14th Annual Research Conference

November 29 2013 Research & Education Centre Sligo Regional Hospital



Conference Booklet











Sponsors:







Conference Chairperson: Dr. John Williams

9.00am Opening Address

Mr. Pat Dolan, Chairman, Research & Education Foundation

9.15am Presentations of Local Research Projects:

General practitioners' healthcare access in the north-west of Ireland.

Dr. Emma Harrington, General Practitioner

Developing a Mitochondrial DNA Platform for Skin Cancer Biomarkers.

Julia Powers, MSc Student, Institute of Technology Sligo

Sunbeds & UV exposure: The Attitudes of Sligo Teenagers towards tanning & Skin Cancer. Selene Daly, Clinical Nurse Specialist, Dermatology

SRH

Educational interventions for informal caregivers: Systematic Review &

Meta-analysis. Mette Jensen, Research & Education Foundation

A discrete-choice experiment to elicit the preferences of Irish patients for

osteoporosis drug treatment. Bernie McGowan, Senior Research

Coordinator, Dept of Rheumatology

The Role of Community Cardiac First Responders in Out-of-hospital Cardiac Arrests in Ireland. Dr. Eve Robinson, Specialist Registrar in Public

Health Medicine, HSE W

Percutaneous Endoscopic Gastrostomy (PEG) Feeding in Children with Disabilities: Exploring the Attitudes and Experiences of Parents and Healthcare Professionals. Dr. Sinead Glackin, Specialist Registrar, Dept of

Paediatrics, SRH

Flu Vaccine; Fact or Fiction? Dr. Louise Doherty, Consultant in Public Health

Medicine, HSE W

11.15 am Coffee break and Poster Viewing

11.45 am Keynote Talk I:

"Are we still making progress in Pulmonary

Hypertension?"

Prof. Sean Gaine, Consultant Respiratory Physician at Mater Misericordiae

University Hospital in Dublin.

12.30 pm Keynote Talk II:

"Can we prevent Alzheimer's Disease"

Prof. Brian Lawlor, Professor of Old Age Psychiatry at TCD and Consultant

Psychiatrist at St. James's Hospital

1.15 pm Closing Address

Mr. Bill Maher, Chief Executive, West / North West

Hospitals Group

1.30 pm Close

Key Note Speakers:

Prof. Brian Lawlor

Conolly Norman Professor of Old Age Psychiatry at Trinity College Dublin Consultant Psychiatrist for the Elderly at St James's Hospital, Dublin Clinical Director NEIL Programme Trinity College Institute for Neuroscience

Professor Lawlor's research interests are in the early detection, diagnosis and treatment of Alzheimer's disease, the neurobiology and treatment of behavioural and psychological symptoms in dementia and mental disorders in the community dwelling elderly. Prof. Lawlor has conducted clinical trials and cohort studies of Alzheimer's disease and cross sectional and longitudinal studies of community dwelling healthy older people and those with mental disorders. The overarching aims of Prof. Lawlor's research programmes are to develop clinical, neuropsychological and biological markers of Alzheimer's disease at the earliest possible stage, to test promising new interventions in clinical populations and to develop scalable strategies for brain health and dementia prevention.

Prof. Lawlor's research is carried out in partnership with disciplines from basic science and psychology, ranging from development of animal models of Alzheimer's disease to health service development, clinical trials and prevention. Prof. Lawlor is currently participating in a number of collaborative studies in biomarker development and disease modification in Alzheimer's disease. Prof. Lawlor is lead PI in the NILVAD, and FP 7 funded investigator driven clinical trial examining the effectiveness of nilvadpine a calcium channel blocker as a disease modifying treatment in Alzheimer's disease and has established the Irish Network for Biomarkers in Neurodegeneration (IN-BIND).

Prof. Lawlor has a particular interest in improvement of mental health outcomes in the elderly and was lead PI of the Social Connection Strand of TRIL, examining social engagement, loneliness and related mental health issues. He has conducted randomized controlled trials in loneliness and is the lead PI of the Enhancing Care in Alzheimer's Disease (ECAD) study, a long term study exploring the economic, psychological and physical impact of Alzheimer's disease for patients and caregivers. Currently funded projects in this area include a randomized trial of a relational intervention around nutrition and the study of stress and cognition in the caregivers of spouses of people with dementia.

Before returning to Dublin in 1991 to take up his current position Prof. Lawlor was Chief of Geriatric Psychiatry at Mount Sinai Hospital, New York.

Prof. Lawlor has published over 200 papers and has edited or co-edited five books on Old Age Psychiatry.

Prof. Sean Gaine

Prof Sean Gaine is Consultant Respiratory Physician at Mater Misericordiae University Hospital in Dublin. Following his graduation from medical school in Trinity College Dublin, Prof Gaine completed his residency and fellowship training at the Johns Hopkins Hospital, Baltimore, USA and subsequently held faculty positions at the Johns Hopkins Hospital, and at the University Of Maryland School Of Medicine. He established the Pulmonary Hypertension Center at the Johns Hopkins Hospital and subsequently a National Unit in Ireland on his return to Dublin. Prof. Gaine was the Chief Medical Officer for the Irish Olympic Team in Athens, Beijing and London.

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An Investigation into Stress, Perceived Stressors and Influencing Factors among Nurses working In the Critical and Non- Critical Clinical Environment.

Teresa Donnelly

General Theatre, SRH

Introduction

It is suggested stress is a factor that affects nurses on a daily basis leading to absenteeism, reduced efficiency, depression and a decrease in the quality of patient care (1). The economic downturn in Ireland has led to financial constraints in healthcare organisations. There is now a greater need for workforce flexibility. Working in this type of environment is potentially very stressful (2).

Aims & objectives

The aim of the study was to identify perceived stressors and influencing factors among nurses working in the Critical and non- critical care practice areas and to compare the findings.

Methodology

A quantitative survey design was employed using a convenience sample of 200 hundred nurses. Information was collected on demographics and participants were invited to rank nineteen questions that describe their daily nursing practice as to how stressful they perceived them.

Results

(67.5%) (n=135) completed questionnaires were received. The most severe stressor for nurses in both groups was redeployment to work in other areas. (64%) (n=86) of respondents rated this factor as a high stressor. The second highest stressor was staffing levels with (50%) (n=67) of respondents scoring it as causing high stress and just (1.5%) (n=2) rating it as causing no stress. Other high stressors included administrative duties, workload and provision of quality care. Communicating with the patient, family and nursing colleagues were the lowest scoring stressors with just (7%) (n=9) and (1.5%) (n=2) of respondents respectively considering them as a high stressor. Results from this study concluded that perceived stress was similar in both groups. It also reported that age and professional experience had no influence on stress perception.

Conclusion

Results from the current study could enhance the knowledge of nurse's occupational stress in Ireland. It may help individuals to recognise potential stressors and identify the most appropriate stress management skills available to them. Findings also provide information for hospital and nurse management to develop interventions to reduce stress for nurses.

- 1. Alves, S.L. (2005) A study of occupational stress, scope of practice and collaboration in nurses anaesthetists practicing in anaesthesia care tem settings. American Association of Nurse Anaesthetists journal. 73(6), pp.443-452
- 2. McCarthy, VJC. Power, S. and Greiner, BA. (2010) Perceived occupational stress in nurses working in Ireland. Occupational Medicine. 60(8), pp. 604-610.

General Practitioners' healthcare access in the north-west of Ireland

Harrington E, Walkin S.

Sligo Specialist Training Programme in General Practice

Introduction

Doctors train and work in a culture where they are expected to be healthy¹. Self-treatment is endemic². Many GPs do not have their own GP. A number of barriers to doctors accessing healthcare for themselves exist. There is a need for specific training for doctors in treating other doctors².

Aims & objectives

To identify factors affecting access to healthcare for GPs in the north-west of Ireland, estimate the prevalence of self-treatment in this group, and identify whether GPs feel there is a need for specific training for doctors to treat doctors.

Methodology

Cross-sectional study comprising an anonymous postal questionnaire distributed to 141 GPs in counties Sligo, Donegal and Leitrim.

Results

The response rate was 62%. 40% of respondents were aged 55 or over. 26% were single handed GPs. 62% had their own GP. 51% had worked when they felt they were too sick to work. 63% self-prescribed. Barriers to accessing healthcare included time away from the practice (74%), lack of locum cover (44%), family commitments (37%), fear of being treated differently as a doctor (31%), embarrassment about illness (28%) and confidentiality concerns (9%). Respondents were likely or very likely to attend a GP about red flag symptoms (84%), chronic illness (69%), a sick cert (38%), a general check-up (34%), and work related stress (18%). 80% felt GPs should have training in being a patient, 77% in treating doctors. Single handed GPs were significantly less likely to attend a GP about low mood [OR 0.18 (0.03-0.92) p=0.018] and more likely to think doctors have worse healthcare than non-doctors [OR 5.06 (1.4-19.2) p=0.004) than non-single handed GPs.

Conclusion

Results indicate a high prevalence of self-treatment, working when sick and a belief that doctors have worse healthcare, in this group. A majority think doctors should have training in being a patient and treating doctors. These results can inform planning of doctor health supports, and undergraduate and postgraduate medical curricula.

- 1. Junior doctors' experiences of personal illness: a qualitative study. Fox FE et al. Med Educ 2011 Dec;45(12)1251-61
 2. Doctors as patients: a systematic review of doctors' health access and the barriers they experience. Kay M et al, British
- Journal of General Practice 2008; 58: 501-508

Caring at home for a spouse/relative with Dementia: Male caregivers' experiences

Siobhan Healy McGowan

Department of Nursing, Health Sciences & Disability Studies, St Angela's College, Sligo

Introduction

As persons become older the possibility of developing dementia increases and this coupled with increased longevity will result in a significant percentage of the ageing population experiencing some form of dementia in the coming decades. The changing nature of society has resulted in the hitherto traditional carer—female family member/neighbour been unavailable to assume the caring role. Increasingly, men are therefore assuming the role of carer.

Aims & objectives

To explore the caring trajectory as experienced by male caregivers residing in the North West of Ireland caring for a spouse/relative with dementia. The objectives were (1) to explore the process of becoming and of being a male caregiver and (2) to explore the sources and perceived effectiveness of the supports utilised.

Methodology

A non-experimental qualitative research design, namely descriptive/exploratory was utilised. Purposeful sampling was deployed to generate a sample of thirteen male caregivers. In-depth, qualitative interviews were used to generate data which was subsequently analysed using thematical analysis. Ethical approval was received from the local Research Ethics Committee.

Results

The data revealed that male caregivers care in an insightful manner, striving at all times to maintain their spouses/relatives personhood. They require the assistance of a range of supports (informal & formal) to assist them achieve this goal. It transpired that there is a crucial need to raise awareness of the presenting features of dementia in the general public both to aid early warning signs being acted on in a prompt manner by caregivers and to ensure that members of the public respond appropriately to both persons with dementia and their caregivers. Obtaining an early diagnosis for a spouse/relative was essential in addition to obtaining timely appropriate information.

Conclusion

No standard caring trajectory emerged as all couplings (caregiver and spouse/relative) were unique both in their care needs and caregivers capacity to care. However, some commonalties did emerge.

Palliative Care & Haematology: Is it solely 'Blood, Toil, Tears & Sweat..?

V O'Reilly, C Bogan

Dept Of Palliative Care, Sligo Regional Hospital & North West Hospice

Introduction

Haematological patients typically have lower rate of specialist palliative care input and uncertainty around identifying transition to supportive care alone¹.

Objectives

To evaluate local referrals and palliative care service provision to patients with advanced haematological disease

To quantify documented symptom burden and palliative care interventions in this group with view to informing further service evolution

Methodology

Case notes of 39 referrals to palliative service with haematological diagnoses over a 20 month period underwent retrospective review with extraction of data pertaining to symptom burden, palliative input and service utilization. Outcomes included time from referral to death and documentation of ultimate place of death.

Results

A diverse range of advanced haematological conditions were identified.79.4%(n=31) died within timeframe examined with mean time from referral to death of 40 days(1-156). Referrals originated in acute hospital setting in 82%(n=32) of instances.

Symptom burden was substantial (median 5, range 1-9) with fatigue(69.2%, n=27), pain(58.9% n=23) and confusion(38.4%,n=15) featuring prominently. Identifiable psychosocial distress was documented in just under half of instances. 79.6%(n=31) had ECOG performance status of 3 or greater. At time of referral, 43.5%(n=17)continued on active chemotherapeutic intervention with over half(56.4%, n=22) receiving transfusion support .

Palliative service utilisation encompassed hospital support team input in 87%(n=34), community palliative care in 54.8%(n=22) and hospice inpatient admission in 39%(n=13). Over one fifth(n=7) engaged with all three dimensions of the service.

Death in hospital predominated at 41.6%(n=13) followed by 29%(n=9) in hospice. A smaller proportion(19%,n=6)died at home and within residential settings(6.4%,n=2)

Conclusion

Significant palliative care needs are identifiable within this patient cohort. Patients are referred late in disease trajectory often receiving active treatment. Greater engagement with palliative care locallythan is previously reported in the literature. Collaborative working with haematology using a shared care model and local service configuration may account for this.

References

1. Howell D et al, Haematological Malignancy? Are patients appropriately referred for specialist palliative and hospice care? A systematic review and meta-analysis of published dataPalliative Medicine 2010, 25(6)p630-41

Audit of the discharge process in the Medical Specialty

E. Carolan,

Nurse Practice Development Unit. SRH

Introduction

Effective discharge is an important part of the continuum of care. Nurse Practice Development Unit in collaboration with the Discharge Co-Ordinator conducted a concurrent study which followed the discharge of 37 patients in three medical wards.

Δim

To monitor discharge activity in accordance with the standards outlined in the HSE Code of Practice for Integrated Discharge Planning 2008.

Objectives

- 1. To monitor and evaluate documentation of Predicted Dates of Discharge (PDD's)
- 2. To determine timeframes incurred from decision to discharge to patient leaving ward
- 3. To monitor discharge activity to include time of patient review, letter/ prescription completion.
- 4. To establish the number of patients requiring transport to include time ordered and time patient collected

Methodology

Auditors followed the journey of all patients identified for discharge on the audit days. Each ward was visited at two hourly intervals to review patient progress and discharge activity.

Data was collected through

- Whiteboard review
- Staff interview
- · Review of Medical and Nursing Notes

Results

PDD's were established for a minority of patients (11-50%).

The majority of patients were discharged between 15.00hrs and 19.00. Only three were discharge by 11.00 hrs as per HSE standards.

Transport was booked on day of discharge.

Time of doctors rounds varied with completion of letters delayed.

Conclusion

The audit findings highlight significant time delays in progressing patient discharge.

Pdd's allow for effective planning for discharge. In the absence of same, discharge activity was not progressed until the day of discharge resulting in significant delays in patient flow.

Recommencations

- Establish PDD's within 24hrs of admission. Communicate to patient /family.
- Ensure whiteboard updated daily.
- MDT Structured meetings at whiteboard to plan and progress care
- Public awareness Campaign regarding discharge time
- Identify patients for discharge and complete letters on day prior to discharge.
- Book transport 24hrs in advance.
- Plan for 1-2 discharges every 2 hours from 11am.

"Sunbeds & UV exposure: the Attitudes of Sligo Teenagers towards tanning & Skin Cancer"

Ms Selene Daly (Dermatology CNS), Dr Miriam Fitzgerald (Dermatology Registrar),
Dr Dermot McKenna (Consultant Dermatologist)

Dermatology Unit, Sligo Regional Hospital

Introduction

The Dermatology team in Sligo Regional Hospital wished to establish the levels of UV exposure among teenagers. We also wanted to ascertain the attitudes teenagers held towards sunbathing and sunbed use. In addition, a 'Sun Awareness' education programme was delivered to 5 secondary schools in Sligo.

Aims & Objectives

Our aim was to investigate the behaviours and practices of teenagers with regard to UV exposure. Secondly, we wished to implement a 'SunSmart' education programme for these students (regarding the prevention of Malignant Melanoma and other skin cancers), as previously recommended by the National Cancer Registry Ireland (NCRI) in 2008.

Methodology

From March to May 2013, transition year students from five of the largest secondary schools in Sligo were visited. They participated in a questionnaire (see attached) which assessed their attitudes towards sunbed use and general sun exposure. An oral presentation based on the 'SunSmart' programme was then delivered to each of the 243 students.

Results

Questionnaires were completed by 243 participants aged between 15-17 years. The following information was obtained:

- >90% of students had been sunburned and only 50% regularly use sunscreen during summer months.
- While 10 participants had used sunbeds, worryingly 15% of those who had never used sunbeds advised they would consider using them in the future.
- 15.2 years was the average age of commencing sunbed use.
- 76.9% of the 243 students think that tanned skin looks healthier, with 73.2% thinking that it
 makes a person more attractive.
- 27% do not believe there is any danger associated with sunbed use.

Conclusion

We conclude that there is a high level of avoidable exposure to UV radiation among teenagers in the North-West. We have demonstrated the lack of awareness among this age-group regarding the link between sunbed use and skin cancer including Malignant Melanoma. Our study also highlights the need for the urgent passing of the Sunbed Regulation Act in the Republic of Ireland. The research also demonstrates the necessity for an immediate National Sun Awareness Programme for school and college students, as previously recommended by the NCRI.

Validity of the OGTT to allow early identification of women who will ultimately fail dietary intervention and progress to pharmacological therapy for gestational diabetes

D ODonoghue, C.M. McHugh

NUIG Medical School; Dept of Endocrinology SRH

Introduction

Gestational diabetes can associated with poor foetal outcome. Diagnosis is made by oral glucose tolerance test and early risk stratification would allow early and appropriate intervention.

Aims and objectives

This study aims to demonstrate that those individuals with gestational diabetes who will ultimately require pharmacotherapy with insulin/metformin compared to diet alone can be identified at the time of diagnosis with higher glucose concentrations during oral glucose tolerance testing.

Methodology

A retrospective observational study of all women diagnosed with gestational diabetes in Sligo Regional Hospital from 2008 to 2012. Women were screened using a 75 gm oral glucose tolerance test (OGTT) between 24 and 28 weeks gestation.

Results

287 pregnancies: 157 managed on diet alone, 130 received pharmacotherapy with insulin and/or metformin in addition to diet.

Those requiring pharmacotherapy had a higher fasting serum 5.22 ± 0.69 mmol/L compared to diet 4.67 ± 0.44 mmol/L (p<0.001), no difference in 1 or 2 hour concentrations (diet: 1 hour 9.7 ± 0.14 , 2 hours 8.37 ± 0.13 , pharmacotherapy: 1 hour 10.12 ± 0.21 (p=0.22), 2 hours 8.46 ± 0.2 mmol/L p=0.67). They were diagnosed earlier (diet; 27.42 ± 0.26 , pharmacotherapy; 25.85 ± 0.4 weeks (p=)), had a higher BMI at booking (diet; 29.24 ± 0.53 kgs/m², pharmacotherapy; 32.16 ± 0.86 kgs/m² (p=0.001)), and had at least one previous foetal loss (diet; 65 (42%) in the diet group, 87 (50%), (p=0.022). There was no difference in Hba1c after 20 weeks gestation (diet group 5.38 ± 0.12 , pharmacotherapy $5.61\pm0.05\%$, p=0.3), maternal age, blood pressure, gestation at delivery, baby weight, Apgar scores.

Conclusion

A fasting serum glucose >5.8 mmol/L at diagnostic OGTT indicates high risk of failure of dietary intervention alone for gestational diabetes and merits close monitoring of these women.

Study of the safety and efficacy of the use of insulin and metformin in combination in gestational diabetes

D ODonoghue, C.M. McHugh

NUIG Medical School; Dept of Endocrinology SRH

Introduction

Analogue insulins, insulatard and metformin are licenced for gesational diabetes.

Aims and objectives

This study aims to determine the safety and efficacy of the use of insulin and metformin in combination in gestational diabetes.

Methodology

A retrospective observational study of all women diagnosed with gestational diabetes in Sligo Regional Hospital from 2008 to 2012. Women were screened using a 75 gm oral glucose tolerance test (OGTT) between 24 and 28 weeks gestation.

Results

287 pregnancies with gestational diabetes with 3 foetal losses (27, 27, 31 weeks). There was no difference at baseline (antenatal booking) in mean body mass index (BMI, 30.54), systolic blood pressure, previous foetal losses, or maternal age (33.52 years). Diagnosis was made earlier in the metformin group (26.18 weeks) compared to the diet group (27.42 weeks). Diastolic blood pressure was lower at baseline in the diet compared to the metformin group (71.1 vs 71.7mmHg) and lower in the metformin compared to the insulin group (73.6 vs71.7mmHg, p<0.001). There was no difference in the mean Hba1c after 20 weeks gestation (p=0.7) in any group (insulin group was 5.61%, metformin 5.56%, insulin and metformin 5.68%, diet 5.47%), gestation at delivery (39.3weeks), birth weight (3.55) or Apgar score at 0 or 5 minutes (8.78, 9.81) between the groups. BMI at 32 weeks gestation was significantly higher in the metformin group than the diet groups (31.92, 30.64, p=0.001). Diastolic BP was higher in the metformin group compared to the insulin group (78.3, 72.3, p<0.001) and compared to diet (78.3, 73.83 p=0.001). There was a correlation between BMI and diastolic BP at 34 weeks (p=0.038, \mathbb{R}^2 =0.031) in these groups.

Conclusion

This study shows non-inferiority of insulin in combination with metformin in foetal and maternal outcomes. It also demonstrates the link between maternal BMI and diastolic blood pressure during pregnancy.

Effectiveness of educational interventions for informal caregivers of individuals with dementia residing in the community:

Systematic review and meta-analysis of randomized controlled trials

Mette Jensen, Ifeoma Agbata, Michelle Canavan, Geraldine McCarthy.

Research & Education Foundation: Dept of Old Age Psychiatry Sligo/Leitrim: Dept of Medicine NUIG

Introduction

Worldwide, the number of individuals with dementia is increasing. A large proportion of care to this patient group is delivered by informal caregivers. Care-giving places severe burden on the carer.

Aim

To assess if educational programmes for caregivers of individuals with dementia living in the community are effective on caregiver burden, quality of life, depression, confidence in care-giving and numbers admitted to long stay care compared with usual care.

Methodology

MEDLINE, EMBASE, PsycINFO, CINAHL, AgeLine, CENTRAL and ERIC were searched with no restrictions on language or publication status in February 2013. Randomised controlled trials were eligible.

Participants were informal caregivers undertaking day to day care of an individual with dementia living in the community. Interventions included were educational programmes aimed at teaching skills relevant to dementia caring. Two authors independently assessed studies for eligibility, assessed risk of bias and extracted data.

Results

We included eight randomised controlled trials with 791 participants having screened 1390 citations. The meta-analysis of five trials showed a moderate effect on carer burden (SMD= -0.52; 95%Cl -0.79 to -0.26; I^2 = 40%). Meta-analysis of two trials showed a small effect on depression (SMD = -0.37; 95%Cl -0.65 to -0.09; I^2 = 0%). There was no effect on confidence in care-giving (MD 1.9; 95% Cl -1.6 to 5.4) and number of admissions to long stay care (RR 1.29; 95% Cl 0.80 to 2.08). Effect on quality of life was not estimable. The main limitations of this review are that a small number of trials were included and some were of moderate risk of bias.

Conclusion

Educational programmes have a moderate effect on caregiver burden and a small effect on depression. There is no evidence of an effect on quality of life, caregiver confidence and admissions to long stay care.

Muscle Function in Patients with Stable Rheumatoid Arthritis

Elaine Walsh ¹, McGowan B ², Carmel Silke², Bryan Whelan²,

1 Department of Life Sciences, Sligo Institute of Technology, Sligo 2 The North Western Rheumatology Unit, Our Lady's Hospital, Manorhamilton, Co Leitrim

Introduction

Rheumatoid arthritis patients are less physically active than the general population (1). Patients with rheumatoid arthritis show lower cardio-respiratory fitness than normal subjects (2). The American College of Rheumatology recommends strengthening and aerobic conditioning regimens in its quidelines for the management of rheumatoid arthritis (3).

Aims & objectives

The aim of the study was to assess baseline muscle function in patients with stable rheumatoid arthritis.

Methodology

Functional assessments were conducted on 30 stable rheumatoid arthritis patients and compared to normative values of a healthy population. Assessments consisted of hand grip dynamometer, 2 minute step test, sit and reach flexibility test and single leg balance test. For the 2 minute step test patients are ranked as above average, average or poor. A result of 65 steps is associated with a lower level of functional ability. In relation to the sit and reach test patients are either excellent, above average, average, below average or poor. For the hand grip and single leg balance results are compared to the age and gender specific values of the healthy population.

Results

In total 30 stable rheumatoid arthritis patients (mean age 61.2, 10.6 SD, 14 male (46.7%), 16 female (53.3%)) were tested and the results were compared to the age/gender specific norms of a healthy population. For the 2 minute step test, there was a statistically significant difference (p<0.001, 95%CI - 28.96 to -10.71) between the results of the patient study group and the normative values. The results of the sit and reach test identified that in total (78.6%) of males and all females (100%) rated in the poor category. Of all participants in the single leg balance test, only 20% reached the maximum score. In total 43.7% of females and 50% of males reached the age/gender specific norms of the hand grip dynamometer. There was no significant correlation between duration of disease, number of comorbidities and the results of the muscle function tests.

Conclusion

The results show that the rheumatoid arthritis patients show lower levels of muscle function than the normal population in all tests included in the study. Efforts should be made to include physical training in the treatment of rheumatoid arthritis.

- 1. Sokka, T., Häkkinen, A., Kautiainen, H., Maillefert, J. F., Toloza, S. et al. (2008) Physical inactivity in patients with rheumatoid arthritis: Data from twenty-one countries in a cross-sectional, international study, Arthritis Care and Research, 59 (1), 42-50.

 2. Cimen, B., Deviren, S. D., Yorgancloğlu, Z. R. (2001) Pulmonary function tests, aerobic capacity, respiratory muscle strength and endurance of patients with rheumatoid arthritis, Clinical Rheumatology, 20 (3) 168-73.
- 3. American College of Rheumatology Subcommittee (2002) Rheumatoid Arthritis Guidelines: Guidelines for the management of rheumatoid arthritis, Arthritis and Rheumatism, 46, 328–346.

Major and minor discordance in the diagnosis of osteoporosis among Irish men and women using hip and spine dual-energy X-ray absorptiometry.

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Introduction

Diagnostic discordance for osteoporosis is the presence of different categories of T-scores in 2 different skeletal sites, falling into 2 different diagnostic categories as identified by the World Health Organization classification system (1). Discordances between hip and spine areal density T-score values are common and incompletely understood.

Aims & objectives

To determine discordance in the diagnosis of osteoporosis among patients referred for DXA scan at The North Western Rheumatology Unit using hip and spine Dual-energy X-ray Absorptiometry.

Methodology

The study included men and women who underwent bone mineral densitometry (BMD) for suspected osteoporosis at The North Western Rheumatology Unit. The BMD measures at the hip and spine were used to derive T-scores and to determine the prevalence of discordance. Factors potentially associated with discordance were explored in univariate and a multivariate regression model.

Results

The mean age of the 276 patients in the study was 63.2 ± 11.92 years (males 35 (13%), females 241 (87%). Results of T-Score Concordance was identified in 128 patients (51.2%), minor discordance in 101 patients (36.5%) and major discordance was seen in 21 patients (7.6%). Independent t-test of age, BMI, presence of co-morbidities, fracture history, identified age as the only risk factor (P<.05) which had a significant effect on T-score discordance .

Conclusion

At least 40% of patients tested by DXA will demonstrate T-score discordance between spine and total hip measurement sites. T-score discordance has been shown to occur for a variety of reasons related to physiologic and pathologic patient factors as well as the performance or analysis of DXA itself (2)

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A discrete-choice experiment to elicit the preferences of Irish patients for osteoporosis drug treatment

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Introduction

The patient's perspective is becoming increasingly important in health care policy decisions. Over the last decade, discrete choice experiments (DCEs) have been increasingly used to elicit collective preferences of subgroups of patients in health care(1).

Aims & objectives

To evaluate the preferences of Irish patients with, or at risk of osteoporosis for medication attributes and to establish how they trade between these attributes.

Methodology

A discrete-choice experiment was designed in which patients were asked to choose, from a series of hypothetical scenarios, between two drug alternatives (and an opt-out option), which vary in five attributes: efficacy in fracture risk reduction, type of potential side-effects, mode and frequency of administration and costs. An efficient experimental design was used to construct the sets of treatment options and a mixed logit panel data model was employed to estimate patients' preferences and their trade-offs between attributes.

Results

A total of 200 patients with, or at risk of osteoporosis completed the experiment. Patients preferred a drug treatment with a higher effectiveness and a lower cost. They also preferred 6-month subcutaneous injection and yearly intravenous above weekly oral tablets and favoured weekly oral tablet over 3-months intravenous injections. No significant difference in preference was observed between weekly oral tablets, monthly oral tablets and 3 monthly subcutaneous injections. Patients disliked being at risk of gastro-intestinal disorders more than being at risk of skin reactions and flu-like symptoms. Significant heterogeneity for the preferences was present among nearly all attributes.

Conclusion

This study revealed that, at the group level, osteoporotic Irish patients preferred 6-monthly subcutaneous injections and yearly intravenous injection and compared to other potential side-effects, gastro-intestinal effects were the least favoured. Moreover, they are willing to pay a personal contribution or to trade efficacy for such outcomes. Preference heterogeneity suggests the need to incorporate individual preferences into clinical decision-making to improve osteoporosis care.

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Rheumatoid Arthritis (RA) Patients with Osteoporosis (OI) report Better Adherence to Osteoporosis Medications than Patients with Osteoporosis alone due to an Awareness of the Consequences of Untreated Disease and Increased Satisfaction with Healthcare Providers

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Introduction

RA and OP are chronic diseases requiring long term medication. Non-adherence is well recognised as a problem in treating these two conditions. ^{1,2} Patients' overall perception of their condition and its management could have an impact on their adherence. ³

Aims & objectives

To identify patients' perceptions of living with Rheumatoid Arthritis and/or Osteoporosis and the overall management of their condition. There was a particular focus on medication adherence and factors that may influence it.

Methodology

33 patients with RA and/or OP were identified through chart review and were invited to participate in individual interviews or focus groups. 15 individual interviews and 3 focus groups were conducted. Transcripts were analysed and the process of open data coding was used to identify themes emerging from conversations. Prevailing themes were agreed upon and statements were selected to illustrate each theme.

Results

Patients with RA reported better adherence than patients with OP alone. Some reasons for this were more regular hospital appointments and increased follow up after starting new medications. Patients with RA were confident that any issues with a medication would be dealt with by the healthcare professionals, so that if one medication didn't work, there was always another option presented to them. "If one medication didn't work we would try something else. That keeps you going." Patients with OP alone reported less satisfaction with both specialists and GPs, with less frequent hospital appointments and medication follow up.

Conclusion

Regular contact with the healthcare provider improves patients' satisfaction with their disease management and in turn has a positive impact on medication adherence.

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A Review of Laxative Use in Two Long-Stay Community Hospitals in Sligo/Leitrim

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Introduction

Constipation is a common problem in elderly patients. It is not, however, a physiological consequence of normal ageing. The aetiology in elderly patients is multi-factorial with co-morbid diseases, reduced fibre/fluid intake, impaired mobility and multiple medications. Initial measures to treat constipation are increased fibre/fluid intake and regular physical activity. However, adherence to these measures is limited and medication is often required.

Aims & objectives

- To establish the extent of laxative prescribing in two long-stay community hospitals
- To identify which factors (known to predispose patients to constipation) are common in this group of patients
- To review current laxative choice

Methodology

The laxative prescriptions of 184 long-stay community hospital patients in Sligo/Leitrim were reviewed in May 2012. 19 patients were under 65 and were excluded.165 patients were included in the study. Patients were stratified according to:

- Age
- Sex
- Mobility
- Number of meds prescribed known to cause constipation
- Number of laxatives prescribed

Laxative choice was also reviewed.

Results

- 70% of all patients were prescribed a laxative every day. 44% required two or more laxatives to manage constipation.
- A daily laxative was prescribed for:
- 64% aged 65 79 years and 71% ≥ 80 years
- 73% of women and 66% of men
- 73% of immobile patients and patients with limited mobility
- 59% of fully mobile patients
- 71% of patients prescribed 2+ medicines and 76% prescribed 1 medicine known to cause constipation
- Senna was the most commonly prescribed laxative, followed by Milpar (now discontinued) and lactulose.

Conclusion

A significantly higher incidence of laxative prescribing was found in two local long-stay hospitals, when compared with previous European studies. However, both hospitals have a large number of high-dependency patients with factors known to increase constipation risk.

Older patients, women, immobile and limited mobility patients and patients on medicines known to cause constipation have a higher requirement for laxatives.

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A Community Medical Team Quality Improvement Initiative: An audit of the vaccine temperatures during a school based vaccination programme 'Are we maintaining the 'cold chain'?

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Introduction

Vaccines used in the school vaccinations programme must be maintained throughout at a temperature between 2° and 8° Centigr to remain potent and protective. Correct preparation of the icepacks (conditioning) is required to maintain an even coolness and prevent freezing of the vaccines within the coolbox. A risk of freezing arises if the temperature within the coolbox continues to drop after vaccines are placed in them.

Aims & objectives

To audit:

- o whether the cold chain is maintained during school vaccination runs
- o the effectiveness of the 'coolbox conditioning' procedure

Methodology

The temperatures are recorded at specific times on each vaccination run. This data was audited retrospectively from all cool boxes used for all school runs during Sept.-Dec. 2012. Issues were identified and a quality improvement plan (QIP) was devised by the team. Following implementation, temperatures were then re-audited in the second phase of the vaccination programme, March 2013.

Results

One coolbox was less effective at maintaining temperature, conditioning of ice packs was insufficient in 37.4%; Awareness amongst staff of the importance cold chain maintenance for vaccine efficacy was improved.

QIP- The poorly performing coolbox was taken out of service. Training in the importance of maintaining the cold chain was given to staff. A 'Strive for Five' policy (5°C) to reduce risk of freezing was introduced. Checklists were modified to encourage correct conditioning. Re-audit of the temperatures in March 2013 showed an improvement in temperature maintenance of 0.5% to 100%. Conditioning improved by only 1.7%, however the risk of freezing reduced to zero% (from 22.76% risk previously) due to the 'Strive for Five' policy.

Conclusion

Audit, education and adopting a 'Strive for Five' policy improves cold chain maintenance and hence vaccine viability.

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Phenomenology of Delirium: Awareness vs. Consciousness or DSM-5 vs DSM-IV

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Introduction

The new version of DSM-5 provides nearly the same criteria as DSM-IV with an exception: Category A. The DSM-5 requires a disturbance in awareness while DSM-IV, a disturbance in consciousness. However awareness is not the same as consciousness.

Aims & objectives

The aim of this study was to examine the concordance between awareness and consciousness and the agreement between DSM-5 and DSM-IV.

Methodology

A longitudinal study in which all acute medical admissions >70 years, were approached within 72 hours of admission. Exclusion criteria: terminal phase of illness, severe aphasia, intubated, severe sensory problems, non-English speakers or those whose consultant physician does not assent. During the assessment each individual was scored on a range of scales: MoCA, DRS-98R, CAM, RASS the subscale of levels of consciousness and awareness from RCDS; APACHE II, CAPE and BARTHEL index. Data Analysis SPSS 22.

Results

180 consecutive participants – 94 (52.2%) females, 123 (68.3%) previous cognitive decline. Age 81.33 (SD 6.47), MoCA 15.01 (SD 8.49), DRS- 98 severity Score 7.99 (SD 6.06). Incident rates according to various classifications: DSM-5 21.7%, DSM-IV, 23.9%, CAM -18.9%, DRS-98R 23.9%. Agreement between Awareness & consciousness – Kappa 0.34, ASE 0.083, p=<0.001. Agreement between DSM-IV & DSM-V - Kappa 0.46, ASE 0.078, p<0.001.

Conclusion

Results show that DSM-IV & DSM5 detect two slightly different elderly populations with Delirium. Indicating DSM5 criteria are more restrictive than DSM-IV. Despite this, there is an agreement (although low) between DSM-IV & DSM-5. Results show that awareness and consciousness are two distinct concepts although there is an interrelation between them. Consciousness seems to be a broader concept. Previous studies examining concordance between classification systems have also showed differences between them. These differences have serious implications for comparisons of studies which use different criteria for delirium.

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An Audit of the Implementation of the NICE Guidelines on Proton pump Inhibitor Prescribing in a Sligo Town GP Practice

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Introduction

Proton Pump Inhibitors (PPIs) are commonly used medicines which have changed the face of modern medicine. Although perceived as benign medicines, recent research has shown links between long-term PPI use and C. Difficile infection¹, Community Acquired Pneumonia², and Hip fractures³. There is also huge expense associated with repeat PPI prescriptions. Often these remain on prescription when they are no longer required.

Aim

To audit the prescribing of PPIs in our GP practice in accordance with NICE guidelines, with a view to decreasing the number of repeat unnecessary scripts for PPIs, therefore decreasing the unwanted side effects and costs, while at the same time ensuring safe evidence based care for our patients

Methodology

Data on all prescribed PPIs over a 2 month period, 62 prescriptions, from October and November 2012 was collected and analysed to ascertain if the following criteria were met.

- 1. All PPI prescriptions should have a NICE guideline indication.
- 2. All pts should have a discussion surrounding lifestyle modification
- 3. All patients should have a medication review performed.

Based on this we set an audit standard of 50% for all three criteria. I also looked at the type of PPI prescribed to see if there were cheaper alternatives.

Results

Criteria 1 45.6% had NICE guideline Indication.

Criteria 2 61% had lifestyle discussed

Criteria 3 59.6% had their medications reviewed

Analyses showed that, had a cheaper PPI been prescribed, savings of over e1200 could have been made

Conclusion

Nearly half of all PPI prescriptions in our practice are within NICE guidelines. This, as the primary outcome for my audit, compares very favourably with other audits I have seen on this subject. However there is still room for improvement, especially in the light of current HSE / GMS budgetary constraints

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Irish GP Referral Rates and the Association with GP and Patient Characteristics

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Introduction

General practitioners (GPs) play a key role as the gatekeepers of access to secondary care in Ireland, and indeed in many healthcare systems worldwide¹. This role has been shown to be crucial in providing cost-effective healthcare delivery.

Aims & objectives

Our study aimed to analyse the GP referral process and the factors by which they may be influenced, particularly those that are unique to the Irish healthcare system

Methodology

Between July and November 2011, 80 GPs who were either members of the County Sligo General Practitioners' Society or the Sligo Specialist Training Programme in General Practice participated in our study. The following data was collected on 100 consecutive patients: patient age, gender, GMS status, whether or not the patient was referred, and if so, to which specialty they were referred. Statistical analysis was conducted using PASW Statistics 20.0.

Results

Of the 7993 consultations, 936 (11.7%) patients were referred to secondary care. There was a wide spectrum of GP referral rates, ranging from 1% to 26%, with a mean average GP referral rate of 11.7% +/- .72%. GMS eligibility was found to be associated with referral rates, with 9.7% of GMS eligible patients referred to secondary care compare to 15.3% of GMS ineligible patients OR 1.67 (95% CI 1.45-1.92). GP gender was also associated with referral rates with female GPs having a referral rate of 13.2% +/- 6.1 compared to male GPs at 10.4% +/- 6.5 (p = 0.016).

Conclusion

Previous work has concluded that rather than attempting to standardise referral rates, we should be striving to reduce inappropriate referral rates². As a result, future studies should aim to measure both the appropriateness of referrals as well as the outcomes of the referral. Although studies of this sort have been conducted in the UK, they have yet to be reproduced in Ireland.

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Percutaneous Endoscopic Gastrostomy (PEG) Feeding In Children With Disabilities: Exploring The Attitudes And Experiences Of Parents And Healthcare Professionals

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Background

Feeding difficulties and poor nutrition are common problems that present in children and adolescents with disability. These problems can represent significant challenges and clinical dilemmas. The benefits of PEG feeding are clear, however PEG tube placement may result in complications such as rapid weight gain, tube falling out and infections. It may also give rise to unforeseen burdens on parents and caregivers. In children with severe disability or life limiting conditions, PEG feeding may prolong a child's life, without a significant improvement in quality of life.

Aim

We aimed to explore parental and healthcare professional attitudes and experiences by focusing on three main areas;(1) Information made available prior to PEG insertion, (2) support provided following insertion, and (3) long term consequences of insertions.

Methods

This study employed a qualitative design incorporating focus groups with healthcare professionals of varying disciplines, and semi-structured interviews with parents. Parents of 10 children were purposively selected to ensure a wide variety of clinical and social backgrounds including children who had died. Interviews were audio recorded and transcribed, and content was coded for recurring themes

Results

Focus groups with Healthcare professionals:

Healthcare professionals felt that the standard of the service is generally good, but has some gaps. They suggested that more multi-disciplinary involvement before a decision to insert a PEG could be provided, with a clear focus on parental expectations. It was also felt that early planning for weaning and removal of PEG tubes in suitable patients could be better organised. Healthcare professionals frequently proposed that a parent support group could be beneficial.

Semi-structured interviews with parents:

(1) Information made available prior to PEG insertion

Most parents felt they received adequate information prior to the decision to insert a PEG tube. Some felt they were not fully counselled in what to expect after insertion – this perception was more prevalent in parents of children who had PEG tubes inserted some years ago. Many parents felt that their child's clinical circumstances offered them no choice, and that PEG feeding was their only option. (2) Support provided following insertion

Parents feel well supported by the clinical teams. They feel they have good access to professionals when they require assistance and that problems are dealt with efficiently when they arise. Most parents would find a parent support group helpful.

(3) Long term consequences of insertions

All parents focused on the beneficial effects of PEG feeding, including improved nutrition and health status. Parents reported that their children experience a better quality of life following PEG insertion. No parents expressed feelings of regret regarding their decision to insert a PEG tube.

Conclusion

Parents interviewed have positive feelings with regard to PEG feeding. This seems to arise from a reduction in stress associated with oral feeding, and marked improvement in health and quality of life. Parents were generally satisfied with the service provided, however from the data gathered at interviews and focus groups, the following quality improvement measures are suggested:

- 1. Establishment of a parent support group
- 2. Consultation with the wider multi-disciplinary team prior to tube placement
- 3. Early identification of children suitable for weaning and removal of peg

An Evaluation of the "Green Prescription" Pilot Programme in Co. Donegal – Impact on Client Physical Activity levels and Mental Wellbeing

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Introduction

The Green Prescription programme is a community based walking programme which is open to health professional referral and self-referral. It was piloted in a number of communities in Co. Donegal during 2011 and 2012. Evidence suggests Green Prescription programmes are effective in increasing physical activity levels and improving the mental health and quality of life of participants^{1, 2}.

Aims & objectives

Included in the aims of this evaluation were: to outline the impacts of programme participation on (1) clients' physical activity levels and (2) clients' mental wellbeing.

Methodology

A mixed methods design was used. Quantitative data included pre and post programme measures of clients' physical activity levels and mental wellbeing. Physical activity data was collected using the International Physical Activity Questionnaire (IPAQ). Mental health data was collected using two validated mental wellbeing scales – the Warwick Edinburgh Mental Wellbeing Scale (WEMWBS) and the WHO (FIVE) Wellbeing Index. 19 clients completed both pre and post measures. Qualitative data were derived from focus groups and interviews with referred and self-referred clients and other stakeholders.

Results

Pre-post comparison of averaged programme scores showed significant decreases in daily sitting time scores (Z = -3.636, p<0.001) and a trend towards increased client physical activity levels (438 MET-mins/week (pre) v.'s 537 MET-mins/week (post)). Significant increases were also observed in the mental wellbeing scores in both the WEMWBS (t(18) = -2.556, p=0.02; n=19) (Mean score 52.5 (pre) V.'s Mean score 56.4 (post)) and the WHO (FIVE) Wellbeing Index score (t(18) = -3.042, p=0.007; n=19) (Mean score 57.8 (pre) V.'s Mean Score 71.4 (post)).

It was believed participating in the programme "reintroduce[d] the idea of exercise" to previously sedentary clients and motivated clients to become more physically active in their everyday lives. Clients associated mental health benefits with increased opportunities for socialisation, problem sharing and engagement with nature e.g. "it's very good... to clear the mind".

Conclusion

The Green Prescription shows potential as an effective means of increasing the physical activity levels and improving the mental health status of both referred and self-referred community members. However further evaluation with a larger sample of participants is needed to determine the significance of programme impacts and to produce generalizable results.

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Delirium Diagnosis-Inattention in Delirium Diagnosis.

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Introduction

Delirium is a neuropsychiatric disorder consisting of an acute confusional state. If unresolved it may contribute to dementia and long term cognitive impairment. Estimated prevalence, at time of hospital admission, is between 14 and 24% however delirium is commonly underdiagnosed heavy. Measurement of attention in delirium scales is important as this can help distinguish from conditions with similar symptoms such as demetia hours.

Aims & objectives

To assess the agreement between scales of inattention and its effect on diagnosis of Delirium.

Methodology

Eligible acute medical admissions, ≥70, were interviewed within 72 hours of admission. During the assessment, each individual was scored on a range of scales to determine whether attention was disturbed or intact: number string forward, number string reverse, serial sevens subtraction, letter list and months in reverse. The incidence of Delirium for the study was dependant on the scales used: 18.9% - 23.9%.

Results

180 consecutive participants – 94 (52.2%) females, 123 (68.3%) previous cognitive decline. Age 81.33 (SD 6.47), MoCA 15.01 (SD 8.49). Incidence of delirium in this study varied according to the scale used: 18.9% - 23.9%. String Forward – 20%, String backward – 38.3%, Letter Sequence – 45%, Serial Sevens – 63.9%, Months in Reverse – 37%.

Conclusion

Despite the recent slight change in the diagnostic criteria for delirium, an established feature for many years has been the disturbance of attention. This disturbance can be detected using a variety of scales, which are determined by the clinician to fit the purpose and time constraints of the examination (i.e. clinical assessment or research purposes). The results reflect an inaccuracy and wide variant between such scales. This affects both the clinical diagnosis and the comparison of studies using different scales of inattention.

Although inattention is a significant feature in Delirium there are many other features which should also be present for a diagnosis to be made, such as, acute onset, fluctuation, and change in cognition. ^{7,8,9.}

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The Patients Perspective of Day of Surgery Admission for Elective Surgical Procedures in One Irish Hospital

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Introduction

Health Care providers aim to improve efficiencies in health care provision in relation to access, quality and cost. Within Ireland the elective surgical pathway has been implemented. International studies have supported on-going developments in relation to the quality, efficiency and safety of elective surgery and day of surgery admission (DOSA). A robust protocol supports the DOSA process. The service user is central to the elective surgical pathway and interestingly there is no evidence available nationally or internationally investigating this perspective.

Aim and objectives

The aim of the study was to gain the patient's perspective in relation to DOSA. The objectives were to identify any factors that may impact on the patient experience, identify any advantages or disadvantages of DOSA and to identify any recommendations for service improvement from the perspective of the patient.

Methodology

After securing ethical approval, a quantitative evaluation approach using a post-operative discharge questionnaire was employed. A sample of 192 was achieved over a three month period. Exclusion and inclusion criteria were applied. Findings were analysed using SPSS (version 19) and Microsoft Excel.

Results

The findings showed that almost 89% of respondents were satisfied with DOSA. Over 90% would recommend DOSA to others. Advantages from the patient perspective were good interactions with staff, efficient and shorter hospital stay. Disadvantages perceived were waiting for allocation of a bed and length of time between admission and surgery. Waiting and its associated stresses have been identified as factors that impact negatively on the patient experience.

Conclusion

The patient evaluation of DOSA was largely positive. Patient recommendations for service improvement include; that beds are available on admission, aligning admission times to theatre times and the provision of a quiet pre-operative waiting area. Implications are identified in relation to research, nursing and clinical practice.

Epidemiology of Attention Deficit Hyperactive symptoms in the mental health outpatient clinics attendants of Sligo/Leitrim HSE

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Introduction

A number of studies¹ have found that many children with ADHD go unrecognised and may present in adulthood for the first time².

Aims & objectives:

- 1. To find out the prevalence of ADHD in adults who attend the mental health services in Sligo/Leitrim County.
- 2. To understand how many cases of ADHD are undiagnosed in the specific adult population.
- 3. To investigate comorbid illnesses.

Methodology:

Subjects: All outpatients, aged 18-65, having a minimum of 5 years of education, able to speak, read and write in English languageare included. Patients with severe learning disabilities and patients with severe brain injuries and with amnesic disorders are excluded.

Scales/Measurements

- 1. Two screening scales are used (Adult Self-Report Scale³⁻⁵, Wender Utah Rating Scale⁹);
- 2. Demographics (age, gender, occupation).

Results

The study is ongoing. Preliminary analysis shows:

- 184 people screened. 37 excluded (20%) 147 included (80%)
- Mean age: 42.1 (SD:12.6)
- Gender: 71 males (48.3%), 76 females (51.7%)
- Of the included patients, 60 are positive at ASRS (41%); 46 are positive at WURS (31.5%); 27 are positive at both scales (17%).

Conclusion

The high percentages of ADHD in this particular population can interpreted by two ways. That many cases are missed during the childhood (unlikely) or that there is an overlap of ADHD symptoms with other psychiatric conditions in the adulthood. A third explanation is that both scales overdiagnose ADHD but this is not supported from previous research³⁻⁵.

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Contemporary Debate in Breast Screening: Where Do The Views of Irish Screening Radiologists Sit in this Global Question

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A Thesis Presented For An MSc in Psycho-Oncology to School of Nursing, Dublin City University

Introduction

There is debate as to the benefit of breast screening. Many experts in the field believe that the case in favour of screening is oversold by the leaders in breast screening programmes¹. Their alternative view is that the risks of over diagnosis i.e. diagnosing cancers that would not otherwise have presented outweigh the small benefits of reduction in mortality from breast screening². At present the existence of this debate is not shared with women going for screening in Ireland.

Aims & objectives

The aim is to obtain the views of screening radiologists as to whether patients should be informed of the negative aspects of screening, to establish the extent to which they feel screening radiologists are the appropriate people to provide information on disadvantages and to obtain a window on the situation around the world through analysis of websites dealing with breast screening.

Methodology

Using a descriptive, qualitative methodology³, data from three radiologists was collected by means of semi-structured interviews and analysed using principles of thematic analysis⁴. Five websites were examined from a top down approach, using the method of content analysis. The study took place over 9 months in 2012.

Results

Screening radiologists do not see it as their role to change the information given to women about the negative aspects of breast screening. They believe that the decision to change the information that is given to women should be made at the level of HSE, or Department of Health with the advice and input of breast screening radiologists. They believe women would have considerable difficulty understanding overdiagnosis and that it is the role of patient's general practitioner to discuss it with them⁵.

Where screening programmes use absolute statistics and inform women of the limitations of breast screening, attendance rates are less by approximately 10-15%⁶.

Irish women are not currently making an informed choice and this goes against accepted norms of medical practise¹. It should be possible to make this information available to Irish women in a balanced manner.

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The Role of Community Cardiac First Responders in Ireland

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Introduction

Prompt commencement of CPR and early defibrillation are the main predictors of survival in out-of-hospital cardiac arrest (OHCA). The presence of trained cardiac first responders (CFR) within communities may improve response times and thus survival rates from OHCA.

Aims & objectives

To describe the role CFRs have played in OHCAs in Ireland and to determine if their presence impacts on survival.

Methodology

A retrospective analysis of the national Out-of-Hospital Cardiac Arrest Register (OHCAR) was performed. A CFR is considered to be anyone with BLS and AED training other than on-duty Emergency Medical Services (EMS) personnel and medical doctors.

Results

OHCAR to date has recorded 3217 non-EMS witnessed events; 277 were attended by a CFR. When compared to non-CFR cases, CFR-attended OHCAs were more significantly more likely to have occurred in a rural setting and in a public location, and to have been witnessed. In CFR-attended events, the initial recorded rhythm was shockable in 33% of cases compared to 21% for non CFR-attended events. The initial shock was delivered prior to the arrival of the EMS in 44% of CFR-attended events compared to 8% for non CFR-attended events. CFR-attended OHCAs were more likely to have ROSC at any stage [OR 1.46 (95% CI 1.09-1.95)].

The likelihood of survival was increased for CFR-attended OHCAs [OR 1.75 (95% CI 1.09-2.83)]. When stratified for public location, this effect becomes non-significant.

Conclusion

Almost nine percent of OHCAs in Ireland were attended by a CFR. The high percentages of shockable rhythms and defibrillation attempts in the CFR-attended group suggest timely CFR arrival at scene and timely resuscitation being attempted. While univariate analysis suggests that CFRs confer a survival benefit, the effect is lost when known confounders are accounted for. Increased data volume and collection of data on additional CFR-related variables will be of value for the future advancement of the CFR role.

An audit of NOAC prescribing in six acute hospitals in Ireland.

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Introduction

The recent development of the Novel Oral Anti-Coagulants (NOACs) is the greatest advancement in oral anticoagulation therapy for many years. With more predictable pharmacodynamics and pharmacokinetics, the NOACs overcome many of the disadvantages of warfarin therapy. Rivaroxaban, dabigatran and apixaban have received licensing in Ireland for several indications including stroke prophylaxis in atrial fibrillation patients and the treatment of acute venous thrombosis. There is a considerable paucity of clinical experience with these agents however, with their safety in particular a subject of concern.

Aims and Objectives

This study aims to:

- Determine a demographic and risk profile for those on NOAC therapy.
- Examine the documentation of prescribers rationale behind NOAC therapy and their adherence to the Summary of Product Characteristics (SmPC) and PCRS guidelines.

Method

Information was collected on patients both admitted and initiated on NOAC therapy in six acute Irish hospitals over a three month period, whilst prescriber factors involved in NOAC therapy were examined using a survey. Analysis of both the SRH data and the pooled data were then undertaken.

Results

Mean age of patients prescribed NOACs in SRH was identified as 78.4 years, with the proportion of male (45.8%) and female (54.2%) almost equal. Prevention of stroke in atrial fibrillation patients (83.3%) was the most common indication for NOAC therapy, with rivaroxaban the NOAC of choice in 75% of the SRH cohort. Non-adherence to SmPC (45.8%) and PCRS guidelines (75%) was significantly greater in SRH than the total cohort results of 27.3% and 26.6% respectively. Prescriber documentation of the specific reason for NOAC therapy was evident in only 17% of SRH patients' medical notes; compared to 36% in the entire cohort. 4.15% (n=1) of the SRH cohort experienced a bleed whilst on NOAC therapy, compared to 7.9% of the entire group. Examination of the underlying risk factors for adverse events identified reduced mobility (20.8%), gastrointestinal conditions (16.6%) and history of falls (16.6%) as the most common in SRH patients. Concomitant medications were also examined for those that increased bleeding risk, with 25% of the SRH cohort on anti-platelet therapy and 16.6% on SSRI's.

Conclusion

Significant non-adherence to both the SmPC and PCRS guidance was demonstrated at both a local and national level, with the documentation of rationale for NOAC therapy considerably low. Awareness of the need for comprehensive patient education appears to be low in SRH. Definite guidance on the management of bleeds associated with NOAC therapy is undoubtedly required, ⁵ with no clear protocol followed in SRH.

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Developing a Mitochondrial DNA Platform for Skin Cancer Biomarkers

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Introduction

Non-melanoma skin cancer is the most common form of cancer diagnosed in Ireland, with numbers increasing yearly¹. It is most commonly caused by exposure to UV light, which promotes carcinogenesis through alterations in DNA². Nuclear DNA damage is removed either through repair or apoptosis, but mitochondrial DNA (mtDNA) damage persists and indeed accumulatesthroughout an individual's life³, serving as a molecular fingerprint of an individuals sun exposure history as well as possessing potential as a predictive biomarker platform since heterogeneous mtDNA populations exist in the cell without causing loss of function, unless a majority of the mtDNA caries the same mutation or deletion.

Aims and Objectives

To identify and characterise new biomarkers for early and sensitive detection of sun ageing and skin cancer.

Methodology

Total DNA including mtDNA was isolated from human skin biopsies taken from sun-exposed and non-exposed sites. Specific mtDNA deletions and mutations were evaluated using conventional and Real Time PCR. Long Range PCR was also employed as a method of measuring global mitochondrial genome damage and identifying further deletion events

Results

Some mtDNA damage accumulation appears to be proportional with cumulative sun exposure and varies greatly between individuals. Some mtDNA damage accumulation appears to be proportional with chronologic ageing.

Conclusion

Specific mtDNA damage events appear to accumulate with either ageing or cumulative sunlight exposure. Future work will evaluate whether and to what extent damage events can also be linked to cancerous skin such that a mitochondrial diagnostics platform for skin cancer biomarkers can be developed.

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The impact of a Dermatology service on Melanoma detection and prognosis: A 16 year retrospective study in a single Irish centre

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Introduction

The incidence of cutaneous malignant melanoma and melanoma mortality continues to increase in Ireland. Breslow thickness is the most important prognostic indicator of survival in addition to increasing age and the presence of ulceration and mitosis.

Aims & objectives

Our aim was to assess the impact of a consultant-led dermatology service in Sligo Regional Hospital (SRH) on melanoma diagnosis and prognostic variables.

Methodology

This was a retrospective observational study that assessed 291 cases of primary cutaneous melanoma diagnosed between 1996-2012 in SRH. Cases were identified using the HIPE system. Baseline demographics and prognostic indicators were identified. We compared data from the eight years prior to the establishment of the Dermatology Department (1996-2004) with that of an equal time interval post its establishment (2004-2012). Unpaired t-test was used for statistical analysis.

Results

291 new cases of melanoma were diagnosed from 1996-2012 in SRH. 213 were diagnosed after the introduction of the dermatology service compared with 78 patients who were diagnosed beforehand. The average age at diagnosis was similar between the two groups (62.1 years). Regarding the histological subtypes, there was a doubling in the proportion of Lentigo Maligna melanomas diagnosed between 2004-2012 compared to the 1996-2004. The mean Breslow thickness decreased by 18% post establishment of the dermatology service. There was no significant difference in ulceration or mitotic rates between the two periods. There was a 72% increase in the proportion of invasive head and neck melanomas diagnosed from 2004-2012, mainly due to the increased number of Lentigo Maligna melanomas identified during this period.

Conclusion

Since the establishment of a dermatology service in SRH, there has been a 173% increase in new melanomas diagnosed. Breslow thickness has decreased over this time with a statistically significant increase in the percentage of melanomas ≤1mm. There was a high proportion of patients with melanomas >4mm. There was a significant decrease in melanoma thickness for females but no change for males. There has been a four fold increase in in-situ melanomas due to an increased diagnosis of lentigo maligna.

The Enduring Power of Attorney (EPA) – getting started.

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Introduction

This study focused on increasing the awareness and understanding of the Enduring Power of Attorney (EPA) among patients and carers of the Psychiatry of Old Age Service. The EPA under the Irish Powers of Attorney Act, 1996, is a legal document which empowers an individual or more (the attorney(s)) to act on another person's behalf (the donor) in the event of mental incapacity in that person (the donor) ¹. In 2011, 1405 Wardship orders, a provision under the outdated Lunacy Regulations Ireland Act, 1871, were signed in Ireland as opposed to 440 appointed EPAs ². This suggests a lack of awareness or understanding and uptake of the provisions for advance care instructions.

Aims

The study aimed to develop guidelines for implementing discussions on the EPA, including inclusion and exclusion criteria, based on the UK national guidelines on Advance Care Planning; develop and disseminate an information booklet on the EPA; review the awareness of the EPA among patients and carers and initiate discussions on the EPA with both patients and carers.

Methodology

The study methodology was mixed. Demographic information was established with the use of questionnaires and analysed quantitatively. Qualitative methodology involved audio taped semi structured interviews with patients and carers, and a thematic approach was adopted in result analysis.

Results

Guidelines for implementing EPA discussions and an information booklet on EPA were successfully developed. Less than half of the population of patients and carers involved in the study were aware of the EPA. All the patients and carers were happy to receive the information, thought it was important to be aware of the EPA and felt it had been presented in a clear and simple format.

Conclusion

The findings highlight the need for information on EPA to be readily available to people and demonstrate that this information is generally well received. The EPA should be considered by everyone and information is key to an informed choice.

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'Time is brain' – A one-year profile of stroke thrombolysis in Sligo Regional Hospital

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Introduction

Sligo Regional Hospital (SRH) operates a 24-hour thrombolysis service and we have performed a retrospective review examining the demographics of patients thrombolysed as well as compliance with national guidelines.

Aims & objectives

Our primary aim was to analyse our centre's performance in thrombolysis and compare with national standards of practice. We also investigate the demographic of the thrombolysed patient in the Sligo region.

Methodology

A retrospective analysis was undertaken of the medical records of patients who were thrombolysed for acute cerebral infarction at SRH between 1st July 2012 and 1st July 2013.

Results

12 patients presented within the study time period, 5(41%) female, 7(58%) male with a mean age of 68 years. (SD 13.07). 50% of cases presented in hours (9am-5pm Monday to Friday) and 50% presented out of hours with the decision to thrombolyse being made by an Emergency Department consultant in 67% of cases. In 25% of cases there was no clear documentation of the consultant making the decision to thrombolyse. All patients were thrombolysed within the recommended 4.5hrs from onset of symptoms with mean door to needle time recorded at 69.92 minutes. No significant difference was recorded in the door to needle time between patients who presented in (76.67 minutes) and out of hours (63.16 minutes). All patients had a pre-thrombolysis blood glucose, blood pressure and NIHSS (National Institute of Health Stroke Scale) value documented. All patients completed thrombolysis with 25% experiencing a complication, (2 acute cerebral haemorrhages). Only one patient had a post-thrombolysis NIHSS. SALT assessment was carried out in 58% (mean time 1.4 days). The mean length of hospital stay was 17 days, 58% were discharged home and 42% discharged to rehabilitation.

Conclusion

Our evidence suggests SRH staff's endeavours to comply with national guidelines succeed in providing a high standard of care to the thrombolysed patient. Three areas for improvement include:

- 1. Clearer documentation of Consultant deciding on thrombolysis.
- 2. Post-thrombolysis NIHSS to be recorded in all patients.
- 3. SALT on all patients within 48 hours of thrombolysis.

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Flu Vaccine; Fact or Fiction?

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Introduction

Recent figures show that the uptake of flu vaccine is around 10.5% in healthcare staff in HSE–NW residential facilities. This is lower than the national average of 15%.

From previous research we know there are well documented reasons why healthcare staff do not avail of influenza vaccine but none of these studies have been carried out in Ireland

Aims & objectives

To document uptake of flu vaccine among healthcare workers in residential facilities for the elderly in Co. Donegal and to determine the attitudes and beliefs of these healthcare workers.

Methodology

Questionnaires were sent out to all staff in residential facilities for the elderly in Co. Donegal. Replies were collated anonymously and analysed using SPSS

Results

1,066 questionnaires were distributed to 20 residential facilities for the elderly and achieved a response rate of 48% (510/1,066).

Overall 38% of respondents had ever received an Influenza vaccine and 57% of respondents never had an Influenza vaccine. Most vaccines, 53%, were given by GPs.

The 195 staff who ever had an Influenza vaccine cited as their reasons; wanting to avoid getting the 'flu 90%, wanting to protect their family at home 87%, and wanting to protect their patients 85%. Of the 293 staff who reported never having received an Influenza vaccine, 81% felt they did not need it, 61% were worried about the side effects of the vaccine, 46% didn't trust the vaccine.

Conclusion

There is strong evidence for vaccinating staff caring for elderly patients in a residential setting with flu vaccine in order to protect the patients. In staff with greatest patient contact, the number unvaccinated exceeded the vaccinated number. Over 50% staff never had flu vaccine and had serious concerns about the safety and efficacy of the vaccine which need to be addressed by any programme seeking to increase flu vaccine uptake in this group of healthcare workers

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Oxygen Availability Modulates the Efficacy of Artesunate In Vitro

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Introduction

Many novel drug analyses in vitro are performed in oxygen rich environments typical of atmospheric oxygen (20-21% O_2). This is far removed from the normoxic levels experienced by normal cells in vivo or from the hypoxic conditions typical of a tumour mass. There are many reports of in vitro novel drug analyses in oxygen rich environments $^{1-3}$.Conversely, there are few examples of drug analyses at in vivo relevant oxygen environments. Artesunate (ART) is a well characterised artemisinin analogue with anticancer activity. A key study investigated ART potency against 55 different cell lines resulting in growth inhibition of many cancer cell lines including leukaemia, breast, colon, ovarian, prostate, central nervous system, melanoma and lung cancer. HeLa, the cell line being investigated in this study, have shown to be sensitive to ART $^{6-8}$. Utilising a well characterised cancer cell line and anticancer drug allows the additional variable of oxygen environment to be analysed in real time and cell survival assays.

Aims & objectives

The present study aims to investigate cancer cell response to artesunate at atmospheric, normoxic $(4\% O_2)$ and hypoxic $(1\% O_2)$ oxygen conditions to determine if oxygen availability affects drug efficacy.

Methodology

HeLa (human cervical cancer derived cells) were exposed to 10 and 50mM Artesunate in a range of oxygen concentrations. An xCELLigence Real Time Cell Analyser (ACEA Biosciences, UK) evaluated measured cell growth in real time. Cell survival was determined by counting cells 0, 24 or 48 hours after exposure. These cells were re-suspended in a fixed volume of media and counted using a Z2 Particle Analyser (Beckman Coulter, USA).

Results

Artesunate anticancer efficacy was demonstrated to increase as oxygen levels were lowered to in vivo relevant oxygen concentrations typical of either hypoxia or normoxia.

Conclusion

Artesunate efficacy is dependent on oxygen environment and may be more potent than was initially reported in previous in-vitro investigations. Furthermore oxygen concentration is an important and overlooked variable which should be included in future in vitro drug analyses.

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"Stop the clot": An Analysis of Venous Thrombo-embolic Prophlyaxis in General Surgical Patients in Sligo Regional Hospital.

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Introduction

Venous thromboembolic events (VTE) are the most common cause of death in hospital patients [1]. Treatment of non-fatal symptomatic VTE and related long-term morbidities is associated with considerable cost to the health service [2]. Appropriate thromboprophlyaxis can positively influence patient mortality, morbidity and cost effectiveness of service. As such, it is imperative that the safest and most effective means of preventing VTE are employed in Sligo Regional Hospital (SRH).

Aims & objectives

Determine the proportion of surgical patients at risk of VTE in SRH.

Assess whether these patients are in receipt of appropriate thromboprophylaxis.

Recommend methods of improving doctor compliance with prescription of prophylactic therapies.

Methodology

All general surgical inpatients in SRH (n=31) were assessed for risk of VTE on the basis of a hospital chart, drug kardex and clinical review on 6/10/13. Patients receiving therapeutic treatment for pre-existing VTE were excluded from analysis (n=2). The American College of Chest Physicians (ACCP) evidence-based consensus guidelines were used to assess VTE risk and to determine whether patients were receiving appropriate prophylaxis [3]. Delays in prescription of prophylactic treatments were concurrently documented.

Results

On the basis of ACCP criteria, 38% of patients were classified as high risk for VTE, with the remainder being of moderate risk. 28% of patients were in receipt of inappropriate prophylaxis, with almost half of this cohort receiving no prophylactic therapy whatsoever. Of the patients provided with appropriate thromboprophylaxis, 38% had no prophylactic cover for twenty-four hours or more due to delayed prescription.

Conclusion

Despite long-standing recognition of the risk of VTE in surgical patients, thromboprophylaxis remains underutilized. Passive dissemination of guidelines alone is unlikely to improve VTE prophylaxis practice. A number of active strategies are required, such as a specialised segment on the drug kardex or clinician education workshops. These strategies would promote optimal outcomes and ensure that at-risk patients receive appropriate care in our hospital [4].

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Need a break? Carer survey of respite needs of people with dementia in Sligo

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Introduction

A large proportion of care of people with dementia is delivered in the community by informal carers, most often close relatives. Caring for elderly people with dementia puts a large burden on informal caregivers and reduces their physical and psychological wellbeing.¹

Respite is planned, temporary relief for the primary caregiver through the provision of substitute care.² The provision of respite is assumed to ameliorate the stress of care givers and to allow the person remain longer in the community.³ Little research has been conducted in Ireland on the perceived needs for respite for the person with dementia from the perspective of informal carers.

Aims & objectives

The primary aim of the survey was to explore the perceived needs for respite of caregivers.

Methodology

We conducted a pilot survey of informal caregivers of individuals with dementia living in the community in the North West in June/July 2013. A sample of 82 caregivers was selected from Psychiatry of Old Age in Sligo/Leitrim and the Alzheimer Society of Ireland's Dunally Day Care Centre in Sligo. We developed a purpose designed questionnaire on respite needs, barriers to uptake of respite, caregiver burden and demographics.

Results

Thirty seven carers returned the questionnaire (response 45%). The mean duration of caregiving was 5.4 years and mean age of caregivers 58 years. Overall, 78% (n=29) [95%CI 65% - 92%] said they had a need for respite. In caregivers whose caregiver burden was moderate to severe, 93% expressed a need for respite. Half of those caregivers who had cared for less than two years expressed a need for respite, whereas 84% of those who had cared for more than 2 years needed respite. The perceived barriers to uptake of respite were varied: Not affordable, not available when needed, not easily accessible, concerns about the care when in respite and lack of knowledge about how to access services.

Conclusion

There is a large perceived need for respite, particularly after 2 years of caring and in caregivers with moderate to severe caregiver burden. The sample size is small and results should be interpreted cautiously.

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A Review of the Use of Continuous Subcutaneous Infusion's (CSCI) in the Community Setting at the time of death from July 2012 – December 2012.

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Introduction: The aim of the Community Palliative Care Team is to provide a high quality, people centred specialist nursing, and to encourage our patients to live their lives to their greatest potential in the community setting.

Evidence of CSCI use in end of life care can lead to patients and families regarding the syringe driver as an indicator of 'near death' and reluctance in their use (Copperfield, 1996). Even more alarming is that some professionals also wrongly associate the use of a syringe driver with imminent death (Dickman *et al.*, 2005).

Aims & objectives:

- To determine in what care setting patients die in the community setting.
- To outline the primary diagnosis at the time of death
- To determine the percentage of patients in the community setting that die on a/not on a CSCI.

Methodology:

We established that the number of patients who died under the care of the Community Palliative Care Team over the period July 2012 – December 2012 was 66. This was determined using the 'I Care' computer package. Data for this quantitative review was collected retrospectively. All patients with a life limiting illness within this timeframe were included. Exclusion criteria were not used. The data was analysed using SPSS.

Results:

- 32 (48%) of the patients were female and 34 (52%) were male.
- 37 (56%) of the patients died at home.
- 36 (55%) had a malignant diagnosis and 30 (45%) had a non malignant diagnosis.
- At the time of death 35 (53%) of patients were on a CSCI and 31 (47%) were not on a CSCI.

Conclusion:

- Specialist Palliative Care Service at North West Hospice extends to patients of all ages who have a life limiting condition with a malignant or non malignant diagnosis.
- The majority of referrals to the CPCT are received from patients General Practitioners (GP's).
- 35 (53%) of patients were on a CSCI at the time of death for symptom control. Not all patients will require a CSCI at end of life.
- 9(14%) of patients required oxygen therapy at end of life.

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Clinical Audit to Determine the Staff and Patient Satisfaction following the implementation of the Theatre Admission Area

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Introduction

In May 2012 a new Theatre Admission Area (TAA) was opened to admit the 1st ENT Patient in a timely fashion. The purpose of this audit was to determine if the multidisciplinary team and patient were satisfied with the new admission area and patient pathway.

Aims/objectives

Our aims in relation to staff were to evaluate the new TAA as regards efficiency, improved patient path flow, evaluate if the MDT were on time for the first list in theatre and if the nursing staff received adequate training and their awareness of cost savings. Evaluation of the new admission letter content and pre assessment were included in the patients' audit.

Methodology

Two retrospective audits were carried out on both staff and patients. 26 members of the MDT in theatres who had worked in the TAA were asked to complete a questionnaire. All members of the MDT were included. We telephoned 14 patients who had attended the TAA. Patients included were male and female with an ASA of 1 deemed first on the ENT list. Data analysis was undertaken by the clinical audit support team (CAST).

Results

96% of staff found the TAA effective; however delays were incurred with the second and subsequent patients and returning recovered patients. 85% stated that there was an improvement in the patient pathway with 4% disagreeing and 11% did not record an answer. 100% of the patients surveyed state that the new admission letter gave the correct information in relation to fasting. 64% of patients had a telephone pre assessment and 14% had an inpatients appointment.

Conclusion/Recommendations

Patients stated "more direct admission, much better than the previous admission with daughter, very reassuring with good information". The TAA should move to its own designated area and be extended to all adult patients in all specialties.

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To 'pull back' or 'not to pull back' that is the question An observational, cross-sectional study using prospective data, on administering vaccines intramuscularly

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Community Medical Team, Sligo/Leitrim

Introduction

Safe vaccination technique has been paramount in medical and nursing practice for 100 years^{1,2}. Aspirating the syringe plunger before injection to check for blood return was standard practice in the twentieth century.² Now this is considered unnecessary following research by Dr Linda Diggle based on the study of the administration of routine childhood vaccinations to infants where no blood vessel was entered.² However, the datasheets on the MMR, Tdap and HPV vaccines states 'not for intravascular administration'^{5, 6, 7}.

Objectives

The objective of this study was to test the hypothesis that there is still potential to inadvertently administer vaccines intravascularly during intramuscular vaccination of teenagers and to estimate the level of risk of this outcome occurring.

Methodology

An observational, cross-sectional study design with prospective data collection was used. The participants in the study were doctor and nurse vaccinators of the school immunisation programme, most of whom routinely aspirate prior to administering a vaccine intramuscularly.

All vaccinators were instructed in both vaccination technique and data-collection methods. Vaccinators had a choice regarding aspiration.

Data was collected onto a pro-forma.

Results

88% of vaccinators (15/17) always aspirated before administration of a vaccine. 85% of vaccines (4,545/5,365) were administered using the aspiration technique. 20% (3/15) vaccinators aspirated blood. 0.088% of vaccines (4/4,545) had to be discarded after filling with blood following aspiration (MMR, Tdap and HPVx2).

Conclusion

In Ireland over 125,000 intramuscular vaccinations were given to 1st year students in 2011⁹. The risk of intravascular administration of vaccines in teenagers using the deltoid triangle as injection site is low at 0.088%. This however, potentially represents 110 intravascular injections in this group! More research is needed on intravascular administration of vaccines and the implications of injecting a vaccine into a blood vessel^{3,4,8}.

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An Audit of the Nursing Nutritional Screening Tool (NNST) in Sligo Regional Hospital

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Introduction

Optimising nutritional status contributes to recovery and reduced length of hospital stay 1,2 . Nutritional screening is essential to identify malnutrition risk and to ensure early nutritional intervention 3 . The NNST has been implemented in SRH by the Department of Nutrition and Dietetics in conjunction with the NPDU to ensure all patients aged ≥ 65 years are screened for malnutrition risk by nursing staff on admission. There is an associated care plan to be implemented.

Aim

This audit was completed to investigate the prevalence of malnutrition on admission in SRH medical and surgical wards using the NNST.

Methodology

Patients aged ≥ 65 years admitted to medical and surgical wards over a two-week period were screened for malnutrition risk within 24 hours of admission by researchers using the NNST. The total number of patients identified as high, medium, low and no risk of malnutrition were recorded and compared to those identified by nursing staff using the NNST.

Results

In total, 73 patients were screened by researchers and identified as high (n=14), medium (n=22), low (n=17) and no risk of malnutrition (n=20). Although nursing staff aim to screen all patients \geq 65 years on admission, 62% of the patients admitted over the two-week period were not screened. The 38% (28/73) of patients who were screened by nursing staff were identified as high (n=8), medium (n=8), low (n=8) and no (n=4) risk of malnutrition. 43%(6/14) of high-risk patients were not identified by nursing staff. Nutritional care plans as per NNST protocol were not implemented for all patients identified at risk of malnutrition.

Conclusion

Approximately one in five patients aged \geq 65 years admitted to SRH medical and surgical wards is at high-risk of malnutrition. All patients \geq 65 years are not screened on admission as per protocol and compliance with care pathway is poor.

Findings suggest the need for continuous audits and regular training of nursing staff to ensure all patients at risk of malnutrition are identified and care plans implemented appropriately

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Pain Nurse Pre-Assessment of New Patient Back Pain Referrals Increases Throughput in a Chronic Pain Clinic

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Introduction

Chronic back pain is a prevalent health care problem in Ireland ¹ and it has been forecasted that this will rise by 15% over the next 10 years ². In order to address our long waiting times we set up CNS-led pre-assessment of selected back and neck pain new referrals in our Pain Clinic.

Aims

Our aim was to investigate whether this could improve throughput and thereby reduce waiting times for Pain Clinic patients.

Methods

A detailed pain questionnaire was developed by the Pain Clinic Consultant and CNS. Criteria for CNS pre-assessment were agreed. Paper triage of back/neck pain referrals was carried out by the Pain Clinic consultant. Pre -assessment of each patient was carried out by the CNS pain nurse specialist and presented to the consultant. After examination and assessment of investigation results a treatment plan was developed. The CNS then liaised with the patient re institution of this treatment plan.

Results

Over 35 pain clinics: 87 patients scheduled for assessment by CNS, 68 attended, 19 did not attend (DNA). Reasons for DNA: majority due to insufficient notice because of secretarial shortage. Average assessment duration by nurse :45 mins, by consultant: 10 mins. Post-assessment time by nurse 10 mins. Pain procedures booked for 46 patients.

Increase in total number of new patients assessed: 23%.

Discussion

This investigation shows that CNS pre-assessment of new back/neck pain referrals increases the number of new patients assessed at the Pain Clinic, thereby reducing waiting times. However, secretarial support is required.

Conclusion

This process offers a route to increasing throughput at a Pain clinic by utilizing the skills and experience of a Pain Nurse Specialist effectively.

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