroenterology review. Five months later, the patient was admitted to hospital with severe scrotal swelling.

Urgent upper and lower endoscopies were normal. Cutaneous Crohn's still remained the most likely diagnosis, and he was commenced on infusions of infliximab, hydrocortisone and chlorphenamine at 2 weekly intervals which resulted in a significant improvement.

By **April 2012**, after receiving a total of 5 infusions of Infliximab, he reported a massive improvement in symptoms and was able to walk pain free. However, he did report intermittent non-bloody diarrhoea and difficulty urinating. Examination revealed a significant reduction in lymphoedema but a tender scrotal skin tag remained. His bloods revealed a low haemoglobin (10), macrocytic anaemia with a raised MCV (115.7) and low vitamin B12 (168ng/ml). He was started on B12 replacement and referred to a specialist lymphoedema nurse. Treatment with infliximab infusion was continued eight weekly resulting in considerable improvement in scrotal and penile oedema but some swelling persisted. Follow-up bloods revealed low ferritin and folate and he was commenced on iron infusions and daily folic acid. Cutaneous Crohn's remained the most likely diagnosis but CD had not yet been confirmed by gastroenterology.

In **July 2012**, the patient was referred to a consultant psychiatrist due to difficulty coping with his condition. Nine months later he was commenced on 5 mgs of weekly methotrexate to help prevent antibodies to Infliximab. He was continued on 8 weekly infliximab infusions and daily folic acid.

In **May 2013**, repeat colonoscopy confirmed a diagnosis of CD. Two months later, penile scarring and redundant excess penile skin was noted. He was referred to Urology and underwent a modified circumcision for removal of redundant penile skin which had been causing painful erections and ballooning when urinating.

In **June 2015**, on review appointment with Dermatology it was noted that his skin had greatly improved and examination was essentially normal. He reported no changes in skin or bowel symptoms. Treatment with Infliximab was stopped in May 2015 but he was continued on Methotrexate for 3 months. Review appointment was due at the end of August 2015.

Discussion

To date 51 children have been reported with a diagnosis of MCD of the genitalia with a near equal gender balance. The average age at presentation was 10 years. Clinical symptoms were variable which is consistent with previous findings.[2,3] Swelling, erythema and induration of the skin were the most common clinical features for both girls and boys (see Tables 1 and 2). Only 11.1% of girls and 33.3% of boys had a previous diagnosis of CD. At presentation however, 55.6% of girls and 42.7% of boys complained of gastrointestinal symptoms. Perianal involvement was a common clinical feature occurring in 81.5% of girls and 54.2% of boys. Children presented to a number of different medical specialities including Paediatrics, Dermatology, Gastroenterology, Primary Care and Emergency Department. The differential diagnosis of MCD was very broad and almost half of children were incorrectly diagnosed. Dermatitis and sexual abuse were the most common misdiagnoses, the second of which has serious implications for both the child and their parents. Early diagnosis and treatment of CD is imperative in children as CD in paediatric patients may result in failure to thrive, growth impairment, delayed puberty[4] and psychological morbidity, which impacts on education, relationships and psychosexual development.[5]

For children without a history of CD, there was a wide variation in time from start of genital symptoms to eventual diagnosis of CD, ranging from 6 weeks to 10 years for girls (mean duration 21 months) and from 1 week to 4 years for boys (mean duration 11.7 months). Our findings support previous results that for a definite diagnosis of MCD, a genital skin biopsy and colonoscopy should be performed.[6]

A wide variety of treatments, have been documented included metronidazole, sulfasalazine, corticosteroids, azathioprine, infliximab, tacrolimus, antibiotics and surgical treatment for removal of excess and oedematous tissue. It is uncertain from this review as to which modality will be most successful but it is a condition that requires a multidisciplinary approach.

Similarly to the above findings, the children in both case reports presented without a prior history of CD or gastrointestinal symptoms and had their symptoms for a long time before clinical presentation. They both underwent a complex diagnostic pathway and were reviewed by numerous different medical specialities before being diagnosed with MCD of the genitalia. Interestingly, in Case Study 1, the 3 clinical features the consultant dermatologist based his clinical diagnosis on were lymphoedema, erythema and indurated skin. Both children in the case reports had significant delay in diagnosis leading to progressive physical and psychological morbidity. Our findings support previous results that for a definite diagnosis of MCD, a skin biopsy and colonoscopy should be performed.[6] For both patients, treatment required a multidisciplinary approach. Both children in the case reports were successfully managed with a combination of medical and surgical treatment.

CONCLUSION

Our findings highlight the importance of MCD in the differential diagnosis of children presenting with genital swelling, erythema and induration even in the apparent absence of CD. Common clinical features of MCD of the genitalia include swelling, erythema or induration of the skin and perianal involvement. Delay in diagnosis can cause significant morbidity

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Table 1 - Symptoms and Signs at Presentation of Girls with MCD of the Genitalia

Symptom/Sign	Number/Group	Percentage
Swelling	21/27	77.8%
Erythema	13/27	48.1%
Induration	6/27	22.0%
Pain	3/27	11.1%
Pruritus	3/27	11.1%
Ulcers	2/27	7.4%
Abscess	2/27	7.4%
Enlargement	2/27	7.4%
Discharge	1/27	3.7%
Plaques	1/27	3.7%
Erosions	1/27	3.7%
Vesicular Lesion	1/27	3.7%
Papules	2/27	7.4%
Vulvar Nodules	1/27	3.7%
Peduculated Lesion	1/27	3.7%

Table 2 - Symptoms and Signs on Presentation of Boys with MCD of the Genitalia

Symptom/Sign	Number/Group	Percentage
Swelling	23/24	85.2%
Erythema	9/24	37.5%
Plaque	2/24	8.3%
Induration	3/24	12.5%
Vesicle	1/24	4.2%
Enlargement	1/24	4.2%
Pain	1/24	4.2%

| CONTENTS |

Treatment Free Remission in Chronic Myeloid Leukaemia - A New Goal: Is This Possible in Two Irish Regional Hospitals?

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INTRODUCTION

Chronic Myeloid Leukaemia (CML) is a common leukaemia comprising 15-20% of leukaemia in adults. Treatment of CML was revolutionised by the advent of tyrosine kinase inhibitors (TKIs) in the late 1990s. TKIs, though generally well tolerated, can have significant side effects. Emerging evidence from clinical trials now shows treatment free remission (TFR) as a new goal with two further clinical trials currently ongoing in this area, ENEST Freedom and DESTINY.

METHODOLOGY

Currently in Limerick University Hospital and Waterford Regional Hospital CML clinics exist covering approximately 800,000 people. We examined the records of 58 patients from 1999 to the present to see who may be suitable for cessation of TKI therapy. We specifically looked at date of diagnosis, length/choice of TKI, and times of HR, CCR, and MMR/MR4.5. Potential patients were identified using the criteria set out by the TWISTER Trial.[1,2] The minimum criterion was molecular response of 4.5log for at least 2 years with low sokal score, prior interferon, and longer TKI duration among other favourable factors.

RESULTS

Our data showed a total of 58 patients attending outpatients over a period of fifteen years. Of these, 52 (89.6%) remain alive on active follow-up. Over 80% were started on Imatinib as first line therapy and of those over half remain on Imatinib. Two had interferon therapy prior to TKI. We were able to identify 15 patients who may be suitable to stop treatment with a molecular response of 4.5log for at least two years on TKI Therapy. This data was collected using patient charts, lab results system, and the Cancer Molecular Diagnostics laboratory in St. James's Hospital.

CONCLUSION

Data from clinical trials suggests a sustained TFR post-stopping TKI in 30-50% of selected cases, suggesting TFR is an achievable goal. Our 15 patients represent a potential cohort in which stopping TKI treatment could be beneficial. TKIs, though well tolerated can have multiple problematic side effects. In addition they incur a significant cost. Trial data so far has not shown feared mutations in patients stopping TKIs, alleviating fears that medications would not work once restarted. However, it is preferable to undertake such treatment decisions in the context of a clinical trial so that patients can be closely monitored and important data can be collected.[3] Unfortunately, at this time there is no clinical trial available to patients in Ireland who are currently on Imatinib or Dasatinib therapy.

PRESENTED

At the Haematology Association of Ireland on October 17th, 2014 by Emma Groarke.

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Available on request.

Uptake of Pneumococcal and Influenza Vaccinations among Irish Rheumatology, Gastroenterology, and Dermatology Patients Prescribed Immunosuppressive Therapies

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INTRODUCTION

Patients taking immunomodulatory therapies are at higher risk of infection compared to healthy individuals.[1] Over the past eight flu seasons in Ireland between 200-500 people died annually from influenza related illness.[2] The population at most risk of serious morbidity and mortality are patients over 65 years of age, pregnant women, patients with chronic disease, and those who are immunosuppressed due to medications or illness.[3] Streptococcal pneumoniae infection is one of the leading causes of death worldwide. Invasive pneumococcal disease which can result in pneumonia, meningitis or septicaemia, has a mortality of over 50%. A study published by the Health Service Executive (HSE) in Ireland reported 293 cases of invasive pneumococcal disease in 2006.[4] This resulted in 7 confirmed deaths, however this figure is not representative of the true mortality rate from streptococcal pneumonia infection as patient outcomes were not available in 90% of cases.[5] Current Irish and international guidelines recommend immunocompromised patients to be vaccinated yearly against influenza, and every five years against pneumococcal.[6,7]

OBJECTIVES

The aim of this research was to examine the literature available on vaccination status and vaccine uptake rates in Ireland amongst immunocompromised patients in Rheumatology, Gastroenterology and Dermatology departments.

METHODOLOGY

The search was carried out on electronic databases using specific terms such as (immunocompromised OR immunosuppressed) AND (vaccine OR vaccination) and (pneumococcal OR influenza.) The search was refined in PubMed by only using reviews written in English and those published in the past 10 years. Additional articles were found in the Irish Medical Journal and National Institute of Health Sciences Research Bulletin.

RESULTS

There were a number of published studies assessing vaccination uptake rates in Irish rheumatology patients. The Irish Society of Rheumatology proactively monitors patients' vaccination status, and sends out postal reminders to patients when it is time to be vaccinated, and it offers a telephone hotline to a rheumatology nurse for any queries patients have regarding medications, vaccinations, and treatments.[8] The studies identified assessing rheumatology patients' vaccine uptake rates were from University Hospital Limerick,[9] St. James's Hospital, Dublin,[10] Victoria University Hospital, Cork[11] and Cork University Hospital,[12] and each study had a different sample size and vaccine uptake figures. By combining the four sets of rheumatology figures for influenza (196) and pneumococcal (67) and dividing by the total number of rheumatology patients from the four studies (413), the average estimated influenza vaccine uptake across the rheumatology studies in Ireland was 47%, and 16% for pneumococcal uptake.

Despite the importance of vaccination and vaccine surveillance, there was no available literature published in Ireland regarding gastroenterology vaccine studies on immunosuppressed patients.

A retrospective audit conducted by the Dermatology Department at University Hospital Limerick,[1] surveyed dermatology patients prescribed immunosuppressive therapies which included biologics, methotrexate, fumaric acid esters, azathioprine, cyclosporine, and mycophenolate mofetil. Of 170 patients, 38% had received the influenza vaccine and 21% had received the pneumococcal vaccine. The study showed that patients with co-morbid conditions representing an independent risk factor for infection and indication for vaccination were more likely to have both vaccines. A number of reasons for low vaccination uptake amongst patients were identified from the study.

CONCLUSIONS

Vaccine uptake is sub-optimal in every study reviewed. Patient education and vaccination strategies need to be adopted to deal with this important issue, as development of preventable and potentially life threatening infections may seriously undermine the benefits of their immune-modulatory therapy.

| CONTENTS |

In-Patient Experiences of a Multidisciplinary Stroke Rehabilitation Unit

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INTRODUCTION

The Health Information and Quality Authority advocate using service user feedback to guide person-centred care and service development.[1] Limited research exists, especially in an Irish context, in terms of service user experiences of stroke care and rehabilitation.[2]

OBJECTIVE

The objective of the study was to investigate patients' views of their in-patient experiences on a stroke rehabilitation unit.

METHODOLOGY

A mixed methodology was employed using quantitative and qualitative design.

Feedback was collected via written questionnaire posted to patients who had attended the unit over a 6 month period. The questionnaire was obtained through the Picker Institute Europe and the Care Quality Commission,[3] and adapted for use in this study. A total of 20 questions were asked that related to their stay in hospital and the treatment received.

A total of 30 patients living in the South County Dublin/North Wicklow area were invited to participate in the study. There were no exclusion criteria. Stroke type varied (ischemic and haemorrhagic). Many of the patients invited to participate had cognitive or linguistic deficits and indicated that they received help in filling in the questionnaire.

RESULTS

The response rate was 66.67% (20 questionnaires returned). Results were analysed quantitatively. 100% of respondents indicated that they were always treated with respect and dignity. Patients' views rated highly in terms of feeling involved in planning for their rehab goals (90%). Areas for development were identified, with 45% of patients indicating that there were not enough appropriate activities/social opportunities available.

Qualitative feedback highlighted the importance of the wider team in meeting the patients' care needs. The role of the CNS was reported to be a particular area of benefit. Suggested areas for social activity were identified.

CONCLUSIONS

In general, respondents to the survey were extremely positive about the treatment they received in hospital for their stroke. Some areas of improvement were identified and will be used to inform future service developments. Limitations of the survey, such as the small sample size, are acknowledged. Suggestions for further research are noted. The importance of gathering patient feedback to inform patient-centred care is discussed.

REFERENCES

Available on request.

PRESENTED

As a poster presentation at the Irish Heart Foundation 18th Annual Stroke Conference in March 2015.

| CONTENTS |

Osteoporosis Management Following Teriparatide Therapy for Vertebral Fractures - Are Patients on Correct Maintenance Therapy?

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INTRODUCTION

Teriparatide is used as a daily subcutaneous therapy for severely osteoporotic patients, with therapy duration of 18 to 24 months. It functions as an anabolic agent, and demonstrates increases in cortical thickness and reduces fracture risk. For the benefits of teriparatide to be sustained anti-reabsorbative therapy, in combination with calcium/vitamin D supplementation, should be initiated/re-started long-term after teriparatide therapy.

METHODOLOGY

All patients prescribed teriparatide therapy from 2009 to 2012 were identified from departmental prescription records. Contact information was identified from local hospital databases. Patients were sent a pre-study letter outlining the nature of the study and the questions. This was followed by a telephone call, within two weeks, from the investigators. Three telephone attempts were made to contact participants after which they were excluded from the study. Participants were asked to list their current medications, background diagnoses and if they sustained a fracture since completing teriparatide therapy.

RESULTS

A total of 113 patients were identified from records; 42 were contacted and consented to participate in the study, 16 were deceased and 55 were uncontactable despite three attempts. Of the 42 enrolled, 45.2% (n=19) were no longer on a calcium or vitamin D supplementation and 57.1% (n=24) were no longer on an anti-reabsorbative, despite it being prescribed at their post-teriparatide rheumatology assessment prior to discharge to GP care.

CONCLUSIONS

Despite being prescribed an anti-reabsorbative osteoporosis medication and calcium/Vitamin D supplementation on completion of teriparatide therapy there was a significant number of patients who no longer took these medications. The reasons for discontinuation are undocumented. This leaves them exposed to a sub-maximal benefit from therapy and an increased future fracture risk. This care gap needs to be tackled.

Shannon Health Centre Leg Ulcer Audit from September 2012 to June 2014

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INTRODUCTION

Shannon leg ulcer clinic (LUC) serves a local population of over 35,000.[1] This clinic has been treating patients with LUs for over ten years. Five years ago the HSE invested in the education of community nurses in the Mid-West to carry out doppler assessment and general assessment of LUs. Healing rates of LUs in this community and the efficiency of this leg ulcer clinic has never been recorded.

METHODOLOGY

This was a retrospective audit looking at all patients who attended Shannon LU Clinic for either assessment or treatment during the period September 2012 to June 2014. Once a week two nurses with an interest in LUs provide care to this group. Patient care is planned, based on a comprehensive assessment of each patient with the aid of doppler assessment.

The Audit tool used was the Evaluation and Audit form from "HSE Guidelines for the community Nurse Lead Clinic.[2] Additional information was collected that was of interest to the data collector. All data was collected, coded and put onto excel. All analysis was then carried out using Microsoft Excel and IBM SPSS statistics 21.

RESULTS

- The total number of people seen was 71(35 Males, 36 females)
- The average age was 71 years and ranged from 32 to 93 years
- There were 89 leg ulcers assessed. 13 Patients (18%) had bilateral leg ulcers (9 male, 4 female); 7 patients were for assessment only
- Of those not counted, 6 clients had died (3 had bilateral leg ulcers). 7 remain in treatment (2 bilateral both non-compliant)

Study results were assessed using only those patients who were deemed 'healed and in stockings' and or 'healed and no stockings' (42 patients).

- Mean and Median time to healing were 12.6 and 8 weeks ranged from 3 weeks to 86 weeks
- Referrals came from PHN (39.4%), GPs (33.8%), Hospital (9%), self-referrals (7%), Pharmacy (5.6%), RGN (4.2%)
- Eczema affected 58.5% of patients and those affected took on average 10.29 weeks longer to heal (std 5.25 weeks) compared to patients without eczema (n=17) and this difference was significant $p < 0.005$. Those with eczema had an average healing time of 16.92 weeks - 21.4 weeks versus 6.53 weeks for patients without eczema
- Weight (n=19) did not impact on their healing rates
- Diabetes (n=6) did appear to have longer healing time (7.49 longer) but due to small numbers this was not significant. They had an average healing time of 19 weeks - 32.95 weeks
- Presence of 1 or more co-morbidities (n=31) took on average 7 weeks longer healing (STD 6.2 weeks) than patients who had no complications (n=10). This was approaching significance, $p<0.052$. Those with 1 or more complications had an average healing time of 14.3 weeks - 19.5 weeks versus 1.8 weeks - 7.4 weeks for patients who had no complications
- The most common compression used was Actico 48.4%, Non-compression 18.8%, Coban 17.2%, Stockings 12.5%, and Profore 3.1%
- Only 31% of patients were referred for a vascular consult (only included those with leg ulcers n=64)
- Number of Doppler assessments 64
- Not surprisingly those that were "non-compliant" 9 (12%) spent longer in treatment. They included 32 and 75 weeks and/or still in treatment or died (4)

CONCLUSION

Community clinics are an efficient and cost-effective means of managing chronic leg ulcers.[3,4,5] Shannon LUC is providing a specialized dedicated service which has seen an improvement in rates of healing from an average of 20-40 weeks heal rate to 8-12 weeks rate since it was last measured in 1999.[6] This clinic is a huge resource for local GPs. Only 31% of patients required hospital input therefore reducing the demand on hospital services. The efficient running of these clinics depends on the expertise, education and continuity of the nurses running them. Community LUCs improve healing rates by standardizing care whilst maintaining patient independence.[7,8,9,10] It is important that there is continuous investment in maintaining educated staff in LU clinics in order to continue improving healing rates, reduce the financial costs and maintain better outcomes for patients.

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Streamlining the Management of Blood Group O RH Negative Blood Stock - A Single Centre Irish Experience

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Magdalina, A.,[3]
Mitchell, S.,[3]
Smith, N.,[2]
Cahill, E.,[2]
Quane, S.,[2]
Power, J.,[4]
O'Keeffe, D.,[1]
Leahy, M.,[1]
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INTRODUCTION

Group O Rh D negative blood is an important resource as it is can be transfused to patients of all blood types. According to most recent figures from the Irish Blood Transfusion Service, 8% of the general population are blood group O Rh D negative, but 14% of all blood used in clinical practice is group O Rh D negative. Inappropriate usage (use of O Rh D negative blood for non-O Rh D negative patients on an elective rather than emergent basis that is greater than 3 days from expiry of the red cell concentrate (RCC)) and use of short-dated group O Rh D negative blood (RCC less than 3 days to expiry) frequently occurs. This should be minimised given both the importance of this blood group and its scarcity. However, the use of short-dated O Rh D negative blood is acceptable to avoid wastage when all reasonable efforts have been made to give it to O Rh D negative patients.

OBJECTIVES

To develop a system to minimise inappropriate use of group O Rh D negative blood within the UL Hospitals.

METHODOLOGY

In 2011, a strategy was adopted within the Mid-West Regional Hospitals (MWRH) in Ireland to streamline stock management of group O Rh D negative blood supply. The UL Hospital Group (previously MWRH until 2012) is made up of the main university hospital (the hub) and 5 other clinical sites. The Munster Regional Transfusion Centre, a branch of the Irish Blood Transfusion Service (IBTS), supplies blood to the UL Hospitals (ULH). Currently, ULH maintains 16 units of emergency O Rh D negative blood in the 5 satellite hospitals. Prior to 2011, these were supplied via the hub. In 2011, a mathematical model developed by the Mathematics Applications Consortium for Science and Industry (MACSI) in the University of Limerick determined that replenishing the oldest emergency stock in any of the six hospital sites (the hub plus 5 satellite sites) from the source as opposed to from the hub and moving the oldest stock in the satellite sites to the hub would improve O Rh D negative stock management and reduce inappropriate use. Stochastic simulation was used to prove that the mathematical model would work in real time. Use of group O Rh D negative blood was then audited before (2009), immediately after (2011) and 3 years after (2014) implementation of this model.

RESULTS

The breakdown of usage of the group O Rh D negative red cell concentrate was audited, paying particular attention to inappropriate usage and use of short-dated group O Rh D negative blood. The initial audit (2009) showed that the rate of inappropriate use was 22% and the rate of transfusion of short-dated O Rh D negative units to non-group O Rh D negative patients was 21%. Following implementation of the model (2011), the rate of inappropriate use and short-dated use had markedly improved at 8% and 6%, respectively. A repeat audit performed 3 years later (2014) showed that the rate of inappropriate use was 0% and rate of short-dated use was 13.7%.

CONCLUSION

This audit shows that the rate of inappropriate use of group O negative Rh D negative blood has reduced to 0 with our current group O Rh D negative blood stock management system. The use of short-dated group O Rh D negative blood did increase from 6% to 13.7%. This remains well below the pre-2011 figure of 21% and illustrates the improved management implemented. In conclusion, this audit shows an effective blood stock management system for O Rh D negative blood that minimises wastage and is likely to be directly applicable to other hub and spoke model hospital networks. Future efforts may include requisition of newer blood to the hub to prevent short-dating.

PRESENTED

As a poster presentation at the European Haematology Association Meeting from June 11th-14th, 2015.

Blood Transfusion - A Hybrid Solution to Replenish the Diminishing Donor Pool

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INTRODUCTION

A voluntary non-remunerated blood donation cannot be made without a procurement organisation to mediate the exchange from vein to vein. The Irish Blood Transfusion Service (IBTS) facilitates such an exchange between donors and patients but in order to ensure the safe transfusibility of blood products, as well as the health of donors, deferrals have to be made. On any given day, more donors attend blood donation clinics than are actually bled. It is not that these donors are not needed, rather it's a precautionary measure to safeguard the national blood supply. This research aims to investigate whether the blood donor pool has been irrevocably diminished by the incidence of first-time temporarily deferred donors not returning to follow through on their original intention to give blood. It seeks hybrid solutions to boost blood stocks and counteract the negative psychological effects deferrals have in deterring donors indefinitely.

METHODOLOGY

The recipe for this research was both quantitative and qualitative. A sample of temporarily deferred donors who had not returned to give blood within two years of their first attempt to donate were contacted via e-mail and invited to complete an online survey. The sample size was 3,596 with a response rate of 7.3% (263 responses). Results were analysed using the Statistical Package for the Social Sciences (SPSS) software. Staff of the IBTS (scientists, nurses and doctors) were interviewed for their interpretation of the statistics and colloquial responses gauged from the surveyed donor segment. Marketing and Medical staff from the New York Blood Centre (NYBC) were also contacted and interviewed for an international perspective. A literature review was completed to cover the history of blood transfusion and the historical photographic archive of the IBTS was explored to see how the service has evolved into a successfully altruistic and industrious organisation today.

RESULTS

The most commonly cited motivating factor for giving blood is benevolence followed closely by camaraderie. The most common deferral reason within the sample was low haemoglobin (iron levels too low) with 23.3% of the sample reporting this. Interestingly, 77.5% of the sample were female. The way of testing haemoglobin levels in the olden days (see photograph), was to take a droplet of the donor's blood and observe how it would react in a copper sulphate solution. If it rose to the top of the solution, it indicated too low a level to donate, thus yielding a temporary deferral. If it sank to the bottom of the solution, the donor was deemed eligible to donate based on having a sufficient iron level. After low haemoglobin, 9.5% of the sample were deferred based on the fact that they had returned from travel to a tropical/malarial area within the preceding few months; 8.8% of the sample presented themselves at the clinic despite having a cold/feeling unwell on the day; 15% of the donors surveyed admitted that they left the clinic without understanding the medical reasoning behind why they had been deferred. The placebo effect of giving blood is marketed well by the IBTS through such slogans as 'You get more than you give' and 'Join Ireland's most extraordinary club'. Titmuss[1] describes the relationship between donor and patient as a 'gift relationship', one that would become damaged if the donor was motivated to give blood for economic rather than social gains. When donors are deferred from making their 'initiatory gift' which is usually 'given in full spontaneity', they leave the clinic without feeling a 'warm glow' from giving[2] making them less likely to return despite becoming eligible to do so again. A total of 68.5% of the sample believed it was appropriate to describe a blood donation as a 'gift'.

CONCLUSION

"There is no remedy as miraculous as bleeding"[3]

This research shows that deferral disenchants would-be donors through the imposition of a temporary deferral which can be psychologically interpreted as discriminatory. This study found that 47.5% of the sample had been irrevocably lost from the donor pool. The evidence for this comes from the finding that this percentage knew that they were deferred for less than six months since 2009 and had not returned/were not willing to return by 2012. Communication with such donors ceases after their non-return of two years. Only 32.1% of the sample actually did return to follow through on their original intention to donate. An organisational solution was explored in the form of Hereditary Haemochromatosis clinics which transform patients into donors by means of bleeding them for therapeutic phlebotomy into donor packs. If haemachromatosis patients are temporarily deferred, they can still receive their treatment from the blood transfusion service by being bled into a discard pack. Therefore, even a first-time temporary deferral is not likely to result in a disengagement from the service altogether. This simultaneous treatment-replenishment approach attracts a whole new genre of blood donors who can make up for those inadvertently lost (15.4%) through the misinterpretation of temporary deferral reasons.

REFERENCES

Available on request.

PRESENTED

In partial fulfilment (30%) of the Master of Science in International Management, Trinity College Dublin, 2012. (This research thesis obtained a first class honour grade).

| CONTENTS |

Effects of Punicalagin Compounds on hERG Currents Expressed in Human Embryonic Kidney (HEK) Cells

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INTRODUCTION

Punicalagin is a large molecule bioactive polyphenol with molecular formula:$C_{48}H_{28}O_{30}$ found in abundance in lots of fruits and nuts including pomegranate whole fruit. Punicalagin has many beneficial effects through its anti-oxidant, anti-viral and anti-tumour activity and immune supporting effects. Punicalagin is also known to modulate and inhibit lymphocte activity through the NFAT pathway. Before testing this compound on small animal models as a part of our future in vivo studies to look into its role as a potent inhibitor to intraepithelial lymphocyte (IEL) proliferation within the lamina propria, we investigated the influence of Punicalagin on wild type hERG K+ channels in stably transfected human embryonic kidney cells (HEK203) to study its safety profile in vitro. Five concentrations from 1µM to 100µM were tested, and their effect on peak hERG tail currents were measured. IC50 mean ± SEM of 31.9 ±4.4 µM was achieved which shows that punicalagin has a very weak or no inhibition effect and therefore can be safely administered per oral to small animals without any major cardiac side effects.

OBJECTIVE

This study was conducted to gather information about the suitability of Punicalagin to be a safe compound for per oral administration to small animal models to study its intra epithelial lymphocyte (IEL) inhibition characteristic in vivo and to calculate its optimum dosage requirement.

METHODOLOGY

Extracellular bath solution preparation comprised of 125mM Nacl, 5.36mM KCL, 10mM Glucose, 2.9mM Sucrose, 4.17mM.$NaHCO_3$, 0.44 mMKH_2Po_4, 0.5mM MgCaCl2, 0.4mM $MgSO_4$,10mMHEPES .pH7.4. Intra-cellular pipette solution was made of 133mM KCl,1.0mM Mgcl2,0.5mM EGTA,1mM EGTA,l mM Na2 ATP, 0.1 mM NaGTP,2.5 mMNa2 Phosphocreatine,10mM HEPES, pH7.2. The experiments were carried out at 37 degrees celsius using the following protocol. Cells were held at -60mV, hyperpolarised for 100ms to -80mV and then depolarised for 1s to +20mV before repolarising to -60 mV for 3s to evoke large tail currents. The peak amplitude of the tail current at -50 mV was measured before and after the application of each concentration of the compound. The five concentrations of punicalagin of specification >98.0% by HPLC tested were from 1mM to 100mM. For the compound a summary plot of the percentage of the current remaining in each concent-ration was constructed for n≥3 replicates. Punicalagin obtained from Chengdu Biopurify Phytochemicals Ltd. in a powder form was made into a 10mM stock using ethanol. The five required concentrations were made up into 20mls reservoirs by adding the appropriate volume of 10mM stock. The volume of drug vehicle (ethanol) in each of the reservoirs matched the volume used for the highest drug concentration e.g. 1µM required 2µl of the 10mM stock to be added to 20mls to have ethanol content the same as the highest drug concentration (i.e. 200µl)198 µl of ethanol was added to the reservoir.

RESULTS

Figure 1 shows the effect of increasing concentration of Punicalagin on hERG currents. The red line shows the typical effect of 30µM of this compound and the green line shows the effect of the positive control (300nM, Cisapride).

Figure 1 - Effect of Punicalagin on hERG

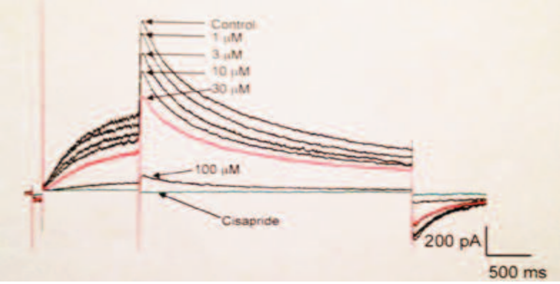
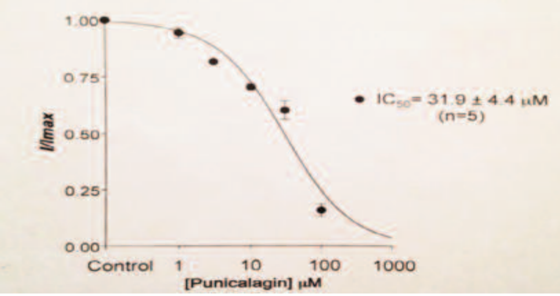


Figure 2 shows the concentration effect curve for n=5 cells, where the drug produced concentration dependence decreases in the tail current amplitude.

Figure 2 - Summary of Punicalagin on hERG



Data Classification bands:

Highly potent	IC50 ≤ 0.1µM
Potent	IC50 between 0.1 and 1µM
Moderately potent	IC50 between 1αM and 10µM
Weak or no inhibition	IC50 > 10µM

Summary of Results

Compound	Concentration Tested	IC50 Mean ± SEM
Punicalagin (n=5)	1 µM to 100 µM	31.9 ± 4.4 µM

CONCLUSION

The results obtained from this study clearly exhibit that Punicalagin concentration tested has only mild inhibition or no inhibition as per the hERG guidelines for adverse cardiac effects and would be suitable for in vivo studies in small animals. A number of drugs have been withdrawn from late stage clinical trials due to these cardiotoxic effects. We plan to study its effect on the inhibition of intra-epithelial lymphocyte (IEL) migration within the lamina propria of BALBc mice model.

REFERENCES

Available on request.

| CONTENTS |

A Cross-Sectional Investigation of Cognitive Function in Palliative Care In-Patients

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INTRODUCTION

Cognitive problems are common in palliative care settings and impact considerably upon patient management and outcome. Patients with cognitive impairment pose challenges relating to pain management and have poorer outcomes in respect of survival time, patient and carer distress.

OBJECTIVE

The study examined the prevalence and severity of cognitive impairment in a palliative care population using the Montreal Cognitive Assessment tool (MoCA).

METHODOLOGY

The MoCA was used to investigate cognitive status in 75 consecutive patients admitted to a specialist palliative care in-patient unit in Limerick, Ireland. The MoCA is a 30 point tool which assesses a range of domains such as: short-term memory; executive and visuospatial functioning; attention; language and orientation. Visual and physical impairment were accounted for by adjusting total scores using a mathematical formula.

RESULTS

From the 75 patients assessed, 3 participants completed less than half of the MoCA and were excluded from the aggregate analysis. Of the 72 participants (Female=31, male=41; Mean age 68.9±9.93), 97.2% (n=70) had a diagnosis of cancer. The mean MoCA score was 18.8 ±5.85, with the majority (>90%) scoring in the range for significant cognitive impairment. 55.6% (n=40) met the criteria for mild cognitive impairment. Furthermore, 25% (n=18) were in the moderate cognitive impairment category and 9.7% (n=7) met criteria for severe cognitive impairment. Only 9.7% (n=7) had normal cognitive function. A small proportion of the sample achieved a full score in the following domains: 4.2% (n=3) for delayed recall, 8.3% (n=6) for executive functioning, 15.3% (n=11) for language and 31.9% (n=23) for attention.

CONCLUSION

These results emphasise how common cognitive issues are in palliative care populations. Given the relatively high prevalence of delirium within this population, further research employing serial assessments is required to determine if cognitive impairment is static or fluctuating in nature.

PRESENTED

As a poster presentation at the Faculty of Liaison Psychiatry Annual Conference 2015: 'From Hospital to Home', in The Royal College of Psychiatrists, London, UK from May 13th to 15th, 2015.

FUNDING

This work, a Medical PhD Studentship, was funded by the HRB-AIIHPC – Health Research Board/All-Ireland Institute of Hospice and Palliative Care.

Clinical Significance of Raised Haematocrit Levels in a Single Reading - An Approach to Determining Necessary Follow-Up

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INTRODUCTION

A raised haematocrit or packed cell volume (PCV) is often noted incidentally in both in-patient and outpatient blood testing. It has multiple aetiologies and for this reason, it can be a challenge to determine the relevance of a single abnormal result. For example, primary proliferative polycythaemia (PPP), a myeloproliferative disorder (MPD), requires further genetic testing and haematology referral whereas many causes of secondary polycythaemia, including smoking, dehydration and hypoxia, may not. Current BCSH Guidelines (2007)1 suggest investigation of individuals with persistent polycythaemia (>2 months duration): males >0.52 and females >0.48.

METHODOLOGY

All full blood count samples in a six month period that had a single haematocrit of >0.51 (females) and >0.54 (males), respectively were examined. This laboratory processes approximately 300,000 FBC samples per year and serves a population of 400,000. The aim of this study was to determine whether the current practice was effective in identifying potential cases of PPP and which samples required clinical advice to the referring clinician.

RESULTS

A total of 89 patients were identified during a six month period who met the criteria for inclusion in the audit. There were three distinct cohorts: 32 (35.95%) - repeat testing was normal; 32 (35.95%) - sample not repeated; 25 (28.08%) - result recurrently abnormal. A total of 11/89 patients (12.3%) were patients known to the haematology service (diagnosis of MPD or secondary polycythaemia); 3/89 patients had known cardiac disease. Blood films were examined in 63/89 cases. Repeat testing was recommended in 16/63 cases and was carried out in 12/16 (75%) of these cases. Overall, 57/89 tests were repeated and of these, 32/57 (56%) were normal. We also reviewed concurrent platelet count, white cell count and biochemistry figures, but we were unable to see a significant correlation between these results and the raised PCV.

CONCLUSIONS

Providing clinical laboratory advice on a single high PCV result can be challenging. According to our data, over half of repeat values were normal, suggesting a spurious result or temporary cause. A repeat sample would thus eliminate the need for further testing in most cases. However, in our reporting of blood films, we recommended repeat testing in only 16/63 cases. Clinical details can also help inform the laboratory of relevant previously known diagnoses. We conclude that a consistent policy for advising on raised PCVs should include advice to repeat the FBC and consideration of secondary causes. A laboratory guideline is being developed to facilitate this and re-audit of its efficacy is planned within one year.

REFERENCES

Available on request.

PRESENTED

As a poster presentation at the Haematology Association of Ireland (HAI) Annual Meeting in November 2014 at the Clarion Hotel, Sligo.

| CONTENTS |

Cardiometabolic Risk Profiles in Pre-Diabetes and Diabetes Defined by Fasting Plasma Glucose and HbA1c Levels in Middle-Aged Adults

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INTRODUCTION

Glycated haemoglobin A1c (HbA1c) measurement is recommended as an alternative to fasting plasma glucose (FPG) for the diagnosis of pre-diabetes and type 2 diabetes. However, evidence suggests discordance between HbA1c and FPG. In this study we examine a range of metabolic risk features, pro-inflammatory cytokines, acute-phase response proteins, coagulation factors and white blood cell counts to determine which test more accurately identifies individuals at increased cardiometabolic risk.

METHODOLOGY

This was a cross-sectional study involving a random sample of 2,047 men and women aged 50-69 years. Binary and multinomial logistic regression were employed to examine risk feature associations with pre-diabetes [either HbA1c levels 5.7-6.4% (39-46 mmol/mol) or impaired FPG levels 5.6-6.9 mmol/l] and type 2 diabetes [either HbA1c ≥6.5% (≥48 mmol/mol) or FPG ≥7.0 mmol/l]. Receiver operating characteristic curve analysis was used to compare the ability of HbA1c to discriminate pre-diabetes or diabetes defined by FPG.

RESULTS

A higher percentage of pre-diabetic individuals with diabetes-related phenotypes were identified by FPG compared to HbA1c. Cardiometabolic characteristics for subjects with type 2 diabetes were broadly similar according to diagnosis by either assay. Pre-diabetic participants classified by both tests displayed a more pro-inflammatory, pro-atherogenic and more insulin resistant profile. Odds ratios of having three or more metabolic syndrome features were also noticeably increased (OR:4.0, 95% CI:2.8-5.8) when compared to subjects diagnosed by either HbA1c (OR:1.4, 95% CI:1.2-1.8) or FPG (OR:3.0, 95% CI:1.7-5.1) separately.

CONCLUSIONS

In middle-aged Caucasian-Europeans, HbA1c alone is a poor indicator of cardiometabolic risk but is suitable for diagnosing diabetes. Combined use of HbA1c and FPG may be of additional benefit for detecting individuals at highest odds of type 2 diabetes development.

PRESENTED

As a poster presentation at the following events;-

- At the College of Medicine and Health Research Day in University College Cork on June 18th, 2014.
- At the 3rd International Congress on Personalized Medicine in Prague, Czech Republic from June 26-29th, 2014.
- At the Society for Social Medicine 58th Annual Scientific Meeting in Oxford, UK from September 10th-12th, 2014.
- At the New Horizons in Medical Research Conference in University College Cork on December 11th, 2014.
- At the European Congress of Epidemiology in Maastricht, Netherlands from June 25th-27th, 2015.

FUNDING

This work was supported by a research grant from the Irish Health Research Board (reference HRC/2007/13).

General and Central Obesity Measurement Associations with Markers of Chronic Low-Grade Inflammation and Type 2 Diabetes

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INTRODUCTION

Inflammation has been suggested a possible mechanism linking adiposity with type 2 diabetes. Central obesity indicated by waist circumference (WC) measurement is thought to be a greater risk factor for chronic low-grade inflammation compared to general obesity characterised by body mass index (BMI). However, evidence for this association is still unclear. In this study we compare biomarker relationships with BMI and WC measures and type 2 diabetes. We examine a range of pro-inflammatory cytokines, acute-phase response proteins, coagulation factors, white blood cell counts and a combination of these markers to determine which measurement is more strongly associated with diabetes-related inflammation.

METHODOLOGY

This was a cross-sectional study involving a random sample of 2,002 men and women aged 50-69 years recruited from general practice. Correlation and logistic regression analyses were used to explore general and central obesity measurement relationships with individual biomarkers, biomarker combinations and type 2 diabetes.

RESULTS

When compared to BMI, WC was more strongly related to a majority of the examined inflammatory markers, adverse biomarker clustering and type 2 diabetes. Relationships between chronic inflammation and diabetes were reduced in analyses including either general or central obesity variables, with models incorporating WC showing the greatest attenuation. In multivariable analysis, only WC remained significantly associated with type 2 diabetes (OR:2.96, 95% CI:1.93-4.55) after adjusting for BMI (OR:0.73, 95% CI:0.49-1.10) four or more markers (OR:4.67, 95% CI:2.64-8.27) and other potential confounders.

CONCLUSIONS

These data suggest that central obesity is a greater risk factor for chronic inflammation and type 2 diabetes than BMI. However, our results also indicate that relationships between markers of inflammation and diabetes cannot be completely explained by surrogate measures of adiposity.

PRESENTED

As a Poster Presentation at the following events;-

- At the 22nd European Congress on Obesity (ECO2015) in Prague, Czech Republic from May 6th-9th, 2015.
- At the European Congress of Epidemiology in Maastricht, Netherlands from June 25th-27th, 2015.
- At the Society for Social Medicine 59th Annual Scientific Meeting in Dublin, Ireland from September 2nd-4th, 2015.

FUNDING

This work was supported by a research grant from the Irish Health Research Board (reference HRC/2007/13).

Optimal Central Obesity Measurement Site for Assessing Cardiometabolic and Type 2 Diabetes Risk in Middle-Aged Adults

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INTRODUCTION

Despite recommendations that central obesity assessment should be employed as a marker of cardiometabolic health, no consensus exists regarding measurement protocol.

METHODOLOGY

This study examined a range of anthropometric variables and their relationships with cardiometabolic features and type 2 diabetes in order to ascertain whether measurement site influences discriminatory accuracy. In particular, we compared waist circumference (WC) measured at two sites: (1) immediately below the lowest rib (WC rib) and (2) between the lowest rib and iliac crest (WC midway), which has been recommended by the World Health Organisation and International Diabetes Federation.

This was a cross-sectional study involving a random sample of 2,002 men and women aged 50-69 years. Metabolic profiles and WC, hip circumference, pelvic width and body mass index (BMI) were determined in study participants. Correlation, logistic regression and covariate-adjusted area under the receiver operating characteristic curve analyses were used to evaluate obesity measurement relationships with metabolic risk phenotypes and type 2 diabetes.

RESULTS

WC rib measures displayed the strongest associations with non-optimal lipid and lipoprotein levels, high blood pressure, insulin resistance, impaired fasting glucose, a clustering of metabolic risk features and type 2 diabetes, in both genders. Rib-derived indices improved discrimination of type 2 diabetes by 3-7% compared to BMI and 2-6% compared to WC midway (in men) and 5-7% compared to BMI and 4-6% compared to WC midway (in women).

CONCLUSIONS

WC rib is easier to assess and our data suggest that it is a better method for determining obesity-related metabolic risk than WC midway. The clinical utility of rib-derived indices, or alternative WC measurements, as potentially more accurate predictors of cardiometabolic conditions deserves further investigation.

PRESENTED

As a poster presentation at the following events;-

- At the 20th European Congress on Obesity (ECO2013) in Liverpool, UK from May 12th-15th, 2013.
- At the HRB Centre for Health and Diet Research Conference in Cork from October 10th-12th, 2013.
- At the College of Medicine and Health Research Day, University College Cork on June 18th, 2014.
- At the 20th IEA World Congress of Epidemiology, Anchorage, Alaska, USA from August 17th-21st, 2014.
- At the Society for Social Medicine 58th Annual Scientific Meeting in Oxford, UK from September 10th-12th, 2014.
- At the 10th National Conference of the Primary Care Diabetes Society in Birmingham, UK from November 20th-21st, 2014.
- At the New Horizons in Medical Research Conference at University College Cork on December 11th, 2014.
- At the European Congress of Epidemiology in Maastricht, Netherlands from June 25th-27th, 2015.
- As an oral presentation at the ASO UK Congress on Obesity in Birmingham, UK on September 17th, 2014 by Seán Millar.

FUNDING

This work was supported by a research grant from the Irish Health Research Board (reference HRC/2007/13).

Assessing Cardiometabolic Risk in Middle-Aged Adults Using Body Mass Index and Waist-Height Ratio - Are Two Indices Better Than One?

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INTRODUCTION

A novel obesity classification method has been proposed utilising body mass index (BMI) and waist-height ratio (WHtR) together. However, the utility of this approach is unclear. In this study we compare the metabolic profiles in subjects defined as overweight or obese by both measures. We examine a range of metabolic risk features, pro-inflammatory cytokines, acute-phase response proteins, coagulation factors and white blood cell counts to determine whether a combination of both indices more accurately identifies individuals at increased cardiometabolic risk.

METHODOLOGY

This was a cross-sectional study involving a random sample of 2,047 men and women aged 50-69 years. Metabolic and anthropometric profiles were assessed in study participants. Independent t or Mann-Whitney U tests were used to compare lipid, lipoprotein, blood pressure, glycaemic and inflammatory biomarker levels between BMI and WHtR tertiles. Multinomial logistic regression was performed to determine adverse metabolic feature and biomarker associations with BMI and WHtR groupings.

RESULTS

The combination of BMI and WHtR tertiles identified consistent metabolic variable differences relative to those characterised on the basis of one index. Similarly, odds ratios for cardiometabolic risk factors were noticeably increased in subjects classified by both measures when compared to study participants categorised by either BMI or WHtR separately. In a fully adjusted model, only individuals within the highest percentile for both indices displayed a significant and positive association with pre-diabetes (OR:3.4, 95% CI:2.0-6.0, $P<0.001$).

CONCLUSIONS

Risk stratification using a composite index may provide a more accurate method for identifying high and low-risk subjects.

PRESENTED

As a Poster Presentation at the following events;-

- At the College of Medicine and Health Research Day, University College Cork on June 18th, 2014.
- At the 3rd International Congress on Personalized Medicine in Prague, Czech Republic from June 26th-29th, 2014.
- At the ASO UK Congress on Obesity in Birmingham, UK from September 16th-17th, 2014.
- At the 10th National Conference of the Primary Care Diabetes Society in Birmingham, UK on November 20th - 21st, 2014.
- At the New Horizons in Medical Research Conference in University College Cork on December 11th, 2014.
- At the European Congress of Epidemiology in Maastricht, Netherlands from June 25th-27th, 2015.

As an oral presentation at the following events;-

- At the 21st European Congress on Obesity (ECO2014) in Sofia, Bulgaria on May 31st, 2014 by Seán Millar.
- At the Society for Social Medicine 59th Annual Scientific Meeting in Dublin, Ireland on September 2nd, 2015 by Seán Millar.

FUNDING

This work was supported by a research grant from the Irish Health Research Board (reference HRC/2007/13).

The Success of a Medical Admission Proforma on Venous Thromboprophylaxis Use in Acute Medical In-Patients in a General Hospital

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INTRODUCTION

A 3 cycle audit, over 9 years, aimed to improve thromboprophylaxis prescribing rates in a 255 bed acute hospital, by the introduction of a reminder in the medical admission proforma (MAP).

OBJECTIVES

The objectives were to determine whether patients received appropriate thromboprophylaxis, according to the American Association of Chest Physicians (AACP) guidelines and to determine both prescribing rates and the sustainability of a suitable intervention, once found.

METHODOLOGY

Retrospective benchmarking of DVT thromboprophylaxis prescribing rate was undertaken in 2006. Three snapshot audits were performed at 3, 6 and 9 years. After the initial benchmarking, a MAP was introduced, which included a thromboprophylaxis reminder. The position of the reminder was changed in 2009. A total of 100 current medical in-patients were audited at each cycle. Age, gender and principal diagnosis was recorded. Each patient was assessed for venous thromboembolism (VTE) risk by a registered medical physician, according to the American Association of Chest Physicians Guidelines (AACP), by reviewing the patient chart. Appropriate use of thromboprophylaxis was recorded using the patient's drug kardex.

RESULTS

Benchmarking demonstrated that AACP guideline compliance was 37.5%. Mean age at years 3, 6 and 9 was 63.1, 66.7 and 73.8 years respectively. The male to female ratio was 1.3:1. The percentage of patients at risk for VTE in each cycle was 90, 78 and 92% respectively. Appropriate prescribing of thromboprophylaxis occurred in 75, 86.1 and 87% of patients respectively.

CONCLUSIONS

There has been a sustained increase, over a 6 year period, in appropriate prescribing in accordance with best practice guidelines for VTE prophylaxis by using a MAP. In order to achieve >98% adherence to guidelines, the format of the reminder has been further simplified. Further audits will occur on a cyclical basis to assess the ability of the MAP to maintain sustained improvement with thromboprophylaxis.

Hypertension Prevalence, Awareness, Treatment and Control. Should 24 Hour Ambulatory Blood Pressure be the Tool of Choice?

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INTRODUCTION

Accurate measurement of blood pressure (BP) is essential for diagnosis and management of hypertension. Usually measurements are performed in a clinical setting. Ambulatory blood pressure monitoring (ABPM) provides information over a prolonged period and is superior for the prediction of clinical events.

OBJECTIVES

The aim of this paper is to examine the prevalence, awareness, treatment and control rates of hypertension in a community-based sample and to examine how use of 24 hour ABPM impacts on these rates. We also aim to examine the sensitivity and specificity of office blood pressure measurements and to describe the prevalence of white coat and masked hypertension in the sample.

METHODOLOGY

The Mitchelstown Cohort was established to examine cardiovascular health in a middle-aged Irish adult community-based sample. The most recent blood pressure recorded by the participant's GP was documented as the office blood pressure. All participants were invited to have their BP measured and the average of the second and third BP readings was defined as the study BP. All participants were invited to undergo 24 hour ABPM. Hypertension was defined using accepted thresholds or by current anti-hypertensive medication use. Participants were defined as aware of their hypertension if they self-reported a doctor diagnosis of hypertension, and as treated if they self-reported anti-hypertensive medication use. Control of hypertension was defined as being on anti-hypertensive medication with a measured BP below the normal threshold.

RESULTS

Of 2,047 participants, 1,207 (response rate 59%), underwent 24 hour ABPM. Nine hundred and thirty one (45%) study participants underwent 24 hour ABPM, had a study and previous office BP available. The mean study BP was 130/80 mmHg. Based on the study BP, the prevalence of hypertension was 60% with an awareness rate of 59%, 60% were treated and 46% controlled. By ABPM the mean daytime BP was 131/77 mmHg and the mean night-time BP was 112/63 mmHg. Using the daytime ABPM threshold, the prevalence of hypertension was 61%. The awareness rate was 59%, 59% were treated and 54% controlled. The classification of hypertension by study and ABPM measurements was discordant in 26% of cases. ABPM reclassified 12% from normotensive to hypertensive and 14% from hypertensive to normotensive.

CONCLUSIONS

Awareness, treatment and control rates of hypertension remain suboptimal. The routine use of ABPM in the diagnosis and management of hypertension may facilitate more appropriate treatment initiation and titration.

PRESENTED

As an oral presentation at the following event:

- The Annual Scientific Meeting of The Association of the Departments of General Practice in Ireland, University College Cork, March 2014 by Dr. Anne Marie O'Flynn.

As a poster presentation at the following events:

- The Irish Cardiac Society, Athlone, October 2014.
- The Joint Meeting of the European Society of Hypertension and the International Society of Hypertension, Athens, June 2014.

Isolated Nocturnal Hypertension and Subclinical Target Organ Damage - A Systematic Review

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Curtin, R.J.,
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ABSTRACT

Isolated nocturnal hypertension (INH) is associated with greater mortality and cardiovascular events. Subclinical target organ damage (TOD) is a prognostic marker for cardiovascular events. The objective of this study is to systematically summarise evidence on the association between INH and subclinical TOD.

Observational population studies were considered. INH was defined as night time blood pressure (BP) $\geq$120/70mmHg and daytime BP $<$135/85mmHg. We systematically searched Pubmed, EMBASE and the Cochrane Library. Abstracts were reviewed by 2 assessors. Potentially eligible articles were compared with inclusion criteria.

The search yielded 954 titles, 13 abstracts were selected for review and 4 articles fulfilled inclusion criteria. INH was associated with higher ambulatory arterial stiffness index (0.4unit v 0.35unit, $p<0.05$), pulse wave velocity (16.2m/s v 14.7m/s, $p<0.05$), central (140.4% v 134.0%, $p < 0.05$) and peripheral (82.6% v 76.5%, $p <0.01$) augmentation index in a Chinese study. In the same population there was no association with left ventricular hypertrophy (LVH) documented by electrocardiogram. Central aortic diastolic BP was higher in those with INH in a Swedish study (75.9mmHg v 69.4mmHg, $p=0.02$). A sub-study of the Jackson Heart Study demonstrated higher left ventricular mass (153.46g v 136.16g, $p=0.01$) and greater odds of LVH (OR 3.03, 95% CI:1.02-9.05) in unadjusted analysis. There was no association with proteinuria.

Evidence is inconclusive regarding the association between INH and subclinical TOD. Future research should focus on trying to elucidate the mechanisms that generate INH and contribute to the higher mortality associated with this BP pattern.

PRESENTED

As a poster presentation at the Joint Meeting of the European Society of Hypertension and the International Society of Hypertension, Athens, June 2014.

SOURCE

O'Flynn AM, Madden JM, Russell AJ, Curtin RJ, Kearney PM. Hypertens Res. 2015 Aug;38(8):570-5. Epub 2015 Apr 2

Applying the Ideal Cardiovascular Health Metrics to Couples - A Cross-Sectional Study in Primary Care

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ABSTRACT

There is little research on overall cardiovascular (CV) health among couples. The aim of this study was to examine concordance levels for CV health among couples using the American Heart Association ideal health metrics, and to investigate if the CV health of an individual is associated with that of their partner.

The Mitchelstown Study is a community-based cohort study of middle-aged Irish adults. Potential couples were identified as 2 study participants living at the same address. This list was cross-referenced with self-reported marital status and telephone number in the electronic patient record. Information on CV health metrics (smoking, BMI, physical activity, diet, blood pressure, cholesterol and glucose) was collected using standardised methods. Participants were categorised as ideal, intermediate and poor for each of the metrics and for overall CV health. The 0-14 point CV health metrics score was compared within couples using linear regression.

Of 2,047 participants, 191 potential couples were identified. We excluded 6 sibling pairs, 1 divorced couple and 3 couples who self-reported being single. The analysis includes 181 couples. There were significant associations between partners for smoking, diet, blood pressure, cholesterol and glucose ($p<0.05$). No couple had ideal CV health (i.e. both partners with 7 ideal metrics). Most couples (n=127, 69%) were concordant for poor CV health. There was a significant relationship between partners for the CV health metrics score ($p<0.05$).

Our results suggest that an individual's CV health is associated with that of their partner, therefore prevention strategies targeting couples and families may be appropriate.

PRESENTED

As a poster presentation at the following events:

- The Annual Scientific Meeting of the Association of The Departments of General Practice in Ireland, University College Cork, March 2014.
- The European Society of Cardiology, Barcelona, August 2014.
- At the National Institute of Preventive Cardiology Meeting in Croí House, Galway in November 2015.

As an oral presentation at:

- ASPHER Young Researchers Forum, Glasgow, November 2014 by Dr. Sheena McHugh.

SOURCE

Applying the ideal cardiovascular health metrics to couples: a cross-sectional study in primary care. O'Flynn AM, McHugh SM, Madden JM, Harrington JM, Perry IJ, Kearney PM. Clin Cardiol. 2015 Jan;38(1):32-8. Epub 2015 Jan 5

The Prevalence and Determinants of Undiagnosed and Diagnosed Type 2 Diabetes in Middle-Aged Irish Adults

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ABSTRACT

The prevalence of type 2 diabetes within the Republic of Ireland is poorly defined, although a recent report suggested 135,000 cases in adults aged 45+, with approximately one-third of these undiagnosed.

This study aims to assess the prevalence of undiagnosed and diagnosed diabetes in middle-aged adults and compare features in order to investigate why certain individuals remain undetected.

This was a cross-sectional study involving a random sample of 2,047 men and women aged between 50 and 69 years. Logistic regression was used to explore socioeconomic, metabolic and other health-related feature associations with undiagnosed or diagnosed diabetes. Clinically relevant variables identified in regression analyses were assessed using the receiver operating characteristic curve.

The total prevalence of diabetes was 8.5% (95% CI:7.4%-8.8%); 72 subjects (3.5%) had undiagnosed diabetes (95% CI:2.8%-4.4%) and 102 subjects (5.0%) had diagnosed diabetes (95% CI:4.1%-6.0%). Obesity, dyslipidaemia and having a family diabetes history were positively associated with both undiagnosed and diagnosed type 2 diabetes. Compared with diagnosed subjects, study participants with undiagnosed diabetes were significantly more likely to have low levels of physical activity and were less likely to be on treatment for diabetes-related conditions or to have private medical insurance.

CONCLUSIONS

A considerable proportion of diabetes cases were undiagnosed (41%), emphasising the need for more effective detection strategies and equitable access to primary healthcare.

PRESENTED

As a poster presentation at the following events:-

- At the College of Medicine and Health Research Day in University College Cork on June 18th, 2014.
- At the 20th IEA World Congress of Epidemiology in Anchorage, Alaska, USA from August 17th-21st, 2014.
- At the 10th National Conference of the Primary Care Diabetes Society in Birmingham, UK from November 20th-21st, 2014.
- At the European Congress of Epidemiology in Maastricht, Netherlands from June 25th-27th, 2015.
- At the Society for Social Medicine 59th Annual Scientific Meeting in Dublin, Ireland from September 2nd-4th, 2015.
- As an oral presentation at the New Horizons in Medical Research Conference, University College Cork on December 11th, 2014 by Seán Millar.

FUNDING

This work was supported by a research grant from the Irish Health Research Board (reference HRC/2007/13).

SOURCE

Connor JM, Millar SR, Buckley CM, Kearney PM, Perry IJ (2013) The Prevalence and Determinants of Undiagnosed and Diagnosed Type 2 Diabetes in Middle-Aged Irish Adults. PloS one 8:e80504

Five Cases of Pneumocystis Pneumonia (PCP) Infection in Patients Post-Treatment with Bendamustine/ Rituximab - Should Prophylaxis be considered as Standard?

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ABSTRACT

Pneumocystis pneumonia (PCP) is a life-threatening infection associated with immunocompromised patients. It was first widely described in HIV patients but is also well described post certain chemotherapy agents. It has a high mortality rate, particularly in non-HIV patients (35–50%).[1] PCP prophylaxis has been shown to effectively prevent PCP in at-risk patients. Bendamustine is an alkylating chemotherapy agent, which is being increasingly used in clinical practice, particularly in treatment of lymphoproliferative disorders and myeloma. It is known to cause grade 3-4 lymphopenia in 74% of patients.[2] At present there is no standard recommendation for PCP prophylaxis post-bendamustine treatment.

The objective of this study was to identify all cases of PCP post-bendamustine treatment in the unit and to assess factors which increase the risk of infection.

Patients with a confirmed diagnosis of PCP who had received bendamustine were identified and their case notes and investigations were reviewed.

Between November 2009 and February 2015, 67 patients received bendamustine therapy. Five cases of PCP were identified in our institution in patients undergoing treatment with bendamustine/rituximab (7.4%). Four cases of PCP occurred prior to routine introduction of PCP prophylaxis (August 2012) and 1 case occurred post this introduction whose prophylaxis had been stopped. The patients infected consisted of 3 males and 2 females with an average age of 69.6 years. Two patients received treatment for low grade Non- Hodgkin Lymphoma (NHL), 2 for Chronic Lympocytic Leukaemia (CLL) and 1 patient received treatment for Waldenstrom Macroglobulinemia (WM). None of our patients were on PCP prophylaxis at the time of infection. All infections were clinically and radiologically suggestive of PCP and 4 were confirmed using quantitative PCR on sputum samples. Four patients were undergoing treatment with bendamustine/ rituximab at the time of infection (ranging from cycle 1-3 of treatment). One patient was twelve months post-treatment. All patients were lymphopenic (<0.5) at time of infection (average 0.18), two patients had a sustained lymphopenia (>2 weeks) prior to infection, and 4 had evidence of hypogamma-globulinemia prior to infection. (average IgG 3.48, IgA 1.49, IgM 2.82)

CONCLUSION

PCP infection is common post-bendamustine/rituximab treatment. It can occur post the first course of treatment and can occur up to twelve months post-treatment. Patients with severe lymphopenia (<0.5) and hypogammaglulinemia appear to be at particularly high risk of PCP infection. We recommend that all patients who receive bendamustine/rituximab treatment should be considered for PCP prophylaxis from the start of treatment and it should be continued until adequate lymphocyte recovery occurs.

PRESENTED

As a poster presentation at the European Hematology Association from June 11th-14th, 2015.

SOURCE

Pneumocystis jiroveci prophylaxis in patients undergoing Bendamustine treatment: the need for a standardized protocol. Clin Case Rep. 2015 Apr;3(4):255-9.

(1) http://www.ncbi.nlm.nih.gov/pubmed?term=10988192

(2) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3755934/

Fracture Risk Assessment of Patients with Inflammatory Joint Disease Receiving Biological Agents attending a Rheumatology Service in a University Affiliated Teaching Hospital

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Dr. John Walsh Research Foundation, South Infirmary-Victoria University Hospital, Cork[3]

ABSTRACT

Osteoporosis, characterised by deteriorating bone micro-architecture with a concomitant increase in bone fragility, represents a growing public health concern. From an inflammatory arthropathy perspective, especially RA, it is a well-known extra-articular characteristic of concern. Fracture risk can be examined using the World Health Organization Fracture Risk Assessment Tool (FRAX®) which has been formulated to estimate a 10 year absolute risk of fracture using validated clinical risk factors. The aims of this study were to determine the fracture risk in patients receiving biologic therapies using the FRAX® tool and to determine if a care gap exists in this cohort.

A cross-sectional telephone-based questionnaire study, employing the FRAX® tool, was conducted on inflammatory arthropathy patients (RA, PsA, SNA, AS), receiving biological therapies, attending the Department of Rheumatology. Patients received a letter informing them of the study and pending telephone call one week in advance. Those not contactable within two attempted telephone calls were excluded from the study. Patients were randomly selected from the Department's Biologics database. Following FRAX® assessment, patients were classified as low, intermediate or high fracture risk using The National Osteoporosis Guideline Group (NOGG) analysis.

In all, 182 patients were telephoned with 123 patients being contactable within two attempts. A total of 101 patients partook in the study; 8(8%) had a prior osteoporosis diagnosis; 93(92%) were eligible for FRAX® assessment with a mean age of 55.5 years (range:40-75) and 53% male. Of the untreated group 77% had RA, 14% PsA and 8% AS. FRAX® assessment gave a median 10 year hip osteoporotic fracture probability of 2.1% (mean=3.5%) and major osteoporotic fracture probability of 11% (mean=12.4%). NOGG analysis would advise offering treatment to 25%, DXA imaging to 56% and osteoporosis/fracture risk lifestyle advice to 19% of patients. Thus, a potential 81% of untreated patients may require osteoporosis/risk fracture prevention measures.

CONCLUSIONS

A large care gap was identified among this patient group. Results highlight the need to identify and modify fracture risk in patients with inflammatory arthropathies receiving biologic therapies.

PRESENTED

As poster presentations at the following events:-

- At the World Congress on Osteoporosis, Osteoarthritis and Musculoskeletal Disease (WCO - IOF – ESCEO) in Milan, Italy from March 26th to 29th, 2015.
- At the Annual European Congress of Rheumatology EULAR® 2015 in Rome, Italy from June 10th to 13th, 2015.

SOURCE

McDonnell Ó, O'Connor MB, Bond U, Phelan MJ. **Fracture Risk Assessment of Patients with Inflammatory Joint Disease Receiving Biological Agents Attending a Rheumatology Service in a University Affiliated Teaching Hospital.** Osteoporosis International. 2015 March; 26 Suppl 1:260-261.

A Descriptive Study of Chronic Obstructive Pulmonary Disease Patients

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ABSTRACT

Chronic obstructive pulmonary disease (COPD) is a debilitating condition that often causes frequent hospital admissions and poses a great impact on a patient's life expectancy and quality of life. This study aims to view the prevalence and the management of COPD patients at our hospital.

Data of 113 patients admitted with acute exacerbation of COPD in 2013 was collected. A total of 101 who were not deceased or transferred to other hospitals were included in the study.

The statistics show that 29(28.7%) belong to the age group of <66 years, 40(39.6%) patients are 66-75 years and 32(31.7%) are >75 years. 45(44.6%) were males and the remaining 56(55.4%) were females. 33(32.7%) were current smokers, 7(6.9%) never smoked and 45(44.6%) were ex-smokers. Arterial blood gas was performed on 66(65.3%) patients. 91(90.1%) were commenced on antibiotics, 79(78.2%) on oxygen and 92(91.1%) on nebuliser on admission. 30 (29.7%) were cared for by a respiratory physician and 21(20.8%) were reviewed by a respiratory nurse. On discharge, 24(23.8%) were prescribed with inhaler only, 13(12.9%) with nebuliser only and 48(47.5%) with both. A total of 7(6.9%) were on maintenance antibiotics.

This study shows that a large percentage (68.3%) of COPD patients were aged <75 with a higher female to male ratio. Antibiotics were widely used and 78.2% required oxygen. However, the management of COPD patients was sub-optimal as a third were still smoking, a third had no arterial blood gas done and a large majority were discharged on nebulisers. It is also noteworthy that only two tenths were seen by a respiratory nurse and three tenths by respiratory physicians.

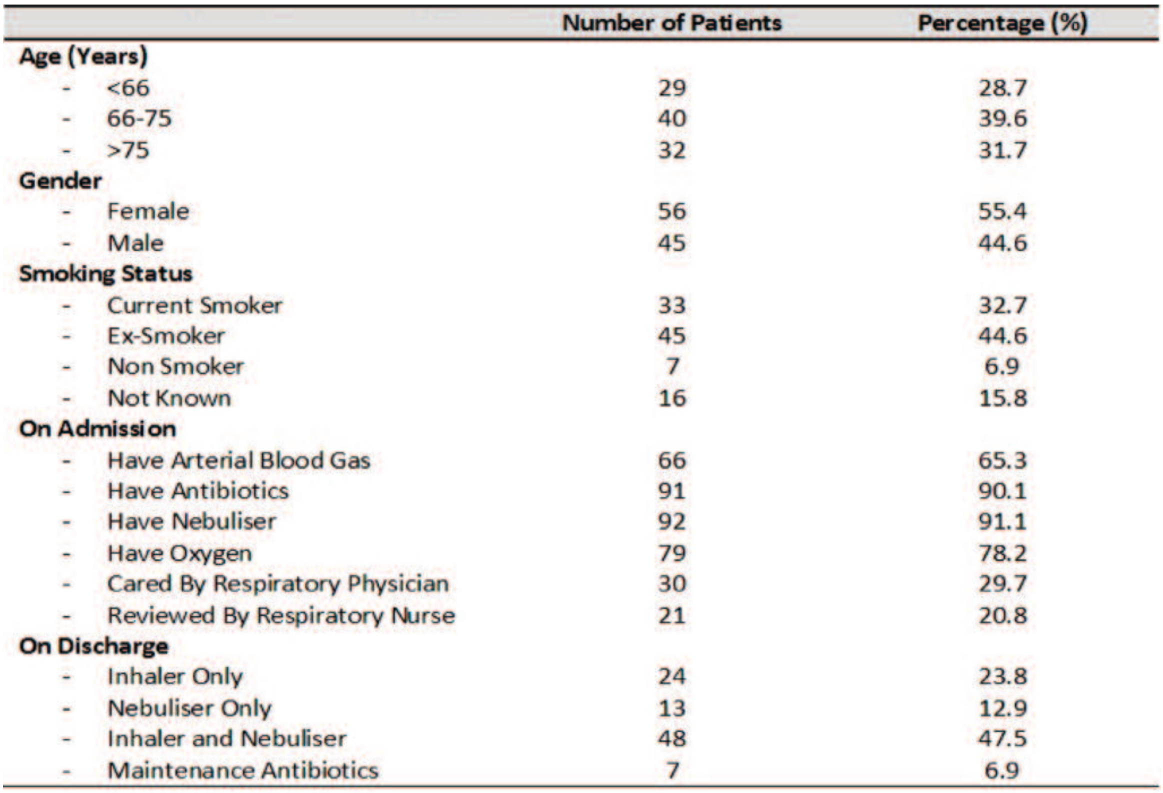
PRESENTED

As a poster presentation at the UL Hospitals Annual Research Symposium 2014 in the Limerick Strand Hotel on October 24th, 2014.

SOURCE

Irish Journal of Medical Science 2014, Volume 183, Supplement 11:s505.

Table 1- Description of Patient Demographics, Treatment and Management



	Number of Patients	Percentage (%)
Age (Years)		
- <66	29	28.7
- 66-75	40	39.6
- >75	32	31.7
Gender		
- Female	56	55.4
- Male	45	44.6
Smoking Status		
- Current Smoker	33	32.7
- Ex-Smoker	45	44.6
- Non Smoker	7	6.9
- Not Known	16	15.8
On Admission		
- Have Arterial Blood Gas	66	65.3
- Have Antibiotics	91	90.1
- Have Nebuliser	92	91.1
- Have Oxygen	79	78.2
- Cared By Respiratory Physician	30	29.7
- Reviewed By Respiratory Nurse	21	20.8
On Discharge		
- Inhaler Only	24	23.8
- Nebuliser Only	13	12.9
- Inhaler and Nebuliser	48	47.5
- Maintenance Antibiotics	7	6.9

| CONTENTS |

The Use of Nebulisers in Patients with Acute Exacerbation of Chronic Obstructive Pulmonary Disease

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ABSTRACT

The use of nebulised therapy is often the standard care for acute exacerbation of chronic obstructive pulmonary disease (COPD). However, inappropriate use of nebulisers is commonly practiced. We performed an audit of the use of nebulisers during acute exacerbations of COPD at our hospital.

A retrospective review of 113 patients who were admitted in 2013 was conducted. A total of 12 were excluded due to being deceased or transferred to other hospitals.

All patients treated with nebulised medication on admission were maintained on it throughout hospitalisation. A total of 71(70.3%) were cared for by non-respiratory physicians. Of these, 61 patients were known to have been discharged on inhaled respiratory medication; 10(16.4%) on nebuliser only, 13(21.3%) on inhaler only and 38(62.3%) on both. In the group of 30 patients cared for by respiratory physicians, 25 were known to have been discharged on inhaled respiratory medication; of these, 3(12.0%) were on nebuliser, 11(44.0%) on inhalers and 11(44.0%) on both. 16(22.5%) patients of non-respiratory physicians who were not on nebulisers pre-admission were prescribed nebulisers on discharge; as compared to 2(6.7%) by respiratory physicians. In all, 21 of the 101 patients were seen by a respiratory nurse. 16 of these were discharged on inhaled respiratory medicine; 2(12.5%) were on nebuliser only, 7(43.8%) on inhaler only and 7(43.8%) on both.

Nebulised therapy is extensively used in the management of acute exacerbations of COPD. This audit shows that a majority of patients were discharged with nebulisers despite most guidelines including NICE, recommending nebulisers should only be commenced in patients who despite maximal therapeutic intervention did not show adequate response, thus emphasising their importance.

This audit also highlighted that if cared for by respiratory physicians or reviewed during their admission by a respiratory nurse, patients were less likely to be discharged on nebulised medication.

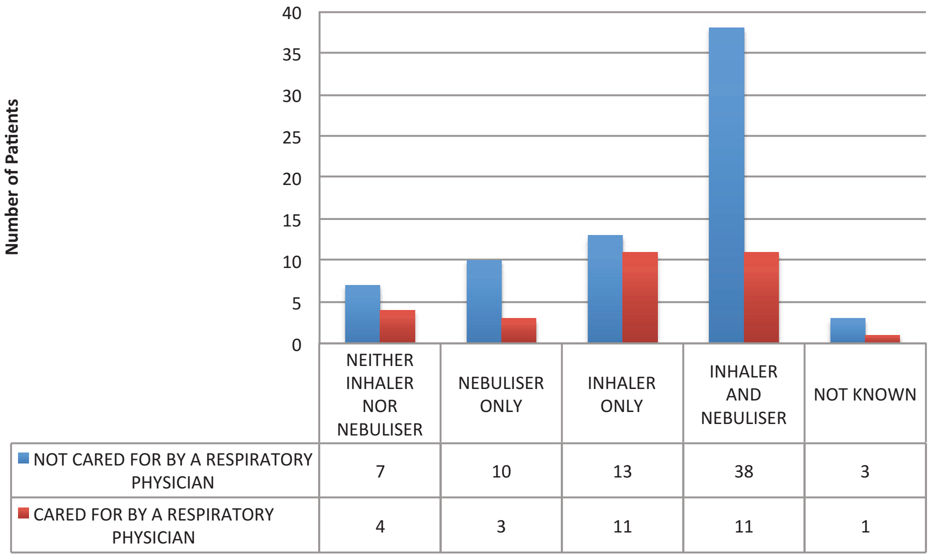
PRESENTED

As a poster presentation at the UL Hospitals Annual Research Symposium 2014 in the Limerick Strand Hotel on October 24th, 2014.

SOURCE

Irish Journal of Medical Science 2014, Volume 183, Supplement 11:s505-506.

Comparison of choice of Delivery Devices on Discharge for COPD Patients Between Respiratory and Non-Respiratory Physicians



	NEITHER INHALER NOR NEBULISER	NEBULISER ONLY	INHALER ONLY	INHALER AND NEBULISER	NOT KNOWN
🟦 NOT CARED FOR BY A RESPIRATORY PHYSICIAN	7	10	13	38	3
🟥 CARED FOR BY A RESPIRATORY PHYSICIAN	4	3	11	11	1

| CONTENTS |

Incidence, Management and Outcomes of the First Cfr-Mediated Linezolid-Resistant *Staphylococcus Epidermidis* Outbreak in a Tertiary Referral Centre in the Republic of Ireland

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ABSTRACT

The objective of this study is to report the first Irish outbreak of cfr-mediated linezolid-resistant *Staphylococcus epidermidis*.

Linezolid-resistant S. epidermidis isolated at University Hospital Limerick from four blood cultures, one wound and four screening swabs (from nine patients) between April and June 2013 were characterized by pulsed-field gel electrophoresis (PFGE), multi-locus sequence typing (mlst) and staphylococcal cassette chromosome (SCCmec) typing. Antibiotic susceptibilities were determined according to the guidelines of the British Society for Antimicrobial Chemotherapy. The outbreak was controlled through prohibiting prescription and use of linezolid, adherence to infection prevention and control practices, enhanced environmental cleaning, isolation of affected patients, and hospital-wide education prog-rammes.

PFGE showed that all nine isolates represented a single clonal strain. MLST showed that they belonged to ST2, and SCCmec typing showed that they encoded a variant of sccmeciii. All nine isolates were cfr positive, and eight isolates were positive for the G2576T 23s rRNA mutation commonly associated with linezolid resistance. Isolates exhibited multiple antibiotic resistances (i.e. linezolid, gentamicin, methicillin, clindamycin, ciprofloxacin, fusidic acid and rifampicin). The adopted infection prevention intervention was effective, and the outbreak was limited to the affected intensive care unit.

This is the first documented outbreak of cfr-mediated linezolid-resistant S. epidermidis in the republic of Ireland. Despite this, and due to existing outbreak management protocols, the responsible micro-organism and source were identified efficiently. However, it became apparent that staff knowledge of antimicrobial susceptibilities and appropriate hygiene practices were suboptimal at the time of the outbreak, and that educational interventions (and re-enforcement) are necessary to avoid occurrence of antimicrobial resistance and outbreaks such as reported here.

SOURCE

J Hosp Infect. 2015 Jan 13.pii:SO195-6701(15)00031-6.
doi:10.1016/j.jhin.2014.12.013.
[Epub ahead of print]

Panton-Valentine Leucocidin Toxin-Positive *Staphylococcus Aureus*-Mediated Neonatal Mastitis

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ABSTRACT

Neonatal mastitis is an inflammatory condition of the breast frequently associated with *Staphylococcus aureus*. While Panton-Valentine leucocidin (PVL), a B-pore-forming cytotoxin, is commonly associated with enhanced virulence in community-acquired methicillin-resistant S. *aureus* isolates, this is the first report to our knowledge of neonatal mastitis caused by PVL-positive *S. aureus.*

A 20-day-old full-term female neonate presented with bilateral mastitis, complicated by bilateral abscess formation. PVL toxin-positive *S. aureus* was cultured from aspirates of both breasts.

All family members, none of whom presented with symptoms of infection, and, specifically, maternal vaginal samples proved negative for PVL-positive *S. aureus*. Successful resolution involved surgical drainage and clindamycin therapy.

While PVL toxin-positive *S. aureus* has previously been implicated in bovine and ovine mastitis, there may now be a need for vigilance with respect to human incidence. Due to PVL-mediated tissue necrosis, breast abscess formation and poor response to conventional anti-microbial therapy should, perhaps, be a cause for suspicion of PVL-bearing *S. aureus* and expediting of appropriate therapy to avoid potential for long-term consequences such as abnormal breast development.

SOURCE

JMM Case Reports (2014), DOI 10.1099/jmmcr.0.004119

Trial of Labour after Caesarean Section and Risk of Neonatal Death: A Danish Population-Based Cohort Study

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Department of Epidemiology and Public Health, University College Cork[3]
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INTRODUCTION

Caesarean section (CS) rates are increasing globally and currently in Ireland 29% of all babies are delivered via CS. In contrast trial of labour after Caesarean (TOLAC) rates have declined significantly, largely due to a reported increased risk of uterine rupture and perinatal asphyxia in women undergoing a TOLAC compared to an elective repeat CS (ERCS). Evidence remains to be explored regarding the outcome for infants in the subsequent delivery in women with one prior CS. The aim of the current study was to examine the risk of neonatal death (≤28 days) in a cohort of women with one previous CS undergoing a TOLAC or an ERCS in the second delivery.

METHODOLOGY

All women with a first and second delivery in Denmark between 1982 and 2010 were identified using the Danish population-based Civil Registration System (CRS). Mode of delivery in the first and second birth was categorised as follows:-

1. Women with a first CS and subsequent ERCS formed the reference group
2. Women with a first CS and subsequent TOLAC
3. Women with a first vaginal delivery and subsequent trial of labour (TOL) [defined as any vaginal delivery or emergency/unplanned CS]
4. Women with a first vaginal delivery and subsequent elective CS (ECS).

The risk of neonatal death was investigated using multiple logistic regression adjusting for key covariates including BMI, maternal age, smoking, education, and income, reporting adjusted odds ratios (OR) and 95% confidence intervals (CI).

RESULTS

There were 550,273 women with two deliveries during this time. Women with a TOLAC had a 78% increased odds of neonatal death (OR 1.78, 95% CI 1.90, 2.90) compared to the reference group of women with an ERCS. This increased risk was greatest in the earliest years of 1982-1991 (OR 3.23, 95% CI 1.13, 9.20), gradually disappearing in the most recent years of 2002-2010 (OR 0.82, 95% CI 0.38, 1.78). See Figure 1.

CONCLUSIONS

In this the largest study to date, we found women with a TOLAC had an increased odds of neonatal death, however there was evidence of a cohort effect with the association disappearing over time. Advances in modern healthcare may explain the findings. This information will add to the decision-making process regarding the safest mode of delivery following a primary CS.

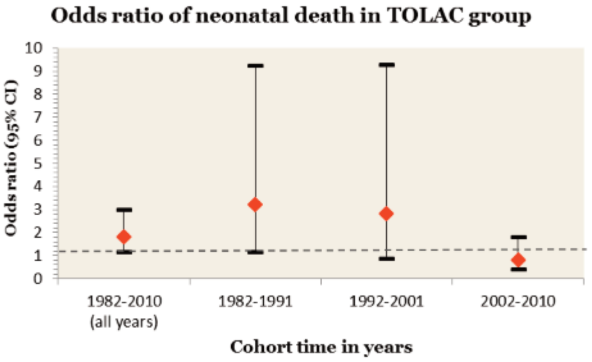
PRESENTED

As a poster at the Society for Gynaecologic Investigation (SGI)/Society for Reproductive Investigation (SRI) 62nd Annual Scientific Meeting, San Francisco, USA, March 25th to 28th, 2015 by Dr. Sinéad M. O'Neill.

FUNDING

This work was funded by the Irish Centre for Fetal and Neonatal Translational Research (INFANT) [funded by Science Foundation Ireland (SFI) 12/RC/2272]; The National Perinatal Epidemiology Centre, Cork and conducted as part of the Health Research Board (HRB) Ireland PhD Scholars Programme [PHD/2007/16].

Figure 1- Neonatal Death in the Trial of Labour After Caesarean Section (TOLAC) group



Multi-Parametric Magnetic Resonance Imaging-Transrectal Ultrasound Fusion Target Transperineal Prostate Biopsy - Initial Irish Experience

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INTRODUCTION

Multi-parametric magnetic resonance imaging (mpMRI) appears to be an excellent method to identify clinically important prostate cancer (PCa). The use of mpMRI-transrectal ultrasound (TRUS) fusion target transperineal prostate (FTTP) biopsy is rapidly evolving and does require significantly greater multidisciplinary input in its planning and execution, however available data are limited. We report our initial experience on the performance of mpMRI-TRUS-FTTP biopsy in predicting PCa.

METHODOLOGY

Our inclusion criteria included patients with at least one negative TRUS biopsy and ongoing suspicion of PCa. Data including age, PSA, number of previous biopsy, number of cores at re-biopsy, cancer yield, and Gleason score (GS) were prospectively collected. Participants underwent a 3T mpMRI with diffusion weighted dynamic contrast enhancement, perfusion scan and preoperative mapping. One experienced uroradiologist graded all suspicious lesions on a 5-point Likert scale. MRI-TRUS-FTTP biopsies were performed in 14 patients with advanced image registration software. Minimum of 2 cores were taken from target area and 12 cores from outside target area. Overall and target area cancer detection rate (CDR) were calculated.

RESULTS

Median age, PSA and number of previous biopsy episodes were 65 years, 10 years and 2 years respectively. Median number of core per target lesion was 3. Median number of cores outside target was 12. Overall CDR was 64% (8/14). CDR for target lesion was 50% (7/14). Median GS was 7. There was no Clavien Grade 2 or more complications.

CONCLUSIONS

mpMRI-TRUS-FTTP biopsy has the potential to revolutionise PCa diagnosis and management through accurate localization with fewer biopsy cores.

| CONTENTS |

The Predictive Ability of Pre-Operative Conventional Magnetic Resonance Imaging for Detecting Extra-Prostatic Extension at Radical Prostatectomy

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INTRODUCTION

Accurate pre-operative knowledge of tumour stage and extra-prostatic extension (EPE) are crucial in pre-operative planning to achieve the best surgical, oncological and functional results.

OBJECTIVE

The aim of this study was to assess the predictive ability of pre-operative MRI for detecting EPE at radical prostatectomy (RP).

METHODOLOGY

A retrospective review was performed of all patients who underwent a radical prostatectomy and who had a pre-operative MRI. Radiology reports were compared to final histopathological reports by an independent blinded reviewer. EPE was defined by microscopic extension outside capsule and or invasion of seminal vesicle. Sensitivity, specificity, positive and negative predictive values were calculated from radiological reports.

RESULTS

A total of 88 patients underwent pre-operative MRI prior to radical prostatectomy. The mean age was 59.5 years. The mean PSA was 9.49. Results showed that 35(39.8%) patients had Gleason 3+3 disease, 39(44.3%) had Gleason 3+4, 8(9%) had Gleason 4+3, 6(6.8%) had Gleason >8 disease. MRI showed organ confined disease in 58(65.9%), 32 (36.4%) had a positive margin while 43(48.9%) had EPE. MRI had a sensitivity of 31.8%, specificity of 80.5%, PPV 63.6%, NPV 52.4% and overall accuracy of 55.3%.

CONCLUSION

Conventional MRI has low sensitivity but high specificity for determining EPE. Pre-operative findings need to be considered with caution until the quality of MRI improves. Factors influencing MRI quality include multi-parametric imaging sequences and standardised reporting.

Radical Prostatectomy for Locally Advanced Prostate Cancer - Functional and Oncological Outcomes

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INTRODUCTION

Different options are available for the treatment of locally advanced prostate cancer (LACaP). We assessed the functional and oncological outcomes of men undergoing radical prostatectomy (RP) by a single surgeon.

METHODOLOGY

From 2010 to 2014, 88 men attending the Rapid Access Prostate Clinic (RAPC) at University Hospital Limerick (UHL) underwent RP for LACaP. Continence was defined as using 0-1 pads in 24 hours. Potency was defined as an erection sufficient for penetration with/without the use of PDE5 inhibitor. Biochemical recurrence was defined as a PSA ≥0.2.

RESULTS

Mean patient age was 60 (range 40 - 69) years. Median PSA was 11 (range 2.7-40) ng/ml. Of 88 patients with clinically LACaP on pre-operative staging, 39 were down-staged, leaving 49(56%) patients with pathologically proven LACaP. Median follow-up was 2 (range 1-5) years. 30(34%) patients had positive surgical margins. Thirty nine (80%) patients had extraprostatic extension (pT3a disease) and 10 (20%) had seminal vesicle invasion (pT3b). Three patients (6%) had Gleason 4+5 disease, 5 (10%) had Gleason 4+4 disease, 16 (33%) had Gleason 4+3 disease, 20 (41%) had Gleason 3+4 disease and 5 (10%) had Gleason 3+3 disease. All patients had an extended pelvic lymph node dissection (EPLND), and of these 2 (2.8%) had lymph node metastases. With a minimum of one year follow-up 37 patients (76%) were continent and 12 men (24%) were using 2 or more pads. Eighteen (20%) men had pre-existing erectile dysfunction and were excluded. In the remaining 70 (79.5%), 28 men (40%) were potent, but 42 (60%) men had no erections even with PDE5 inhibitors. Fourteen (20%) men were using a vacuum pump device. Biochemical recurrence was recorded in 5 (10%) patients, 2 with Gleason 4+5 disease, 2 with Gleason 4+4 and 1 with Gleason 4+3.

CONCLUSION

RP should be offered to suitable men with LACaP and can be performed with acceptable functional outcomes. Surgery should not be withheld in men with LACaP as clinical overstaging is common with significant rates of pathological downstaging after RP. Higher grades of LACaP predispose to biochemical recurrence.

Is Testicular Pain and Vomiting Pathognomonic for Testicular Torsion in Pubertal Boys? Implications for Lay and Medical Education

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INTRODUCTION

Delay in the diagnosis of testicular torsion (TT) is common and usually pre-hospital. Our experience suggests that the trifecta of acute scrotal pain and vomiting in a pubertal boy is highly predictive of testicular torsion.

METHODOLOGY

A retrospective review was conducted of all patients who presented with acute scrotal pain to University Hospital Limerick (UHL) from July 2013 to December 2014. The parameters assessed were, age, pubertal status, symptoms and signs, presenting times, operative findings and testis outcome at 3 months.

RESULTS

Of 102 boys 31(30.4%) were explored. TT was seen in 22/31(71%). Mean duration of scrotal pain was 37(range 1-240) hours with mean time interval from 1st presentation of pain to 1st medical review being 38.6 (range 2.2 – 241.5) hours and from initial medical review to surgical exploration being 116.9(5 - 445) minutes. Orchidectomy was performed in 9(29%) boys and pre-operative testicular viability was demonstrated in 13(59%) boys. Vomiting was 77.3% sensitive and 88.9% specific for the diagnosis with a PPV of 94.4% and NPV of 61.5%. Vomiting in pubertal boys with TP had 68% sensitivity and 100% specificity for the diagnosis of TT. The PPV and NPV were 100% and 56.2% respectively and 2/13 (15.4%) testes were atrophic at 12 weeks follow-up.

CONCLUSION

Vomiting in association with testicular pain in a pubertal boy is highly suggestive of TT. This fact could be the basis for an effective lay and medical education programme.

Internet Keyword Search Trends for Treatment Options of Early Prostate Cancer

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INTRODUCTION

Standardised treatment options for early prostate cancer remain undecided even among practicing urologists. Individual patient preference is the mitigating factor in choosing the appropriate treatment. This study aimed to see the trends on internet activity regarding the treatment options for early prostate cancer in different regions of the developed world.

METHODOLOGY

We analysed keyword searches done in the past year on regional Google search engines such as google.ie, google.co.uk, google.com, google.ca and google.au (Ireland, UK, USA, Canada and Australia respectively) using Google Adwords. The study focused on contemporary treatment options of early prostate cancer such as brachytherapy, intensity modulated radiotherapy (IMRT), radical and robotic prostatectomy.

RESULTS

Google's Irish server yielded an average of 170, UK server 2,400, US server 8,100, Canadian server 880 and Australian server 880 average keyword searches per month regarding early prostate cancer treatment options. The proportion of searches for brachytherapy were:-

- 18% (Ireland) vs.1% (UK) vs. 2% (USA) vs. 3% (Canada) vs. 2% (Australia)
- For IMRT they were 6%, 1%, 2%, 2% and 2% respectively
- For radical prostatectomy they were 26%, 25%, 30%, 44% and 55% respectively
- For robotic prostatectomy the figures were 6%, 11%,16%, 8% and 16% respectively

CONCLUSIONS

Although the internet activity of Ireland's population regarding specific treatment options for early prostate cancer was similar to other parts of the world, the quest for brachytherapy was disproportionate compared to rest of the world. We need to encourage our patients to access reliable web-based information as part of their decision-making process.

Geriatric Urology - An Evolving Sub-Specialty with Increasing Workload

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INTRODUCTION

The population over 65 years will more than double over the next 30 years with evident implications for health service planning and delivery. Urology is one of the surgical specialties that has been most affected by the growing demographic of older adults.

OBJECTIVE

The aim of this study was to assess the extent and nature of hospital workload related to older patients

METHODOLOGY

A Hospital In-patient Enquiry (HIPE) database was used to explore urology patient admissions from January to June 2014. All urology admissions over 65 years were included and demographics, primary diagnosis and length of in-patient stay were recorded.

RESULTS

There were a total of 485 urology admissions. 30% patients were 65 years or over with mean age of 75.9 years (65-92 years). Urological malignancies with or without metastasis constituted 31.8%, urinary stone disease 17%, bladder outlet obstruction 11.1%, urinary infections 11.1%, haematuria 9.6%, catheter related problems 8.1% and renal tract injury in 1.5%. In 13 (9.6%) patients urology diagnosis was unclassified. Mean length of in-patient stay was 6.6 days (range 1-81 days).

CONCLUSIONS

Urological problems are common in elderly people and constitute a significant proportion of urology admissions. This presents a unique opportunity for the development of the field of geriatric urology as an identified sub-specialty.

An Analysis of In-Patient Dermatologic Consultations at University Hospital Limerick (UHL) - Inadequate Access May Lead to Acute Skin Failure

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INTRODUCTION

Although most dermatologic work is outpatient based we reviewed our in-patient consultations to document this significant area of work that interfaces with all specialities in the hospital setting. There is currently huge pressure on hospital bed availability and we were curious to see how many patients were presenting directly and being admitted with skin failure to the Emergency Department (ED) and how soon after admission patients were assessed by the dermatology team.

METHODOLOGY

A review was carried out of in-patient consultation data between August 2014 and April 2015 at University Hospital Limerick. This data was analyzed gathering information on in-patient admission, reason for consultation, frequency of consultations, requesting specialty, diagnosis offered by the admitting team, time lapse between in-patient request and dermatologic consultation and whether follow-up in dermatology outpatients was required.

RESULTS

A total of 220 in-patient consultations were recorded during this period; 26.8% of these were patients admitted primarily for a dermatological complaint. The age ranged from a 4 month old baby with eczema to a 94 year old patient with bullous pemphigoid. Mean age was 46 years, with 48.6% female (n=107) and 51.3% male (n=113) patients. The services requesting consultations were medicine (45.9%), paediatrics (24.1%) and surgery (25.5%). Interdepartmental requests for consultations were often incomplete with primary skin diagnosis only given in 116(52.7%) of request forms. Dermatology diagnosis included eczema (21.8%), psoriasis (7.3%), cellulitis (5.9%), drug rash (6.8%) and skin lesions (6.4%). A total of 98% of in-patient consultations were reviewed by the dermatology consultant within 24 hours of admission, with 28.6%(63) requiring more than one consultation and 33.2% of cases requiring outpatient follow-up.

CONCLUSION

This study gives an insight into the dermatologic contribution to in-patient hospital care. Dermatology assists all in-patient areas of the hospital. A fifth of the referrals were paediatric and this underlines the need to develop Paediatric Dermatology within UHL. Although most patients were seen in a timely manner following admission a quarter of the referrals were for patients admitted through the ED for acute skin failure. This partly reflects inadequate secondary care provision as most patients could have been managed as outpatients if they had been able to access the outpatient service earlier in the evolution of their condition. UHL is developing a purpose-built new Dermatology Day Treatment Centre. The new centre will significantly expand the services available for patients with decompensating skin disease and enable us to intervene and prevent admissions. The data also emphasises the need for continued medical education for junior staff working in non-dermatology specialties given the low accuracy of referral diagnosis for most of the patients.

Are Fumaric Acid Esters a Safe and Effective Treatment Option in the Management of Moderate to Severe Psoriasis in Adult Patients? A Review of the Literature

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INTRODUCTION

Psoriasis is a chronic skin disease associated with increased morbidity and mortality. Effective and safe long-term treatment options are required in order to manage the illness successfully. A number of systemic agents are available however they each have potentially dangerous side effects. Fumaric acid esters (FAE) are used first line in Germany for the management of moderate to severe psoriasis, however their use in Ireland is on an unlicensed basis.[9]

OBJECTIVES

The purpose of this literature review is to evaluate the efficacy and safety of FAEs in the management of moderate to severe psoriasis in adult patients. The reviewer intends to systematically review all available literature on the efficacy and/or safety of FAEs in the management of moderate to severe psoriasis in adult patients.

METHODOLOGY

A systematic review of the literature was performed by one reviewer. The PubMed, TRIP, Embase and Cochrane Collaboration databases were systematically interrogated to include randomised controlled trials, cohort studies and case studies evaluating the efficacy and/or safety of FAEs in the management of moderate to severe psoriasis in adult patients. Inclusion criteria were studies which included adults over 18 years of age, with a diagnosis of moderate to severe chronic plaque psoriasis, who were treated with FAEs and no other systemic anti-psoriatic agents concurrently. Exclusion criteria were studies involving children, mild psoriasis, studies which did not include patients with chronic plaque psoriasis, the use of FAE for the management of illnesses other than psoriasis, and patients treated with more than one systemic anti-psoriatic agent concurrently.

RESULTS

In total, 19 articles were selected for review including 2 randomised placebo controlled trials, 1-non randomised comparative study, 7 retrospective cohort studies, 2 prospective cohort studies and 7 case studies. The findings suggest that FAEs are a safe and effective treatment option for the management of moderate to severe psoriasis in adult patients. Gastrointestinal side effects may occur on treatment initiation and may be minimised by slow dose titration. Lymphocytopenia and eosinophilia are common, however they are rarely of significance and there is no high level of evidence available to suggest a resultant increased risk of infection or malignancy. Rarely alterations of renal and hepatic function may occur, however these are largely reversible on treatment withdrawal.

CONCLUSION

In conclusion, the use of FAE in the management of moderate to severe psoriasis is a promising treatment option, especially for those patients intolerant of, or unresponsive to other agents. If blood parameters are closely monitored during treatment as per manufacturer's instructions they may be safely used in practice. However, long-term prospective studies including large cohorts of patients are required in advance of the licensing of FAEs in Ireland.

REFERENCES

Available on request.

An Exploration of Student Midwives' Experiences of Caring for Women with a Body Mass Index (BMI) of Greater than or Equal to 30kg/M^2 in a Maternity Setting

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INTRODUCTION

Obesity is a major public health issue which impacts on women and their babies health and is defined as a body mass index (BMI) of ≥30 kgs/M^2. Midwives and student midwives increasingly care for women who are defined as obese during pregnancy, childbirth and postnatally. Research has examined midwives' perceptions of caring for women who are obese and found that midwives are becoming progressively more concerned on how best to support and care for these women during the perinatal period. No published research has to date explored student midwives' experiences in this area.

OBJECTIVE

To explore midwifery students' experiences of caring for women who have a BMI ≥30 kgs/M^2.

METHODOLOGY

A qualitative descriptive design was adopted. A purposive sample of ten 3rd and 4th year student midwives (n=10) in clinical practice in a maternity unit in the Republic of Ireland were interviewed utilising a semi-structured interview format. Ethical approval was obtained from the relevant Ethics Committee in the third level institute. Access to the students was then negotiated with the Head of the Department of Nursing and Midwifery. Data from the interviews were analysed using Burnard's framework for analysis (2006).

RESULTS

Four themes were identified in the analysis; Stigma Associated with Obesity in Pregnancy, Silence around Obesity, Challenges of Caring for Women with a BMI ≥30 kgs/M^2 and Education on Obesity. Healthy weight management was not adequately addressed in practice. There were limited opportunities for student midwives to experience midwives engaging women in a discussion about their weight. Student midwives normalised obesity in order to protect the women and avoid offending them. Overall student midwives felt unprepared for their role in supporting women with a BMI ≥30 kgs/M^2 in the maternity setting.

CONCLUSION

There is a significant need for education and training to prepare student midwives to care for women who are obese in the perinatal period. Opportunities to observe midwives engaging women in a discussion about healthy weight management would support consolidation of this knowledge.

REFERENCE

Available on request.

An Exploration of Midwives’ Perceptions of Caring for Women with Critical Care Needs in the Labour Ward Setting

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INTRODUCTION

Childbirth is viewed as a major life event for women and their families. For the majority of women this is a normal process. While midwives have traditionally been seen as guardians of normal birth this paradigm is beginning to change as are the needs of women becoming pregnant. Women are now embarking on the pregnancy journey with more complex health issues and co-morbidities. Such issues may predispose women to an increased risk of critical illness, which the midwife must respond to. Limited published literature exists in relation to the midwife’s experience of providing such care.

OBJECTIVE

The aim of this study was to explore midwives’ perceptions of caring for women with critical care needs in the labour ward setting.

METHODOLOGY

A qualitative descriptive design was utilised and interviews were carried out with a purposive sample of ten midwives (n=10) from a stand-alone maternity unit in the Republic of Ireland. Ethical approval was granted from the Ethics Committee at the study site and access to the site was then negotiated through midwifery management. All of the midwives interviewed had at least one year’s experience of midwifery practice on a labour ward. Participants’ length of experience as a midwife varied from three to twenty years.

RESULTS

Following thematic analysis using Braun and Clarke’s framework (2013) four themes emerged: **Provision of Safe Care, Support, Education** and **Psychological Impact.** The findings of this study highlighted that midwives generally learn how to care for women with critical care needs through experience gained in practice. Support in practice was considered essential in the provision of safe patient care with midwives noting the support of the multidisciplinary team as particularly important. Barriers to support midwives in practice included the infrastructure of the organisation and the power struggle that existed between doctors and midwives. Irrespective of support and experience all midwives expressed a need for specialist training and education to care for this cohort of women. Midwives noted too how critical illness can have a psychological impact on women and on themselves.

CONCLUSION

There is a significant need for education and training in this area of practice. This could include a theory component accompanied by competence assessment. Psychological supports too need to be put in place for women in receipt of such care and for midwives delivering this care including an emphasis on building resilience in the workplace for midwives.

REFERENCES

Available on request.

'The Official Record' Stillbirth Registration

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INTRODUCTION

Civil Registration systems and the statistics they generate are intrinsic to a country's development. They determine the design, implementation, monitoring and assessment of health programmes and policies nationally and act as a comparison internationally. Since 1995 parents of a stillborn infant have been able to register their infant's birth.

OBJECTIVE

The aim of this study was to compare the concordance between hospital reported data and the data recorded on the Medical Certificate of stillbirth issued by the Civil Registration Office.

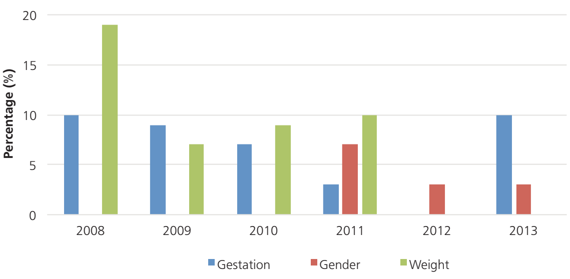
METHODOLOGY

Hospital available data and registration data were reviewed over a six year period from 2008 to 2013. Data from a large tertiary level maternity hospital were acquired from the Hospital Annual Report as well as the data which is provided to the National Perinatal Mortality Audit. Data were extracted from the local Civil Registration Office. Data held in the local Civil Registration Office are only for those who have not yet signed and completed the registration of stillbirth process. Over the six year period there were 222 stillborn infants in the hospital. Of these, data were available for 101 stillbirths from the local Civil Registration Office. In order to access the accuracy of these data key variables such as gestation, weight, gender, date and cause of death were compared.

RESULTS

Of the 101, 32% (n=32) had no medical certificate of stillbirth issued. As indicated in Figure 1 discrepancies were noted with regard to gestation, gender and weight. We noted improved accuracy in data recording over the study period. The discrepancies in gestation continued to be an issue over the 6 year period, while no discordance in weight was identified in 2012 or 2013.The cause of death was recorded descriptively rather than by classification codes; there were discrepancies in exact phrasing however cause of death was similar in both.

Figure 1 - Discrepancies in Data between Hospital and the Local Civil Registration Office



CONCLUSION

Mortality data is one of the key health statistics and of the utmost importance for policy development and implementation. Incorrect recording of data results in distorted findings. Hospital data are recorded manually and consequently their accuracy is dependent on the recorder. The ongoing education of all healthcare staff of the importance in completing accurately the often complex paperwork that is associated with patient care is essential.

PRESENTED

As a poster presentation at the International Stillbirth Alliance in Amsterdam in October, 2014.

The Introduction of a Mood Stabiliser Clinic in a Day Hospital

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INTRODUCTION

St. Anne's Day Hospital is a city centre mental health facility providing outpatient mental healthcare for a population of 54,000 people. The day hospital is divided into two sectors with a caseload of approximately 380 per sector. The nurses at St. Anne's Day Hospital meet approximately once a month for reflective practice. During one of these sessions it was raised that there were a number of clients attending St. Anne's Day Hospital who were prescribed mood stabiliser medications including Lithium/Epilim/Tegretol. The NICE guidelines state that all clients prescribed these medications should have serum levels done at least every 6 months. The audit was undertaken to ascertain these clients' most recent serum levels and to explore if the care of these clients was meeting this 6 month criterion.

OBJECTIVE

The objective of this project in St. Anne's Day Hospital was to audit the healthcare clients attending who were prescribed a mood stabiliser to ensure they were having regular serum levels taken in accordance with the suggested best practice NICE guidelines recommendations.

METHODOLOGY

Each healthcare record of the 380 people attending Sector B2 was audited. There most recent script was examined to see if they were prescribed one of these mood stabilising medications. This information was cross-checked on the iLab system (computerised lab reporting system) to see when their most recent serum level was completed.

Each client on these medications was invited to attend a mood stabiliser clinic run by a nurse. At this clinic the client would have serum levels taken. The client would be provided with information on their medication including information detailing the necessity for attendance for regular serum level checks. They would also have an opportunity to discuss and get further information on their diagnosis including self-help leaflets.

A note was inserted on epex, the computerised records system in mental health for their next OPD appointment to highlight that they had been invited to the mood stabiliser clinic and requesting the doctor to review blood results with the client. The doctor reviewed the results of these blood tests at a designated time. Any client who did not attend the mood stabiliser clinic and who did not ring to reschedule was discussed in the team meeting. A note was also inserted in their next clinic appointment on epex to prompt the doctor to discuss the need for blood test with client.

RESULTS

Of the 380 clients attending Sector B2, there were 33 clients on one of these medications. Of these 33 clients, 8 met the criterion of having serum levels done in the past 6 months. Of these 33 clients, 31 were invited to the mood stabiliser clinic. The other 2 clients were physically unwell and were in-patients in hospital.

		TOTAL
Attended	**16**	**20**
Rescheduled and later attended	**4**	
Rescheduled and later did not attend	**2**	**11**
Did not attend	**9**	
Clients who were physically unwell and unable to attend clinic	**2**	

Of the 20 bloods sampled, there were 8 clients whose mood stabiliser levels were lower than the expected range. These clients were each individually contacted by telephone and advised regarding low levels and possible causes for same were explored including medication concordance. They were also advised that the doctor would discuss these levels with them at their next OPD.

Low levels due poor compliance	**3**
Low levels due to being on a low dose	**5**

There were also 4 clients whose LFT or kidney functions results were not within normal ranges. The doctor contacted these clients' GP to advise them of results and arrange follow-up through the GP practice. One client was then referred to A&E by his GP with low sodium levels. During the mood stabiliser clinic many clients had additional questions about the causes of BPAD, their medication, side effects and alternatives to medication. Therefore, a 'Questions and Answers' session on mood stabilisers and BPAD will be offered by the CNS and doctor to these clients in April 2015.

CONCLUSIONS

This was a valuable initiative in terms of the care and treatment of these clients who attend St. Anne's Day Hospital. We are considering repeating this audit biannually. As the systems are already in place it is expected the audit would be more streamlined and less time-consuming from a resource perspective. An education programme has naturally evolved to provide education/intervention for this group of clients, and can also be utilised for clients who are newly commenced on a mood stabiliser.

It has also emerged that there are a number of clients who may benefit from a structured Concordance Programme. We will initially offer this on an individual basis. The CNS and doctor have written to written to each of

the clients to offer a psycho-education group and a 'Questions and Answers' session. The first half of this psycho-education aspect of the group will explore causes of BPAD in terms of a stress/vulnerability model. We also will provide education on current pharmacological treatments available, and alternatives/adjuncts to medication including support groups, lifestyle choices etc.

The second half of this group will be in a 'Questions and Answers' format where clients have been asked to bring any questions they may have in relation to any aspect of the illness, which can be discussed in group for peer input.

REFERENCES

Available on request.

To Gain an Understanding of Doctors' and Patients' Experiences of Mental Health Outpatient Clinics

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INTRODUCTION

Mental healthcare has evolved steadily in recent times. The policy document *A Vision for Change*[1] has guided this care in Ireland recommending a recovery orientated approach to mental healthcare. Outpatient clinics (OPC) are a well-established component of all healthcare having first being established in medicine and then being adopted into mental healthcare. The current role and function of the OPC has not been examined from a service provider and patient perspective. Evidence from the literature shows large numbers of non-attendance and dissatisfaction expressed by stakeholders and resources involved in OPC.

OBJECTIVES

This study aims to gain an understanding of the doctors and patients of a mental health outpatient clinic in order to identify the role and function of the OPC.

METHODOLOGY

A qualitative descriptive design method was chosen and best suited the study. The method of data collection was open-ended semi-structured interviews which were audiotaped to maintain accurate accounts of information given. Ethical approval was obtained and the purposive samples were identified.

Five doctors and five patients at one OPC who fulfilled the criteria for inclusion were the purposive samples included in the research study.

Colaizzi's (1978) procedural steps were utilised to analyse the data following transcription of audio recorded information.

RESULTS

Four themes emerged across respondent groups: the OPC, doctor-patient relationship, recovery and views on the future of mental health in Ireland. Within these themes there were little similarities among the two sample groups. Patients embraced the opportunity to speak about their experiences of the OPC. The therapeutic relationship was a resounding focal point for all participants with the biggest emphasis being placed on an individual's feeling listened to followed by consistency in the person met at each appointment. Knowledge of recovery was gauged on individual's well-being with knowledge of *A Vision for Change*[1] being of a very limited amount. Some of the doctors had never heard of the document. Views on the future of mental health in Ireland elicited responses such as introduction of mental health education in primary schools to employment of more professionals to alleviate the overcrowding within the service. More interdisciplinary communication was suggested to encourage GPs and mental health team communication.

CONCLUSIONS

Active steps need to be taken to introduce a multidisciplinary team approach to the OPC. The introduction of a mental health practitioner to primary care teams[2] would see only those who require secondary mental healthcare utilising the OPC and thus reduce non-attendance figures and potentially reduce over subscription to the OPC.

Full implementation of the *A Vision for Change* document is now necessary to enhance the Irish mental healthcare system. Further research into this topic would furnish an in-depth view of doctors' and patients' experiences of the OPC in mental health and may help to clarify what the role and function of the OPC is in mental health.

| CONTENTS |

Audit of Benzodiazepine/Z-drug Prescribing in an Adult Community Mental Health Service

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INTRODUCTION

The prescribing practice of benzodiazepines and hypnotics in Ireland has been under both public and professional scrutiny in recent times.

The CPI has issued a consensus statement on the use of Benzodiazepines (BZD) in specialist mental health services, recommending that members who prescribe BZD should follow good practice guidelines for their use, which includes conducting regular audits of practice. It also recommends that at the time of BZD prescription renewal/medication review, the physician should discuss the risk of long-term benzodiazepines and the benefits of discontinuation, and advise the patient to reduce/ discontinue same.

OBJECTIVE

In July 2011 the Nenagh Community Mental Health Team drafted a policy for implementation of the above recommendations. The objective was to audit the prescribing of benzodiazepines and "Z-drugs" in this CMHS in keeping with good practice, and compare it to the National Guidelines. We also aimed to identify whether implementing the above simple recommendations, and improving physicians' vigilance regarding their prescribing practice could reduce the amount of BZD or "Z-drugs" prescribed in the service.

METHODOLOGY

A manual retrospective review of medical files was performed in April 2012. Patients who were currently still on the caseload and prescribed BZD and/or Z-drugs as per 1st of July 2011 were identified.

The information extracted was: age, diagnosis, co-morbid substance misuse, dose of BZD/Z-drug, number of addictive drugs prescribed, indication and duration of use.

RESULTS

A total of 397 files were reviewed in April 2012. In July 2011, 90 of these were prescribed Benzodiazepines/Z-drugs at that point (22.7%). A total of 1 in 3 was prescribed more than one addictive drug.

- *Duration:* 53% (n=48/90) had been prescribed BZD/Z-drugs for 1-2 years, and 26 % (n=23/90) for at least 2-5 years

- *Diagnosis:* 40% (n=37/90) categorised as having severe enduring mental illness (SEMI), and 70% (n=63/90) as having other mental illness (OMI)

- *Co-Morbid Substance Misuse:* 16% (n=10/63) of patients with OMI and 38% (n=14/37) of patients with SEMI

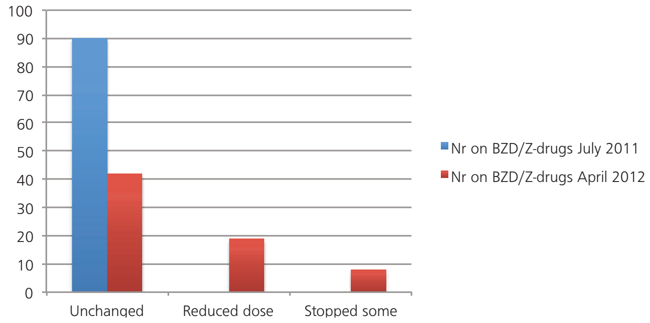
- *Progress:* In April 2012 (9 months post-policy implementation), 23% (n=21/90) had stopped all BZD/Z-drugs, 11% (n=8/90) had stopped some and 21% (n=19/90) had reduced doses

CONCLUSIONS

A high number of patients were prescribed Benzodiazepines or Z-drugs at baseline and the duration of treatment exceeded National Guidelines. The results are similar to other audits of prescribing practice in other Community Mental Health Services in Ireland.

Nine months post-policy implementation there had been an overall reduction in the prescribing of BZD/Z-drugs. It was clear that improving physician vigilance and awareness of good practice guidelines on BZD/Z-drugs prescribing reduced the amount of these drugs being prescribed in our service.

Figure 1 - Changes in Prescribing of BDZ/Z-Drugs 2011-2012



REFERENCES

Available on request.

PRESENTED

As poster presentations at the UL Mid-West and Midlands Psychiatry Services Annual Study Day in Psychiatry 2014 (awarded best research poster), and at the College of Psychiatry of Ireland's Winter Conference in November, 2014.

Experiences of Community Multidisciplinary Team Members in Supporting Conditionally Discharged Forensic Mental Health Service Users

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INTRODUCTION

In Ireland, as in many other countries throughout the world, the forensic mental health service is undergoing significant reform at a rapid rate in relation to structure, services and approaches to service delivery. In 2010, Section 13 of the Criminal Law (Insanity) Act (2006) was amended to make provision for the granting of conditional discharge to the forensic mental health service users (FMHSUs). A specialist forensic community multi-disciplinary team (MDT) was developed to support the FMHSUs while re-integrating into community living. This team consists of a consultant psychiatrist, community mental health nurses, psychiatric registrars, social workers and psychiatric nurses in the community hostels.[1, 2] This is the first Irish study exploring their experiences of supporting the conditionally discharged FMHSUs.

METHODOLOGY

A qualitative descriptive approach guided by an interpretive paradigm and underpinned by the recovery concept was deemed appropriate for the study. The objectives were to identify and capture the views of MDT members on FMHSUs' community transition and to examine the challenges for MDT members while supporting the conditionally discharged FMHSUs. Ethical permission was obtained from the Ethics Committee at the research site and the Faculty of Health Sciences Research Committee, Trinity College Dublin. At the time of data collection, there were 16 MDT members supporting the FMHSUs in the community. MDT members with at least one year of experience in supporting the conditionally discharged FMHSUs were invited to participate in the study. Data was collected from eleven purposefully selected forensic community MDT members using semi-structured interviews. Braun and Clarke (2006) Framework as adapted for NVivo10 was used for data analysis.

RESULTS

Three themes emerged from data analysis:
1. MDT Challenges to care provision
2. MDT perceptions of community re-entry
3. MDT views on community rehabilitation programmes and services

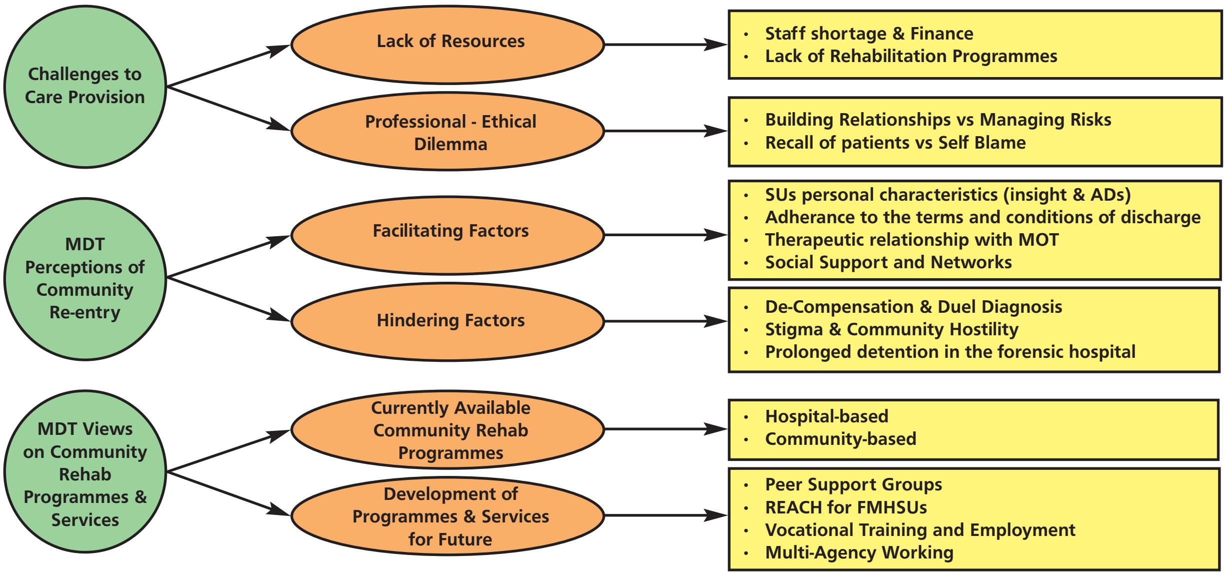
Findings suggest that working as a member of the multidisciplinary team was rewarding yet there were intricate and complex challenges; the dichotomous role of being therapists and risk-managers created huge ethical dilemmas. The re-integration process was affected by both facilitating and hindering factors. Several sub-themes which emerged from analysis are shown in Figure 1.

Based on findings, authors make the following recommendations:-
- Management strategies may be developed based on the awareness of intricate and complex challenges experienced by the MDT members
- Public campaigns on issues surrounding the re-integration of FMHSUs may reduce stigma and hostility in the community
- Development and delivery of specifically designed rehabilitation programmes for FMHSUs may increase opportunities for them
- Successful re-integration requires multi-agency working with the housing boards, general mental health and rehabilitation services and employment sectors

CONCLUSION

For forensic mental health services to develop needs-based rehabilitation programmes for conditionally discharged service users is vital. Also, inter-agency relationships with various services e.g., housing, employment, mainstream mental health services and rehabilitation services need further development.

Figure 1 - Themes and Sub-Themes from the Analysis



| CONTENTS |

Conditional Discharge and Community Re-Entry- Irish Forensic Mental Health Service Users' Experiences

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INTRODUCTION

In Ireland, the Criminal Law (Insanity) Act[1] replaced the previous mental health legislation pertaining to mentally ill offenders. The Section 13A of CLIA (2006) which refers to the review of detention was amended in 2010 and allows for discharge subject to enforceable conditions of those service users who no longer require detention in the designated centre i.e., the Central Mental Hospital.[2] The terms of conditions of discharge are drawn based on individual risk assessment and management strategies. The first discharge was granted in March 2011. The process of conditional discharge is through the Mental Health Review Boards in consultation with the treating consultant psychiatrist. Conditional discharge is deemed important as a means to balance public protection with the treatment of forensic mental health service users (FMHSUs)[3] in the least restrictive environment as recommended by 'A Vision for Change' document.[4] This is the first Irish study exploring FMHSUs' experiences of living in the community on conditional discharge.

METHODOLOGY

A qualitative descriptive design was deemed appropriate for the study. The study objectives were to identify the challenges for FMHSUs in community transition; to recognize the support system for living in the community and to draw recommendations for future. At the time of data collection, there were 14 service users on conditional discharge, of which, 6 agreed to participate in the study. Ethical permission was obtained from the Research Ethics Committee at Dublin Business School and the Ethics Committee at the research site. Data was collected using semi-structured interviews guided by an interview guide. Colaizzi's method of analysis[5] was used for data analysis.

RESULTS

Participants spoke extensively on two main areas; their experience of community living and of conditional discharge. Sub-themes which emerged under these two themes are given in Table 1.

Participants in this study welcomed the freedom of living in the community and felt both joy and apprehension about it. However, it was a challenging transition for some when faced with community reluctance, stigma, lack of opportunities and loneliness. Findings suggest loneliness increased the likelihood of developing new addictions such as gambling and internet dependence. This raises the issue of appropraitely housing the FMHSUs on conditional discharge. Despite challenges, participants showed a positive outlook on the future which is the key to their recovery and rehabilitation. It is evident that preparing FMHSUs for conditional discharge is vital. Furthermore, ongoing support from the multidisciplinary team members and family help prevent relapse and recidivism.

CONCLUSION

Conditionally discharged FMHSUs' transition to community living has intricate and multifaceted challenges. Support from the community, family and the multidisciplinary team is crucial. It is evident that stigma around forensic mental health is still prevailing and that is probably the biggest hindrance for community re-entry. A multi-agency approach working with various bodies including the housing board allows for proper placement of the service users and this may help them combat loneliness and social isolation.

REFERENCES

Available on request.

Table 1 - Themes and Sub-Themes from the Analysis

Main Themes	Sub-Themes
FMHSUs' Experiences of Community Living	Community Re-entry - Joy & Apprehension
	Community Living - A Gateway for New Addictions
	Challenges in Community Transition
FMHSU's Experiences of Conditional Discharge	Conditional Discharge - A Way Forward
	Need for Preparation & Ongoing Support

Screening for Perinatal Mental Illness at an Antenatal Booking Clinic - An Audit

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INTRODUCTION

For women with a previous psychiatric disorder, pregnancy is a major and predictable risk factor for relapse, with the risk of relapse greater in women with a history of severe perinatal mental illness. Family history of perinatal illness is an equally important risk factor. These predictable risk factors present ideal screening opportunities for clinicians at the early stages of the antenatal period. The timely identification of women who have, or are at risk of developing, a mental health disorder in pregnancy will then facilitate appropriate psychiatric referral and management. In some cases, prevention of serious psychiatric morbidity may even be possible.

OBJECTIVE

The objective of this research was to review the current antenatal screening process for perinatal mental illness in the University Maternity Hospital, Limerick (UMHL), comparing it with the current NICE guidelines.

METHODOLOGY

Files of 101 mothers attending the UMHL antenatal booking clinic were randomly selected between October and November 2014. The degree of compliance with recommendations from the NICE Guidelines on Antenatal and Postnatal Mental Health: Clinical Management and Service Guidance 2007 was assessed.

RESULTS

The screening process in UMHL was 100% compliant with the NICE Guidelines 2007 with regard to obtaining information about past or present severe mental illness, and previous treatment by a psychiatrist/specialist mental health team, including in-patient care. Information about family history of mental illness was obtained, however did not specifically include questions on family history of perinatal mental illness. The two-item questionnaire to screen for current or active depression was not assessed or documented in any of the cases.

CONCLUSIONS

The screening process for antenatal mental illness at the booking clinic of UMHL was partially compliant with the NICE Guidelines 2007. Although midwives screened all mothers for past mental illness, treatments and family history of mental illness and specific questions to screen for current mood were not asked or documented at the initial booking visit. Focused training for midwives regarding specific recommendations from the NICE guidelines is required to improve the current screening process.

PRESENTED

- As an oral presentation at the UMHL Audit Meeting on March 10th, 2015 by Dr. Mas Mahady Mohamad.
- As an oral presentation at the UL Mid-West Midlands Psychiatry Annual Study Day on May 28th, 2015 by Dr. Anne-Marie Curtin.
- As a poster presentation at the College of Psychiatrists of Ireland Spring Conference on March 26th and 27th, 2015.

| CONTENTS |

Exploring the Effectiveness of a Group Intervention in Patients Recovering from Cancer

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INTRODUCTION

'Time to Adjust' (TTA) is a 6 week group-based cognitive-behavioural-therapy (CBT) programme for patients recovering from cancer. Originally developed by Steggles and McKiernan,[1] the programme is currently part of the service provided by the University Hospital Limerick Cancer Psychology Service. TTA is designed to facilitate patients' adjustment to life after cancer treatment by enhancing existing coping skills and drawing on the support of others with similar experiences.

OBJECTIVES

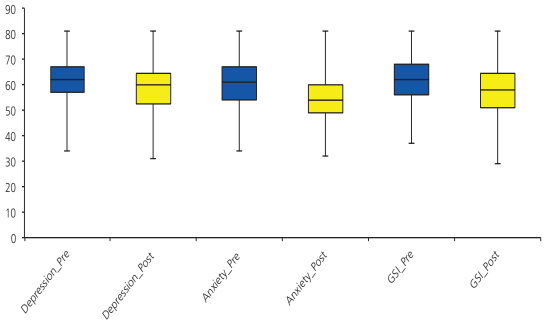
The study aims to explore patient psychological adjustment and to identify features of the intervention that patients find most beneficial.

METHODOLOGY

This retrospective study is part of a routine clinical evaluation of the intervention. Using a mixed methods design responses from 59 patients across 9 deliveries of the programme between 2012 and 2014 were included. Ages ranged from 34 to 70 years. A total of 93% were female and 75% were recovering from breast cancer. Pre- and post-intervention data was collected using self-report measures of stress and coping and patient qualitative feedback was analysed using thematic analysis. The Symptom Checklist-90-Revised (SCL-90-R) measured participants' self-reported levels of distress. The Mental Adjustment to Cancer scale (MAC) measured participants' self reported positive and negative adjustment to cancer.

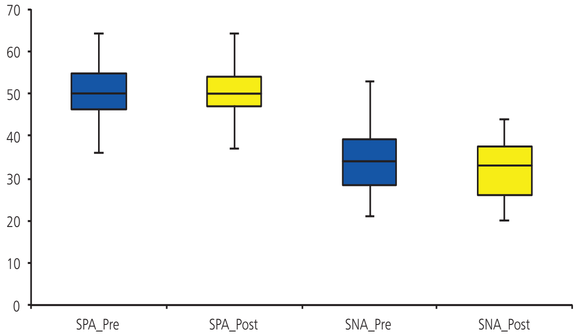
RESULTS

Figure 1 - Mean Scores for SCL-90-R for Global Severity Index (GSI), Anxiety and Depression Subscales Pre- and Post-TTA



Exploratory analysis revealed favourable trends in the psychological adjustment of patients completing the programme as part of their recovery from cancer. A paired-samples t-test indicated that GSI was significantly lower post-TTA (M=58.2, SD=9.97) than pre- (M=61.9, SD=8.75), t(58)=4.3, p<0.001, d=0.30. Anxiety subscale scores post-TTA (M=56.27, SD=10.16) were lower than pre-TTA (M=60.12, SD=9.96), t(58)=4.6, p<0.001, d=0.38. Depression subscale scores post-TTA (M=58.44, SD=9.56) were lower than pre-TTA (M=61.69, SD=9.55), t(58)=3.3, p<0.001, d=0.34.

Figure 2 - Mean scores for MAC Summary of Positive and Negative Adjustment pre- and post-TTA



No significant differences were found between MAC SPA scores post-TTA (M=50.59, SD= 6.27) and pre-TTA (M=50.66, SD=5.71), t(58)= -0.10, p>0.92.

A paired-samples t-test indicated that scores were significantly lower for MAC SNA post-TTA (M=32.15, SD=6.87) than pre-TTA (M=34.0, SD=7.43), t(58)=2.4, p<0.018, d=0.26.

Key themes identified in the thematic analysis of qualitative feedback include coping skills, thought monitoring, relaxation techniques, the therapist's approach and the normalisation of patients' experiences of cancer.

CONCLUSIONS

Findings indicate that 'Time to Adjust' supports patients' psychological recovery from cancer with multiple components of the programme facilitating the psychological adjustment. This supports the delivery of group-based therapeutic interventions for this patient group. Future research could involve a more in-depth analysis of patient interviews for a richer understanding of the benefits of the programme.

REFERENCES

Available on request.

PRESENTED

This retrospective evaluation was presented in poster format by the first author at the PSI Conference for Early Career Psychologists in the National University of Ireland, Galway on February 28th, 2015 and also at the BPS & PSI 12th Annual Psychology, Health & Medicine Conference at Stranmillis University College, Belfast on April 1st, 2015.

Acknowledgements
The authors wish to gratefully acknowledge the assistance of Dr. Jean Saunders, CSTAR@UL for her assistance with statistical analysis.

A Pre-Transition Framework - Preparing to Move from a Congregated Setting to Community Living in a Person-Centred Way

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INTRODUCTION

Major policy developments in Ireland have become the drivers of a changed approach to disability service delivery (e.g., Congregated Settings Report (2011),[1] New Directions (2012)[2] and Value for Money Report (2012).[3] These policies recommend that (1) people living in congregated settings should be facilitated to move into the community, and (2) that they should be offered day time support to enable them to live a life of their choosing in the community.

OBJECTIVE

The aim of this service initiative is to facilitate the development of a pre-transition approach to create a firm person-centred way of working with individuals and staff that will improve the likely success of transitioning to the community for people with Intellectual Disabilities.

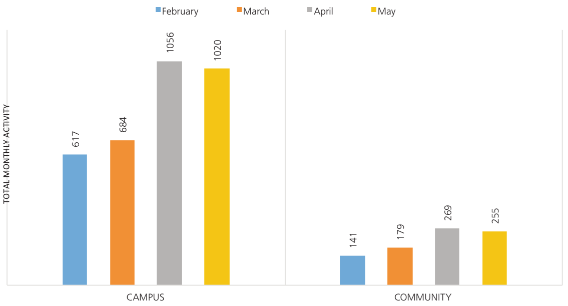
METHODOLOGY

The participants in this service initiative were eight adults with an Intellectual Disability (ID) living in a congregated setting (n=107) and the staff working with them (n=18). There were five male and three female adults with ID ranging in age from 30 to 47 years (x=38). The level of Intellectual Disability ranged from mild to severe. Co-morbid diagnoses in the group included; Challenging Behaviour, Self Injurious Behaviour, Sensory Disabilities, Mental Health Disorder and Autism Spectrum Disorder. The pre-transition framework was developed over one year using a collaborative approach between the clinical and the operational team. The framework focused on the assessment of skills for each individual using psychometric tests (ABS-RC: 2 & SIS)[4,5] along with getting to know the individual and the staff, all of which fed into the development of person-centred transition planning documents (i.e., Listen To Me, Goal Planning, Weekly Activity Review, Individualised Living Options). Implementation and planned sustainability was built into the package throughout the year, including multiple levels of organisational supervision, review documents (i.e., Pre-Transition Overview, Steps to Transitioning) and audits. The framework focused on the development of a positive relationship with individuals and staff using coaching as a form of ongoing support. Social validity data was collected in the last month using a survey with the staff team.

RESULTS

The introduction of the framework has positively contributed to the transition planning process. Individuals have person-centred plans with transition specific goals informed by a variety of evidence-based skills assessments. There has been a 65% growth rate in congregated setting (campus) based activity and an 81% growth rate in community-based activity between February and May 2015 (See Figure 1).

Figure 1 - Total Campus and Community Activity (8 Participants) February to May 2015



The social validity surveys (n=10) reveal a mean score of 4/5 on quantitative questions regarding the transition process reflecting short and long-term acceptance of the package. An analysis of qualitative questions given to staff reveal the importance of positive themes including; greater access to community activity, more focused goals, an improved communication process, stronger team work and a clearer vision of outcomes for the individual and staff team.

CONCLUSIONS

This service initiative demonstrates the 'how to' of pre-transitioning at a local level. It has taken the recommendations of current disability policies in Ireland and implemented these in a person-centred way. The resulting product is a pre-transitioning framework with a focus on stakeholder collaboration that could be used by other disability services to meet the recommendations of the Congregated Settings Report.[1] Each of the 8 individuals now have an identified new home and the future focus of this project will be the development of an informed move to the community through a process of community mapping.

REFERENCES

Available on request.

| CONTENTS |

A Cross-Sectional Analysis of Depressive Symptoms in Palliative Care In-Patients

Mohamad, M.M.,[1]
Davis, B.,[1]
Leonard, M.,[1]
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Lucey, M.,[3]
Twomey, F.,[3]
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Milford Care Centre, Castletroy, Limerick[3]

INTRODUCTION

Depression is common in the palliative care setting, in both cancer and non-cancer patients. Despite being associated with a significant array of detrimental outcomes, depression remains under-recognised.

OBJECTIVE

To examine the frequency and severity of depressive symptoms in consecutive admissions to an in-patient palliative care unit using the Patient Health Questionnaire (PHQ-9).

METHODOLOGY

Depressive symptoms were measured using the PHQ-9 in consecutive admissions to a specialist palliative care in-patient unit in Limerick, Ireland. The PHQ-9 is a brief 9-item tool designed to screen for depression according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-V) criteria.

RESULTS

We assessed 75 patients [55% male (n=41); mean age 68.6 ± 10.2 years, range: 43-88]. The majority (n=72; 96%) had a cancer diagnosis with almost a third (n=22) with gastrointestinal malignancy. Of the 71 who completed the PHQ-9, the mean total PHQ-9 scores were 10.01, with 45% (n=32) falling into the moderate and moderately-severe depressive illness categories. Three patients (4.2%) had scores indicative of severe depression. Palliative care patients scored particularly highly on the item for 'feeling tired', with 48%(n=34) describing low energy almost every day in the past two weeks. 89% (n=63) denied having any death wish or thoughts of self-harm in the two weeks prior to assessment.

CONCLUSIONS

Depressive symptoms are common in the palliative care setting with almost half of patients scoring moderate to severe depression on the PHQ-9. Longitudinal studies are required to clarify the relationship between depressive symptoms and possible confounding factors including fatigue, pain and delirium.

PRESENTED

- As an oral presentation at the UL Mid-West/Midlands Psychiatry Annual Study Day on May 28th, 2015 by Dr. Mas Mahady Mohamad.
- As a poster presentation at the Royal College of Psychiatrists Faculty of Liaison Annual Conference in London from May 13th to 15th, 2015 in London.

FUNDING

This research has received funding from The Health Research Board (HRB)/All-Ireland Institute of Hospice and Palliative Care (AIIHPC).

An Evaluation of an 8 Week Group Treatment Programme Provided to Individuals Who Misuse Cannabis

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INTRODUCTION

This study reports on the effectiveness of an eight session programme delivered weekly for two hours to individuals dependent on cannabis. Cannabis is by far the most widely-used illicit drug in Ireland.[1] A significant number of individuals who use cannabis develop problems in relation to their use. Among recent cannabis users 9% were classified as cannabis dependent and 17% met criteria for cannabis abuse.[2] It has been noted that it is difficult to attract this client group into treatment and to retain them.

METHODOLOGY

The treatment intervention consisted of one assessment session followed by eight group sessions. The content of the assessment undertaken was taken from the Adolescent Cannabis Check Up (ACCU) baseline assessment.[3]

The content of the treatment programme was taken from the manual Motivational Enhancement Therapy (MET) and Cognitive Behavioural Therapy (CBT) for Adolescent Cannabis Users Volume 1,[4] and Volume 2.[5] The use of motivational enhancement therapy and cognitive behavioural therapy is based on evidence that exists as to the efficacy of these therapies in initiating and maintaining change.[6,7,8]

A 'Readiness to Change' questionnaire[9] and a 'Severity of Dependence' (SOD) questionnaire[10] were completed with participants at assessment and with those who completed treatment.

Two group programmes were undertaken and 21 individuals attended the groups in total with 11 attending the first group and 10 the second.

The average attendance was 61%. Attendance at the first group was 71% and the second group 51%. There are a number of explanations for this variation in attendance figures.

Nine participants completed the 'readiness to change' and the 'severity of dependence scale' questionnaires at between 6-8 weeks of treatment.

RESULTS

The results with regard to 'readiness to change' indicate for all participants a movement on the transtheoretical model of change from contemplation to action and for those already in the action stage a movement towards increased action.

The results with regard to 'severity of dependence' indicate that 6 out of the 9 scored higher, 2 lower and 1 the same score. This was an unexpected finding. So much so, that it was decided that the results be fed back to the participants to examine this finding further. They suggested that their levels of dependency were not higher but that as a result of their participation in treatment they perceived now they had a greater level of dependency on cannabis than when they initially completed the questionnaire.

Nine group participants completed an anonymous discharge survey and over 90% of the responses indicated 'very' or 'completely' satisfied with the remaining comments indicating 'moderately' satisfied in response to questions asked. Questions asked included "Degree to which your needs were met?" and "Did you feel understood?"

Feedback included the following comments:-

"Found an invaluable skill set from participants and leaders alike. I have changed my mentality on cannabis usage."

"I'm drug free the last 3 weeks, we felt huge support from counsellors and group during this process. I feel the group has been the support that I needed to stay clean and drug free, I would highly recommend it to anyone considering giving up."

CONCLUSIONS

Results indicate the effectiveness of a group treatment programme based on CBT and MET as an effective means of retaining clients in treatment and initiating an increase in motivation to reduce or stop cannabis use. It was indicated the increased knowledge gained by engaging in the programme altered participants' perception of their severity of dependence. They acknowledged that their dependence was greater than they originally believed.

REFERENCES

Available on request.

Validating a Novel Tongue Pressure Measurement Device – Research Challenges

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INTRODUCTION

There is a need to develop valid, reliable tools to measure tongue strength and endurance. Current methods, such as the Kay Pentax Swallowing Signals Workstation (KSW) and Iowa Oral Performance Instrument (IOPI) present many drawbacks. Hand-held devices (e.g. IOPI) are prone to placement error making it difficult to capture accurate test-retest data. Fixed devices (e.g. KSW splined) are invasive, leading to difficulties swallowing and discomfort. The validation process of novel tongue pressure measure devices involves testing its validity and reliability against a reference standard. In the absence of a robust reference standard, we selected popular hand-held and fixed tongue pressure devices.

OBJECTIVE

The aim of this study was to compare measurements from a novel fixed device (OroPress) against hand-held and fixed reference standards (KSW and IOPI). A further aim was to examine the comfort of devices.

METHODOLOGY

Isometric tongue strength and endurance was collected from 20 healthy participants (18-39 years). Measures from OroPress were compared with three devices (IOPI, KSW splined and non-splined). Participants rated all devices on a Likert scale, to compare comfort. Captured data was inputted into an Excel spreadsheet and statistical analysis was applied.

RESULTS

No significant difference was found across strength and endurance measures obtained using fixed devices (OroPress and KSW non-splined). However, significant differences were found between fixed (OroPress) and hand-held devices (IOPI and KSW splined). Participants rated OroPress and IOPI as most comfortable.

Challenges exist in the validation of novel tongue pressure measurement devices without an ideal reference standard. However, in the absence of such, all available tools must be used for comparison. This study has addressed a continuing debate in the literature regarding inconsistencies across sensor size, number, placement and method of attachment.

CONCLUSION

The OroPress shows promise as an alternative to the KSW non-splined for measuring isometric tongue strength and endurance in a normative sample.

PRESENTED

At the Irish Association of Speech and Language Therapists Biennial Conference in Croke Park, Dublin on April 24th, 2015 by Ms. Aifric Conway.

| CONTENTS |

The Effect of Music and Singing on Walking Speed in a Patient Post-Stroke - A Case Study

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Gilmartin, B.,[2]
O'Malley, E.,[1]
Browne, J.[1]
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School of Public Health, Physiotherapy and Population Science, University College Dublin[2]

INTRODUCTION

Music therapy has been shown to improve gait quality and speed in stroke patients.[1]

OBJECTIVE

The objective was to determine the effect of music and singing on walking speed and quality in a post-stroke patient.

METHODOLOGY

A single case study was conducted of a patient with severe right hemiparesis, hypertonia and spasticity. This patient had severe global aphasia and cognitive deficits but automatic speech for singing of familiar songs was intact. Sessions were carried out jointly with the designated Stroke Physiotherapist and Speech & Language Therapist (SLT). The patient's gait velocity and quality was quantified across a 27 metre distance, including a 180º turn in a quiet gym space. Walking speed was timed for three consecutive trials randomised for order across 10 days. These variables were; walking without music, walking while singing with the SLT and walking while listening to music. The same music was used throughout. Quality was quantified in terms of the number of gait disturbances due to high tone. All statistical analyses were performed using IBM SPSS for Windows version 20 (IBM). Continuous variables were compared between groups using ANOVA.

RESULTS

Table 1

Parameter	Walk	Walk & Singing	Walk & Music	p
Speed (m/sec)	0.20±0.05	0.33±0.06	0.35±0.04	<0.001
Turn (sec)	18.47±4.37	8.10±1.19	8.60±1.88	<0.001
Quality (no.)	5.5±2.84	1.35±0.58	1.25±0.98	<0.001

Data as mean ± standard deviation.

CONCLUSION

Findings highlight the significant positive impact of music and singing on this patient's gait velocity and quality. Researcher's observations included a positive impact on tonicity, mood and social interaction with the introduction of singing and music. Therapeutic implications may include a reduced risk of falls and reduced level of assistance needed for activities of daily living as well as increased opportunities for social interaction.

REFERENCES

Available on request.

PRESENTED

As a poster presentation at the Irish Heart Foundation 18th Annual Stroke Conference.

The Relationship between Pre-Operative and Post-Operative Hamstring Strength after Anterior Cruciate Ligament Reconstruction with Semitendinosus and Gracilis Grafts

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INTRODUCTION

The anterior cruciate ligament (ACL) is one of the primary stabilisers of the knee joint and is commonly injured in young sporting populations frequently requiring surgical reconstruction (ACLR). Hamstring tendon grafts such as the semitendinosus and gracilis tendons (STG) are currently the most commonly used grafts to reconstruct the ligament. Harvesting of hamstring tendons has been shown to result in between limb hamstring strength deficits post-operatively. Pre-operative strength may be an influencing factor on post-operative strength but to date this has not been established with a recent systematic review[1] finding no reported associations between pre-operative and post-operative results. It is hypothesised that some patients awaiting ACLR surgery may undergo muscle strength deconditioning secondary to factors including pain, swelling and fear of use. The effect of this deconditioning on strength outcomes post-operatively needs to be established to determine if patients should be better managed pre-operatively with regard to strength training.

OBJECTIVE

To identify isokinetic hamstring strength before and after ACLR using semitendinosus and gracilis tendon grafts (STG), and to evaluate the relationship between pre-operative and post-operative hamstring strength.

METHODOLOGY

A retrospective analysis was performed on isokinetic hamstring strength data obtained before, and 6 months following, ACLR over a 5 year period in the Physiotherapy Department in University Hospital Limerick with patient consent.

RESULTS

Data for 54 patients was analysed. Low between-limb peak torque (PT) deficits were identified both pre-operatively (5.87%) and post-operatively (7.25%).

Statistically significant ($p<0.001$) improvements were found in peak torque (PT) post-operatively for the injured limb (103.02Nm) compared to the pre-operative strength values (87.49Nm) with a mean increase of 15.52Nm (95% confidence interval 9.77-21.28Nm). Absolute scores including PT, peak torque normalised to body weight (PTBW), total work and average PT demonstrated a significant increase in the post-operative scores compared to the pre-operative data in both the operated and un-operated limbs. Relative deficits between limbs are expressed as the percentage difference in PT between the un-operated and operated limbs. The percentage deficits between the two limbs increased post-operatively but this was not found to be statistically significant.

Pearson's product moment of coefficient were assessed to determine the relationship between isokinetic scores obtained pre-operatively with those obtained six months post-operatively for the operated limb. Strong correlations were identified between pre- and post-operative PT at 60°/s ($r=0.77$), PTBW ($r=0.64$), total work ($r=0.68$) and average PT ($r=0.70$) at 60°/s.

CONCLUSION

The strong relationship between pre-operative and post-operative scores supports the need for more intensive pre-habilitation to gain optimal post-operative results. In patients in this clinical setting, hamstring strength improved post-operatively from pre-operative testing despite tissue harvesting, with small deficits of less than 10% detected between limbs at six months post ACLR. This would suggest that hamstring grafting does not have a major detrimental effect on isokinetic hamstring strength with appropriate rehabilitation.

REFERENCE

Available on request.

| CONTENTS |

Lee Silverman Voice Training (LSVT) BIG Case Study - An Investigation into the Feasibility and Efficacy of LSVT BIG in a Participant with Parkinson's Disease

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INTRODUCTION

Lee Silverman Voice Training (LSVT) BIG is founded upon the principles of LSVT LOUD.[1] It is an intensive high-amplitude standardised exercise protocol. The client receives 16 1-hour individual sessions with a trained clinician for 4 days a week over a 4 week period. The goal of LSVT BIG is to improve movement perception and to 'recalibrate' disturbed scaling of movement amplitudes. It has been shown to be most effective in people with a Hohn and Yahr Scale 1-3 with impaired balance and reduced mobility.

METHODOLOGY

A pilot programme of LSVT BIG was carried out in Naas General Hospital in January 2014 to assess the feasibility in an acute hospital setting. The participant was a 72 year old retired gentleman with Parkinson's Disease and a Hohn and Yahr Scale of 3. The pilot adhered to the exact LSVT BIG protocol. Exercises were progressed appropriately over the course of the 4 weeks. The 16 sessions were divided equally between the two physiotherapists.

Objective outcome measures included the:-

- Functional Gait Assessment (FGA)
- 6 Minute Walk Test (6MWT)
- Timed Up and Go (TUG), Timed Up and Go carrying a glass of water (TUG Manual), Timed Up and Go counting backwards in multiples of 3 from 100 (TUG Cognitive)
- Timed 5 times Sit to Stand

The PDQ-39 and a 10 item Functional Task Recording Form were used as subjective measures. A home exercise programme and diary was provided and the participant carried out his exercises twice daily for 6 days a week and once on the days where he attended the clinician-led LSVT BIG intervention.

RESULTS

At the end of the 4 week intervention, outcome measures were re-assessed. Results showed a significant improvement in both objective and subjective scores (See Table 1 and Figures 1 and 2).

Figure 1 - Changes in Score for the Functional Gait Assessment

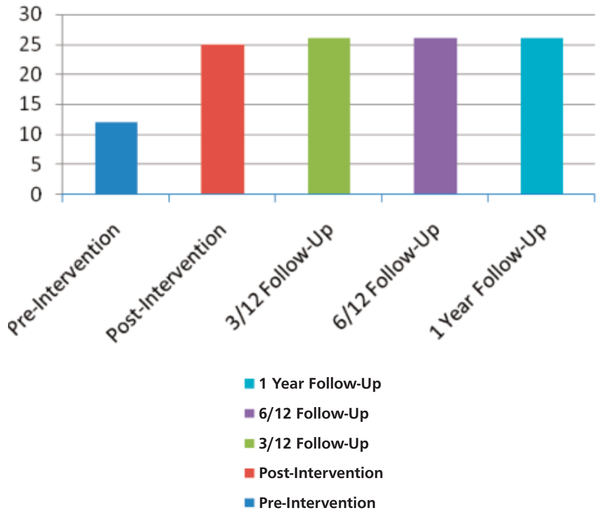

Figure 2 - Changes in Seconds for the TUAG, TUAG Manual, TUAG Cognitive

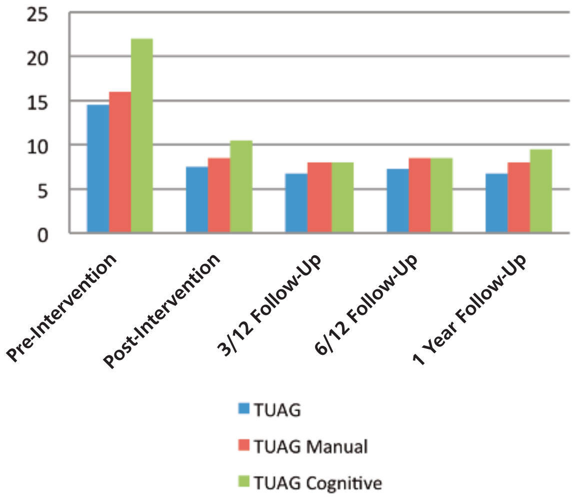

Table 1 - Outcome Measures

Outcome Measure	Pre-Intervention	Post-Intervention	Difference
FGA	12/30*	25/30	13
6MWT	284m	450m	166m
TUAG	14.49sec	7.41sec	7.08sec
TUAG Manual	15.95sec	8.48sec	7.47sec
TUAG Cognitive	22sec; 2/6 correct answers	10.62 sec; (5/6 correct answers)	11.38sec
X5TSTS	23sec**	8.30sec	14.7sec
PDQ-39	27/156	20/156	7

*A score of 15 on the FGA is predictive in clinically identifying fallers in PD
**A score of >16seconds is indicative of falls risk in PD

CONCLUSIONS

The results support existing literature, whereby, clinically significant improvement was demonstrated in balance (from falls risk to no risk), gait speed and functional transfers. These results carried over to the 3 month, 6 month and 1 year follow-up (Table 2).

Table 2 – 3 Month/6 Month/1 Year Follow-Up

Outcome Measure	3/12	6/12	1 year
FGA	26/30	26/30	26/30
6MWT	495m	405m	415m
TUAG	6.87sec	7.22sec	6.81sec
TUAG Manual	8.06sec	8.53sec	7.88sec
TUAG Cognitive	8sec; 6/6correct	8.41sec; 7/7correct	9.39sec; 3/5correct
X5TSTS	7.22sec	7.14sec	6.84sec
PDQ-39	20/156	19/156	19/156

Overall, feedback was very positive and the participant expressed great satisfaction with the programme. From the physiotherapists' perspective, the programme yielded extremely satisfactory results in terms of balance, gait speed and functional transfers. A drawback to the LSVT BIG programme was the intensity required in terms of resources and time to carry out the protocol in an acute hospital setting.

In view of this, a BIG Bootcamp (group-based exercise programme) was piloted with 6 participants in Naas Hospital.

The Effectiveness of a Physiotherapy-Led Football Skills Group for Children in Early Intervention Services on Motor Skills and Health-Related Quality of Life

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INTRODUCTION

The level of childrens' motor skill proficiency may be an important determinant of their health-related quality of life. Children with complex needs often have poorer gross motor skills than their peers.[3] The purpose of this investigation was twofold. Firstly, it aimed to determine if group physiotherapy intervention can improve specific gross motor skills performance in children within Early Intervention Team (EIT) services. Secondly, it aimed to determine if group physiotherapy intervention can improve parents' perceptions of their child's quality of life.

METHODOLOGY

The study was a multiple baseline design conducted in a community setting. Participants included 8 children (aged between 52 months and 66 months) attending EIT services in North West Dublin. Measurements included the Peabody Developmental Motor Scales (second edition)[4] and the Paediatric Quality of Life Inventory 4.0 Generic core scales.[5] Intervention consisted of six sessions of a physiotherapy-led football skills group over 12 weeks. These group sessions took place in a local sports club. Intervention included practicing gross motor skills, focusing on football skills such as kicking, dribbling, passing and stopping the ball. Regulating exercises and behavioural strategies such as group rules and visual schedules were used to encourage participation and promote adherence to the structure of the group. Parents were actively involved and were given responsibility for their child completing each activity.

RESULTS

The intervention led to a significant improvement in ball skills in the treatment group ($p<0.05$). There was no significant difference in pre- and post-intervention scores on parent reported quality of life.

CONCLUSIONS

The physiotherapist-led group intervention may be adequate to improve ball skills of children in the EIT services. Motor skills development in this cohort of children through group intervention can be enhanced using communication, sensory and behavioural strategies. Further research is needed to investigate the effects of this type of intervention on health-related quality of life, social/communication skills and participation.

REFERENCES

Available on request.

The Effectiveness of a Physiotherapy-Led Bone Health Class on Muscular Strength, Balance and Exercise Behaviour in Patients with Osteoporosis and Osteopenia

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INTRODUCTION

In 2010, the Irish Osteoporosis Society estimated that 300,000 individuals in Ireland are currently affected by osteoporosis and it is anticipated that the cost of managing this condition will increase fivefold from €400 million in 2008 to €2 billion in 2030, unless more effective healthcare resources are implemented. Therefore, a Bone Health Class based on the guidelines of the National Health Strategy for the Prevention of Falls and Risk of Fractures[1] was commenced with the aim of increasing or maintaining bone mineral density through participation in exercise and improving education on osteoporosis management.

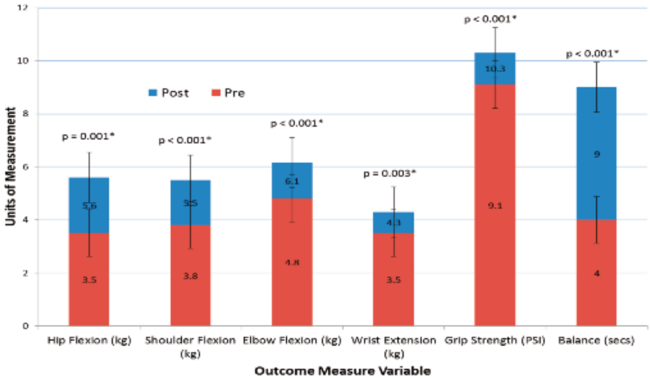
METHODOLOGY

Participants with a diagnosis of osteoporosis or osteopenia who had undergone a DXA scan within 2 years of starting the class were eligible to participate. The programme consisted of a 90 minute class for 8 weeks involving exercise and bone health education sessions. Healthcare professionals involved in the programme included a Physiotherapist, Pharmacist and Nurse Specialist in Bone Health. Participants underwent pre and post subjective and objective outcome measures and were assessed again at 3 and 12 months post-participation.

RESULTS

A total of 59 participants (58 Female), mean age 65±9 years (range 45-80 years) took part. In all, 47.5% (n=28) had osteoporosis and 52.5% (n=31) had osteopenia based on T-score results. T-tests showed improvements post-programme participation in the 1 repetition maximum for 5 muscle groups ($p<0.001$) as well as static balance ($p<0.001$). The amount of bone health enhancing exercises engaged in per week significantly increased ($p<0.05$) post-participation.

Figure 1 – Pre-/Post-Assessment Results for Strength and Balance Measures



CONCLUSIONS

The results demonstrate that a Bone Health Programme significantly improves strength, balance and long-term participation in physical activity within this population. However, there is no data on bone turnover levels or density. For future analysis, availability of bone turnover markers and comparison of pre-and post-DXA results may help to determine more valid physiological results.

REFERENCES

Available on request.

PRESENTED

At the Irish Osteoporosis Society Annual Conference in Athlone on October 5th, 2014 by Catherine M. Quinn.

Hamstring Muscle Strength Before and After Anterior Cruciate Ligament Reconstruction - A Systematic Review

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ABSTRACT

The effect of hamstring tendon grafting during anterior cruciate ligament reconstruction (ACLR) on residual hamstring muscle strength remains unclear.

The objective of this research was to identify if hamstring muscle strength deficits exist after ACLR using the ipsilateral semitendinosus and gracilis tendons (STG) in absolute and relative terms, and to ascertain if pre-operative strength influences post-operative strength outcomes.

A search was performed using five databases; MEDLINE, SPORTSdiscus, Cinahl, AMED and Cochrane. Original articles that reported both absolute and relative hamstring muscle strength on isokinetic testing after ACLR with STG grafts were evaluated, selected and critically appraised.

Eleven studies which met the inclusion criteria were included in the review. Hamstring peak torque (PT) deficits in the reconstructed leg compared to the contralateral side ranged from 10-19% and 6.4-12.6% at 6 and 12 months, respectively. Minimal deficits were reported at 5 to 6 year follow-up. In absolute terms the mean PT identified was low at 96Nm at 60°/s (Range 77-121.8Nm) with just one study normalising PT to body weight (PTBW). Only three of the included studies reported both pre- and post-operative results with two studies identifying similar reductions in PT of 8.6-9% in the operated limb from pre-op to six months.

Deficits in hamstring strength were found to exist up to 1 year post-operatively but appeared to resolve by 5 to 6 years. It is recommended that future studies report PTBW to allow for better interpretation of results and to take in comparisons against normative data. More research is needed to examine the influence of pre-operative hamstring muscle strength on post-operative results.

PRESENTED

As a poster presentation at the UL Hospitals Research Symposium in September 2013.

SOURCE

Isokinetics and Exercise Science. 2014;Vol 22(3):225-236.

Children with Cerebral Palsy - Perspectives and Experiences of Using Standing Frames

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ABSTRACT

It is common practice for physiotherapists to use standing frames to manage the physical problems of children with Cerebral Palsy (CP) as part of their therapy programmes. Gaining an insight into childrens' perspectives on using standing frames and the impact which this has on their lives could provide knowledge to support physiotherapists in ensuring that their practice is centred on the best interests of children.

The aim of this study was to explore the experiences and perspectives of children with CP of using standing frames and to identify if there are any personal attributes or environmental characteristics which influence the experience of using a standing frame.

Six children (8-17 years) from four counties in North-East Ireland participated in semi-structured interviews.

Thematic analysis[1] identified five themes: "Something among the ordinary," "Standing among the crowd," "Something that has to be done," "Comfortable but not always" and "Advice for others."

Heterogeneity exists in the experience of using a standing frame including variation with age, GMFCS E&R level,[2] how it can be fitted into a person's daily life and on the level of acceptance of the person's needs by others.

This study suggests that consideration should be given to all concepts related to a child's life and development when introducing a standing frame. No standing frame assessment which includes concepts related to anything other than body structure and function appears to exist. Development of an assessment which includes issues identified could be indicated.

REFERENCES

Available on request.

PRESENTED

At the Association of Paediatric Chartered Physiotherapists Annual Conference in Bristol in November 2013 by Susan Hughes.

SOURCE

Journal of the Association of Paediatric Chartered Physiotherapists, 5(1):30-37.

| CONTENTS |

Electrode Impedance Profile in Long-Term Cochlear Implant Users

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INTRODUCTION

Since 1995, the National Cochlear Implant Programme in Beaumont Hospital has performed over 1,000 cochlear implant surgeries. A Cochlear Implant (CI) is a surgically implanted electronic device, which partially restores hearing to children and adults with sensorineural hearing loss by directly stimulating the auditory nerve with electric current delivered through an electrode array within the cochlea. Over the past decade, CI technology has advanced rapidly and improved devices are being developed constantly, making available a wide range of choices which may benefit both the clinical teams and CI users in different ways.

OBJECTIVE

This study assessed different electrode array designs from two major CI manufacturers, by analysing the electrode impedance measurements at each electrode over a period of 1 year. Electrode impedance is widely used in clinical assessments as an indicator of device function.[1,2] A better understanding of the distribution of electrode impedance and its changes over time could benefit engineers and clinicians in choosing from the wide varieties of available CI devices.

METHODOLOGY

Retrospective data from the National Cochlear Implant Programme was collated and analysed. Included in this study were electrode impedance measurements from 66 CI adults (27 male; mean age at implant=47±2). The three commonly used CI electrode array designs in Beaumont Hospital are the CI24RE Contour Advance electrode (CA) (n=25) and the CI24RE Full-Band Straight electrode (ST) (n=16) from Cochlear Ltd. and the HiRes 90K straight electrode (1J) (n=25) from Advanced Bionics.

Electrode impedance data from 8 separate occasions were analysed: intraoperative (IO), switch on (SO), 1 week (1W), 1 month (1M), 3 months (3M), 6 months (6M), 9 months (9M) and 1 year (12M). Comparative analysis was performed between different manufacturers (1J vs ST) and between different electrode designs (CA vs ST).

RESULTS

Figure 1A shows mean electrode impedances over time. It was calculated by dividing the sum of all working electrodes by the number of working electrodes. The red marker represents a significant difference from the other two. Figure 1B represents the distribution of normalised electrode impedance over each electrode. Data were normalised by the maximum value and plotted against time and electrodes. Red represents high electrode impedance values and blue represents low electrode impedance values.

Figure 1A - Mean Electrode Impedances Over Time

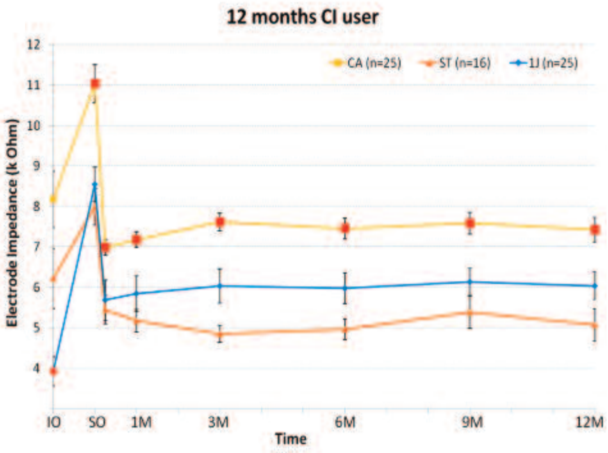

Figure 1A shows that the electrode impedance levels for the different manufactures are significantly different at IO with the 1J electrode showing lower electrode impedance values than the ST ($p < 0.0001$). Moreover, the electrode impedance levels for different electrode array designs are significantly different with the CA displaying higher electrode impedances than the ST ($p<0.003$). However, after SO, there is no significant difference between manufacturers but significant difference between electrode array designs ($p<0.0001$).

Figure 1B - Spatial Distribution of the Electrode Impedances

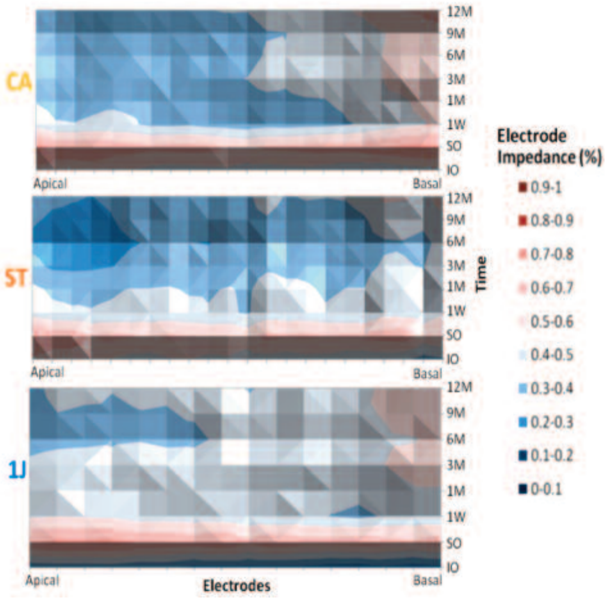

Figure 1B shows the spatial distribution of the electrode impedances over a one year period. For all three electrode array designs electrode impedances are higher at the base of the cochlea and lower at the inner side of the cochlea (apex). The extensive low electrode impedances for the ST electrode can be explained by its full banded contacts.

CONCLUSION

The electrode array design affects CI electrode impedance profile over time. This is most likely due to the shape of the electrode array, the surface area of each electrode and the contact positioning with the auditory nerve. The high peak electrode impedance values at SO due to protein absorption and tissue growth occurred over the array after surgery have been reported in previous literatures.[1,2] This study can support the surgical teams when deciding the best implant for patients with different cochlear anatomy.

REFERENCES

Available on request.

Electrophysiological Correlates of Spectral Discrimination for Cochlear Implant Users

Lópéz Valdes, A.,[1]
McLaughlin, M.,[2]
Smith, J.,[3]
Viani, L.,[3]
Walshe, P.,[3]
Zeng, F.G.,[2]
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Hearing and Speech Lab, University of California at Irvine, USA[2]
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ABSTRACT

Hearing impairment is one of the most frequent sensory deficits in the human population, and cochlear implants (CI) have successfully restored partial hearing to over 300,000 people worldwide. There is a critical need to provide clinicians and audiologists with the appropriate tools to ensure optimal rehabilitation for this rapidly growing population, particularly for paediatric CI users. It has been suggested that cortical auditory evoked potentials (CAEP) can be used to evaluate speech perception performance in CI populations. The present study explored the possibility of employing two different electroencephalography (EEG) based metrics to assess spectral ripple discrimination on CI users.

Thirteen experienced CI recipients volunteered for this study. Each participant underwent a research session comprised of four stages; two in which psychoacoustic spectral discrimination was probed, and two in which EEG-based spectral discrimination was probed. In all four stages, the participants performed tasks which involved noise stimuli that varied in frequency content, a.k.a., spectrally rippled noise.

Psychoacoustic spectral discrimination was determined via a single-interval two-alternative forced-choice and a three-alternative forced-choice paradigms in which the participant had to judge a difference in an ongoing sound or choose a different sound from a sequence of presented sounds respectively. EEG-based spectral discrimination was determined via an acoustic change paradigm (ACC) and an unattended oddball paradigm (MMW). In both paradigms, a distinctive response is elicited if a change or difference in the presented sound has been detected during the cognitive processing of the sound. It was observed that these distinctive responses were attenuated with increasing complexity on the discrimination task, and thus, an EEG-based spectral discrimination was determined when the elicited responses were no longer significant.

EEG-based spectral discrimination was determined successfully for seven participants via the ACC paradigm whilst the MMW paradigm yielded successful results for eleven participants. Correlation with psychoacoustic spectral discrimination yielded an almost significant correlation for the ACC paradigm (r^2=0.55, p-value>0.05) and a significant correlation for the MMW paradigm (r^2=0.37, p-value<0.05).

The present results suggest that it is possible to use the ACC as an alternative to estimate spectral ripple discrimination in some CI patients. However, the unattended oddball paradigm is more robust than the ACC measure in estimating the psychoacoustic spectral resolution. The possibility to employ different methods for evaluating spectral discrimination in CI users may be an attractive option for clinicians and audiologists when assessing CI rehabilitation and performance after implantation.

PRESENTED

As a poster presentation at the 7th International IEEE/EMBS Neural Engineering Conference in Montpellier, France from April 22nd to 25th, 2015 by Alejandro López Valdes.

FUNDING

This research has received funding from the Programme for Research in Third-Level Institutions and co-funded under the European Regional Development Fund and Cochlear Ltd. Corporation.

SOURCE

Neural Engineering (NER), 2015 7th International IEEE/EMBS Conference on; In press.

Generic Medicines - An Evaluation of the Accuracy and Accessibility of Information Available on the Internet

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ABSTRACT

Internationally, generic medicines are increasingly seen as a key strategy to reduce healthcare expenditure, therefore awareness and knowledge transfer regarding generic medicines are valid areas of research.

Although the Internet is a frequently used source of medical information, the accuracy of material found online is variable. The aim of this study was to evaluate information provided on the Internet regarding generic medicines in terms of quality and readability of the information.

Internet searches for information regarding generic medicine were completed, with a pre-defined search term, using the Google search engine, in five English-speaking geographical regions (US, UK, Ireland, Canada and Australia). Search results likely to be looked at by a searcher were collated and assessed for the quality of generic medicine-related information in the websites, using a novel customised Website Quality Assessment (WQA) tool (a tool developed to assess the quality and accessibility of information provided in a website); and for readability, using existing methods. The reproducibility of the tools between two independent reviewers was evaluated and correlations between WQA score, readability statistics and Google search engine results page ranking were assessed.

Wikipedia was the highest-ranking search result in 100% of searches performed. Considerable variability of search results returned between different geographical regions was observed, including that websites identified in the Australian search generated the highest number of country specific websites; searches performed using computers with Irish, British, American and Canadian IP addresses appear to be more similar to each other than the google.com search performed in Australia; and the Canadian google.ca results show a notable difference from any of the other searches. Of the 24 websites assessed, none scored a perfect WQA score. Notably, strong correlation was seen between WQA and readability scores and ranking on google.com search results.

This novel evaluation of websites providing information on generic medicines showed that, of the websites likely to be seen by a searcher, none demonstrated a combination of scoring highly on quality of information (as evinced by WQA score) and readability. Therefore, there is a gap in online knowledge provision on this topic which, if filled by a website designed using the WQA tool developed in this study, has an improved likelihood of ranking highly in google.com search results.

FUNDING

This work was supported in part by a scholarship from the Faculty of Education and Health Sciences, University of Limerick, Ireland.

SOURCE

Dunne et al. BMC Medical Informatics and Decision Making 2013,13:115
http://www.biomedcentral.com/1472-6947/13/115

What Answers does the Internet Provide for Patients in Ireland with Questions about Generic Medicines?

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ABSTRACT

Use of generic medicines in Ireland has historically been low. New legislation, in 2013, introduced reference pricing and generic substitution in Ireland for the first time. Also, as patents have recently expired for many familiar medicines, Irish patients are more likely than ever to receive a generic medicine.

As the Internet is a primary source of information for patients seeking information on healthcare matters, this study aims to assess, in terms of quality and accessibility, information on generic medicines that a searcher in Ireland is likely to find online.

Internet searches were completed using a computer with an Irish Internet Protocol address. Search results were evaluated with respect to quality of information, using a newly developed Website Quality Assessment tool, and for readability, using existing methods. The reproducibility of the tools was assessed, and correlations between Website Quality Assessment score, readability statistics and Google search engine results page ranking were determined.

This novel and topical evaluation showed that, of the websites most likely to be seen by a searcher, none demonstrated the desired combination of scoring highly for both quality of information and readability.

Patient education is a key factor in implementation of the changes planned in the Irish healthcare system. There is a gap in online knowledge provision in Ireland, which, if filled by a website designed using the Website Quality Assessment tool developed in this study, can correct this deficit by providing accessible, high-quality information.

FUNDING

This work was supported in part by a scholarship from the Faculty of Education and Health Sciences, University of Limerick, Ireland.

SOURCE

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| CONTENTS |

Perceptions and Attitudes of Community Pharmacists towards Generic Medicines

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ABSTRACT

Following the enactment of legislation in June 2013, generic substitution and reference pricing of medicines has been introduced, for the first time, in Ireland. This novel study is the first assessment of the perceptions of community pharmacists in Ireland towards generic medicines completed in the period immediately prior to the introduction of generic substitution and reference pricing. The objective was to determine the perceptions towards generic medicines among community pharmacists.

One-to-one semi-structured interviews were performed with a convenience sample of 44 community pharmacists (from approximately 4,500 pharmacists in Ireland) recruited from Ireland's Mid-West, South, and South-West regions. Interviews were transcribed and analysed using NVivo (Version 9).

A total of 98% of pharmacists believed that generics were of a similar quality to the originator, and 96% stated that they were as effective as the originator. However, a small number demonstrated some reticence regarding generics: 9% believed that generics were not manufactured to the same quality as the originator; 7% stated that they would prefer to take an originator medicine themselves; and 7% reported having experienced quality issues with generic medicines. A total of 89% of pharmacists reported receiving patient complaints regarding the use of generic medicine, although 64% suggested that this was due to a nocebo effect (i.e., a result of patients' preconceived notions that generics were inferior). Only a minority (21%) reported that they had attempted to educate patients as to the equivalency of generics. Although 80% were in favour of Ireland's new legislation promoting the use of generic medicines, 46% expressed concerns regarding its practical implementation.

This key stakeholder group had positive attitudes towards generics and the legislation that promotes their use. Concerns regarding patient perception and experience, clinical effectiveness and manufacturing quality were identified. We propose that interventions supporting implementation of the new legislation should address these concerns.

FUNDING

This work was supported in part by a scholarship from the Faculty of Education and Health Sciences, University of Limerick, Ireland.

SOURCE

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Beliefs, Perceptions and Behaviours of GPs towards Generic Medicines

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ABSTRACT

Ireland introduced generic substitution and reference pricing in June 2013 to benefit from cost savings associated with generic medicine use. The attitudes and behaviours of healthcare professionals may influence successful implementation of such changes.

The objective was to assess perceptions of GPs in Ireland regarding generic medicines in the time leading up to the enactment of the new legislation and for the first time in at least the prior decade.

Detailed one-to-one semi-structured interviews were performed with a representative cohort of 34 urban and rural-based GPs in Ireland.

Thirty of the participating 34 GPs prescribed generic medicines actively. Predominantly, participants believed that generics worked as effectively, and were of the same quality, as originator medicines. However, 32 GPs reported receiving patient complaints regarding generics; almost a third reported complaints of increased or altered side effects. Thirty-two GPs stated that they would take a generic medicine, although one in seven would choose the originator if offered a choice. A minority of GPs were of the view that generics are manufactured to a poorer quality than originators and may be a risk to patient safety.

This study of GPs' attitudes towards generic medicines in Ireland highlights that this key stakeholder group has generally positive attitudes towards both generic medicines and the new legislation. However, variable knowledge about generic medicines and concerns regarding patient experience, clinical effectiveness and manufacturing quality were identified. GPs' opinions could negatively influence patient opinions; enhancing such opinions may prove important in successfully implementing the new legislation.

FUNDING

This work was supported in part by a scholarship from the Faculty of Education and Health Sciences, University of Limerick, Ireland.

SOURCE

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| CONTENTS |

Patient Perceptions of Generic Medicines - A Mixed-Methods Study

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ABSTRACT

In an attempt to benefit from the cost savings associated with the use of generic medicines, in June 2013 Ireland introduced generic substitution and reference pricing for the first time. However, perceptions of Irish patients towards generic medicines have not been published previously. Therefore, the objective of this study was to assess how generic medicines were perceived amongst patients in the time leading up to the enactment of the new legislation.

A total of 42 patients were recruited from general practices affiliated with the Graduate Entry Medical School at the University of Limerick and from community pharmacies. Interviews were semi-structured and included quantitative assessments of opinions using 15 structured questions and a five-point Likert scale response system. Interview transcripts were coded and thematically analysed using NVivo (Version 9), for qualitative data. Quantitative data were analysed using SPSS (Version 20).

Nearly one-third (31%) of patients had no knowledge of generic medicines and 39% of those exhibited confusion between the words ‘generic’ and ‘genetic.’ Almost one-quarter (24%) held the view that generics were of poorer quality than originators, while 18% expressed the opinion that generics do not work as well as originator products. Approximately one-third (30%) of patients believed that generics were manufactured to a poorer quality, with 29% holding the view that generics are less expensive due to being of inferior quality. Nearly 90% of patients stated they would take a generic medicine if it were prescribed by their GP; however, 24% of patients stated a preference, if offered a choice, for the originator medication. Additionally, a majority of patients (86%) were in favour of reference pricing and generic substitution. Of the patients interviewed, 50% stated that a leaflet, or similar, with appropriate, understandable, and accessible information regarding generic medicines would be of use to them.

This is the first study of patients’ attitudes towards generic medicines in Ireland. Conducted in the time period leading up to the implementation of legislation promoting the use of generic medicines, it highlights variable knowledge about generic medicines among this key stakeholder group. Although patients are supportive of their more widespread use, concerns regarding safety, clinical effectiveness, and manufacturing quality of generic medicines were identified.

FUNDING

This work was supported in part by a scholarship from the Faculty of Education and Health Sciences, University of Limerick, Ireland.

SOURCE

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Changes in Food Poverty over Time in the Republic of Ireland

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INTRODUCTION

Food poverty is an important public health issue. There are households whose financial resources are considered insufficient to provide an adequate diet for their members thereby putting households at risk of food poverty. This study attempts to examine changes in the financial risk of food poverty over time using household expenditure data.

METHODOLOGY

The Central Statistics Office (CSO) Household Budget Survey (HBS) is a cross-sectional survey consisting of a representative random sample of all private households in the Republic of Ireland. Data from the two most recent surveys (2004/'05 & 2009/'10) (n=12,772) were used to estimate the proportion of households at financial risk of food poverty and to determine if there has been a change in risk over time. Households were identified as having inadequate food spending if their food spending per household member is less than 60% of the national median value. Households with inadequate non-food spending were defined in the same way using non-food spending data. A number of binomial logistic regression models were used to assess household characteristics associated with changes in prevalence of inadequate food; changes in prevalence of inadequate non-food spending; changes in prevalence of inadequate non-food spending in households with inadequate food spending; and changes in prevalence of inadequate non-food spending in households with adequate food spending. Seven household characteristics were assessed in total (Household Composition, Tenure, Gross Household Income, Risk of Poverty, Social Group, Principal Economic Status (PES), and Area).

RESULTS

The unadjusted prevalence of inadequate food spending significantly increased from 13.7% (95% CI 12.8% to 14.5%) in 2004/'05 to 16.3% (95% CI 15.3% to 17.4%) in 2009/'10. The unadjusted prevalence of inadequate non-food spending significantly decreased from 26.4% (95% CI 25.1% to 27.6%) in 2004/'05 to 23.2% (95% CI 22.0% to 24.5%) in 2009/'10. Having adjusted for the effect of the household characteristics, there was no significant change in the prevalence of inadequate food spending over time, however there was evidence that the change in prevalence depended on Area (p=0.0108). There was a significant increase in the prevalence of inadequate food spending in rural areas over time from 11.1% to 16.8% with no significant change in the prevalence of inadequate food spending in urban areas over time. After adjustment there was no significant change in the prevalence of inadequate non-food spending over time however there was evidence that the change in prevalence depended on Household Composition (p=0.0198), PES (p<0.001), Gross Household Income (p=0.004) and Tenure (p=0.063). After adjustment, there was no significant change in the prevalence of inadequate non-food spending in households with adequate food spending over time however there was evidence that change in prevalence varied with Household Composition (p<0.001), PES (p=0.0002) and Tenure (p=0.0229). No changes in the prevalence of inadequate non-food spending in households with inadequate food spending over time were observed.

CONCLUSIONS

Changes in prevalence of inadequate food and non-food spending in Republic of Ireland households between 2004/'05 and 2009/'10 has led to households allocating their household budget in different ways to meet their food and non-food needs. It was important to include non-food spending in developing the financial risk of food poverty indicator since ignoring non-food spending ignores the financial burden on many households with adequate food spending.

PRESENTED

- At the All-Island Food Poverty Network: Food Poverty Information for Action in Belfast on April 21st, 2015 by Lorraine Fahy and Kevin Balanda.
- At the Public Health Agency Annual Scientific Conference in Belfast on June 10th, 2015 by Lorraine Fahy and Kevin Balanda.

One in Six Three Year Olds in Ireland have a Serious Long-Standing Health Condition

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INTRODUCTION

The Institute of Public Health in Ireland (IPH) produces estimates and forecasts of the population prevalence of a number of chronic conditions among adults based on national health surveys in both the Republic of Ireland (RoI) and Northern Ireland (http://chronicconditions.thehealthwell.info). The methodology has been systematically developed and documented, and this study applies the methodology for the first time to young Irish children.

METHODOLOGY

The study is based on a systematic analysis of data from Wave 2 of the infant cohort of the Growing Up in Ireland (GUI) study. This study focuses on the prevalence, among all three-year-olds living in the Republic of Ireland in 2011, of five serious long-standing conditions reported by primary carers.

These were "any long-standing illness, condition or disability" as well as:

- Diagnosed asthma or asthma symptoms
- Diagnosed eczema/any kind of skin allergy
- Sight problems that required correction
- Hearing problems that required correction

The study explored the role of a large range of risk factors and used stepwise logistic regression to identify those that had an independent effect after adjustment for the other risk factors. Results were weighted to the estimated population of three year olds living in the Republic of Ireland in 2011.

RESULTS

The study found that, in 2011, 15.8% of three year olds have a "long-standing illness, condition or disability" (about 11,000). The burden of these serious health conditions is unequally distributed across the three year old population. After adjustment for other risk factors:-

- Boys are 50% more likely than girls to have such a condition
- Children in the lowest socio-economic households are 50% more likely than those in other households to have such a condition
- Children whose primary carer is ill are over 100% more likely than those with well primary carers to have such a condition

Looking at the individual conditions:

- 9.5% of three year olds (about 6,600) have diagnosed asthma or asthma symptoms
- 4.0% (about 2,800) have diagnosed eczema/skin allergy
- 5.9% (about 4,100) have ever had a sight problem that required correction
- 3.9% (about 2,700) have ever had a hearing problem that required correction

Importantly, risk accumulates as the number of these risk factors a child has increases. For example, the prevalence of diagnosed asthma/asthma symptoms was 53.9% among children who had all three independent risk factors (has an allergy, has a primary carer who is ill, lives in a one parent household) compared to a prevalence of 6.4% among children who have none of these risk factors.

The report also shows that a child's birth circumstances are important factors in whether or not they have sight problems by age three:

- Children born with low birth weight are 70% more likely than other children to have sight problems by age three
- Children whose mother smoked during pregnancy are 50% more likely than other children to have sight problems by age three

CONCLUSIONS

An alarmingly high percentage of three year olds have a serious long-standing health condition that can lead to poorer quality of life, poorer social and emotional development and poorer educational achievement. The burden of these health conditions is unequally distributed across the three year old population and reflects health inequalities found among Irish adults. Understanding the characteristics (including birth circumstances) of these young children and their families can help us to develop policies and plan services to support these children and their families.

REFERENCES

Available on request.

Transfer of Breast Cancer Follow-Up to Primary Care - Potential Impact on Breast Clinic Capacity and Patients' Attitudes

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ABSTRACT

The number of breast cancer survivors in our ageing population will continue to rise. Policy-makers internationally are seeking to identify alternatives to follow-up care in an acute setting.

The aim of this research was to make an evidence-based recommendation as to long-term clinical follow-up of women with early breast cancer in Ireland.

Policy development was informed by a review of the literature, focus group research with patients and data collected on current attendances at breast surgical outpatient clinics for routine follow-up.

Long term hospital-based follow-up of these women does not confer a survival advantage or improved quality of life. Intensive follow-up investigations, other than mammography, do not confer additional survival benefit or improved quality of life. Provision of routine follow-up care of breast cancer survivors by GPs has been shown to be equivalent to follow-up by specialist clinics, in terms of clinical outcomes, patient quality of life and patient satisfaction.[1] Routine follow-up accounted for 15.4% (95%CI:13.8-17.0%) of clinic appointments in Ireland. A third were at least five years post-operative. Women highlighted issues such as attachment to specialist services, importance of communication and need for clarity as to where responsibility of care lies. Reassurance, confidence in the primary care practitioner, and co-ordination of multiple appointments were also identified as important issues.

The recommendation of this research is to discharge women with early breast cancer at five years post-diagnosis, provided active treatment has been completed. The responsibility for organising annual mammography remains with the hospital.

Acknowledgements

Patients who participated in focus groups; breast unit staff; members of the steering group; Mary McCann, Niamh Lacey and members of the Community Oncology Team, National Cancer Control Programme (NCCP).

REFERENCES

Available on request.

PRESENTED

- At the UICC World Cancer Congress in Melbourne Australia from December 3rd to 6th, 2014 by Dr. Susan O'Reilly.
- At the AICC 2015 in Belfast, Northern Ireland on May 12th, 2015 by Dr. Triona McCarthy.

SOURCE

Irish Journal of Medical Science. October 2014

CervicalCheck - The First Five Years

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INTRODUCTION

In September 2008 CervicalCheck - the National Cervical Screening Programme commenced screening women aged 25-60 nationwide on an initial three-yearly basis. In year one there was an open access system of invitation, to accommodate initial interest. In year two 'call, re-call' was introduced. In year three a modification of 'call, re-call', including an online eligibility-check facility for women and for programme entry by smeartakers was introduced, to maximise participation among 'harder-to-reach' women.

OBJECTIVE

The objective of this research is to review results in CervicalCheck in the first five years of screening.

METHODOLOGY

Data is collected systematically on all stages of screening.

During the first five years of CervicalCheck screening, in excess of 1.6 million smear tests were performed in over 939,000 women. The targets set by the programme for coverage are 80% by end of round two (2014). By the end of year five, coverage of 74.7% was achieved. Younger women were more likely to participate in screening with 79% of women aged 25-29 years screened compared to 64% of women aged 55-59 years. Over 91% of women were screened in primary care settings. Smear tests are satisfactory in over 98% of cases. A reduction in the reporting rates of ASCUS and LSIL were achieved over the period.

The numbers referred to colposcopy have increased significantly over the first five years; by year five all waiting times were within standard. The numbers of biopsies increased markedly during the first five years of the programme. In the first five years of CervicalCheck, there have been 17,606 low grade Cervical Intraepithelial Neoplasia (CIN), 26,734 high grade CIN and 685 cancers detected; a cervical cancer audit procedure is established.

CONCLUSIONS

This data highlights the many achievements to date of CervicalCheck; the challenge now is to build on early achievements to attain the desired reduction in mortality from cervical cancer.

PRESENTED

As a poster presentation at the National Cancer Institute Cancer Consortium Conference in Riddel Hall, Belfast from May 10th to 13th, 2015.

Post-Treatment Human Papillomavirus (HPV) Testing as Part of CervicalCheck, The National Cervical Screening Programme in Ireland - The First Two Years

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INTRODUCTION

CervicalCheck, The National Cervical Screening Programme in the Republic of Ireland provides treatment at colposcopy for high-grade cervical intraepithelial neoplasia (CIN) to over 4,000 women annually. Traditional follow-up for these women has included annual cytology for ten years because of the increased risk of recurrence. New strategies including testing for subtypes of the human papillomavirus (HPV) allow a more accurate definition of this risk. Post-treatment HPV testing was introduced as part of CervicalCheck in 2012 with combined cytology and HPV tests at 6 and 18 months following the treatment. Women with results categorised as low risk were eligible for a return to routine screening. This paper documents the experience of the first two years.

RESULTS

Up to October 2014, 13,386 women had the first test post-treatment and 4,136 women had both first and second follow-up tests. The first test was categorised as low risk in 10,272 (77%) women, of whom 3,257 had a documented second follow-up test. The mean interval between the tests was 12 months. In 2,898 cases (89%) the result was again low risk meaning that these women were suitable for discharge to the community for routine screening.

CONCLUSION

The performance of a combined cytology and HPV test at 6 and 18 months post-treatment reduces the need for annual smear tests as it allows women with normal or ASCUS cytology who do not demonstrate high risk HPV to be discharged to routine screening in 3 years.

PRESENTED

As a poster presentation at the National Cancer Institute Cancer Consortium Conference in Riddel Hall, Belfast from May 10th to 13th, 2015.

BreastCheck - A Decade of Screening Prior to Age Extension

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INTRODUCTION

BreastCheck is the national breast screening programme in the Republic of Ireland. It commenced in 2000 (East) and extended nationally in 2007. Eligible women aged 50-64 years are invited for a free mammogram on an area-by-area basis every two years. Digital mammography was introduced in 2007. The Government has recently announced an extension of screening to women aged 65-69 years.

OBJECTIVE

The objective of this research is to present results from BreastCheck for the 10 year period from January 1st, 2004 to December 31st, 2013 and to compare these with targets, in advance of the extension of upper age limit.

METHODOLOGY

Standard format data are collected annually from all BreastCheck screening units.

Analysis

Over the 10 year period 1,282,508 were invited and 978,200 screened (76.2%). Annual uptake rates have fallen below the target of 70% overall in 2012 and 2013, which relates largely to a fall in initial screening uptake. Following the introduction of digital mammography there has been a sustained increase in recall rates in initial screening; the recall rate in subsequent screening is consistently within target. The PPV is 16-17%. The pre-operative diagnosis rate continually far exceeds the target of >70%. The invasive cancer detection rate per 1,000 is consistently well above the target for initial (age 50-51 target >2.9; age 52-64 target >5.2) and subsequent screening (target >2.4). There is a consistently high small cancer detection rate; over 50% of initial screen-detected cancers and over 40% of subsequently screened are <15mm. While rates of DCIS are at the higher end of expected range of 10-20% (20.9% 2013), the majority (91%) are intermediate/high grade. The Standardised Detection Ratio, an overall measure of programme performance, has increased over the period from 1.05 (2004) to 1.23 (2013).

CONCLUSION

The results suggest that the programme shows sustained high level performance, with challenges particularly in sustaining uptake.

PRESENTED

As a poster presentation at the National Cancer Institute Cancer Consortium Conference in Riddel Hall, Belfast from May 10th to 13th, 2015.

| CONTENTS |

Education and Health Working Together to Achieve Best Possible Outcomes for Children and Young People with Disabilities in Ireland

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INTRODUCTION

In Ireland, as more and more children and young people with disabilities are being educated in mainstream schools, there is a need for professionals from education and health to work together to achieve best possible outcomes for these children and their families. This research study details the experiences of fourteen health professionals as they engaged with the *School Review Process,* requested by the Department of Education and Skills (DES) in 2013. The research study was prompted by a series of informal conversations with health professionals about their difficulties with the School Review Process.

METHODOLOGY

Data were collected using a questionnaire comprising seven questions. The first two questions ascertained the role of the participant in the Disability Service for Children and Families and their role in the School Review Process. The next four questions invited participants to rate their experiences of the process (from 1-10, where 1 is pleasant and 10 is extremely stressful). Participants were invited to comment on each of these four questions, firstly, on the process in terms of their overall experience, secondly, on their experience of interacting with schools and other professionals, thirdly, on their experience of interacting with their own team and other health professionals, and, fourthly, on their experience of interacting with families. The final question asked if the participant would like to see changes to the School Review Process and provided an opportunity to make recommendations. Thematic analysis was used on the data set using Braun and Clarke's (2006) six-phase process. This began with familiarisation of data, followed by generation of initial codes, searching for themes, reviewing themes, defining and naming themes and finally writing up the analysis. The main reasons for using thematic analysis were its flexibility and usefulness in producing qualitative analyses suited to informing policy development. A report was then issued to the participants through the Children's Services Manager and responses were invited.

RESULTS

The research study found that thirteen of the fourteen participants would like to see changes made to the process. Recommendations included a strong call for a new type of report form that would be designed with input from professionals on the ground. Requests to consider the deadline were also voiced, with many calling for certainty about the date and some recommending a later deadline than March. The need for extra resources in terms of personnel to complete assessments was also highlighted. It was suggested that resources should be allocated in accordance with functional need rather than, as is the current situation, diagnosis. A number of health professionals also commented that they would like feedback on whether or not children received resources as a result of the process to which they contributed. Some health professionals commented on the role of the Special Education Needs Organiser (SENO) and how their experience of the SENO significantly contributed to how well or, indeed, how poorly they experienced the whole process. Recommendations for personal and professional development were made with a view to professional-professional, as well as parent-professional interaction and collaboration.

CONCLUSION

It is encouraging to note that a national framework for collaborative working between health professionals and education professionals has recently been developed in Ireland. This framework was developed by the Education and Health Working Group of the Progressing Disability Services for Children and Young People Programme. The key recommendation is 'the formation of a permanent National Education and Health Steering Group to provide guidance to stakeholders in local areas in developing joint working, to monitor progress and evaluate outcomes'. It is also of note that the National Council for Special Education (NCSE) is consulting on a new model for the allocation of additional teaching resources to mainstream schools. This proposed model is based on the profiled need of each school, without the need for a diagnosis of disability.

A Nurse-Led Healthcare Intervention in Serious Mental Illness

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INTRODUCTION

Over the last ten years there is emerging evidence of significant morbidity and mortality due to poor physical health in individuals with Serious Mental Illness (SMI),[1] which can be associated with poor lifestyle choices and increased cardiovascular risk factors. A group of cardiovascular risk factors identified as metabolic syndrome (Mets) are linked to poor physical health in individuals with SMI.[1] Individuals with SMI have reduced life expectancy of between 12-19 years[2] and are twice as likely to die from cardiovascular associated disease as the general population.[3]

OBJECTIVE

The aim of the study was to provide and evaluate the impact of a healthcare intervention in individuals with SMI, determining the presence of Mets, examining lifestyle choices and providing information and education to promote improved individual outcomes.

METHODOLOGY

This was a quantitative open study using a non-experimental descriptive design with purposive/non-probability sampling to identify participants (n=100). Participants attended an initial appointment where lifestyle choices (tobacco use, alcohol use, exercise/activity level) and biological measurements (waist circumference, blood pressure, fasting blood glucose, high density lipoprotein, triglycerides) were taken. Participants attended a second appointment related to receipt of their results and were provided with health education and information on lifestyle choices (smoking cessation, alcohol use and diet and exercise) as indicated. A cohort of 8 high-risk individuals were identified at the second appointment using the Framingham risk score calculator and were offered an additional one-to-one appointment to agree an individual diet and exercise plan and a further one-to-one appointment to evaluate the plan. The measurements were repeated at a follow-up appointment three months later for all participants.

The data was analysed using descriptive statistics and analytical techniques. Paired t-test and chi square test respectively were used for numerical and categorical data to identify significance and correlation.

RESULTS

A reduction in tobacco use and increased exercise/activity levels were present in both the study sample and high risk cohort, following the healthcare intervention. A statistically significant number of individuals reduced their use of tobacco ($p<0.05$) in the study sample. In addition there was a statistically significant reduction in cardiovascular risk factors ($p<0.05$) for the study sample (reduced fasting blood glucose and triglycerides). The high risk cohort also showed a reduction in cardiovascular risk factors (reduced fasting blood glucose, triglycerides and increased high density lipoprotein). The presence of Mets was reduced from 56% at initial appointment to 40% at the follow-up appointment.

CONCLUSION

The findings of the study indicate that a nurse-led healthcare intervention in serious mental illness can make a difference to health outcomes in individuals with SMI, producing changes in biological measurements which may result in positive lifestyle changes leading to a reduction in cardiovascular risk factors.

REFERENCES

Available on request.

PRESENTED

- As a Poster Presentation at the Healthcare Interdisciplinary Research Conference in Trinity College, Dublin from November 5th to 7th, 2013.
- As a poster presentation at the Nurse and Midwifery Medicinal Product Prescribing Conference in Dublin Castle on February 27th, 2014.
- As Oral Presentation at the Annual International Nursing and Midwifery Research & Education Conference in the Royal College of Surgeons in Ireland on February 20th, 2014.
- As 'Research Excellence across Clinical Healthcare' (REACH) Conference in Dublin City University on June 12th, 2014.

| CONTENTS |

Examining the Knowledge and Perception of the Lifestyle Risk Factors for Cancer Development among Cancer Survivors in Ireland and Development of an Educational Tool

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INTRODUCTION

The cancer landscape is changing and the picture emerging is a complex one that recognizes some cancers as preventable.[1,2,3,4,5,6,7] Previous international and Irish research has explored the public's knowledge of cancer risk based on lifestyle risk,[1,8,9,10,11,12] but to date no research in Ireland had explored cancer survivors' knowledge of the lifestyle risk factors for developing cancer.

OBJECTIVE

As knowledge is one prerequisite for behavior change, the purpose of this research was to investigate cancer survivors' knowledge of lifestyle risk factors for cancer, perception of their personal lifestyle risk and motivation for change.

METHODOLOGY

Based on existing research which identified the lifestyle risk factors for cancer, a questionnaire was developed. Face and content validity were assessed and an amended questionnaire was then subjected to reliability and validity analysis. Tests for stability using the test-retest technique and internal consistency (Cronbach's alpha) demonstrated reliability of the questionnaire. Validity was established by administering the questionnaires to two groups of subjects who were expected to differ in their knowledge of the subject. Construct validity was shown to be high. Subsequently a questionnaire was administered to a sample of cancer survivors currently undergoing follow-up care in Ireland. Using a non-experimental design the confidential questionnaire was administered to 620 individuals living in rural and urban settings. The response rate was 69.5% (n=414) and data obtained was inputted into a statistical package for analysis.

RESULTS

Despite recent health education attempts in Ireland, smoking and exposure to passive smoking were not universally accepted as risk factors, yet sun bed use and sunburn were accepted. Participants did recognize that diet, alcohol consumption and physical exercise were risk factors for cancer but overall did not perceive their own personal risk for cancer to be linked to their specific lifestyle in relation to these variables. In addition, participants' BMI and exercise habits, showed poor level of agreement (kappa values of 0.304 and 0.439 (sig .000) respectively) comparing personal perception to recommended guidelines. There was a negative correlation regarding alcohol and cancer risk demonstrating that those who drank in excess (more than 30 units/week) actually believed they were at low risk of cancer (Spearmans rho -0.653). Using Pearson's chi squared showed that for smoking, those who believe they are more at risk of cancer want to quit more and are more motivated to quit ($p=0.00$). Since their cancer diagnosis the study participants had tried to drink less alcohol (29%), stop smoking (14%), exercise more (44%) and improve their diet (62%) yet motivation for change was low in regard to specific adaptation to lifestyle going forward. Despite stress not being a recognized risk factor for cancer,[13] the participants overwhelmingly endorsed it (70%) and 84% had tried to reduce their stress levels since their cancer diagnosis. Myths abounded relating to other risk factors for cancer including incorrect answers in regard to protective effects of multivitamins, fish and red meat and confusion surrounding caffeine intake, use of deodorant, use of hormones, breast-feeding, condom use and other aspects of lifestyle.

CONCLUSION

This large scale study in Ireland provides an indication of the knowledge deficits and needs in regard to lifestyle adaptation for cancer prevention. In response to this need, a web-based app was developed which included some of the results of this study. This app targets a wide audience of cancer survivors and the public. It also can be used by health professionals as a health promotion tool. This research, along with previous studies, has overwhelmingly shown a knowledge deficit in cancer prevention regarding lifestyle risk factors. Consequently national strategies need to be urgently developed to promote and disseminate evidence for cancer prevention.

REFERENCES

Available on request.

PRESENTED

- As a poster presentation at the European Cancer Conference 2015 (ECCO) in Vienna on September 26th, 2015.
- At the All-Ireland Cancer Consortium Conference (AICC) in Queen's University, Belfast on May 12th, 2015 by Dr. Janice P. Richmond.
- At the 16th Healthcare Interdisciplinary Research Conference in Trinity College, Dublin on November 4th, 2015 by Dr. Janice P. Richmond.

FUNDING

This research has received funding from the Health Research Board.

Implementation Science in Action - The AFFINITY Project

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INTRODUCTION

The vision of the national implementation project AFFINITY (2012) (**A**ctivating **F**alls and **F**racture **P**revention in **I**reland **T**ogether), is a "life free from (harmful) falls and fractures in our ageing population." AFFINITY (Ireland) is a commitment within the European Innovation Partnership on Active and Healthy Ageing. A change management approach based on Implementation Science (IS) is being used to address knowledge exchange and translation in AFFINITY, a population health improvement initiative. IS is a process that occurs in incremental stages. It is closely aligned to quality improvement and is effectively used in healthcare situations.

METHODOLOGY

The four stages of IS require different conditions and activities.
They are:-

i) Exploratory
ii) Planning (installation) activities
iii) Implementation of the innovation
iv) Evaluation

No stage may be skipped. This process was applied to the AFFINITY project from April 2013 and is ongoing. The project is currently in the second stage (Installation 2) of the IS process.

RESULTS

Effective working relationships have been established through meetings with the AFFINITY project co-leads and the National Implementation Team (NIT). The change management approach is a key enabler for the project. Informal positive feedback has been received. Consensus and clarity on requirements is being progressed. IS is succeeding in prioritising actionable deliverables for the AFFINITY project. A workshop was held to identify priorities for implementation with regional specialist leads and NIT members in 2014. An action plan was drawn up from this workshop.

CONCLUSIONS

- The Exploration stage takes considerable time
- It is crucial to work with the key influencers, positive and negative
- Ongoing contact is essential to keep momentum going for implementation
- Leaders are crucial for large scale change

REFERENCES

Available on request.

PRESENTED

As a poster presentation at the International Association of Gerontology and Geriatrics European Region Congress in The Convention Centre, Dublin from April 23rd to 26th, 2015.

Bullying among Post-Primary School Children by Ethnic Status in Ireland

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INTRODUCTION

Bullying is defined as repeated negative behaviour with the intent to cause harm, within the context of an unequal power relationship.[1] The associated detrimental health effects on the victim and the bully are well documented; however the effects on those who witness bullying are less established. There is growing recognition of the role played by those who witness bullying.[2] Furthermore; ethnicity has been suggested as being an important factor that may contribute towards bullying and victimisation.[3] Immigrant children may be at an increased risk of bullying and victimisation, however research in the area is limited and contradictory.[4] Even less is known in relation to witnessing bullying and ethnic status.

OBJECTIVE

The aim of this study was to compare bullying behaviours among post-primary school children in Ireland by ethnic status using data collected as part of the 2010 Health Behaviour in School-aged Children (HBSC) survey.

METHODOLOGY

Data were utilised from 9,290 post-primary school children who took part in the 2010 Irish HBSC survey. HBSC is a cross-sectional, nationally representative school-based study. Students were classified as being non-immigrants if they were born in Ireland, and immigrants if they were born outside Ireland or if at least one of their parents were born outside Ireland, but they were born in Ireland. Students were also asked 'How often have you been bullied at school in the past couple of months?,' 'How often have you taken part in bullying another student(s) at school in the past couple of months?' and 'In the past couple of months, what did you do when you saw bullying?' Children that reported ever being bullied, ever bullying others or ever witnessing bullying were compared by ethnic status.

RESULTS

Table 1 - Bullying Among Post-Primary School Children by Ethnic Status in Ireland

Bullying	Non-immigrants		Immigrants		
	N	%	N	%	p
Been Bullied	1,685	22.3	349	26.8	0.000
Bullied Others	1,250	16.5	256	19.6	0.005
Witnessed Bullying	2,674	36.0	486	38.1	0.147

The majority of students sampled were classified as non-immigrants (72.5%). A larger proportion of immigrant children reported being bullied (26.8% vs 22.3%) and bullying others (19.6% vs 16.5%) at school in the past couple of months and these differences were significant. For witnessing bullying, a greater proportion of immigrant children than non-immigrant children reported that they witnessed bullying (38.1% vs 36.0%) in the last couple of months, although this was not significant.

CONCLUSION

Bullying victimisation and perpetration are prevalent behaviours among post-primary school children, but prevalence rates differ by ethnic status. This descriptive study suggests that there could be cultural influences (ethnicity or nationality) which could affect the way that children perceive and understand bullying behaviours. Cultural influences on reporting of bullying behaviours could also exist which could result in differences in reporting bullying behaviours. This investigative work gives some insight into the differences in bullying behaviours by ethnic status in Ireland.

REFERENCES

Available on request.

FUNDING

The HBSC Ireland Study is funded by the Department of Health.

| CONTENTS |

Physical Activity Experiences of Young People in an Area of Disadvantage - 'There's Nothing There for Big Kids, Like Us'

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ABSTRACT

While there is considerable research into physical activity among the general youth population and into the needs and experiences of youth in disadvantaged communities, very little research has explored the space in which these two spheres of research overlap. Through an examination of the experiences of young people in one disadvantaged area, this paper adds to an emerging body of knowledge focused on what place physical activity occupies in the lives of young people in areas of disadvantage.

Following institutional ethics approval and informed consent from the young people, 12 focus group interviews were carried out among six groups of young people. Each of the six groups was interviewed twice, with a total of 40 young people taking part (21 males, 19 females; Mean age=16.7 ± 0.97). The research question explored the forces which enable and constrain the participation of youths in physical activity and the interplay between such forces and how they experience and exercise agency. All focus group interviews were transcribed, coded and thematically analysed. Data were analysed inductively relying on the constant comparative method.

The findings remind us that young people can be seen as positioned within multiple social relations conferred by specific social identities (such as child, friend, brother or sister) and each of these identities influences the ability of youth to exercise agency in choosing whether, where and when to participate in physical activity. Family members were the important influences prompting the original initiation of physical activity and were crucial in supporting those young people who continued to stay involved both in practical ways and through general encouragement. However, the absence of peer support was often cited as a justification for physical activity cessation among young people and it appears that if friends are not involved, or do not value involvement, participation is less likely to occur.

Institutional structures also influenced the physical activity habits of young people in this study. It was interesting to note that, while previous research has indicated that making friends, enjoyment, positive feedback, building confidence and developing physical competence are among the main motivations for participation in physical activity by young people, in this study staying out of trouble was one of the most discussed benefits of physical activity. Young people also recorded feelings of disempowerment through the belief that no significance was attributed to their words and shared thoughts. This sense of constrained agency presents a particular difficulty when we consider that it is only through accessing the voices of young people that those attempting to promote physical activity can ensure that the range of opportunities being created are matched to the preferences of youth.

Tapping into the knowledge and expertise of young people could be the key to ensuring opportunities available to them for physical activity are relevant and meaningful. If such involvement is well supported, and not tokenistic, it is likely to provide a youth insight that ensures planned activities match current physical activity trends. Such action would also have the potential to harness peer influence and empower young people, giving them a sense of autonomy and control over their own physical activity habits.

FUNDING

This work was made possible through joint funding received from Limerick Regeneration, Limerick City Sports Partnership, the Irish Sports Council and an internship position within the Department of Physical Education and Sport Sciences at the University of Limerick.

PRESENTED

At the 2014 World Congress of the International Association of Physical Education in Higher Education (AIESEP) in Auckland, New Zealand on February 12th, 2014 by Eileen McEvoy.

SOURCE

Sport, Education and Society (2015).
doi:10.1080/135 73322.2014.994176

| CONTENTS |

Psychological Distress and Lifestyle of Students - Implications for Health Promotion

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ABSTRACT

Poor diet, physical inactivity, tobacco smoking and alcohol consumption are known risk factors for chronic disease and premature mortality. These behaviours are frequently reported among higher education students and may be linked to psychological distress, which is also problematic particularly for students on programmes with practical components such as nursing and teaching. Understanding how risk behaviours aggregate and relate to psychological distress and coping among this population is important for health promotion.

A cross-sectional survey examined lifestyle behaviours (Lifestyle Behaviour Questionnaire) and their relationship to psychological distress (General Health Questionnaire (GHQ)[1] and coping processes (Ways of Coping Questionnaire (WOC);[2] among a total sample of undergraduate nursing/midwifery and teacher education students (n=1,577) in a university in Ireland.

The response rate was 71% of the total sample. The respondents were registered on nursing/midwifery (36.5%) and teacher education (63.5%) programmes. Of these, 53.1% were female, most were under the age of 26(90.5%) and single (89.7%).Health risk behaviours were common, including alcohol consumption (93.2%), unhealthy diet (26.3%), physical inactivity (26%), tobacco smoking (17%), cannabis use (11.6%) and significant psychological stress (41.9%). Females were more distressed than males (p=0.0001). Nursing students were more distressed than teacher education students (p=0.0027).

Bivariate analyses identified strong links between lifestyle behaviours and demographic characteristics including gender, age, programme of study and place of residence. Multivariate logistic regressions confirmed the relationships between risk behaviours, demographic characteristics, distress and coping. Compared with males, females had lower levels of physical activity (OR=1.58 for females) and consumed less alcohol (OR=1.85 for males). Younger students were more likely to eat convenience food (OR=1.67) than older students. Nursing/midwifery students were less physically active (OR=1.75) and smoked more (OR=2.48) than teacher education students. Those who did not enjoy their programme were more likely to drink alcohol (OR=1.60). Compared with students who worked full time, those who worked part-time, those financially supported by their families or grant-aided had healthier diets (OR=0.42 and 0.35, respectively) but were less physically active (OR=2.44 and 2.16, respectively). Conversely, students who worked part-time consumed more alcohol than those with grant or family support (OR=2.07).

High psychological stress scores were correlated with poor diet (OR=1.03), increased consumption of convenience foods (OR=1.04), physical inactivity (OR=1.05) and tobacco smoking (OR=1.04). Passive coping strategies were correlated with poor diet (OR=1.55) and eating convenience food (OR=1.62). Those who mostly used escape avoidance coping were more likely to drink alcohol (OR=2.13) and have lower levels of physical activity (OR=1.84). Exposure to any unhealthy behaviour increased the risk for other risk behaviours. For example those who smoked tobacco had an increased risk of poor diet (OR=1.65), low levels of physical activity (OR=1.54) and alcohol consumption (OR=1.56). Cluster analysis identified a tendency for students to cluster into two groups: those with risk behaviours (n=733) and those with positive health behaviours (n=379). The group with risk behaviours had high psychological distress and used mostly passive coping strategies such as escape avoidance. The group with positive health behaviours comprised students who reported a healthy diet, regular physical activity and who did not use substances (tobacco, alcohol, cannabis).

The potential multiplicative effect of these risks on students' health and subsequently on their academic performance is a concern. As these students are the nurses and teachers of the future, their risk behaviours, elevated psychological distress and poor coping also raise concerns regarding their roles as future health educators/promoters. Attention to promotion of health and well-being among this population is essential.

PRESENTED

At the UL Hospitals Annual Research Symposium in the Strand Hotel, Limerick on October 24th, 2014 by Christine Deasy.

SOURCE

Deasy, C., Coughlan, B., Pironom, J., Jourdan, D., McNamara, P.M. (2015). Psychological distress and lifestyle of students: implications for health promotion. Health Promotion International. 30(1):77-87.

Exploring the Information and Educational Needs of Patients on Oral Anti-Cancer Medicines

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ABSTRACT

The use of oral anti-cancer medicines (OAMs) is increasing. There is a move away from the traditional delivery of parenteral chemotherapy in hospitals to patients taking oral medications at home. These OAMs are mainly dispensed in community retail pharmacies removing many of the safeguards that have been put in place in the hospital setting including compliance with planned treatment. This results in a shift in responsibility from health professionals to patients and caregivers.[1] As OAMs are as toxic as their IV equivalent it is important to ensure that patients know their side effects and how to manage them and that they comply with the regime as prescribed. Patient non-compliance can pose serious safety concerns. In this regard it is essential to identify patient information and education needs so as to ensure the correct and safe use of OAMs and to realise the desired patient outcomes, particularly as the use of OAMs is predicted to double over the coming years.[2]

The 2013 NCCP Oncology Medication Safety Review showed a diversity, and sometimes absence, of processes in managing OAM prescribing and dispensing, in addition to different approaches to patient education and community pharmacy communication.[3]

A qualitative study was undertaken in a Dublin cancer centre using:-

- Semi-structured interviews (20 patients)
- Telephone interviews (5 community pharmacists)
- Medical oncology personnel focus group

This study examined the information and education needs of patients taking OAMs from the perspectives of patients themselves, pharmacists and medical oncology personnel.

A thematic analysis of the transcripts highlighted important safety factors from patient, pharmacist and oncology personnel perspectives. The key themes which emerged were:-

- the importance of patient selection for OAMs by medical oncology team
- Personal patient routine in taking medicines
- Community pharmacy communications
- Dedicated OAM service

Other factors which emerged which were important included:-

- For patients and pharmacists: oral and written information on OAMs and 24 hour oncology team contact details
- For pharmacists: Knowing what key safety messages to reiterate to patients
- For medical oncology personnel: interdisciplinary management of OAMs, dedicated clinics and an OAM checklist.

With the increase in the usage of OAMs there is a requirement to standardise the information and education of patients on these medications as this will have a direct influence on their compliance. The medical oncology team are pivotal in this process and this study showed that a dedicated OAM service which focused on communication with patients and community pharmacists was a critical success factor. This study will inform the development of national guidelines on the information and education needs of patients taking OAMs. It will contribute to patient safety and fulfill a key recommendation of the 2012 Strategy and Educational Framework for Nurses caring for people with cancer in Ireland.

PRESENTED

- At the Irish Association of Nurses in Oncology in Kilkenny in March 2014.
- At the 4th National Patient Safety Conference on November 7th, 2014. Abstract submission, poster presentation.
- AICC December 2014. Abstract submitted. Poster presentation
- UICC Cancer Conference. Abstract submitted. Poster presentation.

FUNDING

This research had received funding from the Nursing, Midwifery Planning and Development Unit Ardee, Co. Louth.

SOURCE

Cancer Nursing Practice June 2015.14;5:23-28.

Outcomes of Irish Graduate Entry Medical Student Engagement with Self-Directed Learning of Clinical Skills

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ABSTRACT

Existing literature is mixed as to whether self-directed learning (SDL) delivers improvements in knowledge, skills or attitudes of medical students compared with traditional learning methods.

This study aimed to determine whether there is an association between engagement in SDL and student performance in clinical examinations, the factors that influence student engagement with SDL in clinical skills, and student perceptions of SDL.

A retrospective analysis of electronic records of student bookings of SDL sessions from 2008 to 2010 was performed for students in the pre-clinical years of an Irish Graduate Entry Medical programme to assess their level of engagement with SDL. The extent to which this engagement influenced their performance in subsequent summative examinations was evaluated. A cross-sectional survey of students across the four years of the programme was also conducted to determine student perceptions of SDL and the factors that affect engagement.

The level of engagement with SDL decreased over time from 95% of first years in 2008 to 49% of first years in 2010. There was no significant difference between the median exam performance for any clinical skills tested by level of engagement (none, one or more sessions) except for basic life support in first year (p=0.024). The main reason for engaging with SDL was to practice a clinical skill prior to assessment and the majority of respondents agreed that SDL sessions had improved their performance of the specific clinical skills being practiced.

Students viewed SDL as an opportunity to practice skills prior to assessment but there were no significant differences in subsequent summative assessment by the level of engagement for most clinical skills.

SOURCE

BMC Med Educ. 2015 Feb 19;15:21.
doi:10.1186/ s12909-015-0301-x.

E-learning on the Road - Irish Pre-Hospital Practitioners' Experiences of Online Technology and Social Media for Continuous Professional Competency

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INTRODUCTION

Online learning and social media are pervasive in our everyday lives, with a large percentage of the population having multiple social media network accounts. The impact of social media and online learning in healthcare professionals' education has previously shown generally positive results in medical, nursing and pharmacy students.

OBJECTIVE

To date there has not been any extensive research into social media and online learning use by prehospital healthcare professionals such as Emergency Medical Technicians (EMTs) and Paramedics. We sought to identify the extent to which Irish Pre-Hospital Practitioners make use of online learning and social media for continuous professional competency (CPC), the means by which they do so, and to compare their online consumption habits with those of their international counterparts.

METHODOLOGY

Two online surveys were carried out to obtain both quantitative and qualitative data. The release of the Irish version of the survey was in a controlled manner to Pre-Hospital Emergency Care Council (PHECC) registrants via various channels. An international version was released to the online pre-hospital community via various social media outlets. Participation was voluntary and anonymous.

RESULTS

A total of 227 respondents completed the Irish survey, and 158 completed the international version; 78% of respondents (Irish), compared to 75% (international) were male.

The majority of the respondents were registered as EMTs (Irish), compared to a majority of Advanced Life Support Paramedics (international). Over 75% (Irish) and over 91% (international) used a mobile device in the course of their clinical duties; the majority in both surveys used an iOS device.

Social media and online learning were considered learning tools by over 74% (Irish) and 81% (international) respondents, and over 70% in both surveys agreed they should be further incorporated into pre-hospital education.

Over 87% of respondents (Irish) and 96% (international) viewed self-directed activities to constitute CPC activity, but 65% (Irish) and 45% (international) felt that an activity that resulted in the awarding of a certificate was of better value.

Over 90% of respondents to both surveys had previous experience with online learning, with 42% (Irish) and 57% (international) indicating they had previously purchased online learning.

The majority of Irish respondents had a Facebook account (84%), followed closely by YouTube (53.3%), LinkedIn (52.9%), Google+ (44.5%) and Twitter (45%). This compares to Facebook (34%), YouTube (46.8%), LinkedIn (23%), Google+ (14.1%) and Twitter (53%) in the international survey. Overall, between 23-29% of respondents utilised an Athens account and 10-14% had an account with a massive open online course (MOOC) provider across the surveys.

Detailed analysis of each social media network with regard to its ease of use, whether it meets learning needs and provides broad access to content was also obtained.

CONCLUSION

Pre-hospital healthcare professionals in Ireland and internationally in the population studied consider online learning and social media useful for CPC purposes. PHECC registrants consider online learning that awards a certificate or statement of learning to be of better value than self-directed activities. The majority of PHECC registrants and international respondents in this study have previous experience of online learning.

The main social media outlets used by PHECC registrants are Facebook and YouTube, compared to their international counterparts who utilise mainly Twitter and YouTube. International providers utilise their mobile device more than their Irish counterparts during clinical practice. The results of this study can be used to ensure CPC activities are delivered through the correct channels.

Continuous Professional Competence for Irish Paramedics and Advanced Paramedics - A National Study

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ABSTRACT

Internationally, continuing professional competence (CPC) is an increasingly important issue for all health professionals. With the imminent introduction of a CPC framework for paramedics and advanced paramedics (APs) in Ireland, this paper aims to identify factors that will inform the implementation of this CPC framework by seeking stakeholder input into the development of a CPC model for use by the regulatory body. The secondary objective is to determine the attitudes of registrants towards CPC and what they consider as optimal educational outcomes and activities, for the purposes of CPC.

All paramedics and APs registered in Ireland (n=1,816) were invited by email to complete an anonymous online survey. The study instrument was designed based on CPD questionnaires used by other healthcare professions. Quantitative and qualitative analyses were performed.

The overall response rate was 43% (n=789), with 82% of APs and 38% of paramedics participating. Eighty-nine per cent agreed that registration was of personal importance; 74% agreed that evidence of CPC should be maintained and 39% believed that persistent failure to meet CPC requirements should mandate denial of registration. From a pre-determined list of activities, respondents indicated practical training scenarios (94%), cardiac re-certification (92%), e-learning supplemented by related practice (92%) and training with simulation manikins (88%) were most relevant, while e-learning alone (36%), project work (27%) and reading journal articles (24%) were least relevant.

Irish Paramedics and APs are supportive of CPC linked with their professional development and registration. Blended learning, involving evidence of patient contact, team-based learning and practical skills are preferred CPC activities.

FUNDING

This PhD study received funding from the Pre-Hospital Emergency Care Council (PHECC).

SOURCE

Knox et al. BMC Medical Education 2014;14:41.
http://www.biomedcentral.com/1472-6920/14/41

| CONTENTS |

A Qualitative Assessment of Practitioner Perspectives Post-Introduction of the First Continuous Professional Competence Guidelines for Emergency Medical Technicians in Ireland

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ABSTRACT

In November 2013, the Irish Regulator for emergency medical technicians (EMTs) introduced the first mandatory requirement for registrants to demonstrate evidence of continuous professional development (CPD)/continuous professional competence (CPC). This qualitative study assessed the experience of practitioners with CPC-related materials provided to them by the Regulator in addition to identifying perceived or encountered practical challenges and suggested improvements 6 months following introduction of the requirement.

Five fora were utilised, comprising two distinct groupings: a group of student EMTs (n=62) and four discrete groups of qualified EMTs (total n=131) all of whom had commenced the newly-introduced CPC process. All 193 volunteers were members of the Civil Defence (an auxiliary/voluntary organisation) and represented a nationwide distribution of personnel. Responses were categorised as 'perceived' challenges to CPC, relating to student EMTs, and 'experienced' challenges to CPC, relating to qualified EMTs. Responses also included suggestions from both groups of EMTs on how to improve the current system and guidance material. Audio/visual recordings were made, transcribed and then analysed using NVivo (version 10). A coding framework was developed which identified unifying themes.

All participants agreed that CPC for pre-hospital practitioners was a welcome initiative believing that CPC activities would help ensure that EMTs maintain or enhance their skills and be better enabled to provide quality care to the patients they might encounter. Two specific areas were identified by both groups as being challenging: 1) the practicalities of completing CPC and 2) the governance and administration of the CPC process. Challenging practicalities included: ability of voluntary EMTs to gain access to operational placements with paramedics and advanced paramedics; the ability to experience the number of patient contacts required and the definition of what constitutes a 'patient contact.' With regard to the governance and administration of CPC, it was suggested that in order to enhance the process, the Regulator should provide: an outline of the CPC audit process; examples of cases studies and reflective practice; templates for portfolios; and should establish a central hub for CPC information.

These groups of Irish EMTs appeared keen to participate in continuous professional competence activities. In addition, these EMTs identified areas which, in their opinion, required clarification by the Regulator related to the practicalities of CPC and the governance and administration of CPC. More information, dissemination of sample requirements and further effective engagement with the Regulator could be used to refine the current CPC requirements for EMTs.

FUNDING

This PhD study received funding from the Pre-Hospital Emergency Care Council (PHECC). PHECC had no role in the study design, analysis or interpretation of data, or the decision to submit the study for publication.

SOURCE

BMC Emergency Medicine 2015;15:11.

An Electronic Referral System for Primary Care Teams - A Prototype Study and Recommendations

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INTRODUCTION

Electronic referral systems are becoming increasingly popular worldwide as reliable communication in healthcare. Primary Care is an extremely diverse area of healthcare as it encompasses a wide range of health-related services, delivered by a multidisciplinary team of healthcare professionals. Formal communication processes between the core primary care team and the wider network of professionals is in the form of referrals. The adoption of e-referral systems has the potential to transform healthcare delivery in the primary care sector.

OBJECTIVE

The aim of this research is to establish the factors which influence the adoption of e-referral in a primary care team. Based on the findings of the study, recommendations are made in relation to design and adoption of e-referral in primary care teams in Ireland. The recommendations are determined by the participant's feedback on e-referral, user-centered design and the supporting empirical evidence.

METHODOLOGY

For the purpose of this research an exploratory case study using a qualitative multi-method approach, with requirements elicitation techniques of prototype workshops and focus group feedback sessions was the preferred methodology. A content analysis on the results of five prototype workshops and focus groups was thematically presented with supporting quotes from the focus group sessions and transcribed participant workshop notes.

RESULTS

The study revealed three main themes in relation to improvement of workflow processes which were: usability, efficiency and error reduction factors. Prototyping was identified as an effective elicitation technique in the healthcare domain. The case study also emphasized the importance of user involvement and user-centred design in fostering uptake of an electronic referral system in primary care teams.

CONCLUSION

This study emphasizes the importance of user involvement in the elicitation of requirements for an e-referral system for primary care teams, and makes valid recommendations based on factors influencing adoption, development and design of e-referral systems in primary care teams.

PRESENTED

At the Health Informatics Society of Ireland (HISI) 19th Annual Conference and Scientific Symposium at the Printworks Conference Hall in Dublin Castle on Wednesday, November 19th, 2014 by Mary O'Regan.

FUNDING

Partial funding for this research was provided by The Nursing and Midwifery Planning and Development Unit (Cork/Kerry) HSE South.

Do Our Patients Know What We're Talking About?

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INTRODUCTION

Health literacy is an essential component of healthcare as it affects relationships with patients, compliance and outcomes. This study focuses on pregnant women in the maternity unit setting and investigates whether or not they understand the care being provided to them. It also identifies where understanding is lacking, outlines some reasons why and suggests solutions to this problem.

METHODOLOGY

This was a mixed methods study design which incorporated a quantitative and qualitative aspect. Questionnaires assessing understanding of antenatal, intrapartum and postnatal issues were completed by pregnant women attending antenatal clinics in Cork University Maternity Hospital in June 2014. Follow-up interviews were conducted 6 to 8 weeks after these women had delivered their babies. Interviewees were selected based on mode of delivery, parity and educational level. The data provided by the questionnaires was analysed by themes using Microsoft Excel and VassarStats:Website for Statistical Computation. Chi-square test was performed to compare differences between primiparous and multiparous women. Interviews were transcribed and analysed thematically.

RESULTS

There were 199 completed questionnaires (66% response rate) and 8 women were selected for interview from a panel of 33 volunteers. The quantitative results illustrated that 63.8% (n=127) of women always understood information given to them at the antenatal clinic. Half of women (49.7%; n=99) reported that they got the most helpful information about pregnancy from family members. When asked to identify any complications of "induction of labour," multiparous women were more likely than primiparous women to identify emergency caesarean section as a risk (39.0% versus 20.9%; $p=0.007$). Multiparous women were also more likely to expect to pain after having their baby than primiparous women (92.4% versus 79.0%; $p=0.006$).

At interviews, intrapartum issues had caused the most confusion. Women felt there was a lack of explanation around the induction process including the fact that induction can cause foetal distress leading to emergency caesarean section. This caused frustration and disappointment around the delivery experience for some of the interviewees. Postnatally, women felt that more time could be spent on breastfeeding and advice on what to expect physically when they went home.

CONCLUSIONS

The findings from this study suggest that a standard of explanations regarding procedures and care needs to be maintained throughout pregnancy. Specialist clinics and/or classes may be useful to enhance womens' understanding by providing women with a forum to discuss any issues arising during the pregnancy and in the postnatal period.

PRESENTED

As a poster presentation at the following events;-

- British Maternal and Fetal Medicine Society 17th Annual Meeting in the QEII Conference Centre, London from April 23rd to 24th, 2015.
- JOGS Annual Conference 2014 in the Royal College of Physicians, Kildare Street, Dublin 2 on November 28th, 2014.

Personal Communication Passports - Facilitating Meaningful Communicative Interactions and Person-Centred Care in the Home, Hospital or Residential Care Setting

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INTRODUCTION

Communication is an integral part of our lives. It enables us to control our environment, express our needs and feelings and maintain our social contacts. The impact of progressive decline in communication skills that occurs in dementia can be quite devastating for the Person with Dementia (PwD) and family/carers. Facilitating and maintaining meaningful interaction with the PwD through the stages of the disease and across different care settings is a significant challenge.

The familiarity of the home environment and family carers fosters meaningful communication and personalised care. Admission to an acute hospital or residential care setting can be stressful for both the PwD and family/carers due to the new and changing environment. It can be challenging for staff who do not know how best to communicate with or possess personal knowledge of the patient.

OBJECTIVES

The Speech and Language Therapy Department (SLTD) with the support of the Multidisciplinary Team (MDT) and Dementia Strategy Implementation Group aimed to develop Personal Communication Passports (PCPs) for patients in the moderate-severe stage of dementia when communication is most challenged, across care settings. PCPs present the PwD as an individual, describe how he/she communicates, how to support communication and include information from their past and present.

METHODOLOGY

Patients admitted to the Care of the Elderly ward with a diagnosis of dementia were targeted over a five month period (October 2014-February 2015).

PCPs were devised by the SLTD following assessment of communication skills and interview with the PwD and the family/carer. The PCPs were placed at patient's bedside and MDT members were encouraged to use them to stimulate communication. PCPs transferred with the PwD on discharge for use in the home/residential care.

The PwD, family carers and MDT gave feedback by rating the PCPs on a Likert scale relating to seven statements.

RESULTS

A total of 14 PCPs were developed in the 5 month period. Evaluation of 14 feedback forms collected to date indicates overwhelming support (91%) for this initiative from the patient, family carers and staff across acute and residential care settings.

CONCLUSION

This research has found that PCPs are effective in providing an aid to meaningful communicative interaction and person-centred care for people with moderate-severe dementia across care settings. It is planned to introduce PCPs to all wards.

PRESENTED

As a poster presentation at the 'Palliative Care Needs of People with Dementia - Building Capacity' Conference hosted by the Irish Hospice Foundation in Waterford on March 25th, 2015.

Physicians' Perspectives on Patient Participation in Clinical Decision-Making

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INTRODUCTION

There is evidence that patients' participation in decision-making has a positive effect on their health, improving their levels of satisfaction and self-efficacy as well as improving health outcomes. It can bring about culture change within healthcare systems and may reduce medical errors and improve patient safety.[1-6] Despite this, multiple barriers and constraints exist to the full attainment of active participation of patients in clinical decision-making. Given that this attainment is assumed to be heavily reliant on healthcare professionals' attitudes and behaviours,[5] particularly those of physicians,[3] this study aimed to examine physician-related attitudes, behaviours, preferred roles, and perceived barriers towards involving their patients in clinical decision-making.

METHODOLOGY

A primarily quantitative methodological approach, employing an observational analytical cross-sectional design was undertaken. Physicians currently employed at Galway University Hospitals (GUH), who have direct clinical contact with patients, were sent a study invitation via email with a secure anonymous hyperlink to a web-based survey. Participants were given a two week time interval to complete questionnaires, with a reminder e-mail sent in the second week. The questionnaire elicited information on physicians' attitudes, behaviours, preferred roles, and perceived barriers in relation to patient involvement in decision-making. The questionnaire was adapted from two recent studies investigating physicians' views around patients' participation in medical decisions.[1,3] The total number of physicians contacted by e-mail was 300. The response rate was 18.3% (n=55), representing 19 specialties at Galway University Hospitals.

RESULTS

A total of 61% (n=31) of participants reported preferring to share the responsibility of decision-making with their patients, whilst 31% (n=16) preferred to make the final clinical decisions after seriously considering their patients' opinions. One-fifth of the sample (19%, n=9) reported performing all ten decision-making related tasks on a regular basis, while one in three physicians (33.3%,n=16) reported performing six or less of these tasks. However, when examining whether physicians preferred a more or less patient-centred approach, the majority of respondents preferred a less patient-centred approach towards clinical decision-making (61.5% vs. 38.5% more patient-oriented).

The two most frequently reported barriers were "length of consult visit" and "patient's level of education and health literacy" (72.3%, n=34 for each). This was followed by "difficulty in communicating all the required information to the patients" (55.3%, n=26). Frequencies of all the reported barriers are shown in Table 1. Other qualitatively reported barriers were mostly patient-related and included issues such as disease severity, language barrier and family involvement in decision-making.

Table 1 - Frequency of the Reported Barriers to Patients' Participation 'in Descending Order'

Barrier	Frequency	
	n	%
Length of consult visit	34	72.3%
Patient's level of education and health literacy	34	72.3%
Difficulty in communicating all the required information to the patients	26	55.3%
Type of decision to be made	25	53.2%
Patient's self-efficacy and involvement preference	21	44.7%
Effort needed to involve patients	12	25.5%
Other barriers	9	19.1%

The total number of tasks performed was significantly correlated with physician specialty, with medical specialty being associated with a greater number of tasks performed (u=125, p=0.02). Total number of perceived barriers was significantly correlated to physicians' years of experience (u=135, p=0.02).

CONCLUSION

While physicians reported preferring a collaborative role and engaging in communication behaviours that involve patients in decision-making, they displayed negative attitudes towards patient participation in clinical decision-making. Physicians may be reluctant to delegate the power of decision-making as they fear patients may not be capable of making the right decisions. By assisting patients in expanding their knowledge and by motivating physicians to recognize patients as resourceful partners,[7] we can move from the rhetoric of patient participation into implementing it.

REFERENCES

Available on request.

| CONTENTS |

Audit on the Validity of Patients’ Consent Information Provided in the Clinic and Comparing their Recollection on the Day of Surgery

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INTRODUCTION

The legal rights governing consenting patients for surgical procedures are well outlined and discussed in the Irish National Consent Policy. A core ethical principle in medical practice or procedures is the requirement for patients’ Informed Consent.

OBJECTIVE

The aim of this study was to compare the validity and grade of recollection of consent information by analysing patients’ comprehension and recollection of information given at the time of surgery.

METHODOLOGY

A survey was done on patients’ recollection of information given to them in the clinic and information given on the day of the surgery. This data was analyzed to determine the patients’ recollection of information consented to in the clinic and the difference in recollection of information consented to on the day of surgery and the effectiveness/validity of both. A total of 30 patients scheduled for ENT surgeries were surveyed on their recollection of information they consented to during their clinic visit and information they consented to on the day of surgery.

RESULTS

Analysis of the current data shows that 60% of the patients for ENT surgery had poor recollection of information about the surgery they consented to in clinic by the date of surgery, 20% had fair recollection of information about the surgery and 20% good to excellent recollection. This means that less than a quarter of patients for surgery appear on day of procedure/surgery with less than satisfactory information on what they are presenting for. After patients had been re-consented 76.67% of patients had good or excellent information regarding their procedures, 10% of patients had fair recollection and 13.33% still had poor recollection/ understanding of their surgeries.

CONCLUSION

Consenting patients in clinic is the first step of a complex process. Obtaining consent only in the clinic or on the day of surgery may not allow adequate time to educate patients or to address their concerns.

It is recommended that patients take home an education pack from the clinic with an attached consent form which could then be signed on the day of the surgery.

PRESENTED

As a poster presentation at the Irish Otolaryngology/Head and Neck Society Meeting on October 10th, 2014.

Bleeps Evaluation - A Quality Improvement Project

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ABSTRACT

The bleep remains an invaluable tool amongst interns. However as doctors are very frequently bleeped, it often affects their work pattern, efficiency and rest period. Hence, it is important to ensure a balance between enabling urgent communication while avoiding unnecessary disruption to work.

This quality improvement project has been conducted prospectively to investigate the current bleep patterns of interns on call in University Hospital Limerick (UHL) with a view to developing a future bleep policy for interns. Interns on call in UHL were recruited to record their 'bleeps purpose' on a tabulated questionnaire over a period of 3 weeks covering both surgical and medical departments.

- 37 questionnaires were returned and a total of 856 bleeps were recorded.
- An average of 23 bleeps were recorded per on call shift.
- A very significant 313 (36.56%) bleeps received were for administrative and clerical categories which may not necessarily be classified as urgent. However, patient care and clinical procedures accommodate the majority of the bleeps, recording 543 (63.44%) bleeps. See Figure 1.
- There were 535 (62.5%) bleeps recorded before 12am in comparison to 321 (37.5%) after 12am. See Figure 2.
- A total of 103 (32.09%) bleeps received after 12am were clerical and administrative in nature. See Figure 2.

Bleeps do cause interruptions and disruptions to interns' work and rest especially in a busy hospital. It may result in inefficient use of time, disrupt patient care and burn out for interns, thus becoming counterproductive.

The limitation to this study is the potential overlap between categories. Perhaps it would be more relevant if the categories of patient care and clinical procedures were subcategorised into life-threatening emergencies, urgent and non-urgent categories.

This study shows the urgent need for a bleep policy drawing upon international guidelines and best practice.[1] Consideration could also be given to alternative systems of communication such as the alphanumeric system[2] which permits messages to indicate urgency. These measures could have a positive impact on interns and thereby improve patient care.

REFERENCES

Available on request.

PRESENTED

As a poster presentation at the RAMI Intern Section Meeting in the Royal College of Physicians Ireland on January 18th, 2014.

SOURCE

Irish Journal of Medical Science; Volume 183 Supplement 4; 2014; Pages 51-52.

Figure1- Nature and Frequency of Bleeps During On-Call (Recorded from 856 bleeps over 3 weeks)

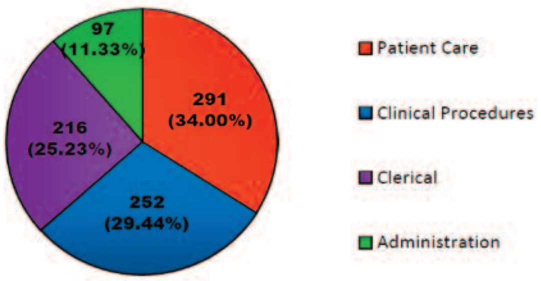
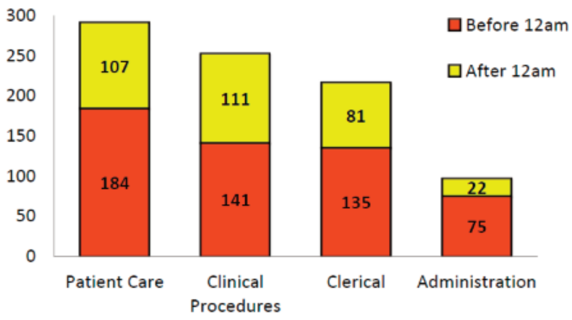


Figure 2- Distribution of Bleep Patterns Before and After 12am



An Audit of Paediatric Service Utilisation in Primary Care by Funding Scheme

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INTRODUCTION

The General Medical Service (GMS) scheme governs access to Medical cards in Ireland for which criteria of entitlement are outlined in Section 45 of the Health Act 1970.[1] Before implementation of the 'free care for under 6's scheme', it is estimated that approximately 180,000[2] children under 6 already had access to a GP service without fees, under a medical card (hereafter referred to as 'GMS') or a GP visit card (hereafter referred to as 'DVC'). The new measure aims to provide free GP consultation to all 420,000[2] children in the Republic of Ireland under 6 years of age. The government has allocated €37 million[2] to cover the cost of this measure.

OBJECTIVES

This audit aims to uncover the most common causes for children under the age of 15 to present to their GP as well as to examine health resource utilisation as a function of GMS status.

The objectives of this audit were:

- To compare the number of visits to Surgery, GP-Specific Consultation, Secondary Care and A&E by GMS status. 'Surgery' visits include those visits to both GP and nurse including those for routine immunisations.
- To determine the most common reason for attending for GP consultation at most recent attendance.

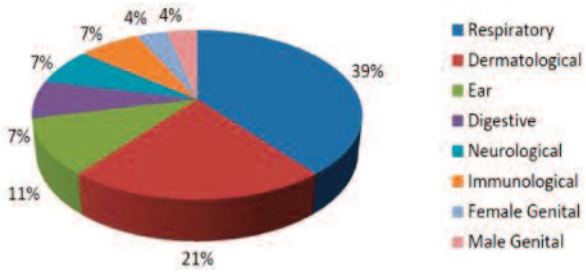
METHODOLOGY

This study was completed at a rural surgery in Adare, Co. Limerick. This surgery has 1 full-time GP, 2 locum GPs, 2 part-time practice nurses and 10,795 active patients. Records were accessed through the Socrates system and Microsoft Excel was used for data analysis. Ethical approval was obtained in July 2014 from the Irish Council of General Practitioners' Research Ethics Committee.
The steps taken in the audit were as follows:

A. Generation of Patient List: All active patients <15 years of age listed through the "Reports" function in Socrates
B. Random Sampling of 100 patients from the list
C. Data Collection: Anonymised data set extraction for each patient: Gender, Age, GMS Status
D. Application of Exclusion Criteria: 1st birthday after 31/08/2013; No visit in last year (01/09/'13 to 31/08/'14)
E. Data Collection: GP and practice nurse consultations respectively, and number of each solely for routine immunisation, attendance at A&E and other primary and secondary care, main symptom and diagnosis, height and weight.

Figure 1 - Number of Visits to GP Surgery, GP-Specific Consult, Secondary Care Consult, and A&E in the Past Year by GMS Status

Figure 2 - Primary Reason for Most Recent GP Consultation in the Past Year



RESULTS

Of those who attended from 01/09/'13 to 31/08/'14, 71.4% were private patients. However, private patients made up 56%, 55%, 50% and 43% of visits to each of Surgery, GP-Specific Consultation, Secondary Care and A&E respectively. The most common reasons for GP-Specific Attendance in the last year were 39.3% Respiratory (95% CI [21.2%,57.4%]) and 21.4% Dermatological (95% CI [6.2%,36.6%]).

CONCLUSIONS

Those holding GMS cards appear more likely to attend all of Surgery, GP-Specific Consultation, Secondary Care Consultation and A&E than private patients. Holders of DVC cards also appear more likely to attend these services.

Furthermore, the external validity of this audit is limited due to the small sample size remaining after application of exclusion criteria. Data were collected for 28 of 1,053 patients in the study population (3% of the total population). The elimination of many patients for failure to attend in the last year may be reflective of the transitory nature of the patient population at the Adare Medical Centre as many of its patients are tourists or short-term visitors to Ireland.

REFERENCES

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Identifying the Optimum Resourcing Method for the National Ambulance Service

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INTRODUCTION

The National Ambulance Service (NAS) is the state's statutory provider of pre-hospital emergency care, managed and funded by the Health Service Executive (HSE). The men and women of the NAS respond to medical emergencies twenty-four hours a day, seven days a week and often find themselves in physically and psychologically demanding situations.

The service is often perceived as one of excitement, blue lights, sirens and authority and a lack of understanding exists among new recruits as to the true extent of the arduous duties undertaken and the physical and psychological demands placed upon an individual. Pre-hospital emergency care staff often work long hours without food, drink or rest due to peaks in demand and can be required to administer patient care for prolonged periods that require strength, stamina and fitness. The current selection process used by the service is a competency-based structured interview, which focuses upon the candidate's application form. At no stage during the selection process is a candidate rigorously physically or psychologically accessed to determine their health, well-being or suitability for pre-hospital emergency care work. Trends in absenteeism rates of new staff with three years service, or less, indicate that in 2012, 17% had been on long-term sick leave at a cost of €60,000, thus indicating a rationale to conduct research.

OBJECTIVES

The objectives of this research were to:

1. Evaluate the literature pertinent to the recruitment and selection process
2. Establish the perspective of experts in the NAS and from other establishments on the current recruitment and selection process
3. Evaluate the health and well-being of new staff (with less than three years service)
4. Identify the desired physical and psychological attributes of candidates (Paramedics and Emergency Medical Controllers)
5. Make recommendations based upon international best practice

METHODOLOGY

The research philosophy and design used throughout this study allowed flexibility to gather qualitative and quantitative data. Following an examination of existing literature, the author chose a case study strategy and adopted a mixed method approach by collecting quantitative and qualitative data. This data was collected through interviews and questionnaires from the NAS Education and Competency Assurance Team with responsibility for training all new staff and from the HSE Occupational Health Service (OHS).

RESULTS

The research findings identified three themes which emerged from the triangulation of all findings. Firstly, a) the unsuitability of the existing recruitment and selection process for an emergency service that provides pre-hospital emergency care, b) the necessity to introduce psychological and physical testing and c) concerns relating to the number of new staff entering the service with a pre-existing health condition. These findings correlated with previous research undertaken by the author.

CONCLUSION

A number of recommendations have been made based upon the research findings, which include:

1. The re-designing of the existing recruitment and selection process so that it meets the need of the NAS.
2. Measuring candidates against the desired attributes of Emergency Medical Controllers and Paramedics as identified by NAS Education and Competency Team.
3. The introduction of psychological and physical fitness testing for candidates before entering the service to assist in determining their robustness and suitability for frontline emergency work.
4. Direct input from OHS when designing medical assessments for candidates and setting down criteria for precluding health conditions.
5. The need to actively promote health, fitness and exercise among new staff by the establishment of a dedicated health unit within the NAS to provide advice, guidance and support to NAS managers and to new and existing staff.

| CONTENTS |

An Evaluation of Technical Efficiency in the Nursing Home Sector in Ireland

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INTRODUCTION

The evaluation of efficiency in nursing home care provision in Ireland is an important research area as nearly every developed country is faced with the prospect of a population that is getting older, and eventually smaller, given current population age structures, increasing life expectancy, and birth rates which are under the reproduction rate. It is the increase in the 'oldest' old that is going to be most dramatic, the over 80's. Nursing Homes Ireland (NHI) figures already indicate a 'significant national deficit' of long-stay beds for older people who will need them, and that demand for residential care is going to increase significantly in the next decade. This further implies that the costs of long-term care are expected to increase significantly and that an evaluation of efficiency in this sector is essential in assessing whether wastage occurs.

METHODLOGY

We evaluate technical efficiency (TE) as opposed to economic efficiency as it is difficult to justify the behavioural assumptions and attain reliable information regarding the costs of inputs in the nursing home sector. To measure TE, we apply an input-oriented Data Envelopment Analysis (DEA), proposed by Charnes, Cooper and Rhodes,[1] in order to assess if, and by how much, capital and, in particular, labour inputs can be reduced while achieving the same level of output. Furthermore, in order to assess if scale inefficiencies exist in the Irish nursing home sector, we use both the constant returns to scale (CRS) and the variable returns to scale (VRS) DEA method. If nursing homes are operating at sub-optimal scale, TE estimates under CRS DEA can be confounded by scale inefficiency effects and they will underestimate the VRS DEA TE scores. We also implement a bootstrap procedure to ensure that the estimated technical efficiency scores are not biased.

Primary data on 59 public nursing homes, 93 private nursing homes with contract beds (including 3 voluntary homes) were collated in Ireland between July 2008 and September 2009 via face-to-face interviews. The output of the nursing homes is measured as the average length of stay per resident. In relation to inputs, there are two labour measures – the number of medical (qualified nurses) and non-medical staff (health care attendants) – and capital is measured by the number of beds. Depending on how the labour input is defined, we present three alternative model specifications. In **Model 1**, labour is measured solely by the number of medical staff in the nursing home unit. In **Model 2**, labour is measured by the number of non-medical staff only, whereas **Model 3** involves the inclusion of both labour input variables. In each of the three model specifications, the measures of capital and output remain as noted above. The inclusion of the two labour indicators allows us to assess whether the possibility of substitution occurs between medical and non-medical staff.

RESULTS

The results are obtained by applying both the CRS and VRS DEA method and they confirm that the VRS TE scores are, on average, higher than those obtained for the CRS approach. This finding indicates that scale inefficiencies are evident in the Irish nursing home sector. Consequently, Table 1 summarises the results of the estimated TE and SE scores under VRS method.

Table 1 - Average Scores of Technical Efficiency (TE) and Scale Efficiency (SE)

	Model 1		**Model 2**		**Model 3**	
	TE	**SE**	**TE**	**SE**	**TE**	**SE**
Public Nursing Homes	0.49	0.57	0.46	0.50	0.51	0.56
Private Nursing Homes	0.46	0.63	0.40	0.54	0.46	0.62
All Nursing Homes	0.47	0.61	0.42	0.52	0.48	0.60

The TE scores are on average very low in comparison to those found for nursing homes in other countries.(12) Based on **Model 1**, where the number of nurses is used as labour input, the estimated average TE score is 0.47 for all nursing homes (with only 7% of nursing homes being fully technically efficient), indicating that on average all nursing units could reduce both the number of nurses and the number of beds by 53% and still produce the same level of output. The estimated average SE is 61% for **Model 1**, with only 3% of all nursing homes being fully productive and operating at optimal scale. The latter finding clearly indicates that Irish nursing homes are not operating in the economically feasible region as they could still decrease their average costs and move to the point of minimum marginal costs by changing their scale of production.

Moreover, we find that when the labour input variable is measured by the number of medical staff only (**Model 1**), the estimated technical efficiencies are higher than those obtained when the number of non-medical staff is used as an alternative labour input in **Model 2**. This implies that substituting non-medical employees for medical staff may lead to more inefficient outcomes.

CONCLUSIONS

This research provides the first methodological and empirical insights into the evaluation of technical efficiency in the nursing home sector in Ireland. The findings of this study inform policymakers that the majority of Irish nursing homes are not only technically inefficient but they also utilize a non-optimal amount of labour and capital. This would suggest that a better engagement into performance measurement is needed before allocating limited financial resources to this sector.

REFERENCES

Available on request.

Risk Assessment and Safety Planning in Mental Health Services

*Higgins, A.,
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Brennan, M.,
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ABSTRACT

Within mental healthcare, there is a heightened consciousness about risk which is fuelled by high profile media reports of investigations into adverse events that highlight failures of mental health services to adequately detect and manage risk. This, together with literature which promotes the notion that all risks can be identified and prevented and the growth in actuarially based risk assessment tools to determine peoples' potential to violence or risk of suicide, has contributed to a growing culture of risk assessment and risk management within mental healthcare. Consequently, risk assessment and safety management have become core features of mental healthcare practice. At the same time however, there is a growing recognition that risk cannot be completely eliminated and that positive risk-taking is a key part of personal growth and development.

Despite risk assessment and safety management being a cornerstone of mental health practice, limited research exists into how mental health nurses conceptualise 'risk' and how they engage with risk assessment and safety planning within an organisational context and from the perspective of recovery-oriented mental healthcare. This research presents the findings of a study that explored practices, policies and processes around risk assessment and safety management within mental health nursing in a number of mental health services in Ireland.

A mixed methods research design was employed involving an anonymous, self-completed survey and documentary analysis. A total of 381 nurses from adult mental health services completed a survey about their practices, confidence and attitudes in relation to risk assessment and management. Risk assessment and management related documentation was received from 22 Directors or Acting Directors of Nursing. Descriptive and inferential statistics were generated in the analysis. Ethical approval was received from the Research Ethics Committee of the Faculty of Health Sciences in Trinity College Dublin.

The results indicated that nurses tend to conceptualise risk narrowly. Risk to others and risk to self were found to be the main focus of assessments while risks from others, risks from treatment or contact with services and the risk of social exclusion were largely neglected. This emphasis places the focus of risk assessments on high-consequence/low-frequency, dramatic risks as opposed to low-consequence/high-frequency risks, which are more likely to be encountered on a daily basis. Organisations' risk-related documentation was found to be orientated towards the avoidance of adverse or dramatic risk rather than the promotion of positive risk-taking opportunities. An absence of support for and guidance on positive risk-taking at an organisational level was reflected in nurses' lack of confidence and knowledge in this area. The results also revealed that many screening tools being used were not validated and there was evidence of inconsistencies and a lack of guidance in how they were selected and applied. A lack of meaningful engagement with service users was also evident with no routine communication or dialogue about perceived risk. Furthermore, there was no evidence of a recovery-orientated strengths model being adopted as a basis for care planning.

Based on these findings recommendations emerged for risk assessment and safety planning in relation to policy, practice and education. These included the development of national guidelines to inform the development of evidence-based policies and strategies for risk assessment and safety planning at organisational and clinical practice levels; the development and delivery of risk assessment and safety planning education to mental health practitioners to enable them to acquire the knowledge and competencies to practice in a recovery-orientated manner; and an organisational review of policies on risk and safety to ensure that they include an holistic view of risk with a focus on positive risk and recovery.

PRESENTED

- At the 5th International Nursing and Midwifery Conference in Galway on March, 30th, 2015.
- At the National Mental Health Nursing Conference in Dublin Castle on April 15th, 2015.

FUNDING

This research has received funding from the Office of the Nursing and Midwifery Services Director.

SOURCE

Higgins, A., Doyle, L., Downes, C., Nash, M., Morrissey, J., Brennan, M. & Costello, P. (2015) Risk assessment and safety planning within mental health nursing services: an exploration of practices, policies and processes. Dublin: Health Service Executive.

Cognitive Behavioural Psychotherapy Graduates in Ireland - A Follow-Up Survey of Graduates from an Irish University

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ABSTRACT

Training in Cognitive Behavioural Psychotherapy (CBT) is expensive both for the students and their funding bodies.

It is important to know how graduates of CBT courses are putting their skills to use, and whether they are continuously updating those skills in order to achieve best practice. We also wanted to discover the similarities and differences between CBT trainees in the UK and in the Republic of Ireland (courses in the UK being analogous to those in Ireland in content and participants).

An internet survey, derived from previous postal questionnaires, was used to enquire into the practice, experience and continuing professional development of graduates from the CBT courses at Trinity College Dublin.

Most MDT professions were represented in the graduates, preponderantly psychiatrists and mental health nurses, but also including social workers and occupational therapists. Most participants believed that the course had enhanced their careers, and almost half had changed job since graduating. Half said that CBT was now the main focus of their job, but others reported lack of resources, funding, time and other duties impeded their ability to conduct CBT with clients. However, most participants engaged in continuous professional development regarding CBT, and received CBT clinical supervision.

There was a difference in the proportion of the various professions undertaking this course compared with the UK and our response rate here was significantly lower. As in UK surveys, participants who may have been supported and funded to undertake the training may not afterwards be supported in implementing their skills in the workplace.

SOURCE

Irish Journal of Psychological Medicine. 2015(32);187-195.

Specialist Nursing Care in the Acute Medical Unit Optimises Patient Care

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INTRODUCTION

The Acute Medical Unit (AMU) is a recognised international model of care for increased emergency admissions to acute hospitals. Factors including overcrowding and congestion in the ED, increased risk of error, increased length of stay (LOS) and tackling persistent bed occupancy rates above 85% (associated with an increase in mortality rate) are some of the influences.[1] The AMU opened in University Hospital Limerick (Model 4) in January 2013. Specialist nursing care which results in better patient outcomes and ultimately, reduced acute hospital admission, are underpinned and achieved by rapid nursing assessment and National Key Performance Indicators (KPI), such as Patient Experienced Time (PET) and conversion rates. National standards are 6 hours PET for 95% of patients and 35%-40% conversion rate respectively.[2] Rapid patient assessments and focused care are the basis of the holistic approach to nursing in the AMU. This is assisted by integrated pathways/guidelines, standards of practice (SOPs) and quality improvement initiatives. Patient satisfaction in the acute hospital setting accounts for improved discharge planning and reduced re-admission rate.

OBJECTIVE

The aims of this study are to identify specialist nursing care and measure how it optimises better outcomes for all adult patients in the AMU.

METHODOLOGY

The short analysis of the data from emergency presentations was collected retrospectively between July 2014 and December 2014 during the core working hours of the AMU. The source of referrals was the Emergency Department (ED), General Practitioners (GP), Model 1 & 2 hospitals in the region, and other specialties requiring urgent medical assessment. Additional information was collected from multiple sources such as; daily ward log, patient records databases, (National and Local) KPIs, local audit and quality improvement plans

RESULTS

A total of 1,730 patients were seen between July and December 2014. A total of 83% were seen in less than 6 hours PET, and the conversion rate remained steady at 37% but further declined as the functionality and capacity of the AMU is challenged. Access to in-patient beds and limitations on manpower hinder progress. Clinical tools such as; Admission Avoidance Pathways, Irish Maternity & National Early Warning Scores Charts (IM/NEWS), Integrated Care Pathways and Standard Operating Procedures assist the productive outcome.[3] The advanced nursing skills that include; cardiac monitoring, interventional and intravenous therapies, in addition to nursing metrics applied in a holistic way, contribute to the overall outcome.[4,5] Equally, the rapid access to all the other specialities within the hospital has afforded positive results for patients, specifically by avoiding hospital admission. The amount of patients presenting who are acutely unwell and over the age of 75 accounts for over a quarter of all patients (26%). These results highlight the need for continued commitment to care bundles and access for patients through the AMU model of care.

CONCLUSIONS

Skilled nursing assessment and quality improvement plans instigated by nursing care are paramount to meeting national standards and augmented patient outcomes. The nursing assessment and approach used is guided by emerging nursing standards that aim to reliably measure nursing performance, through metrics, against benchmarks. The specialty of Acute Medical Nursing can be identified, but does require further clinical audit for a comprehensive conclusion. The increasing age profile of patients in the AMU and the nursing care needed reflects the increased demands for healthcare by an ageing population and the requirement for enhanced access to specialties within the region.

It is difficult to determine outcomes for patients through the AMU from quantatiave analysis. A clinical research programme to target the LOS for admitted patients through the AMU could be of benefit. The recommended LOS for patients is 56% within 72 hours

REFERENCES

Available on request.

PRESENTED

As a poster presentation at the Nursing and Midwifery Research and Innovation Conference in The Strand Hotel, Limerick on Wednesday April 29th, 2015.

A Mixed Method Study Examining the Impact of the Nurse Practice Environment on Quality of Nursing Care and Patient Outcomes in Irish Acute Hospitals

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INTRODUCTION

The healthcare system in Ireland has undergone immense restructuring and reorganization in recent decades; and as a result, the organisational context in which nursing and healthcare is delivered has become a vastly different and powerful factor affecting clinical practice and healthcare outcomes. Growing demand for healthcare, coupled with constrained resources and evidence of variations in clinical practice have increased interest in measuring and improving the quality of healthcare, with an emphasis on both efficient use of resources and on the effectiveness of healthcare.

International research suggests that implementing innovations and improvements which promote supportive organisational structures that lead to professional nursing practice are associated with positive outcomes for patient and nurse alike. Despite these considerations, there is a dearth of information on the specific elements of their practice environment which nurses perceive to be critical to the provision of quality nursing care. In particular, given the extensive reform and restructuring of health services within Ireland over the past decade, minimal empirical evidence exists on the impact this has had on the nurses' working environment and subsequently on the quality of the care they provide for their patients.

METHODOLOGY

This study adopts an Exploratory Sequential Mixed Methods Design, consisting of qualitative and quantitative strands. The study is designed in three sequential stages, and the evidence from the overall study will provide a comprehensive understanding of the relationships between structural factors within the current nurse practice environment, nursing process measures and nursing sensitive patient outcome measures.

In the first phase of the study, a qualitative approach is used to collect data through focus groups to identify the key nurse practice environmental factors which may be significant predictors of quality nursing care processes and patient outcomes.

In the second phase, based upon the themes identified from the analysis of the qualitative data, an existing validated quantitative instrument will be adopted or amended. This will investigate further the factors relating to the features of the nurse practice environment identified during the first phase of the study and will enable them to be quantified with a larger sample of nurses from the Irish acute hospital setting. In the third study phase, the practice environment survey data will be correlated with measures of quality of nursing care and nursing sensitive patient outcome data, identifying any relationships between the variables.

RESULTS

Findings from the qualitative analysis of the first study phase, will provide a more contextualised and current representation of the challenges of delivering quality nursing care. Findings will also provide clarity on the factors within the nurse practice environment which can enhance or impede a nurse's ability to deliver quality care in an acute hospital ward setting. The findings from the second phase of the study will address the research hypothesis which states that quality of nursing care and nursing sensitive patient outcomes, vary as a function of factors within the nurse practice environment. Specifically, it is predicted that those wards in the acute hospital setting demonstrating a more favourable working environment, will demonstrate a higher quality of care, as measured by higher scores in nursing process quality measurements and better patient outcomes than those wards demonstrating a less favourable nurse practice environment.

CONCLUSIONS

This study examines the hypothesis that the practice environment where nurses care for patients can impact on the quality of care provided and on subsequent patient outcomes. The results of this research will be utilised to create theory-based and empirically informed strategies to enhance nursing practice environments with the potential to support the delivery of quality patient care. Factors within the practice environment are amenable to change by individual nurses, management and the organisation so that improving the workplace becomes everyone's responsibility. The study will contribute to the growing body of international knowledge regarding effective work environments in acute hospital settings, in particular, the linkages with objective measures of quality nursing care and nursing-sensitive patient outcomes. Professional associations, unions and government agencies could utilise the study findings to support a business case for investments in nursing practice environments, based on advancing the agenda of quality care and patient safety.

PRESENTED

At the Trinity Healthcare Interdisciplinary Research Conference in November 2015.

FUNDING

This research has received funding from the Nursing and Midwifery Planning and Development Unit in Dublin South, Kildare and Wicklow.

The Burden of Uncontrolled Diabetes on the Acute Hospital Services in Ireland 2008-2013. An Important Prevention Quality Indicator

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Health Intelligence Unit, Health and Wellbeing, HSE, Palmerstown, Dublin 20[1]
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INTRODUCTION

Diabetes mellitus is a common chronic condition that, if poorly controlled, can cause significant morbidity and mortality. It is expected that the number of persons with diabetes in Ireland will rise given the increase in two major risk factors associated with diabetes, i.e., an ageing population and increasing obesity. This study examines the impact of poorly controlled diabetes on emergency hospital admissions in Ireland.

METHODOLOGY

Emergency in-patient admissions with a principal diagnosis of poorly controlled diabetes were obtained from Hospital In-Patient Enquiry (HIPE) database for adults (aged 18+yrs) from 2008-2013. The ICD-10 AM codes used included the following:-

E10.0 & E11.0- Type I & Type II - hyperosmolarity
E10.1 & E11.1 - Type I & Type II - acidosis
E10.64 & E11.64 - Type I & Type II - hypoglycemia
E10.65 & E11.65 Type I & Type II - poor control

All statistical analyses were carried out in SPSS and Stats-Direct.

RESULTS

There were 12,695 emergency hospital admissions for uncontrolled diabetes among those aged ≥18yrs. Although the number of admissions, median LOS and estimated costings decreased over the time period the costs were still substantial (See Table 1).

Although the estimated diabetes prevalence rate increased significantly over the time period (from 30.8 per 1,000 estimated diabetic population in 2008 to 33.8 per estimated diabetic 1,000 population in 2013, Cuzick trend analysis, $p=0.02$) there was a contrasting decrease in the rate of emergency admissions for poorly controlled diabetes (from 37.7 per 1,000 diabetic population to 34.5 per 1,000 population ($p=0.03$). (See Figure 1).

Patient profile of those admitted with poorly diagnosed diabetes:

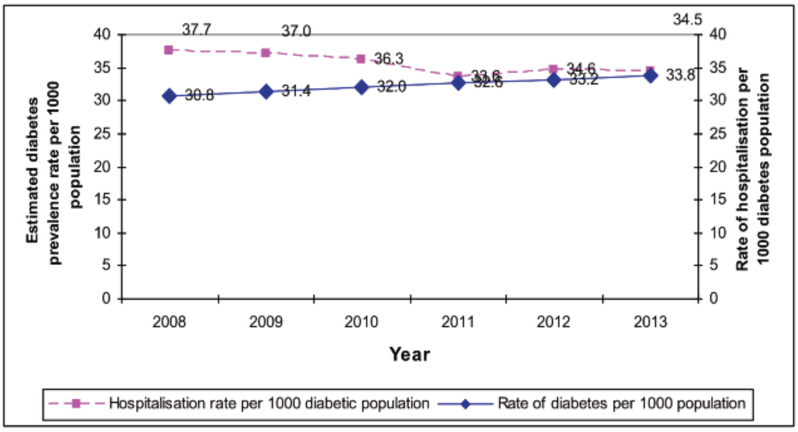
The majority of the patients were male (n=6,991, 55.1%) and the most common age group was the 35-44 age group and the mean age was 53.7 (S.D. 21.1) years. The male patients were significantly younger than the females (52.9 years vs. 54.9, years, $p<0.001$).

Table 1 - Burden of Emergency Uncontrolled Diabetes Admissions on Acute Hospital Services

Year of Hospitalization	No. of Emergency Admissions	Median LOS (in days)	Total Bed Days	Estimated in Hospital Costs*
2008	2,240	4	15,373	€12,696,410
2009	2,149	4	15,829	€13,553,614
2010	2,099	3	13,772	€11,754,841
2011	1,958	3	13,461	€11,127,745
2012	2,098	3	13,700	€10,732,088
2013	2,151	3	12,286	€11,262,916
2008-2013	12,695	3	84,221	€71,127,613

*Estimated cost based on diagnostic related group (DRG) costings

Figure 1 - The Age Standardized Rate Per 1,000 Population for Estimated Emergency Hospitalization for Poorly Controlled Diabetes per 1,000 Population (Non-solid Line) Compared to the Estimated Diabetes Prevalence Rate (Solid Line)



CONCLUSIONS

This study found that the hospitalization rates for poorly controlled diabetes have reduced significantly over the study period whilst the estimated prevalence of diabetes has been increasing. However, the burden of these admissions is still substantial. A study in the UK found that higher quality of diabetes management in family practice was associated with a reduction in unplanned diabetes admission. Improved diabetes management in primary care in Ireland should have the same benefit. Although factors such as poor patient adherence to treatment may be the reason for some of the unplanned emergency hospital admissions, it is likely that these emergency admissions are also highlighting the lack of ambulatory care in the community. Given the increasing prevalence of diabetes in Ireland, it is imperative that structures are in place to reduce hospitalizations for the diabetic patient.

PRESENTED

At the Royal Academy of Medicine in Ireland Section of Epidemiology and Public Health Medicine at the Royal College of Physicians in Ireland, Dublin

news & events

News & Events

Research Bulletin
Volume 7 Issue 3

| CONTENTS |

Sylvester O'Halloran

24rd Sylvester O'Halloran Perioperative Scientific Symposium

Friday 4th and Saturday 5th March 2016

The Graduate Entry Medical School
Faculty of Education and Health Sciences
University of Limerick
Friday, 4th March 2016

Sylvester O'Halloran Lecture

Professor Freddie Wood, President of Irish Medical Council

The Inaugural Sylvester O'Halloran Debate

Teams from Beaumont Hospital Dublin
&
National University Hospital Galway
Saturday, 5th March 2016

Sir Thomas Myles Lecture will be presented by

Mr Joe Duignan
'Limerick Doctors in World War I'

Sessions Overview

Clinical, Plenary Prize, ASGBI Paper Prize,
Orthopaedic, Anaesthetic, ENT & General Surgery

ASGBI/SOH Published Paper Prize & Session

Top three papers presented will be invited to present
at ASGBI Annual International Surgical Congress, Belfast 2016

For more information

kara.leddin@hse.ie

sylvester-ohalloran-2016

2015 SYLVESTER O'HALLORAN PERIOPERATIVE SCIENTIFIC SYMPOSIUM LIMERICK

The 23rd Sylvester O'Halloran meeting took place on Friday 6th and Saturday 7th March in the Graduate Entry Medical School Building at the University of Limerick.

Professor Michael Larvin, Ms. Anne Merrigan, Mr John Moorehead

Mr Paul O'Byrne, Mr Adrian O'Sullivan, Mr Gerry Byrnes, Dr Edward Kiely

Professor Calvin Coffey, Mr Gerry Byrnes, Dr Aoife Lowery

Our meeting this year included a Festschrift to Professor Pierce Grace. It was chaired by Mr Paul Burke and the speakers were Professor O James Garden, Regius Professor of Clinical Surgery, Clinical Surgery, University of Edinburgh, Professor Paul Finucane, Foundation Head, Graduate Entry Medical School, University of Limerick and Mr John Moorehead, President of ASGBI.

Mr Edward Kiely, Consultant Paediatric Surgeon at Great Ormond Street Hospital, London delivered the Sylvester O'Halloran Lecture. The title was *"Paediatric Surgery – the Art and the Possible"?*

Sir Thomas Myles Lecture was delivered by Mr Brendan Moran, Lead Surgeon, Colorectal Unit at Basingstoke Hospital, UK *"Improving Outcomes in Colorectal Cancer: Aggregation of Marginal Gains."*

The now established ASGBI best published paper prize was awarded Terri McVeigh, Postgraduate Researcher, Discipline of Surgery , National University of Ireland Galway. The title was "The impact of Oncotype DX testing on breast cancer management and chemotherapy prescribing patterns in a tertiary referral centre."

Katie O'Sullivan, Institute of Molecular Medicine, St James's Hospital, Dublin 8 was successful in winning this year's Sylvester O'Halloran prize for best research presentation in the Plenary Session. The title was "Investigation of the role of STAT3 signalling in obesity-associated adenocarcinoma of the oesophagus."

Katie O'Sullivan and Professor Calvin Coffey

This year we gave a distinction to Christina Fleming, Breast Research Centre, Cork University Hospital and the Poster Prize was won by Helen Mohan from the RCSI.

Helen Mohan and Professor Calvin Coffey

Professor John Fenton organised and co-chaired a very successful and interactive Head and Neck Session of presented papers. The second co-chair was Professor Aongus Curran from the Department of OHNS, St Vincent's Hospital.

Robbie Woods, Department of Otolaryngology, Royal Victoria Eye and Ear Hospital won the Senior Presentation Prize and Thavakumar Subramaniam, Department of Otolaryngology, Sligo Regional Hospital won the Junior Presentation Prize. The Head & Neck Poster Prize was won by Ciara Nolan, University of Limerick.

The orthopaedic sessions provided interesting debates on many of the presentations and posters. The chairs were, Mr Dermot O'Farrell, Mr Lester D'Souza, Mr T. E. Burke and Mr Brian Lenehan.

The prizes were presented by organiser Mr Dermot O'Farrell, Consultant Orthopaedic Surgeon, Limerick and they were awarded as follows:

- Orthopaedic 1st prize went to Olan Carmody, Cappagh National Orthopaedic Hospital.

Mr Olan Carmody and Mr Dermot O'Farrell

- Orthopaedic 2nd prize went to Siobhan Coyle, University Hospital Limerick
- Orthopaedic Poster prize was won by Paula McQuail from Our Lady's Hospital, Navan.

The Anaesthesia papers were presented on Saturday and the prizewinners were Mohamed Alhomary, Department of Anaesthesia and Pain Medicine, University Hospital Limerick who won the O'Shaughnessy Prize, and Andra Mikor, Department of Anaesthesiology and Intensive Therapy, University of Szeged, Hungary who won the Anaesthesia Poster Prize.

Overall, the meeting was well attended and much enjoyed by the many participants and attendees. Planning is underway for next year's meeting.

FURRY FRIENDS TREATED AT UL GEMS TEDDY BEAR HOSPITAL

Hayley Ryan and Kiera Keane, St Munchin's Girls School at the annual Teddy Bear Hospital

Yeshua ImanTofal from from Milford National School

Medical School students at the University of Limerick hosted the University's annual Teddy Bear Hospital (TBH) on March 18th, 2015 with over 400 Limerick primary school children from six different schools and their teddy bears. The aim of the event, which has been organised by six current Graduate Entry Medical School (GEMS) students with a particular interest in childhood medicine, is to alleviate childhood anxiety about the medical environment, its procedures and the professionals that work within it.

Alex Viau, UL Medical Student and James Kane from Saint Michael's Infant School at the annual Teddy Bear Hospital

| CONTENTS |

Over 130 1st and 2nd year medical students took part in the event which saw 10 medical stations set up in the University Arena focusing on activities including: Triage; Stethoscopes; Vital Signs & Vaccine Safety; X-ray; Exercise; Surgery/Gowning; Asthma; Safety; First Aid; Ear Nose and Throat and Healthy Eating.

David Maher and Edan Haran from Milford National School

Speaking from the event UL GEMS student Jennifer Schacter said "this is our third annual Teddy Bear Hospital at UL. Our main goal this year was to expand the number of primary schools we were able to invite to the event. The idea of the event remains the same - primary school students bring their teddy bear which then plays the role of the patient for the day. This visit to the Teddy Bear Hospital provides the children with an opportunity to interact with and assist in a range of simulated healthcare settings, while also allowing them to learn about healthy habits, like the importance of eating well and exercise."

Quentin Barry, UL Medical School and David Maher, Milford National School

The promotion of a healthy lifestyle and preventative medicine was at the forefront of this educational and fun event. The topics covered included the importance of regular exercise, thorough hand-washing techniques and a healthy diet. It is also hoped that this initiative will strengthen the relationship of UL GEMS and its students with the surrounding community.

Speaking about the Teddy Bear Hospital, UL President, Professor Don Barry said, "This is just the third year that UL has run this event and already it has grown in terms of attending schools. 'Bearing' in mind the fact that the Graduate Entry Medical School was only recently established and that its students are undertaking a highly intensive medical education programme it is remarkable that this type of initiative has developed so early in the School's history. It is a testament to the type of student that the Medical School at the University of Limerick attracts."

RESTORE CONFERENCE 2015 - IMPLEMENTING MIGRANT CARE INITIATIVES, BEYOND LANGUAGE AND CULTURAL BARRIERS AT THE UNIVERSITY OF LIMERICK

Pictured at the RESTORE Conference 2015, Implementing migrant care initiatives, beyond language and cultural barriers' at the University of Limerick were Maria Manuela De Almeida Silva and Marta Wilczynka both Restore migrant representitives and Professor Anne MacFarlane, Graduate Entry Medical School, UL

This conference was designed to bring migrants, academics, primary care providers and policy makers together to discuss research to improve communication in cross-cultural consultations. It was held in the Graduate Entry Medical School at the University of Limerick on Thursday and Friday, March 26th and 27th, 2015.

The first plenary session included migrants outlining their own difficulties, describing consultations with their GPs or primary care nurses and how language barriers and cultural differences effect these interactions.

"Health research about migrants needs to involve migrants' voices. Even though this is recommended across countries, it rarely happens. Migrants' involvement was a major feature of the EU funded RESTORE project," said Professor Anne MacFarlane, Graduate Entry Medical School, University of Limerick.

Delegates from seven different countries (Europe and North America) attended the conference and enjoyed the opportunity for dissemination and networking.

UL STUDY FINDS LINK BETWEEN BOREDOM AND UNHEALTHY EATING

Studies undertaken by a team of researchers at the University of Limerick, in conjunction with the University of Southampton and the University of Kent, have shown that the experience of boredom can lead to unhealthy eating, especially when people are aware of their own self. These studies have just been published in a top tier international open access journal, Frontiers in Psychology.

The series of studies indicate that boredom leads to unhealthy eating, as it helps to distract from the unpleasant boredom experience. The research project involved a diary study and two experiments to measure the correlation between boredom and unhealthy eating. The week-long diary study showed that boredom predicted calorie, fat, sugar and protein consumption. The experimental studies showed that boredom increased the desire to consume snacks as opposed to healthy foods, and that boredom increased the actual consumption of less healthy foods but also the consumption of healthy foods, if they were exciting (cherry tomatoes).

This research is part of a larger research programme on boredom experiences and their consequences. As Wijnand A.P. van Tilburg and Eric R. Igou have demonstrated in the past, boredom is a threat to people's meaning system as it signals to them the meaninglessness of their activities and the current situation. People are then relatively creative to compensate for this negative experience, and the recent research on eating behaviour reflects such a compensatory strategy.

In summary, these results show that maladaptive and adaptive eating behaviours are consequences of the need to distance the self from the experience of boredom. Further, healthy food seems to serve as alternative to maladaptive consumption following boredom, if the food is exciting enough.

Lead researcher, Andrew B. Moynihan, explains: "People eat these foods in order to escape the unpleasant boredom experience as it reminds them of the meaninglessness of the situation. Therefore, these boredom effects on eating are more pronounced for people who are highly aware of their experience. Luckily, there is hope. The unhealthy consequences of eating can be avoided if healthy, exciting food is available to people who feel bored."

NURSING AND MIDWIFERY RESEARCH AND INNOVATION CONFERENCE, STRAND HOTEL, LIMERICK - APRIL 2015

The inaugural Nursing and Midwifery Research and Innovation Conference took place in the Strand Hotel, Limerick on April 29th, 2015.

The conference showcased nursing and midwifery practice research and innovation. Keynote speeches were delivered by Ms. Mandie Sunderland and Professor Julie Jomeen.

L. to R: Ciara White, Paula Kavanagh, Mandie Sunderland, Anne Gallen, Martina Giltenane and Gillian Conway.

Ms. Mandie Sunderland is Chief Nurse at Nottingham University Hospital NHS Trust in the United Kingdom. Mandie is a Registered General Nurse who has gained the majority of her clinical experience in intensive care environments.

Conference Committee L. to R: Noreen O'Regan, Margaret Crowley-Murphy, Dr. Fiona Murphy, Maura Fitzgerald

Her passion has always been the delivery of high quality fundamental nursing care and she has been a champion for the development and implementation of nursing and midwifery performance management systems.

This work has enabled her to provide support in many healthcare settings both in the UK and Ireland to colleagues setting up their own professional quality monitoring systems.

In her keynote address Mandie focused on nursing and midwifery metrics and what lessons might be learnt from the UK experience.

The second keynote speaker was Professor Julie Jomeen, Professor of Midwifery and Head of the Department of Maternal and Child Health and Psychological Health and Well-Being in the Faculty of Health and Social Care at the University of Hull, United Kingdom. She currently leads a Research Development Group for Maternal, Reproductive and Sexual Health within the Faculty. A key focus of her work is exploring issues of perinatal mental health and psychological health outcomes in childbearing women.

The conference offered participants a great opportunity to network with peers and to review a variety of papers and

| CONTENTS |

posters showcasing Nursing and Midwifery Research and Innovation in the Region including a Master-Class in Nursing and Midwifery Metrics.

UL CELEBRATES CONFERRING OF 156 STUDENTS OF MEDICINE AND CLINICAL THERAPIES - 106 DOCTORS GRADUATE FROM UL'S GRADUATE ENTRY MEDICAL SCHOOL

Pictured are Special Distinction Awards recipients from left to right, Jennifer Johnson, First Prize in the Discipline of Obstetrics and Gynaecology; Aine Fox, Swords Co. Dublin, First Prize in the Discipline of Paediatrics; Carla Henderson, Canada, First Prize in the Discipline of General Practice/ Primary Care; Deirdre Smith, Kilbride Co. Meath, First Prize in the Discipline of Psychiatry; Emma Tierney, Ennis Co. Clare, First Prize in the Discipline of Medicine and winner of overall student prize; and James Dalrymple, Curragha Co. Meath, First Prize in the Discipline of Surgery

The University of Limerick celebrated the graduation of 156 students today from the Graduate Entry Medical School (GEMS) and Clinical Therapies Department. Among the graduates 106 doctors were conferred with their medical degrees as they became the 5th graduating class of the Graduate Entry Medical School at the University of Limerick. A total of 50 Clinical Therapies graduates received their awards - 24 from the MSc in Occupational Therapy and 26 from the BSc in Physiotherapy, the 10th graduating class of the Physiotherapy programme at UL.

Special Distinction Award recipient, James Dalrymple, Curragha Co. Meath, First Prize in the Discipline of Surgery

Established in 2007, the Graduate Entry Medical School Programme at UL is open to graduates from any discipline and employs practical and interactive approaches to learning.

Special Distinction Award recipient, Deirdre Smith, Kilbride Co. Meath, First Prize in the Discipline of Psychiatry

Among the doctors who graduated at UL today are students with undergraduate degrees varying from zoology, business, law, languages and sociology. The programme is also the only medical education programme in the country founded on the modern pedagogical principles of Problem Based Learning (PBL). PBL encourages team-working and self-directed enquiry, both skills being vital for their future careers in the fast moving world of medicine.

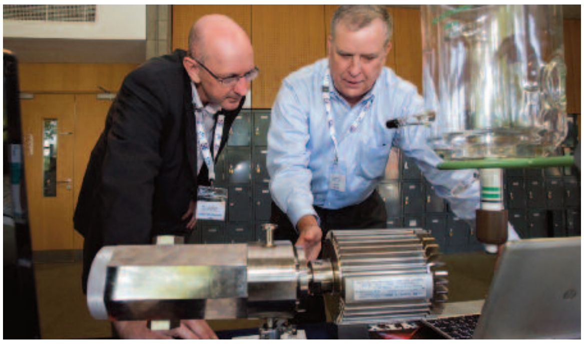
Special Distinction Award recipient Emma Tierney, Ennis Co. Clare, First Prize in the Discipline of Medicine and winner of overall student prize. Picture: Alan Place/FusionShooters

Speaking at the conferring ceremony Professor Don Barry, UL President, paid tribute to the Health Service Executive, "I'd like to acknowledge the support of the healthcare community – the many practices, clinics and hospitals, their consultants, doctors, nurses, therapists, managers and all of the healthcare professionals who gave so willingly of their time to engage our students and allow them their first glimpses into their future careers. I would like to pay particular tribute to the Health Service Executive and to express my appreciation for the support that we have received from its staff at local, regional and national levels. We are looking forward to the opening next September of the Clinical Education and Research building, a shared facility to be located on the University Hospital Limerick campus which will enhance the delivery of our healthcare programmes but also support the postgraduate education services required by the University Hospital Limerick community.

The four-year Bachelor of Science in Physiotherapy is the only academic physiotherapy programme in Ireland outside of Dublin. The programme is accredited by the Irish Society of Chartered Physiotherapists and this year celebrates the 10th year of Physiotherapy Graduates. The Masters of Science in Occupational Therapy is the only graduate-entry Occupational Therapy course in the country and is accredited by both the Association of Occupational Therapists of Ireland and by CORU, Ireland's multi-professional health regulator.

"Today 50 graduates from Clinical Therapies will cross the stage to receive their degrees. These qualifications represent many years of study, thousands of hours in work placements and gruelling assessments; 26 students have completed the four-year Bachelor of Science in Physiotherapy - the only academic physiotherapy programme in Ireland situated outside of Dublin; 24 students have also graduated from the Masters of Science in Occupational Therapy, the only graduate entry Occupational Therapy course in the country. Increasingly, health systems are trying to address health needs in the community and primary care settings to reduce the need for costly hospital-based services. Building on this trend, our Masters course is unique as it assists modern healthcare practitioners to evaluate their practice and extend, or refocus, their skills and knowledge to meet the new challenges of healthcare provision," said Professor Don Barry.

IRISH RESEARCH CENTRES LEAD THE WAY FOR NEXT GENERATION MEDICINES MANUFACTURE - WORKING TOWARDS LOWER COST AND HIGHER QUALITY MEDICINES



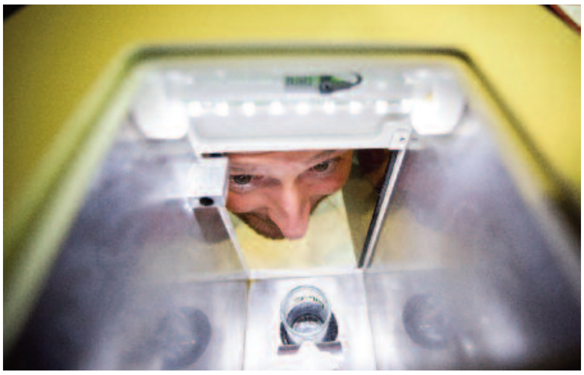
Attending the event were, James McNamara, SSPC and Tod Canty, JM Canty examining a vision based dynamic imaging system to look at particles size, shape and concentration

On June 10th and 11th, 2015 over 100 Irish and international world-leading academic and industrial pharmaceutical scientists attended the first annual SSPC-PMTC Process Analytical Technology (PAT) conference, hosted by SSPC and PMTC at the University of Limerick.

The conference showcased how the global pharmaceutical industry is using PAT research innovations to produce lower cost and higher quality medicines.

James McNamara, SSPC, Professor Kieran Hodnett, SSPC, Dr. Patrick Frawley, SSPC and Professor Gavin Walker, SSPC & PMTC

Dr. Patrick Frawley, SSPC, UL, conference co-organiser said: "The changing world economy and healthcare scene has resulted in pressure to reduce the price of medicines. Economic and health benefits can be derived from more innovative manufacturing in the pharmaceutical sector potentially leading to savings of tens of billions of euros annually. PAT is key player in such innovative pharmaceutical manufacturing. PAT research innovations, such as those delivered by the SSPC and PMTC, are key enablers of manufacturing pharmaceutical products in a faster, better and cleaner way, which not only reduces the manufacturing cost of medicines, but also increases the quality of medicines delivered to the public."



Professor Gavin Walker, examines a Bards analytic instrument for powders, blends and tablets during the event

Delegates at the conference heard from globally leading PAT scientists and their next generation medicine manufacturing innovations and practices. The conference included showcases from PAT scientists based at the SSPC and PMTC in the University of Limerick, University College Cork and University College Dublin; University of Cambridge; University of Auckland; Teedside University; Ghent University; and VTT Finland; as well as industry PAT practices from SSPC/PMTC industry partners Roche, GlaxoSmithKline, Pfizer, Eli Lilly, Merck Sharp & Dohme, Janssen and Abbvie - seven of the top pharmaceutical companies in the world. A site visit to SSPC/PMTC industry partner Roche, based in Clarecastle, Co. Clare, demonstrated how cutting-edge PAT research is being exploited by the pharmaceutical industry in Ireland.

Professor Gavin Walker SSPC/PMTC, UL conference co-organiser said:

"The SSPC-PMTC Process Analytical Technology (PAT) conference is the first of its kind in Ireland. This conference provides a unique opportunity to both Irish and interational academic and industrial pharmaceutical scientists to exchange knowledge and practices, within a collaborative environment. This openness is a culture that is actively fostered by the SSPC and PMTC, and is of critical imporance to the future development of the global pharmaceutical sector. We look forward to future conferences and opportunities to share, learn and collaborate with our international colleagues."

The SSPC-PMTC Process Analytical Technology (PAT) conference was funded by Science Foundation Ireland's (SFI) Conference and Workshops Award 2015, sponsored by the SSPC and PMTC, and hosted by Roche and the University of Limerick.

With approximately 120 (bio) pharmaceutical companies and nine of the world's top ten pharmaceutical companies based in Ireland, pharmaceutical manufacturing contributes significantly to Ireland's economy. It employs over 25,000 individuals directly and 24,500 indirectly and contributes over 50% of all Irish exports, making Ireland the second largest pharmaceutical exporter in the world.

The Synthesis and Solid State Pharmaceutical Centre (SSPC), a Global Hub of Pharmaceutical Process Innovation and Advanced Manufacturing, funded by Science Foundation Ireland and industry, is a unique collaboration between 22 industry partners, 9 research performing organisations and 12 international academic collaborators. The SSPC leads the way for next generation drug manufacture and spans the entire pharmaceutical production chain from synthesis of the molecule, to the isolation of the material, and the formulation of the medicine.

The Pharmaceutical Manufacturing Technology Centre (PMTC) is hosted by the University of Limerick with core funding of €1M per annum from the Irish government (Enterprise Ireland and IDA Ireland). Income is supplemented with co-funding from industry and other public sources. The PMTC is focused on delivering advanced technology solutions to address contemporary issues in pharmaceutical manufacturing.

To find out more information go to http://www.sspc.ie/PAT_workshop or contact James McNamara, SSPC Industry Liaison Officer.

PRESENTATION BY PROFESSOR MARIE CASSIDY, STATE PATHOLOGIST IN UHL 2015

Professor Marie Cassidy, Chief State Pathologist, Ireland, and Professor of Forensic Medicine in the Royal College of Surgeons of Ireland pictured at University Hospital Limerick with Professor Austin Stack, Director Designate of the Health Research Institute (HRI) at the University of Limerick

Professor Marie Cassidy, Chief State Pathologist, Ireland, and Professor of Forensic Medicine in the Royal College of Surgeons of Ireland was a guest speaker at an event organised by Professor Austin Stack, Director Designate of the Health Research Institute (HRI) at the University of Limerick on June 19th, 2105. The HRI is a cross faculty institute that brings together researchers in the University of Limerick and its partner institutions with a focus on convergent and translational health research. The title of Professor Cassidy's presentation was "Trust me I'm a Forensic Pathologist."

Professor Cassidy has been a Forensic Pathologist for over 27 years. She held the professorship of forensic medicine at the University of Glasgow before moving to Ireland in 1998 to take up the position of Deputy State Pathologist. She was appointed to the position of State Pathologist in January 2004, succeeding Dr. John Harbison to become the first female State Pathologist.

She teaches medical students forensic science at the RCSI, and has been a clinical supervisor for GEMS medical students at the University of Limerick over the past few years.

As part of her forensic work she has been involved with the U.N. since the mid 1990's. She has travelled to Bosnia on several occasions, as well as to Croatia and latterly to Sierra Leone as part of a team involved in the investigation of war crimes. She has also acted as a consultant to the television crime series Taggart. A character in the book 'The Human Body' is based on her.

THE WORLD MEDIGAMES CLOSES ON A HIGH NOTE AT UNIVERSITY CONCERT HALL

The 36th World Medical and Health Games was officially opened by Minister Jan O'Sullivan at the University of Limerick on Sunday 19th July

The 36th World Medical and Health Games closed on a high note on Friday July 24th with the singing of Nelle Fantasia and the noisy cheering of happy sports and soccer teams from as far away as Argentina, Chile, Brazil, Peru and Algeria at a special ceremony where Deputy Metropolitan Mayor, Shane Clifford officially closed the Games. The event which ran for 6 days, with 1,000 participants and friends and covered over 20 sports from fencing to triathlon, was declared a resounding success by all. The MD of the organising company, CSO Paris, Pierre Luischini declared that Limerick was one of the best venues with the best local organisation in the history of the Games which have been held 36 times. He said "it really was our own superb Medigames Olympic Village for the week."

The event was made possible with the support of Fáilte Ireland, the University, Limerick City and County Council, Shannon Airport and Shannon Conference and Sports Bureau, together with many local clubs and campus suppliers. Four complex cycle stage races covered over 350kms of Limerick and Clare countryside while triathlon, half marathon and cross country were held on the vicinity of the campus. Limerick County Athletic Club, Limerick Lawn Tennis, Ballyneety and Castletroy Golf Clubs all came on board to create a great welcome and a great event for the participants who were high in their praise of the way they were received in Limerick.

The city rocked each night with entertainment while tour companies enjoyed a good boost with several hundred visiting the Heritage attractions of Bunratty, King John's Castle and the Burren on day trips throughout the week.

Professor Larvin, the official host at UL for the week of the Games who chaired a symposium which formed part of the week on the benefits of sport on our health, declared the event not only a great event for the region but also a great networking opportunity for UL to promote both its Graduate Medical School and its research in sports science. The symposium featured contributions from Dr. Phil Jakeman, Department of Sports Science UL, Dr. William O'Connor, Graduate Medical School and Dr. Elaine Murtagh, Physical Education, Mary Immaculate College, UL.

Linda Stevens, local Project Director UL, said that "while the Games had been one of the most challenging events undertaken by UL in recent years, it is a great endorsement for what Team UL and Team Limerick can achieve together and is a great advertisement of what Limerick and the region offers to large sporting events with venues like the University Campus and its expertise in event organisation.

UL RESEARCH LINKS TALLNESS TO INCREASED RISK OF PREMATURE DEATH ON DIALYSIS

"We believe that nephrologists who care for tall patients should take this into consideration and ensure all patients are getting adequate dialysis." - Professor Austin Stack

Researchers from the Health Research Institute (HRI) at the University of Limerick and UL's Graduate Entry Medical School (GEMS) have found that although tall people in the general population tend to live longer than shorter people, the opposite appears to be true for patients with kidney failure receiving dialysis. The findings, which are published in a study appearing in an upcoming issue of the Journal of the American Society of Nephrology (JASN), could provide valuable information for kidney specialists.

Approximately 2 million patients in the world receive dialysis treatments. Patients with kidney failure who are on dialysis have life spans that can be one-fifth that of the general population, and it is important to identify individual patient characteristics that are associated with longer survival. While studies in the general population have shown that taller individuals tend to live longer, few studies have described the relationship between adult height and survival in patients undergoing dialysis in the United States. Dr. Mohamed Elsayed, MD, Departments of Nephrology and Internal Medicine, University Hospital Limerick; Dr. John Ferguson, PhD, GEMS and Professor Austin Stack, HRI, analyzed data on 1,171,842 patients who began dialysis in the United States from 1995 to 2008 and were followed for an average for 1.6 years. This represents the largest study ever published to examine in detail the relationship between height and premature mortality risk in dialysis patients.

Among the major findings:

- In contrast to studies in the general population, tallness was associated with higher premature mortality risk and shorter life spans.

- Overall, patients in the tallest categories had the highest risk of dying prematurely, although the association was stronger in men than in women, and the association was observed in white, Asian, and American Indian/Alaskan native patients, but not in black patients. (In fact, for black patients, increasing height was associated with a lower risk of premature death, as seen in the general population).

- This overall paradoxical relationship between height and premature death was not explained by concurrent illness, socioeconomic status, or differences in care provided to patients prior to or after initiating dialysis.

- The risk of death was even greater for taller patients who had received shorter dialysis treatment times.

- The results remained steadfast even when follow-up was extended to 5 years.

"Dialysis patients have extremely high premature death rates that are between 10- and 100-fold higher than in the general population, and height exerts an important quantifiable effect on dialysis patient survival," said Professor Stack, senior author of the study, Consultant Nephrologist at University Hospital Limerick and Director of UL's Health Research Institute. "It is an easily measured physical trait and our study using data from the US Renal Registry shows that it is an important prognostic marker for survival. Surprisingly, and in contrast to studies in the general population, taller patients experienced higher death rates than shorter patients, and this risk was further amplified for tall patients who received shorter dialysis treatments. As height is a component of body mass index, the relationship of body mass index with mortality in dialysis is almost certainly influenced by the prognostic contribution of height. Consequently, we believe that nephrologists who care for tall patients take this into consideration and pay particular attention to dialysis treatment times, thereby ensuring that all patients are getting adequate dialysis."

Dr. Stack and Dr. Ferguson are supported by grants from the Irish Heart Foundation on October 1st, 2015 and the Health Research Board of Ireland.

The study 'Association of Height with Elevated Mortality Risk in ESRD: Variation by Race and Gender was published online by the Journal of the American Society of Nephrology (JASN) at http://jasn.asnjournals.org/ on October 1st, 2015 and authored by Mohamed Elsayed MBBS, John Ferguson PhD and Austin G. Stack MD.

UL STUDY FINDS IRISH MOTHERS STRUGGLE TO RECOGNISE OVERWEIGHT OR OBESITY IN THEIR CHILDREN

Only 1 in 6 mothers of obese children recognize their child as obese

A University of Limerick study has found that mothers of overweight and obese children struggle to recognize their child as overweight or obese. The study reported on 7,655 mothers and their nine year old children using data from the national longitudinal study of children, Growing Up in Ireland. Study co-author, Professor Ailish Hannigan, highlighted that "while three quarters of overweight mothers and 60% of obese mothers in the study recognised themselves as overweight or obese, mothers of overweight or obese children were much less likely to recognise this in their child." Just 1 in 6 mothers of obese children classified their child as moderately or very overweight.

"Interestingly, overweight or obese mothers with accurate perceptions of their own weight were more likely to correctly classify their overweight or obese child", said study co-author, Dr. Helen Purtill. The public health significance of the study was highlighted by Dr. Kieran Dowd, Centre for Physical Activity and Health Research, University of Limerick "If mothers, who are the primary caregivers in the majority of Irish homes, are unable to identify their child as overweight or obese, it is unlikely that they will react or intervene to change this. This may result in continued weight gain throughout the remainder of childhood and adolescence into adulthood."

"Open and honest discussions between health professionals and parents about the child's weight status should be encouraged", said study co-author Professor Clodagh O'Gorman, "together with practical strategies for helping the family maintain a healthy weight. Importantly, weight control measures aimed at children should be family-based and include all family members."

The research, which was published in the international journal Archives of Disease in Childhood was conducted by a multidisciplinary research team at the University of Limerick composed of Dr. Kieran Dowd (Department of Physical Education and Sport Sciences), Mr. Robert Kirwan (Graduate Entry Medical School), Professor Ailish Hannigan (Graduate Entry Medical School), Dr. Helen Purtill (Department of Mathematics and Statistics) and Professor Clodagh O'Gorman (Graduate Entry Medical School).

RESEARCH, KNOWLEDGE AND EVIDENCE DRIVING PATIENT SAFETY AGENDA, SAYS CHIEF MEDICAL OFFICER RESEARCH

Knowledge and evidence are at the heart of efforts to improve quality and patient safety in the health services, Chief Medical Officer Dr. Tony Holohan has told the third annual UL Hospitals Research Symposium in Limerick.

Dr. Holohan said that while risk could never be eliminated in clinical settings, evidence had to be continuously collected and applied to reduce it.

"In the interests of patients, we have to strive for a culture where, as a routine, we profile risk as it relates to patient safety; we investigate and respond to incidents when they occur; we learn the lessons that can be learned and we apply those lessons in order to minimise the risks of recurrence," Dr. Holohan said.

"Internationally, research and performance-derived data and information in this area is more limited than we might like. A recent meta-analysis of studies using the Global Trigger Tool has produced a new evidence-based estimate. In hospitals alone, preventable adverse events may kill more than 400,000 people per year in the US. In Ireland, a number of high-profile cases in relation to blood-borne virus transmission, vaginal hysterectomy and breast cancer and

| CONTENTS |

other high profile cases in relation to patient safety have impacted on society's trust. In more recent time the concern has focused on maternity services.

"Recent work undertaken by the Irish Medical Council and work undertaken by the Ombudsman has provided some analysis of patient complaints. Examining basic data and information derived from routine operations in this way creates a deeper understanding and intelligence from that data. What we need to see is this intelligence being created from all forms of information relevant to patient safety and being brought together to form a much higher level of intelligence and knowledge about the performance and safety of our health services. That is what I would call patient safety surveillance. Many individual organisations can create a piece of the jigsaw of patient safety within their own roles and remits. A system of surveillance would bring all the pieces together and complete the picture, thereby opening up new understanding, new insight and a more intelligence-led response in research, policy and operational terms to the patient safety challenges that we face."

Dr. Holohan said recent and forthcoming initiatives around quality and patient safety were being introduced in this spirit.

"The publication by the Department of Health of a suite of eight prioritised and quality assured national clinical guidelines is a critical step towards the delivery of consistent, safe, evidence-based care across the country and these will sit alongside a significant programme of patient safety legislation which is underway. The government will shortly publish a general scheme for the Health Information and Patient Safety Bill, which will deal with the sharing of information between regulators, clinical audit, quality assurance, adverse event reporting, open disclosure and a number of other matters relating to patient safety. It will also include a more streamlined ethics approval process for health research not already governed by statutory regulation or EU law."

Dr. Holohan's address also touched on how the fruits of clinical research could prove a huge challenge to modern healthcare systems, particularly on cost grounds.

"Once upon a time, perhaps before the wars, medicine was limited by lack of technical know-how and a limited understanding of the causation and progress of disease. It was more, if you like, about care than cure; and care for those who could not afford to pay a doctor was provided by religious organisations or other voluntary bodies. There was little reason or rationale for the state to become involved in the delivery of healthcare.

"As science developed, and more and more surgical and medical interventions became possible, the challenge became to ensure they were distributed as quickly and as widely as possible. The state became involved.

"However, expansion of technology and services was not limited by cost to any appreciable extent. This is no longer the case. We have entered a third era in which the ability to provide fully comprehensive services for all the demands and needs - and a level of quality which we would individually expect and at a price which we as a society are willing to pay, whether that is directly out of pocket or indirectly through tax or insurance - is becoming more and more limited. And this is by no means a uniquely Irish problem. During the second half of the 20th century and in the early years of this century, all developed countries have experienced changes in the relationships between health professionals and society. A large number of effective therapeutic interventions have been developed and, taken together with the ageing population and the burden of chronic health problems, this has resulted in competing demands for the limited financial resources available for healthcare.

"That is part of our everyday reality. As professionals, our first obligation is to understand and accept this. We must then, through the acquisition and development of knowledge through research and innovation, better prevention, improved integration of care, more evidence-based and judicious use of treatment and technologies, try to ensure that the manner in which the resources we have are applied to all patients in our care and in our community, and not just the patient in front of us, so as to ensure the greatest possible benefit for all."

Dr. Holohan was speaking at the third annual UL Hospitals Research Symposium at the Strand Hotel on October 9th, 2015.

Chair of the organising committee, Professor Austin Stack, Foundation Chair of Medicine, University Hospital Limerick and Director Designate of the Health Research Institute at UL, commented: "It is a hugely important event in the calendar and life cycle of UL Hospitals and an event which gives us a huge opportunity to showcase and profile the breadth and depth of research being conducted on the hospital campus and indeed with our partners University of Limerick, in primary care and community care."

This year's symposium was the biggest to date with over 190 submissions accepted from the research community. In addition to the 18 oral presentations, the four keynote speakers at the event were:

- Dr. Tony Holohan, Chief Medical Officer at Department of Health and Children, Dublin, Ireland

- Professor Laurie Morrison, Robert & Dorothy Pitts Research Chair in Acute Care and Emergency Medicine, Professor and Clinician Scientist in the Division of Emergency Medicine, Department of Medicine at the University of Toronto and Li Shing Knowledge Institute at St. Michael's Hospital, Canada

- Professor Calvin Coffey, Foundation Chair Surgery, Graduate Entry Medical School, UL and Consultant General and Colorectal Surgeon, University Hospitals Limerick, Ireland

- Professor Fergus Shanahan, Professor and Chairman of the Department of Medicine at UCC, Ireland

CHALLENGES OF BUILDING A WORLD-CLASS HEALTH SERVICE TACKLED AT UL INTERNATIONAL CONFERENCE

What innovations in healthcare should Ireland be looking to in creating a health service for the 21st century? How can we build healthier communities in tackling issues of physical activity, positive ageing and public participation in healthcare? What drug, surgical and diagnostic inventions will be available to the patients in the future? These questions and more were tackled at 'Health Revolutions' an international healthcare conference recently held at the University of Limerick.

Keynote speaker Michael Dowling, President and CEO, Northwell Health, USA represents one of the largest healthcare systems in the USA. Mr Dowling delivered a keynote address entitled 'Breaking with the status quo - Building a World-Class Healthcare System.'

Speaking at the conference, Michael Dowling highlighted the need for innovation in healthcare; "Every industry has had to transform, healthcare is no different." Dowling also pointed out the need to have "an extraordinary focus on the customer and the patient." When asked to highlight the most important area to focus on, Dowling added; "building a healthier community starts with our children."

Dr. Mary Shire, Vice President Research said: "The establishment of the Health Research Institute (HRI) is a cornerstone to the UL Research Agenda. We are building world-class multidisciplinary research teams with global reach who are tackling today's healthcare challenges. Health Revolutions provides a unique opportunity to bring leaders in healthcare across diverse areas together to discuss innovations of the future which will benefit patients and our society as a whole." Professor Austin Stack, Director, Health Research Institute and Consultant Nephrologist, University Hospital Limerick said; "We are delighted to welcome our panel of esteemed national and international speakers to discuss the challenges of health and well-being in Ireland."

The conference was chaired by Dick Ahlstrom, Science Editor, The Irish Times and includes speakers from USA, Australia and Ireland. The speakers included: Professor Stephen Smith, University of Melbourne; Dr. Thomas McGinn, Senior Vice President and Executive Director, Northwell Health; Dr. Peter K. Gregersen, Northwell Health, Feinstein Institute, USA; Keith Wood, W2 Consulting and Chair of Healthy Ireland; Niall O'Leary, Executive Director and Site Head, Regeneron Pharmaceuticals; Professor Michael Zaworotko, Bernal Chair of Crystal Engineering; Anne Connolly, CEO, Irish Smart Ageing Exchange; Professor Paul Finucane, Chief Academic Officer, UL Hospitals, Professor Calvin Coffey, Foundation Chair of Surgery, University of Limerick and UL Hospitals; Professor Michael Larvin, Head, Graduate Entry Medical School, University of Limerick; Conn Murray, Chief Executive, Limerick City and County Council and Director, Age Friendly Ireland; Katie Murphy, Cystic Fibrosis Ireland; Dr. Mary Shire, Vice President Research, UL; Professor Austin Stack, Director, Health Research Institute.
The Health Research Institute (HRI), University of Limerick (UL), brings together researchers with a focus on convergent and translational health research. The mission of the HRI is to conduct outstanding transformative research in order to improve the health and well-being of individuals, patients, communities and populations. The HRI research activity is structured around the areas of: Technology Enhanced Health Outcomes, Lifestyle and Health, Health Services Delivery For further information about the Health Research Institute go to www.ul.ie/hri email: hri@ul.ie

The activities of the HRI are supported by expertise in biostatistics, health informatics and health economics, and facilitated by the Clinical Research Support Unit (CRSU). The UL/UL Hospitals Clinical Research Unit (CRU) is the first agreed CRSU partnership and is located at University Hospital Limerick (UHL). Our goal is to provide a rich collaborative environment that fosters discovery and innovation in health science that will lead to better health, improved care and a healthier society.

The HRI will act as an enabler for researchers by allowing access to interdisciplinary research expertise across a range of departments which will develop a critical mass of researchers - interdepartmental, inter-institutional and international. The HRI will allow easier access to research leaders with significant track records as well as industry partners, patient cohorts and communities.

The HRI's objectives will support the scope and capacity of research within UL and with its partners. These objectives not only emphasise the importance of individual research, but of establishing a collaborative research network at the heart of our Health research community. We will pursue the following objectives in order to support the development of our Institute:

- Provide a focal point for health research activity within UL and for the university's external partners

- Develop a culture of collaborative, multi-disciplinary health research efforts

- Provide key enabling capabilities critical to the establishment of multidisciplinary research teams

| CONTENTS |

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