

National Institute of Health Sciences Research Bulletin

In this Issue:

A Systematic Review of Pain
Management after Tonsillectomy

Natural History and Clinical
Outcome of Patients with
Documented Carotid
Artery Occlusion

Depression: Prescribing and
Referring in General Practice

Environmental Control of
Antibiotic Resistance
Spread: Transfer of R391,
an Integrating Bacterial
Mobile, Drug Resistant
Genetic Element is Inducible

A Comparison of the
attitudes of Acute and Long-
Term Healthcare Personnel
towards Older Adults

Volume 3
Issue 2

ISSN: 1649-0681
December 2005





Research Bulletin

ISSN: 1649-0681

Volume 3

Issue 2

2005 National Institute of Health Sciences, St. Camillus Hospital, Shelbourne Road, Limerick, Ireland.

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording or any information storage and retrieval system, without permission from the contributors.

© NIHS 2005

Published by Designers Ink, Limerick

If you wish to contribute to future editions of this publication, please contact:

The National Institute of Health Sciences
St. Camillus Hospital
Shelbourne Road
Limerick

t: 061-483975

f: 061-326670

e: info@nihs.ie

w: www.nihs.ie



National Institute of Health Sciences (NIHS)

ABOUT THE NIHS

The NIHS represents a strategic alliance between the Health Service Executive and the University of Limerick.

The NIHS endeavours to advance and support high quality health related research and promotes evidence-based healthcare delivery. This is achieved through advanced education, access to and facilitation of the dissemination of information, and fostering partnership between educational organisations, the healthcare service and the private sector where appropriate.

Membership of the NIHS e-library is open to all HSE Mid-Western Area employees and we encourage those with an interest in health research to access the NIHS research register at www.nihs.ie



Contents

ABOUT THE NIHS

iii

CLINICAL RESEARCH

Medical (*Unpublished*)

A Rising Tide of Headaches: 10 Years of Outruling Lethal Pathology <i>Ng, C.T., O'Hare, J.</i>	1
A Retrospective Audit of Haemochromatosis in North Tipperary (Nenagh General Hospital) <i>Khan, F.U., Galvin, L., Awan, S., Moloney, M.</i>	3

CLINICAL RESEARCH

Surgical (*Unpublished*)

A-MAD Approach to Sleep Disordered Breathing <i>Amin, M., Ahmed, I., O'Shea, D., Dillon, P., Fenton, J.E.</i>	5
Time to Change Nocturnal Emergency Surgical Practice <i>Naqvi, S.A., Mujahid, P., Shaikh, F.M., Durrani, S., Chow, T.K., Cheema, S.T.M.</i>	7
A Prospective Audit of Surgical Bed Occupancy in a Regional Hospital Surgical Unit <i>Naqvi, S.A., Shaikh, F.M.</i>	9
Diagnostic Laparoscopy through Mc Burney's Incision in Patients with Clinically Suspected Appendicitis <i>Giri, S.K., Queally, J., Sheikh, F.M., Narasimhulu, G., Drumm, J., Naqvi, S.A.</i>	10
The Long-Term Results of Pubovaginal Sling Surgery using Acellular Cross-Linked Porcine Dermis in the Treatment of Urodynamic Stress Incontinence <i>Giri, S.K., Naqvi, S.A., Queally, J., Mabadeje, O., Sheikh, F.M., Narasimhulu, G., Flood, H.D.</i>	12
A Systematic Review of Pain Management after Tonsillectomy <i>Noma, U.Y., Ahmed, I., Manning, K., Fenton, J.</i>	14
Haemodynamic Study Examining the Response of Venous Blood Flow to Electrical Stimulation of the Gastrocnemius Muscle in Patients with Chronic Venous Disease <i>Clarke-Moloney, M., Lyons, G.M., Breen, P., Burke, P.E., Grace P.A.</i>	15
Natural History and Clinical Outcome of Patients with Documented Carotid Artery Occlusion <i>Cheema, S., Clarke-Moloney, M., Kavanagh, E., Burke, P.E., Grace, P.A.</i>	16
Clopidogrel and Bleeding in the Perioperative Period <i>Queally, J., Murphy, T., Burke, P.E., Grace, P.A.</i>	17



CLINICAL RESEARCH

Surgical (*Published*)

- Efficacy of Wedge Resection with Phenolization in the Treatment of Ingrowing Toenails
- A Single Surgeon Experience. **18**
Shaikh, F.M., Jafri, M., Keane, R.
-
- An MRI-Based Study of Retropubic Haematoma following Sling Procedures: Preliminary Findings **19**
Giri, S.K., Wallis, F., Drumm, J., Saunders, J.A., Flood, H.D.
-
- Endoscopic Holmium Laser Excision of Intravesical Tension-Free Vaginal Tape and Polypropylene Suture after Anti-Incontinence Procedures **21**
Giri, S.K., Drumm, J., Flood, H.D.
-
- Seven-Year Retrospective Review of Facial Lacerations Treated Under General Anaesthesia by the Oral and Maxillofacial Surgery Department of the Mid-Western Regional Hospital **22**
Boyle, N., Kearns, G.J.
-

CLINICAL RESEARCH

Clinical Services (*Unpublished*)

- The Incidence and Recognition of Undernutrition of Patients Admitted to the Mid-Western Regional Hospital, Limerick **24**
Bowers, S.
-

CLINICAL RESEARCH

Mental Health (*Unpublished*)

- Depression: Prescribing and Referring in General Practice **26**
Ryan, S. O'Connor, R., Kirwan, P.
-

CLINICAL RESEARCH

Mental Health (*Published*)

- A Case of Clarithromycin Psychosis **28**
Elahi, F., Bhamjee, M.
-

CLINICAL RESEARCH

Intellectual Disability (*Unpublished*)

- Autism and Food Selectivity: A Review of the Literature **30**
O'Dea, F.
-



CLINICAL RESEARCH

Biomedical Electronics (*Published*)

Accelerometer Based Calf Muscle Pump Activity Monitoring <i>O'Donovan, K.J., O'Keefe, D.T., Grace, P.A., Lyons, G.M.</i>	31
Application of Higher Order Statistics Techniques to EMG Signals to Characterize the Motor Unit Action Potential <i>Shahid, S., Walker, J., Lyons, G.M., Byrne, C.A., Nene, A.V.</i>	32
A Description of an Accelerometer-Based Mobility Monitoring Technique <i>Lyons, G.M., Culhane, K.M., Hilton, D., Grace, P.A., Lyons, D.</i>	33

CLINICAL RESEARCH

Biomedical Engineering (*Published*)

Gamma Dosimetry Using Commercial PMMA Optical Fibres for Nuclear Environments <i>Fernandez, A.F., O'Keefe, S., Fitzpatrick, C., Brichard, B., Berghmans, F., Lewis, E.</i>	34
---	----

CLINICAL RESEARCH

Microbiology (*Ongoing*)

Environmental Control of Antibiotic Resistance Spread: Transfer of R391, an Integrating Bacterial Mobile, Drug Resistant Genetic Element is Inducible <i>Pembroke, J.T., McGrath, B.M., O'Halloran, J.A.</i>	37
---	----

CLINICAL RESEARCH

Microbiology (*Unpublished*)

Occurrence of Clostridium Difficile Infection in a County General Hospital <i>Khan, F.U., Moloney, M.</i>	40
Detection of Group B Streptococci in the Urine of Pregnant Women Using "Granada" Chromogenic Agar <i>Powell, J., Vaughan, D., Doran, K.</i>	42

CLINICAL RESEARCH

Technical Applications (*Unpublished*)

Coping with Asthma through Innovative Digital Technology – The VisiBreath Project at the University of Limerick <i>Lennon, M., Ó hAodha, M.</i>	44
--	----



POPULATION HEALTH

Public Health (*Unpublished*)

- A Qualitative Study of Health and Social Needs of Patients in a Socially Deprived Area **46**
Chan, W., Whitford, D.L., Van Doorslaer, O., Gibney, D., Hollywood, B.
-

POPULATIONAL HEALTH

Public Health (*Published*)

- Discussion Piece: A Critical Take on the Obesity Debate **48**
Monaghan, L.F.
-

POPULATIONAL HEALTH

Health Promotion (*Unpublished*)

- "Good Habits Early"; A Nutrition and Oral Health Awareness Programme for 0-5 Year Olds, **49**
Health Service Executive Mid-Western Area
Lyons, A., Irwin, N.
-

HEALTH SYSTEMS RESEARCH

Health Management (*Unpublished*)

- The Effects of Living in a Nursing Home on the Cognitive, Sensory and Sensorimotor Abilities **52**
of Low-Dependency Older Adults
Walsh, K., Waldmann, T.
-
- An Exploration of the Prevalence of Bullying Within an Irish Maternity Hospital Setting **53**
Gibbons, M., Mannix McNamara, P.
-
- A Comparison of the Attitudes of Acute and Long-Term Healthcare Personnel towards Older Adults **55**
Gallagher, S., Halford, J.C.J., Bennett, K.M., Lyons, D.
-
- The Role of the Healthcare Attendant in a Maternity Setting Researched from Three Different **58**
Perspectives
Quigley Hughes, M.
-

HEALTH SYSTEMS RESEARCH

Personal and Social Services (*Unpublished*)

- What Happens to Young 'Care Leavers'? A Study of 164 Young People who have been in the **61**
Care of the Mid-Western Health Board/Health Service Executive Mid-Western Area
Wells, J.
-



NEWS	63
<hr/>	
FUNDING UPDATE	65
<hr/>	
EVENTS	67
<hr/>	
EDUCATION, TRAINING AND CONTINUING PROFESSIONAL DEVELOPMENT	68
<hr/>	
SUBMISSION FORM	71
<hr/>	
ABSTRACT SUBMISSION GUIDELINES (<i>Unpublished</i>)	73
<hr/>	
ABSTRACT SUBMISSION GUIDELINES (<i>Published</i>)	75

Clinical Research

Medical

TITLE	A Rising Tide of Headaches: 10 Years of Outruling Lethal Pathology
--------------	---

AUTHORS	<i>Ng, C.T., O'Hare, J. Department of Medicine, Mid-Western Regional General Hospital, Limerick</i>
----------------	---

INTRODUCTION

Acute headache is a common problem presenting to hospital emergency departments. While it is recognised that the majority are not due to lethal pathology such as Subarachnoid haemorrhage, meningitis or tumour, many patients self-refer or are sent by their GP fearing serious pathology. We have sensed an increase in the referral rate over the last decade.

OBJECTIVE

Identify trends in admission rates to a general hospital for lethal and non-lethal causes of headache.

METHODOLOGY

Retrospective study in 420 bed Regional Hospital, population base 200,000. 8,900 annual medical discharges using the Hospital Inpatient inquiry (HIPE) data base. We identified a range of relevant conditions as a comparison base for time trend from 1994-2003. We present discharges over a 10 year period for: Subarachnoid haemorrhage (SAH), All Migraine variants (Mig), Temporal Arteritis (TA), Headache (Head) due to none of above, Post Lumbar Puncture headache (LP), all other Intracranial Haemorrhage (ICH), Cerebral Infarction (CI), Non-Ruptured Cerebral Aneurysm (NRAn), Brain Tumour (Tum), Central Nervous System Infection (CNSi). Over 90% had CT brain scan and selected patients CSF examination.

RESULTS

Table shows 10 year discharge rates. Headache increased from 85 in 1993 to 357 in 2003 ($p < 0.02$) while SAH ($P < 0.02$) and Intra cerebral haemorrhage ($p < 0.006$) declined. Median Age for Head 39, female to male Ratio 1.56. Mean length of stay was 3.8 days costing >2000 Euro (by '05 costs). All other cases of headache except post LP declined or did not change significantly.

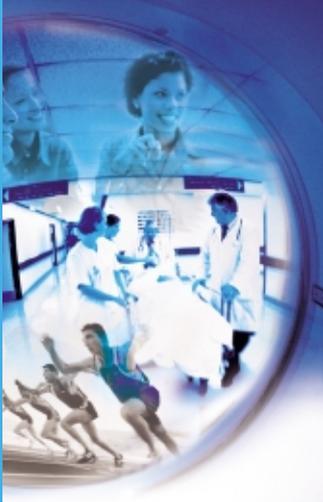


Table 1 - 10 Year Discharge Rates

Year	'94	'95	'96	'97	'98	'99	'00	'01	'02	'03
SAH	17	26	23	17	19	19	18	8	8	9
Mig	37	25	57	47	59	41	27	25	84	78
TA	1	1	1	3	4	2	3	1	7	2
Head	85	83	127	120	133	66	145	183	264	357
LP	0	0	0	0	0	2	0	1	2	2
ICH	38	48	44	31	38	28	32	21	28	32
CI	32	155	169	98	94	113	100	98	98	126
NRA	1	0	0	1	0	2	0	0	2	1
Tum	13	11	12	11	16	8	14	1	17	10
CNSi	17	30	26	15	10	10	12	20	10	11

CONCLUSION

5 year Discharge rates for SAH and Cerebral haemorrhage declined while Headache rates increased. This illustrates one of the cost paradoxes of modern health care: fear of lethal pathology increases while its incidence declines.

PRESENTED

At the European Federation of Internal Medicine (Oral) in Paris on September 3rd 2005 by Dr Chin Tek Ng.

Clinical Research

Surgical



TITLE	A Retrospective Audit of Haemochromatosis in North Tipperary (Nenagh General Hospital)
--------------	---

AUTHORS	<i>Khan, F.U., Galvin, L., Awan, S., Moloney, M. Gastroenterology Unit, Nenagh General Hospital, Co. Tipperary</i>
----------------	--

INTRODUCTION

Haemochromatosis (HH) is an inherited condition in which too much iron is absorbed from food. Iron accumulation in many organs causes the clinical manifestations including diabetes and cirrhosis of the liver. In Ireland the incidence is three per thousand population.

OBJECTIVE

The main aim of our study was to find out age and sex distribution of HH, presenting symptoms, family history and audit of management of patients with HH in our unit.

METHODOLOGY

Retrospective audit was performed where patients diagnosed with HH since 2001 to 2004 were identified. We revived files for the following characteristics: age; sex; presenting symptoms; iron studies; liver function test (LFT); genetic test result; liver biopsy; ultrasound abdomen; Echocardiography; upper GI Endoscopies.

RESULTS

Forty four patients were included in the audit. All the patients were managed in our gastroenterology unit. Mean age of presentation was 58.5 years. Maximum age was 84 years (female), minimum age was 33 years (male). None of the female patients were below 51 years of age. 63.63% patients were between 40 to 60 years of age. 38.63% presented with abnormal LFTs. 29.54% presented with generalized weakness. 2 patients presented with depression, 4 patients complained of dyspepsia. 2 patients presented with new onset diabetes mellitus. 42 patients (95.45%) had raised ferritin levels. 27 (61.36%) patients had increased transferrin saturation. 10 (22.72%) patients had family history of HH. 20 (45.45%) patients had abdominal ultrasound, 8 (18.18%) patients had normal ultrasound, 3 (6.8%) had cirrhosis, 2 (4.5%) patients had gall stones. Only 4 (9.09%) patients had liver biopsy. Among these 4 patients, 3 had grade-II siderosis, one had increased iron deposition. 28 patients were homozygous for C282Y. 8 patients were heterozygous. 8 patients had upper endoscopy, five were normal, one patient had oesophageal varices. 2 patients had grade-II oesophagitis. 8 patients had Echocardiography, 3 patients had cardiomyopathy and the rest were normal.



CONCLUSION

The diagnosis of HH is usually made at later age. Serum iron studies and LFTS in patients with non specific symptoms may help to detect HH at early stages. Family screening is important in picking up asymptomatic patients of HH. Genetic tests should be performed in all patients with higher transferrin saturation to confirm the diagnosis. Liver biopsy is no longer necessary when the patient is homozygous for the HFE C282Y mutation. However, liver biopsy should be carried out for any patient with raised transferrin saturation, a serum ferritin concentration of more than 1000 µg/litre and/or evidence of liver damage (hepatomegaly or raised AST activity).

PRESENTED

At the Irish Society of Gastroenterology Meeting in Limerick on June 10th and 11th, 2005 by Dr. Farman Ullah Khan.

Clinical Research

Surgical

TITLE	A-MAD Approach to Sleep Disordered Breathing
AUTHORS	<i>Amin, M., Ahmed, I., O'Shea, D., Dillon, P., Fenton, J.E. Mid-Western Regional Hospital, Limerick</i>

INTRODUCTION

Sleep Disordered Breathing (SDB) represents a spectrum of disorders ranging from habitual snoring to OAS.¹ Cochrane has noted a lack of evidence in the use of Mandibular Advancement Device (MAD) in the management of SDB.

OBJECTIVE

To evaluate the role of MAD in the management of Sleep Disordered Breathing.

RATIONALE

Mandibular Advancement Device is used mainly in the treatment of snoring. It does this by inducing changes in the structures which control the airway size, namely the tongue, soft palate, lateral pharyngeal wall and mandible, resulting in airway stability². MAD has been shown to increase the lateral dimension of the upper airway, improve velopharyngeal obstruction and enhance the cross-sectional area of the velopharynx in lateral and anteroposterior dimensions².

METHODOLOGY

40 patients, 29 Males and 11 females, with SDB were included in this study aged between 31-67.

The selection criteria was based on assessment using sleep nasendoscopy to evaluate the site of obstruction and only those with simple snoring, collapse of lateral pharyngeal wall or base of tongue were included in this study and offered the Mandibular Advancement Device. Those with OSA were evaluated by the respiratory physician prior to sleep nasendoscopy assessment.

RESULTS

24 patients (60%) showed satisfactory improvement in their symptoms, 13 patients (32.5%) showed no improvement and were treated with other modalities where required, while 3 cases (7.5%) were managed with a combination of MAD and Continuous Positive Airway Pressure (CPAP).



CONCLUSIONS

MAD is increasingly used in clinical practice to treat snoring and SDB, and can be used as a first line treatment for snoring. MAD is effective in a substantial proportion of patients with mild to moderate SDB as well as in conjunction with other modalities in severe cases.

REFERENCES

1. Vivek K. Current treatment practice in obstructive sleep apnea and snoring. *American Journal of Otolaryngology*. 2004 Jan-Feb;25(1):18-25.
2. Cistulli PA. Treatment of snoring and obstructive sleep apnea with mandibular repositioning appliances. *Sleep Medicine Reviews*. 2004;8:443-457.

Clinical Research

Surgical

TITLE	Time to Change Nocturnal Emergency Surgical Practice
AUTHORS	<i>Naqvi, S.A., Mujahid, P., Shaikh, F.M., Durrani, S., Chow, T.K., Cheema, S.T.M. Department of Surgery, Mid-Western Regional Hospital, Limerick</i>

INTRODUCTION

Out of normal working hours, emergency surgical practice has been proven to have a higher rate of morbidity and mortality according to the guidelines of Confidential Enquiry into Peri-operative death (CEPOD). There has been an increasing effort by the surgical trainers to reduce the amount of emergency surgery performed at night by junior doctors. The aim of our study was to evaluate the timings of emergency surgical procedures performed in our services.

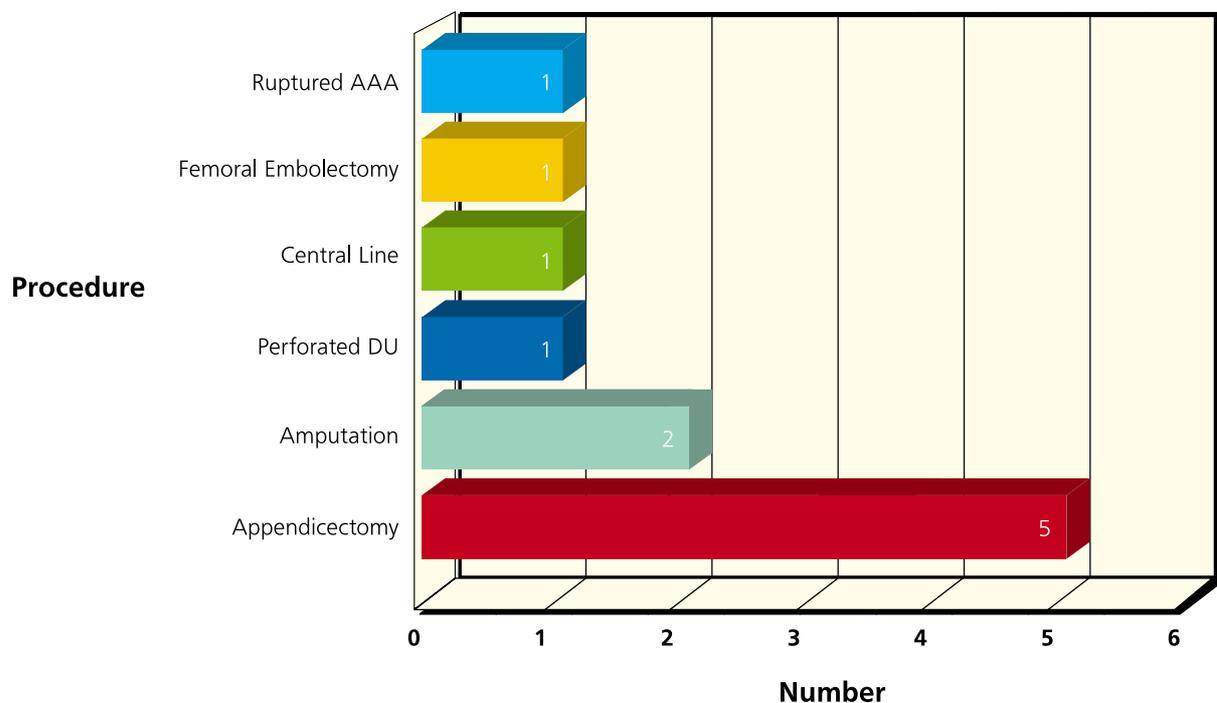
METHODOLOGY

Retrospective review of all the records of emergency surgical procedures performed in a single general surgical unit has been collected from July 2003 to June 2004. Demographic and clinical data were collected. Appropriate statistical analyses were performed.

RESULTS

A total of 151 emergency surgical procedures were performed by single surgical team in one year period. These procedures were divided into three groups according to the time of operation. 83 procedures were performed during 1700 – 2100 hours (Group A), 57 during 2100 – 0000 hours (Group B) and 11 during 0000 – 0800 hours (Group C). In the absence of daytime emergency theatre, 73% of Group C procedures were performed after midnight, which would have been safely postponed. Figure 1, 2.

Figure 1 - Emergency Procedures After Midnight



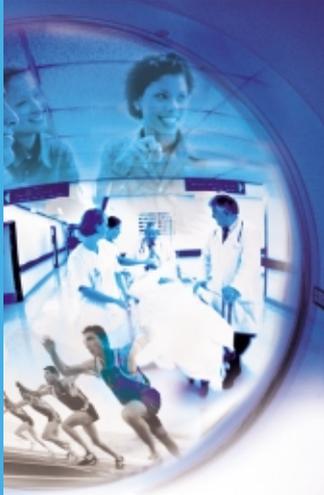
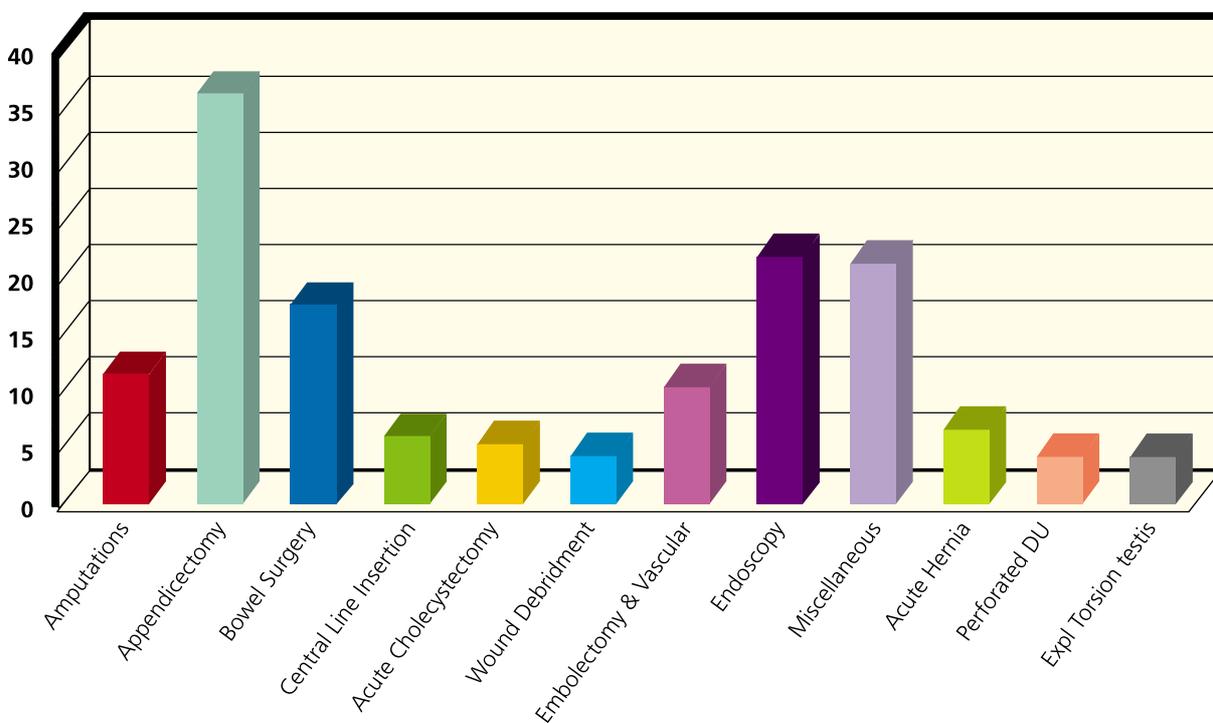


Figure 2 - Surgery Before Midnight Series 1



CONCLUSION

It has been noticed that over two thirds of emergency operations could have been postponed safely to the following morning, if an emergency theatre during morning hours was made available. We highly recommend a 24 hour dedicated emergency theatre and a direct senior surgeon's input for the selection of urgent procedures.



Clinical Research

Surgical

TITLE	A Prospective Audit of Surgical Bed Occupancy in a Regional Hospital Surgical Unit
--------------	---

AUTHORS	<i>Naqvi, S.A., Shaikh, F.M.</i> <i>Department of Surgery, Mid-Western Regional Hospital, Limerick</i>
----------------	---

INTRODUCTION

The high inpatient bed occupancy not only causes blocked access to the acute beds leading to overcrowding in the accident and emergency department but it also leads to the cancellation of planned surgical procedures. It is an ongoing issue in all hospitals throughout the country resulting in unnecessary suffering for patients who plan their work and family lives around the proposed operation date.

METHODOLOGY

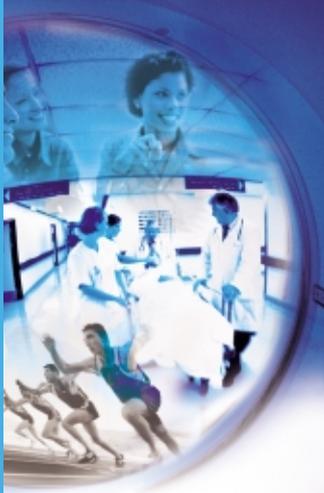
A 4-month prospective study of the bed occupancy in a single surgical unit under a single consultant in a regional hospital was performed to identify the causes of 100% bed occupancy. To examine various reasons for high bed occupancy in a surgical unit we prospectively recorded various reasons for a patient to be in a hospital. The recording was carried out twice weekly (Tuesdays and Thursday) from 1 January 2005 to 30th April 2005. Demographic data, mode of admission, final diagnosis, procedures performed and reasons for stay were collected. Appropriate statistical analyses were performed.

RESULTS

25% of total number of patients remained in hospital for various reasons other than management and treatment. More than 55% of these patients were waiting for a replacement bed in the community, 24% for consultations, 16% for radiological investigations and 4% for physiotherapy.

CONCLUSION

These prospective data emphasise an inefficient use of inpatient hospital beds, the need for step-down facilities, efficient radiological services, and early response to inpatient consultation by the consultants.



Clinical Research

Surgical

TITLE

Diagnostic Laparoscopy through Mc Burney's Incision in Patients with Clinically Suspected Appendicitis

AUTHORS

Giri, S.K., Queally, J., Sheikh, F.M., Narasimhulu, G., Drumm, J., Naqvi, S.A. Mid-Western Regional Hospital, Limerick

INTRODUCTION

Diagnosis of appendicitis can at times be extremely difficult. McBurney's operation is well tolerated by the young and healthy population and so the benefits of routine laparoscopic appendicectomy have been difficult to establish. Moreover, open appendicectomy is a valuable training experience, as an introduction for young surgeons to abdominal surgery, and by allowing them at an early stage in their career to operate more or less independently.

OBJECTIVE

The aim was to evaluate prospectively the diagnostic value of selective use of laparoscopy through Mc Burney's incision following open appendicectomy in patients with clinically suspected appendicitis but were found have a normal appendix.

METHODOLOGY

One hundred and thirty patients presenting with acute right iliac fossa pain and clinical diagnosis of acute appendicitis were studied prospectively from January 2002 to June 2004. All patients underwent open appendicectomy for suspected appendicitis through either McBurney's or Lanz incision. It was our standard practice to check the terminal ileum, the mesentery and the right ovary in females during appendicectomy. Laparoscopy was performed through appendicectomy incision only when appendix was found to be normal and no obvious pathology detected in the local area. A purse-string suture-using 2/0 PDS was placed at peritoneal edge of the appendicectomy incision. The blunt 10mm port with inflatable balloon (Auto Suture BTT™) was used to maintain pneumoperitoneum. Then standard 0° laparoscope was used to explore any pathology which may have caused the pain.

RESULTS

Patient characteristics are shown in Table 1. Twenty-five (19%) of 130 patients underwent laparoscopy through the appendicectomy incision because of normal looking appendix during appendicectomy. Laparoscopy helped to identify intra-abdominal pathology in 11 of the 25 patients (Table 2 and Figure 1). In two, histological examination showed acute appendicitis despite a normal macroscopic appearance. In twelve patients, the etiology of the acute pain was unclear.



Table 1 - Patient Characteristics

No. of patients who had appendicectomy	130
Median (range) age, years	21(2-68)
Peak age incidence, years	10 - 19
Male: Female	1.4:1

Table 2 - Distribution of Additional Remote Pathology detected by Laparoscopy after Open Appendicectomy

Additional Pathology	No. of Patients
Perforated anterior duodenal ulcer	2
Twisted left ovarian cyst	2
Ruptured follicular ovarian cyst	4
Torsion of appendices epiploicae	1
Sigmoid diverticulitis	2

Figure 1 - Twisted left ovarian cyst was diagnosed by laparoscopy through Mc Burney's incision after appendicectomy for clinical suspected appendicitis when a normal appendix was found and local exploration was negative for other obvious pathology.



CONCLUSION

Diagnostic laparoscopy through Mc Burney's incision in selected patients after open appendicectomy (in whom non-inflamed appendix is seen) can effectively identify the potentially fatal pathology which would have been missed without such an approach. Moreover adopting this selective approach maintains the valuable training experience of open appendicectomy for young surgeons in abdominal surgery.



Clinical Research

Surgical

TITLE	The Long-Term Results of Pubovaginal Sling Surgery using Acellular Cross-Linked Porcine Dermis in the Treatment of Urodynamic Stress Incontinence
AUTHORS	<i>Giri, S.K., Naqvi, S.A., Queally, J., Mabadeje, O., Sheikh, F.M., Narasimhulu, G., Flood, H.D. Department of Urology, Mid-Western Regional Hospital, Limerick</i>

INTRODUCTION

The pubovaginal sling (PVS) has become the first line surgical treatment for all types of urodynamic stress incontinence (USI) in many institutions. Modifications in sling technique have resulted in broader indications, reduced morbidity and shorter hospital stay. Autologous rectus fascia remains the 'gold standard' sling material for the surgical treatment of USI. However, the Pfannensteil incision used for harvesting autologous fascia often results in considerable postoperative morbidity and prolongs patient recovery time. Attempts have been made to reduce morbidity by introducing various ready-made sling materials. The main disadvantage of using synthetic material is the risk of urogenital tract erosion. Compared to synthetic material, biological sling materials offer the promise of increased biocompatibility and a much reduced erosion risk. Cell-free, cross-linked collagen isolated from porcine sources (e.g. Stratasis, Pelvicol) has been extensively used throughout the human body. Acellular porcine dermal collagen (PD) (Pelvicol™) is one such new biological sling material. However, it is important that in providing a substitute biological material for rectus fascia in an attempt to reduce morbidity that long-term efficacy is not compromised.

OBJECTIVE

We compared the 3-year efficacy of PD versus autologous rectus fascia (RF) as a sling material for pubovaginal sling surgery (PVS) in the treatment of urodynamic stress incontinence (USI).

METHODOLOGY

Between July 2000 and December 2001, 101 consecutive, non-randomised patients with USI underwent either PD (n=51) or RF (n=50) sling. Patients were assessed at 6 weeks, and 3, 6 and 12 months postoperatively. Urodynamic study was repeated in failures. A detailed survey questionnaire was mailed to all patients at least 36 months after their surgery and all responders were then retested by telephone interview by a blinded assessor. The primary outcome measure was patient perceived success rate (cure or improved) at least 36 months after PVS. Secondary outcome measures were patient satisfaction 36 months after surgery, durability of success with time and re-operation rate.

RESULTS

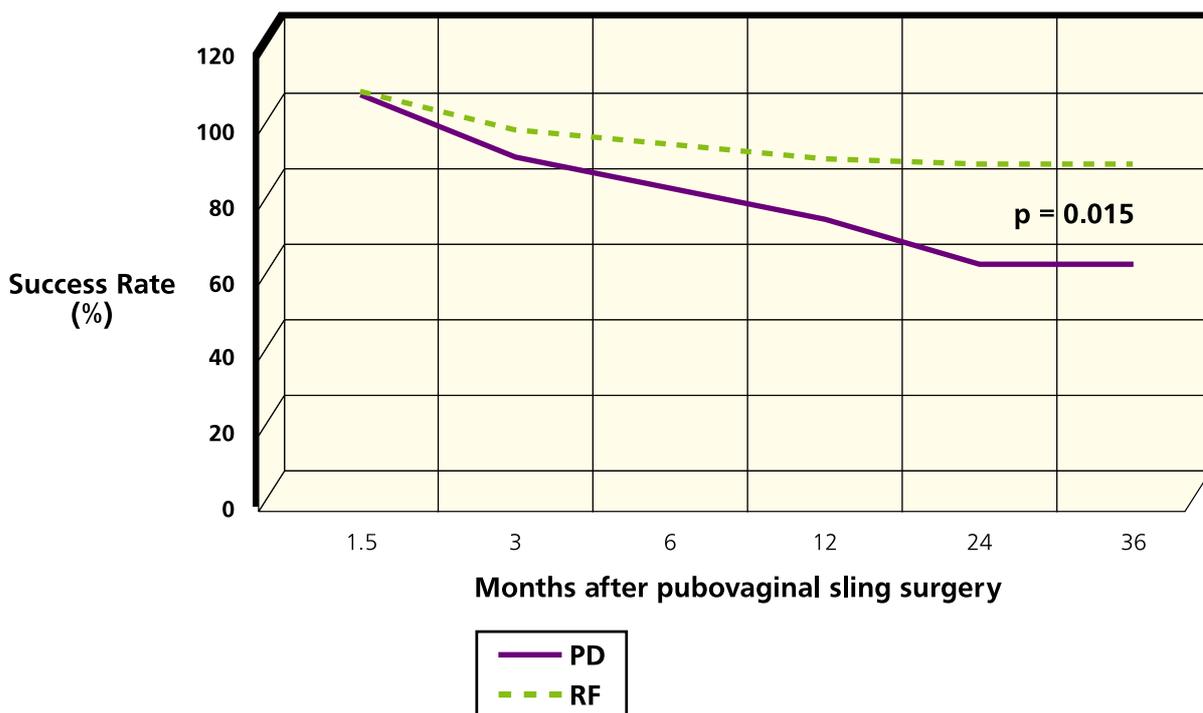
Complete data were available on 94 patients (48 with PD and 46 with RF sling). The groups were well-matched for age, leak point pressure, prior incontinence surgery and urge symptoms. Pubovaginal sling was successful (cured or improved) in 37 (80.4%) patients with RF but in only 26 (54%) patients with PD 36 months after surgery ($p=0.009$, Fisher's exact test, 95% CI = 8.03, 44.4) (Table 1). Failure occurred by 9 months after RF and by 24 months after PD sling (Figure 1). Repeat urodynamic study showed USI as the cause of failure in 18 (37.5%) of 20 PD patients but only 3 (6.5%) of 8 RF patients.



Table 1 - Continence Results of the Pubovaginal Sling Surgery using Acellular Porcine Dermis (PD) or Autologous Rectus Fascia (RF) 36 Months after Surgery

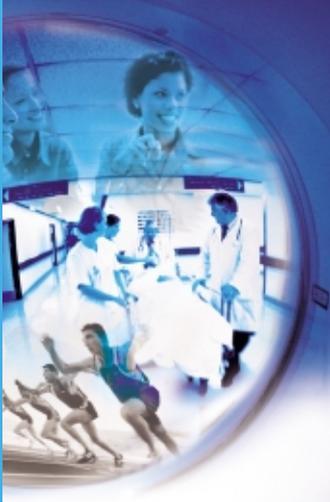
Results	PD n=48 (%)	RF n= 46 (%)
Cured	15 (31)	26 (57)
Improved	11 (23)	11 (23.4)
Failure	22 (46)	9 (19.6)

Figure 1 - Durability of Success following Pubovaginal Sling using Acellular Porcine Dermis (PD) and Autologous Rectus Fascia (RF).



CONCLUSIONS

We have shown that use of the PD sling, although reducing early morbidity results in a significantly inferior long-term cure rate in comparison to the RF sling. Acellular cross-linked porcine dermis should therefore not be used as a substitute for rectus fascia.



Clinical Research

Surgical

TITLE	A Systematic Review of Pain Management after Tonsillectomy
AUTHORS	<i>Noma, U.Y., Ahmed, I., Manning, K., Fenton, J. Department Of Otolaryngology/Head and Neck Surgery, Mid-Western Regional Hospital, Limerick</i>

INTRODUCTION

A wide variety of opinion exists with regard to adjuvant therapy for pain relief in patients undergoing tonsillectomy. Areas of investigation include the role of pre-emptive analgesia, peri-operative use of steroids and antibiotics, the use of Non-Steroidal Anti-Inflammatory Drugs (NSAID) and opioids.

OBJECTIVE

To Review various methods of pain control post tonsillectomy.

METHODOLOGY

There was not enough data available in the published literature to undertake a meta-analysis; a systematic review was therefore undertaken searching the Cochrane controlled trial register, Medline, Embase, NLM gateway, reference lists from identified publications.

RESULTS

Pre-emptive use of NSAID is suggested as the most effective strategy in pain reduction. A meta-analysis on infiltration of tonsillar fossa with local anaesthetic, either pre operatively or after the operation showed no added benefit in the long term. There is no clear cut indication for the use of antibiotics. Careful dissection with minimal tissue damage is an important factor irrespective of the method of dissection.

CONCLUSION

Post tonsillectomy pain management is not consistent and more scientific reports are required. Pre-emptive analgesia with NSAID and careful dissection with minimal tissue damage are the most important factors for reducing pain in patients post tonsillectomy.

PRESENTED

At the out of Town Meeting of the Royal Society of Medicine, Otolaryngology Section in Galway on April 9th, 2005 by Mr. Usman Noma.

Clinical Research

Surgical



TITLE	Haemodynamic Study Examining the Response of Venous Blood Flow to Electrical Stimulation of the Gastrocnemius Muscle in Patients with Chronic Venous Disease
AUTHORS	<i>Clarke-Moloney, M.,¹ Lyons, G.M.,³ Breen, P.,³ Burke, P.E.,^{1,2} Grace, P.A.¹ Department of Vascular Surgery, Mid-Western Regional Hospital, Limerick¹ St John's Hospital, Limerick² Biomedical Electronics Laboratory, Department of Electronic and Computer Engineering, University of Limerick³</i>

INTRODUCTION

Chronic venous insufficiency (CVI) of the lower limbs is frequently caused by failure of the calf muscle pump; such failure can occur secondary to valve destruction in the deep leg veins and can lead to venous hypertension resulting in leg ulceration. Compression bandaging, which is currently the mainstay treatment for venous ulcers, centres on reducing venous hypertension by applying external pressure to aid the calf muscle pump in assisting venous return. Despite the application of compression bandaging, healing rates remain disappointing at 50% to 70% after 12 weeks of treatment. There is an obvious need to develop new treatment strategies, which might improve healing rates.

OBJECTIVE

The aim of this study was to explore the option of stimulating calf muscle contraction through externally applied neuromuscular electrical stimulation (NMES) and to measure venous blood flow response to this stimulation.

METHODOLOGY

10 patients with class 6 chronic venous disease (CEAP classification scale) were recruited onto this study. Measurements of peak venous velocities in the popliteal vein were recorded by Duplex scanning in response to six test conditions; 1. Standing, 2. Voluntary calf muscle contraction, 3. Standing with NMES applied, 4. Standing with compression bandaging applied to the leg, 5. Voluntary calf muscle contraction with compression bandaging applied to the leg, 6. Stationary with compression bandaging applied to the leg and NMES applied. Comfort assessment was completed using visual analogue scales at each test stage and on study completion each patient completed a short structured interview to determine comfort and acceptability of NMES. Statistical analyses were carried out using SPSS, Version 9. Non-parametric testing was used in all analyses using the Wilcoxon Signed Ranks Test for paired samples.

RESULTS

There was a significant increase in venous velocities on voluntary contraction of the calf muscle and with the introduction of NMES, both with compression ($p=0.005$) and without compression ($p=0.005$). The greatest increase with NMES was when combined with compression bandaging. All patients reported the stimulus as an acceptable treatment option with 90% reporting NMES as comfortable.

CONCLUSIONS

Healing rates in venous ulceration with the application of compression bandaging remain between 50-70%. This study shows a positive haemodynamic response to NMES. Further research is needed to quantitatively measure the effect of NMES on healing.



Clinical Research

Surgical

TITLE	Natural History and Clinical Outcome of Patients with Documented Carotid Artery Occlusion
AUTHORS	<i>Cheema, S.,¹ Clarke-Moloney, M.,¹ Kavanagh, E.,¹ Burke, P.E.,^{1,2} Grace, P.A.¹ Department of Vascular Surgery, Mid-Western Regional Hospital, Limerick¹ St. John's Hospital, Limerick²</i>

INTRODUCTION

Stroke is a significant cause of morbidity and mortality in the adult population. 80% of strokes are due to ischaemic infarctions, and 50 % of those result from disease of the extra-cranial carotid arteries. Large multi-centre trials in North America and Europe have shown the benefit of surgery in reducing the risk of stroke with high-grade stenosis of internal carotid artery (ICA).¹ An occluded ICA is considered a safe artery as it causes few symptoms after occlusion. However a recent report has shown that 12% of previously documented occluded arteries had re-canalized with the associated potential risk of cerebral embolization.² We investigated the outcome of patients with a previously documented occluded internal carotid artery and calculated the incidence of re-canalization in our practice population.

METHODOLOGY

30 consecutive patients with a documented occlusion of the internal carotid artery were identified by review of a carotid duplex scan database generated from September 2001 to January 2003. The MWRH ethics committee approved the study. These patients were contacted by phone and a patient information leaflet was sent to each patient. Those who agreed to participate had duplex scans of their occluded carotid artery performed. Demographic and clinical data were collected. Statistical analyses were performed as appropriate.

RESULTS

The total number of scans performed during the original study period was 719. An occluded ICA was identified in 30 (4.2%). 19 patients with a mean age of 66.8 years (M: F 14:5) were rescanned and two (11% of scanned patients) had recanalized a previously occluded ICA. Of the remaining patients four were dead, two were too unwell to participate, three were uncontactable due to changed addresses and two refused to participate.

CONCLUSIONS

Our results show that an occluded ICA can recanalize in more than 10% of patients. The mortality rate in our study patients with occluded ICA is high (13%), whether this is related to the recanalisation process can only be hypothesized. This study raises a number of issues regarding the long-term management of patients with an occluded ICA.

PRESENTED

At the Sylvester O'Halloran Surgical Scientific Meeting in Limerick in March 2005 by Dr Tariq S. Cheema.

REFERENCES

1. Goldstein LB. Extracranial carotid artery stenosis. *Stroke*. 2003;34:2767-2773.
2. Khan PY, et al. Is occluded carotid artery safe? *Br. J. Surg.* 2003;90 Suppl 1:13.

Clinical Research

Surgical



TITLE	Clopidogrel and Bleeding in the Perioperative Period
AUTHORS	<i>Queally, J.,¹ Murphy, T.,¹ Burke, P.E.,^{1,2} Grace, P.A.¹ Mid-Western Regional Hospital, Dooradoyle, Limerick¹ St John's Hospital, Limerick²</i>

INTRODUCTION

Antiplatelet therapy with clopidogrel prevents thrombotic events following intracoronary and endovascular stenting. Furthermore, clopidogrel reduces the risk of ischaemic events in patients with coronary and peripheral vascular disease. However, clopidogrel prolongs bleeding time and adversely affects surgical haemostasis. The aim of this study was to investigate the effect clopidogrel has on perioperative bleeding in the settings of general and vascular surgery.

METHODOLOGY

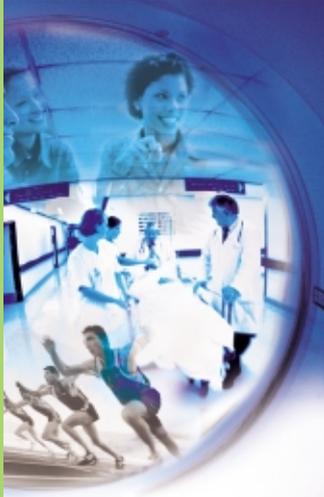
A national postal questionnaire addressing antiplatelet therapy usage and associated perioperative bleeding was circulated to all general and vascular surgeons practising in the Republic of Ireland.

RESULTS

The overall response rate was 51% (73/142); 50% (56/112) of general surgeons and 56% (17/30) of vascular surgeons responded. Prior to elective surgery 94% of vascular surgeons and 75% of general surgeons discontinue clopidogrel (mean: 10 days). No vascular surgeon discontinues aspirin while 59% of general surgeons discontinue aspirin prior to elective surgery (mean: 7 days). Perioperative bleeding primarily associated with clopidogrel was experienced by 82% of vascular surgeons and 37% of general surgeons in an elective setting. Perioperative bleeding primarily associated with clopidogrel was experienced by 59% of vascular surgeons and 32% of general surgeons in an urgent or emergency setting. The associated morbidity included transfusion with blood products, re-exploration, wound complications and prolonged intensive care unit and hospital stays. Three deaths were reported; one in an elective vascular case and two in an emergency general surgery setting.

CONCLUSION

Clopidogrel associated perioperative bleeding is a common clinical entity causing significant morbidity and mortality. National guidelines on the use of antiplatelet therapy in elective and emergency settings are required.



Clinical Research

Surgical

TITLE	Efficacy of Wedge Resection with Phenolization in the Treatment of Ingrowing Toenails - A Single Surgeon Experience
AUTHORS	<i>Shaikh, F.M., Jafri, M., Keane, R. St. John's Hospital, Limerick</i>

ABSTRACT

Ingrowing toenails cause a great deal of discomfort and may result in missed time from school, work and sports. Different treatment methods with different outcomes have been described in the literature ranging from simple conservative measures e.g. silver nitrate cautery to more radical surgical procedures like partial matrix excision with or without segmental phenolization^{1,2} but the standard approach is still a topic of debate.

A retrospective analysis was undertaken on 100 consecutive patients (55 males and 45 females) who had ingrowing toenail surgery of the hallux between January 2000 and June 2004. In all 168 procedures were performed on medial and/or lateral margins of one or both halluces. All procedures were performed by the same surgeon in the day ward. A telephonic questionnaire was used to evaluate the post operative morbidity, recurrence rate, time to return to normal activities, scar satisfaction and overall patient satisfaction with their procedure.

- The overall response rate was 60%
- Recurrence rate requiring further surgery was less than 1% (1 in 105 procedures studied).
- Post operative infection rate was 2.4%
- Patient scar satisfaction was 98% and overall patient satisfaction rate 99%
- The mean time to return to work and normal activities was 2.1 weeks

Our study shows that wedge resection with phenolization is a very effective mode of therapy in the treatment of ingrowing toenail. The technique is easy, safe, and quick with low morbidity, good cosmetic results and a high success rate.

REFERENCES

1. Gerritsma-Bleeker CL, Klaase JM, Geelkerken RH, Hermans J, van Det RJ. Partial matrix excision or segmental phenolization for ingrowing toenails. *Arch Surg.* 2002 Mar;137(3):320-5.
2. Fulton GJ, O'Donohoe MK, Reynolds JV, Keane FB, Tanner WA. Wedge resection alone or combined with segmental phenolization for the treatment of ingrowing toenail. *Br J Surg.* 1994 Jul;81(7):1074-5.

PRESENTED

As a Poster Presentation at the Sylvester O'Halloran Surgical Scientific Meeting in Limerick, March 4th-5th, 2005.

SOURCE

Irish Journal of Medical Science 2005;174(1)Suppl 1:64.

Clinical Research

Surgical



TITLE An MRI-Based Study of Retropubic Haematoma following Sling Procedures: Preliminary Findings

AUTHORS *Giri, S.K.,¹ Wallis, F.,² Drumm, J.,¹ Saunders, J.A.,³ Flood, H.D.¹
Department of Urology¹ and Radiology,² Mid-Western Regional Hospital and National Institute of Health Sciences, Ireland
Statistical Consulting Unit, University of Limerick, Ireland³*

ABSTRACT

Sling procedures have been used for over a century for the treatment of female stress urinary incontinence (SUI). Modifications in sling technique have resulted in broader indications, reduced morbidity and shorter hospital stay. By using a rectus fascia substitute, one can avoid the Pfannenstiel incision and eliminate the morbidity associated with fascial harvesting. We have found that a suprapubic 'needle down' technique and finger controlled tracking of the needle to the vaginal incision is a safe procedure during xenograft (porcine dermis) sling (XS) placement¹. After paraurethral dissection the suprapubic needle can be guided digitally thereby minimising the risk of visceral injury. However this requires vaginal dissection and perforation of the endopelvic fascia from below to facilitate passage of the finger. This may result in bleeding which tracks up into the retropubic space. There are no prospective studies in the literature of retropubic haematoma incidence detected by imaging. It is likely that retropubic haematoma could lead to increased postoperative morbidity such as pain, fever; vaginal bleeding and suprapubic wound haematoma/infection. It is also possible that postoperative bladder emptying efficiency (EE) might be impaired and in turn hospital stay prolonged by such haematomata.

The aim of this study was to determine, using magnetic resonance imaging (MRI), the incidence of retropubic haematoma and any associated clinically significant effects following xenograft (porcine dermis) sling (XS) or the tension-free vaginal tape (TVT) procedure.

Between October 2003 and March 2004, 24 consecutive patients presenting with stress urinary incontinence (SUI) were enrolled in this prospective study. Twelve patients each underwent XS or TVT. Patients were assigned to either techniques depending on the surgeon's preference. A vaginal balloon pack was used for only 3 hours after XS and not at all after TVT. All patients underwent pelvic MRI 6 to 8 hours postoperatively. The interpretation of all images was performed by a consultant radiologist (FW). Retropubic haematoma was defined as a haematoma measuring 2 cm x 2 cm x 2cm or larger in its 3 largest diameters. The distribution of the haematoma was also noted. They were arbitrarily divided into small (2 - 3.9 cm), medium (4 - 5.9 cm) or large (≥ 6 cm) sizes.

Our primary outcome measure was the incidence and distribution of retropubic haematoma after each sling technique. Secondary outcome measures included time interval to the first three spontaneous voids, bladder emptying efficiency of the first three voids, VAS pain score at 24-hour postoperatively, and short-term (6 months) SUI cure rate.

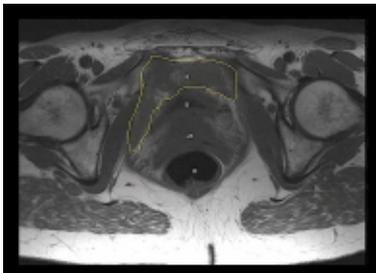
Haematomas appeared as low to medium signal intensity areas in T1-W sequence and as medium to high intensity areas in T2-W sequence. Overall, six (25%) patients (4 in the XS and 2 in the TVT) developed a retropubic haematoma. Most commonly, they spread along the right paravesicourethral space between the right half of the levator ani and the bladder neck (Figure 1). Patients with large haematomas took significantly longer to void (median 14.5 v. 6.0 hr, $p = 0.048$). There was no difference in pain score in patients with or without haematoma. None of the patients had clinically detectable haematomas in the suprapubic wound. All 6 patients with haematomas were cured or improved at 6 months follow-up.



MRI is a useful non-invasive modality for the detection of early postoperative retropubic haematomas. This study has shown a surprisingly high incidence of retropubic haematomas especially after the xenograft sling procedure. Retropubic haematomas may influence postoperative voiding efficiency.

Figure 1 - Retropubic haematoma (medium size) following xenograft sling

In axial T1-weighted image, haematoma appears as low to medium signal intensity area (outlined). In the axial view the haematoma is seen tracking along the right paravesical space from the retropubic space. H = haematoma, B = bladder, UT = uterus, R = rectum



REFERENCE

1. Giri SK, Drumm J, Saunders JA, McDonald J, Flood HD. Day-case sling surgery for stress urinary incontinence: feasibility and safety. *BJU Int.* 2005;95:827-832.

PRESENTED

At the British Association of Urological Surgeons (BAUS) Annual Meeting 2005 in Glasgow by Mr Subhasis K. Giri.

SOURCE

Giri SK, Wallis F, Drumm J, Saunders JA, Flood HD. A magnetic resonance imaging-based study of retropubic haematoma after sling procedures: preliminary findings. *BJU Int.* 2005;96:1067-71.

Clinical Research

Surgical

TITLE	Endoscopic Holmium Laser Excision of Intravesical Tension-Free Vaginal Tape and Polypropylene Suture after Anti-Incontinence Procedures
AUTHORS	<i>Giri, S.K., Drumm, J., Flood, H.D. Department of Urology, Mid-Western Regional Hospital, Limerick</i>

ABSTRACT

A wide variety of procedures have been developed for the surgical treatment of stress urinary incontinence (SUI). One risk of using synthetic material in anti-incontinence surgery is the potential for erosion into the bladder or urethra. Problems related to urogenital tract erosion of the sling material appear to be encountered almost exclusively with synthetic sling materials. Erosion rates varying from 0.3% to 23% have been reported with sling procedures and autologous material has the lowest rate.¹ The holmium laser has an established role in urology, particularly in the treatment of benign prostatic hyperplasia and urolithiasis.² Its light (wavelength 2140 nm) has a high coefficient of absorption in water, such that 95% of the laser energy is absorbed after traversing 0.5mm under water. Thus, the majority of the laser energy is contained superficially, imparting the holmium laser with excellent cutting and tissue ablation properties under water. We describe the use of holmium laser in the excision of intravesical polypropylene mesh or suture as a complication of anti-incontinence procedure.

To report our technique of endoscopic excision of intravesical tension-free vaginal tape and polypropylene sutures using the holmium laser following various anti-incontinence procedures.

Three patients who previously underwent the tension-free vaginal tape, Burch colposuspension and Stamey vesicopexy presented with a range of symptoms of haematuria, recurrent urinary tract infection, frequency, urgency and urinary incontinence. Patients were evaluated with history and examination. All three were found to have a complication due to intravesical non-absorbable material.

There was obvious encrustation over the eroded polypropylene material within the bladder. A 365- μ m tip firing holmium laser fiber was inserted through the working channel of the flexible cystoscope. The tape and sutures were successfully excised using a holmium laser output of 1.0J/pulse at a rate of 10 Hz. Mean operative time was 15 minutes.

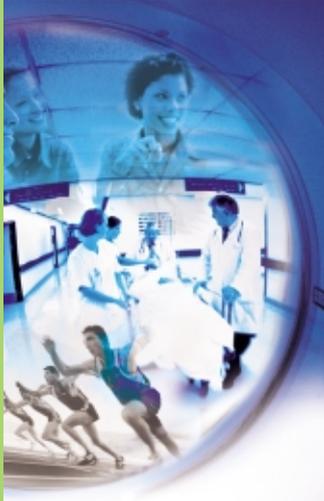
The holmium laser excision of intravesical polypropylene tape is a minimally-invasive solution to the problem of intravesical perforation or erosion following anti-incontinence procedures.

REFERENCES

1. Clemens JQ, DeLancey JO, Faerber GJ, Westney OL, McGuire EJ. Urinary tract erosions after synthetic pubovaginal slings: diagnosis and management strategy. *Urology*. 2000;56:589.
2. Wollin TA, Denstedt JD. The holmium laser in urology. *J Clin Laser Med Surg*. 1998;16:13.

SOURCE

Giri SK, Drumm J, Flood HD. Endoscopic holmium laser excision of intravesical tension-free vaginal tape and polypropylene suture after anti-incontinence procedures. *J Urol*. 2005;174:1306-7.



Clinical Research

Surgical

TITLE	Seven-Year Retrospective Review of Facial Lacerations Treated under General Anaesthesia by the Oral and Maxillofacial Surgery Department of the Mid-Western Regional Hospital
AUTHORS	<i>Boyle, N., Kearns, G.J. Department of Oral and Maxillofacial Surgery, Mid-Western Regional Hospital, Dooradoyle, Limerick</i>

ABSTRACT

Patients with facial lacerations commonly present to Accident and Emergency Departments. A large number particularly children require suturing under general anaesthesia.¹

This is a seven-year (1998–2004) retrospective study of facial lacerations admitted under the Oral and Maxillofacial Surgery Service and sutured under general anaesthesia at the Mid-Western Regional Hospital, Limerick. Two hundred and sixteen patients were identified from the database for the period 1998 to August 2004 as having facial lacerations sutured under general anaesthesia by the Department of Oral and Maxillofacial Surgery.

The following information was investigated: aetiology, gender, age, the location where the injury occurred, site of facial laceration, associated injuries, admission to treatment time, hospital stay, need for scar revision.

The study population was 216: male 138 (64%), female 78 (36%).

The mean age was 11 years (13 months - 86 years). 122 (57%) of patients were less than 10 years.

The aetiological factors were: falls 134 (62%), road traffic accidents 27 (12.5%), assaults 19 (8.7%), dog bites 14 (6.4%), miscellaneous 22 (10%).

The following locations were recorded: domestic/farm 119 (55%), public place 80 (37%), school 12 (5.5%), bar 5 (2%).

The sites of the lacerations on the face were: lip 36%, forehead 23%, cheek 19% and tongue 12.5%. Other sites included the palate, the gingiva, chin and scalp. Over 20% of patients had associated injuries: 20 orthopaedic, 9 facial fractures, 5 dental injuries, 2 skull fractures, 1 globe rupture and 5 miscellaneous.

The time between admission and treatment was on average 12 hours (range 2 - 48hrs). Out of hours operating was common with 54% of patients treated on emergency theatre lists and 46% of patients treated on routine maxillofacial theatre lists.

The average hospital stay was 3 days (range 1 -18 days). Two patients (0.9%) required scar revision.

Many facial lacerations can be sutured under local anaesthetic in the Accident and Emergency Department. The patient's age and level of cooperation may advocate the use of general anaesthesia in order to obtain the optimal postoperative cosmetic result. Treatment under general anaesthetic leads to significant out of hours activity (54%), but also disruption of routine operating lists (46%). The availability of an emergency theatre facility to treat these patients would reduce the need to postpone elective surgery.



REFERENCE

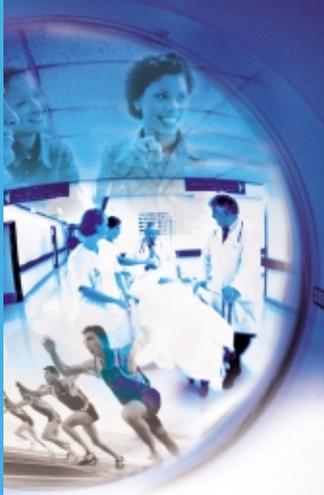
1. Zerfowski M, Bremerich A. Clin Oral Investig. 1998 Sep 2;3:120-4.

PRESENTED

As a Poster Presentation at the Sylvester O'Halloran Surgical Scientific Meeting in Limerick on March 4th - 5th, 2005.

SOURCE

Irish Journal of Medical Science 2005;174(1)Suppl 1;72.



Clinical Research

Clinical Services

TITLE	The Incidence and Recognition of Undernutrition of Patients Admitted to the Mid-Western Regional Hospital, Limerick
AUTHORS	<i>Bowers, S. Department of Clinical Nutrition and Dietetics, Mid-Western Regional Hospital, Limerick</i>

INTRODUCTION

Undernutrition in hospital often goes unrecognised. Several studies have noted an 11 - 40% incidence of under nutrition among both surgical and medical inpatients.^{1,2,3,5}

Undernutrition has been well documented, causing patients adverse physiological and psychological effects and so places unnecessary costs on the health service. Nutritional depletion is often insidious with a multifactorial aetiology and abnormalities of nutritional status or food intake are not often even considered in a hospital setting. Awareness of this possibility is the key to recognition. Therefore early identification of patients with poor nutritional status or an inadequate nutrient intake is essential.

OBJECTIVE

The objective of this descriptive study was to evaluate the prevalence of undernutrition of patients admitted to the Mid-Western Regional Hospital, Limerick (MWRH).

METHODOLOGY

A list of the names of patients admitted to the hospital was obtained from the computerised patient administration system (PAS). All patients were assessed within 48 hours of admission. Using specific criteria the current nutritional status of the subjects was classified as normal, mildly, moderately or severely undernourished, overweight or obese.

RESULTS

Of the 141 patients recruited, 12(8.5%) were classified as undernourished, 43(30.5%) were classified as normal, 53(38%) were overweight and 33(23%) were obese.

CONCLUSIONS

Direct comparison by speciality between the MWRH and the study undertaken by Corish et al. 2000 in Dublin shows a lower prevalence of undernutrition in each patient group and a higher prevalence of overweight and obesity.

Unless the signs of poor nutritional status and inadequate food intake are specifically looked for as a matter of routine, deterioration of nutritional status is unlikely to be detected and treated until it becomes extreme. It is particularly important that all those involved in caring for and feeding the hospital patient be aware of this problem of undernutrition.

The number of adult patients identified as overweight or obese in this study is comparable to the national figures (38% cf 39% and 23% cf 18% respectively). Approximately 2,000 premature deaths are attributed to obesity annually at an estimated cost in economic terms of €4bn to the state.⁵

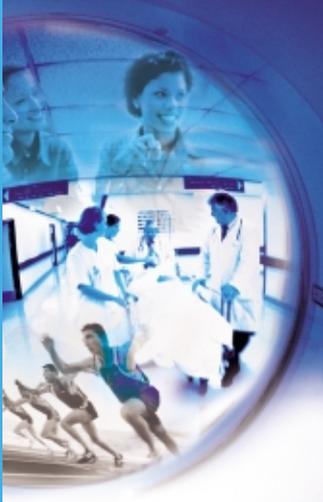


RECOMMENDATIONS

Early nutritional assessment and appropriate nutritional intervention should be accepted as essential for the delivery of quality health care. It should become a compulsory part of routine patient assessment not an optional extra. Nutritional assessment not only identifies undernutrition, it is also a valuable means of highlighting obesity, which as can be seen from this study, is also common amongst hospitalised patients. A note about each patient's nutritional status should be mandatory in medical and nursing admission notes.

REFERENCES

1. Bruun LI, Bosaeus I, Bergstad I, Nygaard K. Prevalence of malnutrition in surgical patients: evaluation of nutritional support and documentation. *Clin Nutr.* 1999;18(3):141-147.
2. Corish CA, Flood P, Mulligan S, Kennedy NP. Apparent low frequency of undernutrition in Dublin hospital in-patients: should we review the anthropometric thresholds for clinical practice? *British Journal of Nutrition.* 2000;84: 325-335.
3. Edington J, Boorman J, Durrant ER., Perkins A, Giffin CV, James R. et al. Prevalence of malnutrition on admission to four hospitals in England. *Clin Nutr.* 2000;19(3):191-195.
4. Mc Whirter JP, Pennington CR. Incidence and recognition of malnutrition in hospital. *BMJ.* 1994;308:945-948.
5. Department of Health and Children. Government Stationery Office. The Report of the National Taskforce on Obesity: Obesity the Policy Challenges. Dublin; 2005.



Clinical Research

Mental Health

TITLE	Depression: Prescribing and Referring in General Practice
AUTHORS	<i>Ryan, S.,^{1,2} O'Connor, R.,² Kirwan, P.¹ Department of Psychiatry, Mid-Western Regional Hospital, Limerick¹ Mid-Western Specialist Training Scheme in General Practice, University of Limerick²</i>

INTRODUCTION

Depression is a common psychiatric disorder. The majority of patients with depression are initially seen and treated by their general practitioner (GP). Therefore accurate diagnosis and effective treatment are essential.

OBJECTIVE

To discover what initial drug and dose GPs are prescribing and to find out are patients referred before therapeutic efficacy can be assessed.

METHODOLOGY

50 consecutive referrals with an ICD code of depression from all General Practitioners in the relevant catchment area were analysed retrospectively. Factors identified were drug and dose initially prescribed by GP, date of referral and date of initial outpatient visit, age sex and comorbidities. The interval between initial prescribing and referral, and change in dose or class of drug were also identified. As this was a simple observational study statistical analysis was not deemed necessary. Of the 50 patients analysed 18 were male average age 36.5 years (range 18-65) and 32 were female average age 36.1 years (range 16-56) with 8 GPs prescribing and referring habits analysed. Of the GPs, 5 were male and 3 were female.

RESULTS

Referral patterns from GPs varied substantially. 34 patients were commenced on medication prior to referral. Time from referral to initial visit varied from same day to 21 days. Of the 34 patients on medication, 16 continued original therapy after their initial visit. Time allowed for therapeutic efficacy ranged from one day to 2 years. 7 patients were referred after less than 1 week of therapy. 14 were referred after less than 2 weeks, 6 were referred after less than a month. Of the 16 not on any medication 10 were commenced on anti-depressant therapy. 2 were referred for sexual abuse counselling, 2 for psychology, 1 for bereavement counselling and 1 patient refused medication.

CONCLUSIONS

The majority of patients were referred before therapeutic efficacy could be assessed. Dose increase prior to referral should be considered. Often referral is designed to access support services not available in the community.

The majority of uncomplicated depression can be managed well in general practice with referral reserved for suicidal or unresponsive patients or for accessing supports not available in the community.

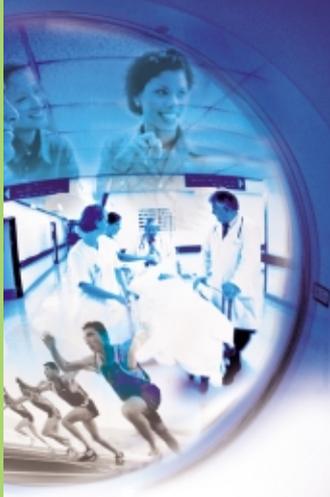


PRESENTED

As a poster presentation at the European General Practice Research Network in Germany, May 5th - 8th, 2005 by Dr. Susan Ryan.

FUNDING

Irish College of General Practitioners Bursary to attend Conference.



Clinical Research

Mental Health

TITLE

A Case of Clarithromycin Psychosis

AUTHORS

*Elahi, F., Bhamjee, M.
Ennis Psychiatric Unit, Ennis General Hospital, Ennis, Co. Clare*

ABSTRACT

A 19-year-old girl developed an immediate psychotic reaction following I.V. Clarithromycin (KLACID). She responded to atypical anti-psychotics but needed psychiatric hospitalisation. She recovered after a year and is now symptom free without any medication. This is a rare side-effect but needs to be recognised.

A 19 year old girl presented to her general practitioner in June 2002 with a sore throat. A course of Penicillin was prescribed but had to be discontinued as she developed a rash. Due to difficulty in swallowing and a continuing sore throat the patient was admitted to the medical ward of a general hospital. Following confirmation of the diagnosis of acute tonsillitis a course of intravenous Clarithromycin (KLACID) was prescribed. Following the second dose of I.V. Clarithromycin the next day she became psychotic and agitated with visual and auditory hallucinations and she believed that she was in heaven. She could see the angels, she was walking on clouds. The girl became disorientated for time, place and person and expressed feelings of derealisation and depersonalisation.

Antibiotics were stopped and she was urgently prescribed I.V. haloperidol and lorazepam but developed a dystonic reaction on the third day which responded to benzotropine. The patient was examined by the liaison psychiatrist who continued the prescription of haloperidol but her psychotic state persisted. All her physical investigations were normal on referral by the General Medical Consultant Physician and her tonsillitis had improved. On her 5th day of admission her psychotic symptoms continued and now the young girl felt that she was possessed and was the cause of other people's death and medical staff felt that she could not be treated in a medical unit. This reaction could be secondary to her physical illness e.g. encephalitis, incidental or a reaction to Clarithromycin.

She was transferred to the Psychiatric Department at Ennis General Hospital for further treatment of her acute psychotic state. In the unit, she remained paranoid, perplexed and admitted to auditory hallucinations in the 3rd person. She also smiled and laughed inappropriately. Haloperidol was immediately stopped and atypical anti-psychotics (Risperidone 2 mgs) was commenced. The patient responded slowly and during her stay the psychotic symptoms persisted. A gradual improvement was noted every few days by the nursing staff and her family.

Thus as the young girl returned to normal life and community living, her Risperidone was gradually reduced over a period of 6 months. She returned to college but noted a problem with memory for names, places and events and especially of the period in the General Hospital and the early days of admission to the Psychiatric Unit. This memory problem was confirmed by psychological testing but has resolved over a period of time except for the time of the acute onset of her psychosis.

The patient is now able to continue with her academic studies, able to complete her assignments and projects and is mixing socially with fellow students and her personality has returned. Her family are pleased with her progress. Her Risperidone has been stopped for 10 months, (November 2003) and no adverse reactions have been reported. She continues to be reviewed at the out-patient clinic for the present.

Psychosis secondary to Clarithromycin is a rare event and has been reported in the medical literature.



Adverse events range from 4% to 30%; but worse events on the nervous system have occurred in 3% of patients including dizziness, anxiety, insomnia, bad dreams, confusion, disorientation, hallucinations.

To reconfirm that this was a case of sensitivity to Clarithromycin – a re-challenge would be necessary but also dangerous and risky to both the patient and medical staff and would be an academic exercise.

The U.K. Pharma Co Vigilance Group CSM has had 17 reports since 1991 of paranoid delusional psychosis. There are speculations that these reactions maybe under reported. To date the Irish Medicines Board has 3 reported cases of a similar kind.

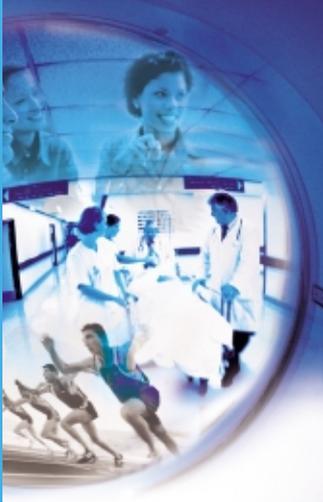
In this case a 19-year old girl reacted to Clarithromycin and developed an acute psychotic reaction. She responded to Risperidone and now resumes a normal life. The family were worried that their daughter was admitted to a General Hospital as a normal girl and was discharged with a psychotic illness five days later.

It frightens the family to think that their child could react in this way to antibiotics and they wonder if a similar reaction could develop with other antibiotics or if Clarithromycin was re-prescribed.

The other fear the patient has is of a recurrence of the psychosis and medically one wonders whether she is now prone to further psychotic episodes or not.

SOURCE

1. Psychiatric Bulletin 2004;28:98-99.
2. Ir J Psych Med. 2005 Jun;22(2):73-74.



Clinical Research

Intellectual Disability

TITLE	Autism and Food Selectivity: A Review of the Literature
AUTHORS	<i>O'Dea, F. Health Service Executive Mid-Western Area, Friar Street, Nenagh, Co. Tipperary</i>

INTRODUCTION

Food selectivity is a potentially serious problem. In theory, autistic children should have a high prevalence of this condition due to their strict adherence to routines and rituals, sensory regulation difficulties and behavioural problems.

OBJECTIVE

The aim of this study was to review as many published articles as possible that dealt with food selectivity and autism. The objective was to ascertain the prevalence of this condition, the available treatments, and their effectiveness.

METHODOLOGY

In total 39 articles were selected for the final review. Eight of these looked at the prevalence of the condition. All were flawed but suggest that the prevalence is high. No conclusions could be drawn. Ten types of available treatments were found. All are behavioural in nature.

Sixteen articles were reviewed regarding the effectiveness of treatment but were excluded due to failure of the subjects to meet inclusion criteria, poor study design, overlap of treatments being compared, and inhumane treatments studied. There were five articles that were satisfactory. Positive reinforcement, presenting preferred food with non-preferred food, texture fading, and the more aversive techniques of non-removal of the spoon and physical guidance all achieved positive results. The numbers of children enrolled was small in all studies.

CONCLUSION

Treatment is often very prolonged. The grey areas of the literature give some practical advice but this has not been tested scientifically. A proper feeding assessment needs to be carried out prior to treatment. Ideally the problem should be managed by an interdisciplinary team. Suggestions for further research are given that look at the problem as it affects each individual child with autism or Pervasive Developmental Disorder (PDD).

Research also needs to look at the treatment of the sensory integration difficulties these children may have. When this research is successfully completed it will be possible to advocate a course of treatment for the individual child.

FUNDING

This research was submitted as a thesis for an M.Sc. in Child Health from Cardiff University and was fully funded by the Mid-Western Health Board.



Clinical Research

Biomedical Electronics

TITLE	Accelerometer Based Calf Muscle Pump Activity Monitoring
AUTHORS	<i>O'Donovan, K.J.,¹ O'Keefe, D.T.,¹ Grace, P.A.,² Lyons, G.M.¹ Biomedical Electronics Laboratory, Department of Electronic and Computer Engineering, University of Limerick¹ Department of Vascular surgery, Mid-Western Regional Hospital, Limerick²</i>

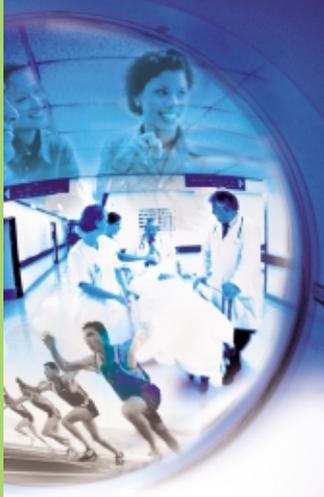
ABSTRACT

Long distance travel is associated with increased risk of deep vein thrombosis (DVT). There is an increased risk of travel related DVT in passengers with a predisposition to thrombosis. Assisting blood circulation in the lower limb will reduce the risk of DVT. Leg exercises are recommended as a DVT preventative measure while flying but this fails to account for a passenger who is distracted by in-flight entertainment or who falls asleep for an extended period.

A method for monitoring calf muscle pump activity using accelerometers has been developed and evaluated. The proposed technique could be used to alert the traveller that there is a need to exercise their calf muscle, thus reducing the risk of DVT.

SOURCE

Medical Engineering & Physics. 2005;27(8):717-22.



Clinical Research

Biomedical Electronics

TITLE	Application of Higher Order Statistics Techniques to EMG Signals to Characterize the Motor Unit Action Potential
AUTHORS	<i>Shahid, S.,¹ Walker, J.,¹ Lyons, G.M.,¹ Byrne, C.A.,¹ Nene, A.V.² Biomedical Electronics Laboratory, Department of Electronic and Computer Engineering, University of Limerick, Ireland¹ Roessingh Rehabilitation Centre, Enschede, The Netherlands²</i>

ABSTRACT

The electromyographic (EMG) signal provides information about the performance of muscles and nerves. At any instant, the shape of the muscle signal, motor unit action potential (MUAP), is constant unless there is movement of the position of the electrode or biochemical changes in the muscle due to changes in contraction level. The rate of neuron pulses, whose exact times of occurrence are random in nature, is related to the time duration and force of a muscle contraction. The EMG signal can be modelled as the output signal of a filtered impulse process where the neuron firing pulses are assumed to be the input of a system whose transfer function is the motor unit action potential. Representing the neuron pulses as a point process with random times of occurrence, the higher order statistics based system reconstruction algorithm can be applied to the EMG signal to characterize the motor unit action potential.

In this paper, we report results from applying a cepstrum of bispectrum based system reconstruction algorithm to real wired-EMG (wEMG) and surface-EMG (sEMG) signals to estimate the appearance of MUAPs in the Rectus Femoris and Vastus Lateralis muscles while the muscles are at rest and in six other contraction positions.

It is observed that the appearance of MUAPs estimated from any EMG (wEMG or sEMG) signal clearly shows evidence of motor unit recruitment and crosstalk, if any, due to activity in neighbouring muscles. It is also found that the shape of MUAPs remains the same on loading.

Publication Types:
Clinical Trial
Validation Studies

SOURCE

IEEE Transactions in Biomedical Engineering. 2005;52(7):1195-209.

Clinical Research

Biomedical Electronics



TITLE	A Description of an Accelerometer-Based Mobility Monitoring Technique
--------------	--

AUTHORS	<i>Lyons, G.M.,¹ Culhane, K.M.,¹ Hilton, D.,² Grace, P.A.,³ Lyons, D.² Biomedical Electronics Laboratory, Department of Electronic and Computer Engineering, University of Limerick¹ Rehabilitation Centre, St. Camillus' Hospital, Limerick² Vascular Surgery Department, Mid-Western Regional Hospital, Limerick³</i>
----------------	---

ABSTRACT

Accurate monitoring of the mobility status of older adults, over the long-term, is important in rehabilitation medicine, as regular physical activity is central to maintaining both physical and mental health, as well as evaluating quality of life.

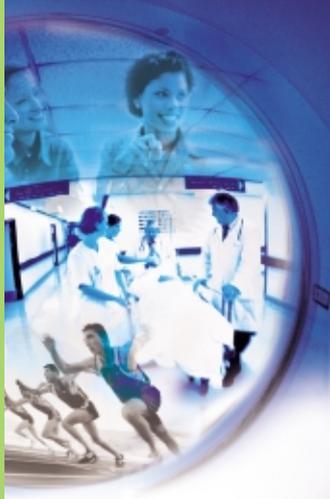
This technical note describes an accelerometer-based mobility monitoring technique, which can distinguish between static and dynamic activities and can detect the basic postures of sitting, standing and lying. The technique allows thresholds for these postures to be set and two different posture threshold methods are described: mid-point and "best estimate".

Preliminary results from using these methods are presented. This preliminary evaluation of the technique was carried out over the long-term (>29 h) in an uncontrolled environment and the method used to carry out the evaluation is described in detail. The two different posture thresholding methods were tested on long-term mobility data from one older adult subject. The subject did not have to follow a specific activity protocol during the recording period (4 days) and was shadowed by an observer in order to evaluate the accuracy of this technique. The monitoring hardware consisted of two accelerometer devices, one on the trunk and the other on the thigh and a pocket-sized ambulatory data-logger. Applying 'best estimate' thresholding, as opposed to mid-point thresholding, improved sitting detection accuracy by 18% to 93% and lying detection accuracy by 5% to 84%.

Thus, based on these preliminary data, an accurate mobility monitoring system for older adults is described and it was observed that the actual posture threshold limits applied have a high impact on the mobility monitoring system's accuracy and are particularly important for accurately detecting postures when used over the long-term, in an uncontrolled environment.

SOURCE

Medical Engineering & Physics. 2005;27(6):497-504.



Clinical Research

Biomedical Engineering

TITLE	Gamma Dosimetry Using Commercial PMMA Optical Fibres for Nuclear Environments
AUTHORS	<i>O'Keeffe, S.,¹ Fitzpatrick, C.,¹ Fernandez, A.F.,² Brichard, B.,² Berghmans, F.,² Lewis, E.¹ Electronic and Computer Engineering Department, University of Limerick, Ireland¹ SCK•CEN, Belgian Nuclear Research Centre, Boeretang 200, B-2400 Mol, Belgium²</i>

ABSTRACT

The nuclear industry is considering using fibre optic radiation monitors for dose monitoring applications where the fibre technology brings certain advantages compared to conventional radiation monitors. Typical applications are the local dose deposition measurements or the distributed hot-spots dose monitoring in nuclear waste storage facilities. Applications in the medical domain are also conceivable.

Ionising radiation can affect in various ways the properties of optical fibres but the most well-known effect is the so-called Radiation-Induced optical Absorption (RIA), which is the increase of the fibre attenuation induced by the gamma radiation. The measurement of RIA as radiation sensing principle has already been proposed and studied for all-silica optical fibres. An ideal fibre optic dosimeter should not only exhibit high radiation sensitivity, but also weak annealing effects. However, commercially-available optical fibres do not usually meet these requirements. Therefore, the approach usually retained for developing fibre radiation monitors consists in fabricating specialty fibres with specific dopants in order to obtain weakly recovering fibres. For example, in previous works it is shown that phosphorous core-doped fibres without any other co-dopants (like Ge) show almost no annealing even after several months when interrogated in the 1.5 μm wavelength range. Distributed real-time monitoring system can be built using classical optical time domain reflectometry and intrinsic fibre optic radiation monitors.

On the other hand, the radiation-induced colouration of certain types of dyed and colourless polymethyl-methacrylate (PMMA) is used extensively in the radiation processing industry to monitor doses, in water-equivalent material, deposited during the radiation-sterilisation of medical products or during the radiation-pasteurisation of food products. The dose, which they have been exposed to, is determined by monitoring the radiation-induced attenuation through the slab using a spectrophotometer. These plastic dosimeters combine acceptable radiation sensitivities with low recovering effects. This dosimetry technique has two main drawbacks. The dose read-out obviously involves removing the dosimeter from the area of interest for measuring it in a laboratory and this technique does not provide any real time information.

In this paper, the feasibility of using PMMA based polymer optical fibres for on-line dosimetry applications is investigated. In general, a PMMA optical fibre is made of 1 mm PMMA core ($n_{\text{core}} \sim 1.49$) surrounded by a thin polymer layer of fluoridated PMMA to obtain a smaller refractive index ($n_{\text{cl}} \sim 1.41$). This work presents not only the effects of gamma radiation on PMMA optical fibre up to a total dose of 34,1 kGy.

From the transmission spectra, it was found that there are five fibres whose spectra have not been evidently affected. These are the two control fibres that have not been irradiated and the three fibres dosed at 0.5 Gy/h, 4.5 Gy/h, and 40 Gy/h. There were two spectra that have been altered radically during irradiation. These are the fibres exposed with dose rates of 340 Gy/h and 1.42 kGy/h. This suggests that the fibres appear to have a threshold in terms of total dose, above which they start to show the effects of the irradiation. This threshold appears to be at somewhere between 100 Gy and 1000 Gy but more data points in this region would be necessary in order to make a more precise judgement. The affected fibres are seen to have a narrower transmission region with the lower wavelengths being particularly affected. From 400 nm to 700 nm there is a visible decrease in intensity with increasing doses. Above this the affects are minimal.



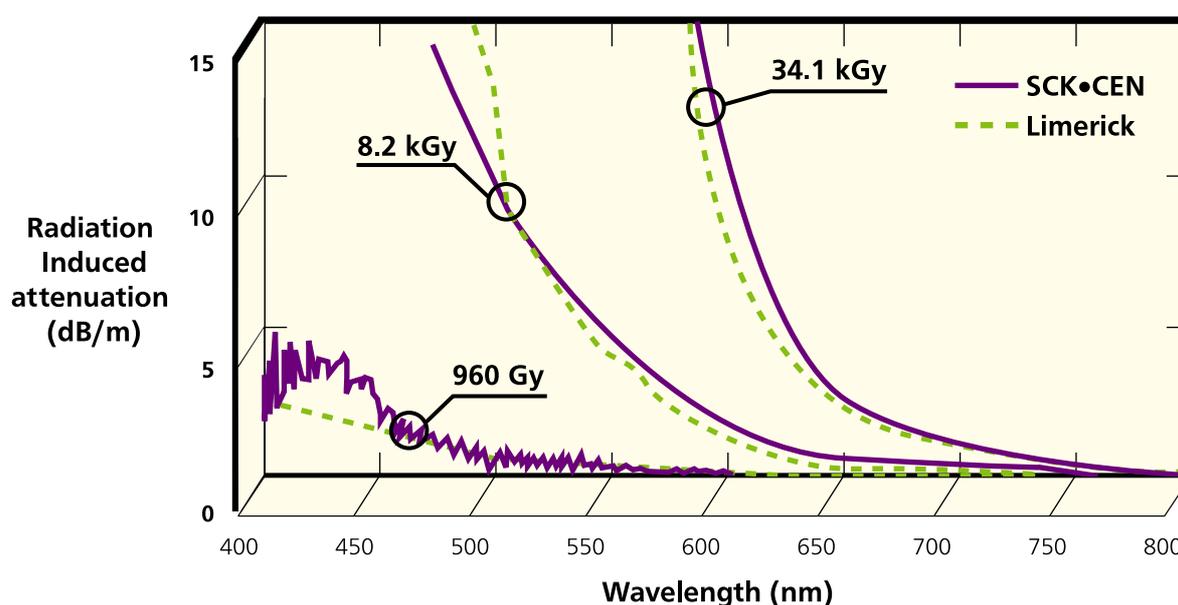
Radiation-induced attenuation (RIA) calculations, shown in Figure 1, were performed on the transmission spectra using the following equation:

$$RIA(\text{dB} / \text{m}) = -\frac{10}{L_0} \log \left\{ \frac{P_T(\lambda, t)}{P_T^0(\lambda)} \right\} \quad (1)$$

Where L_0 is the irradiated length of fibre, $P_T(\lambda, t)$ is the measured optical power in the irradiated fibre and $P_T^0(\lambda)$ is the optical power of the reference fibre. To cope with the limited repeatability of the SMA connector (up to 2 dB), it was necessary to take as reference the transmitted power at a wavelength at which the PMMA fibre is not affected by gamma radiation. Therefore, the connector misalignments are compensated for by subtracting the raw RIA value from the RIA at 840 nm.

A clear increase with gamma dose in fibre attenuation at the lower wavelengths is observed, while higher wavelengths are not significantly affected. This absorption increase at lower wavelength suggest that high total irradiation not only induces the separation of side chains from the PMMA molecule but also affects the main polymer structure. After 36 hours, the recovery of the radiation-induced attenuation already took place.

Figure 1 - Radiation-induced Attenuation. The measurements labelled Limerick were obtained 36 hours after the end of the irradiation





Using the PMMA fibres as radiation dosimeters requires to evaluate the recovery of dose information at the end of the irradiation. Therefore, the fibres were tested again eight days after arrival at University of Limerick to observe the long-term fading effects that may have taken place. Radiation induced attenuation calculations were performed on the resulting spectra and compared with those obtained immediately on arrival to University of Limerick. A comparison of the two RIA measurements was made where the RIA were calculated immediately upon arrival and also calculated after one week. Clearly the radiation-induced attenuation has dropped considerably over the eight days. Similar fading effects have also been previously observed in clear PMMA slab dosimeters. Fading can be explained by the spontaneous reforming of polymer chains that are damaged during irradiation. This fading will affect the dosimetry techniques used, as the values obtained will change over time thus giving different readings than that which correspond to the actual dose received. It is also envisaged that if the fibres were used to monitor the dose rates in real-time and on-line, fading effects could be less of a concern. This is an advantage of on-line fibre optic measurements, which is not possible with the currently available PMMA slab dosimeters.

The results obtained are in agreement with previous work. The PMMA fibres show low radiation-induced attenuation between 650 nm and 800 nm but at lower wavelengths the radiation-induced attenuation becomes more significant. The fibres were found to have a threshold, between 100 Gy and 1000 Gy, above which they began to show changes in their transmission spectra. Eight days after the end of the gamma irradiation a clear recovery was observed in the polymer optical fibres.

An original measurement scheme to derive the dose information from the ratio of the radiation-induced attenuation at two wavelengths is proposed. It is shown that polymer optical fibres can be used as gamma dosimeters, if the interrogation wavelengths are carefully chosen, disregarding absolute optical power intensity measurements. Future work will focus in the real-time and in-situ monitoring of gamma dose using polymer optical fibres and time-domain reflectometry techniques.

PRESENTED

At the 17th International Conference on Optical Fibre Sensors, 23rd-27th May 2005, Bruges, Belgium by Ms. Sinead O'Keefe.

FUNDING

Dr Alberto Fernandez Fernandez wishes also to acknowledge the financial support of the European Commission - EURATOM Fusion Technology Program. The content of the publication is the sole responsibility of its publishers and it does not necessarily represent the views of the Commission or its services.

Ms. Sinead O'Keefe would like to acknowledge the financial support received from the Irish Research Council for Science, Engineering & Technology.

SOURCE

Proceedings of 17th International Conference on Optical Fibre Sensors; 2005 May 23-27; Bruges, Belgium. SPIE; 2005.

Clinical Research

Microbiology



TITLE	Environmental Control of Antibiotic Resistance Spread: Transfer of R391, an Integrating Bacterial Mobile, Drug Resistant Genetic Element is Inducible
AUTHORS	<i>Pembroke, J.T., McGrath, B.M., O'Halloran, J.A.</i> <i>Molecular Biochemistry Group, Department of Chemical and Environmental Sciences, University of Limerick</i>

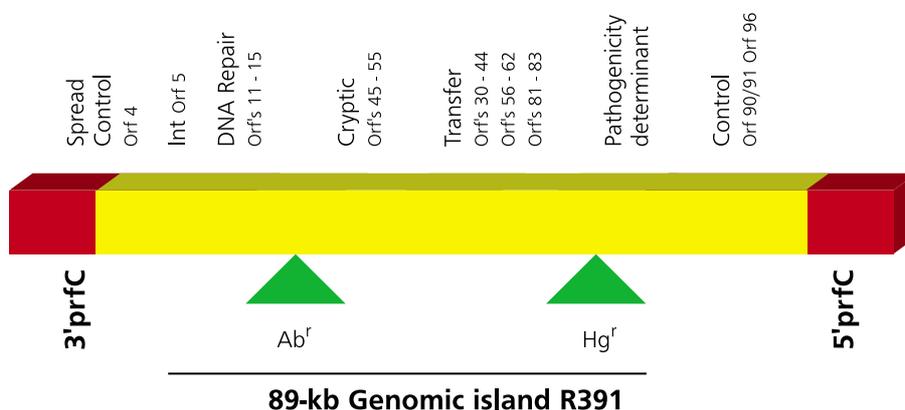
INTRODUCTION

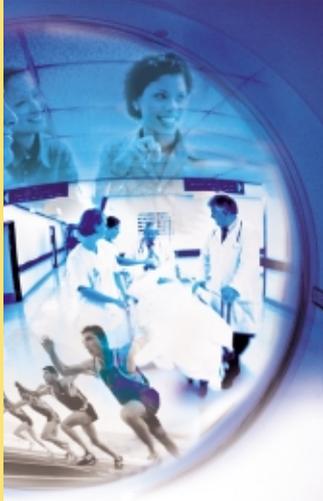
The bacterial mobile genetic element R391 is the prototype of a group of elements, which are mobile genomic islands that can transfer between enteric species carrying drug resistance and pathogenicity determinants (Pembroke *et al* 2002). The R391 element has been sequenced and shown to be 89-kb in length and to encode some 95 genes (Boltner *et al* 2002). The element has a single integration site in the *prfC* gene of enteric hosts (McGrath and Pembroke 2004; Pembroke and McGrath 2005) and integrates by fusing with the *prfC* gene at a 17-bp site in a reaction catalysed by the elements encoded integrase. Bioinformatic analysis has demonstrated that this site is present in some 40 bacterial *prfC* genes, which could allow for broad spread of such elements to many bacterial hosts. Recently there have been many reports of R391 like elements being discovered in epidemic outbreaks of *Vibrio cholera* around the globe with these elements being associated with drug resistance and pathogenicity (Dalsgaard *et al* 2001; Phantouamath *et al* 2001; Iwanaga *et al* 2004; Ehara *et al* 2004; Amhed *et al* 2005).

METHODOLOGY

Recently we have shown that environmental factors contribute to the spread of such elements. The interspecies transfer of the element is low (about 10^5 per donor) but is unusually enhanced some 3 logs by UV irradiation and other DNA damage inducing agents (Table 1) (McGrath *et al* 2005) where the element excises, forming a circular though non-replicating intermediate, prior to transfer. Such environmental control of element and function transfer is novel and given that such elements encode drug resistance determinants and possibly pathogenicity determinants such environmental control of spread is important. We have also used bowel extracts mixed with donor strains of the R391 element and shown that these extracts also enhance such transfer and spread of resistance determinants albeit under controlled laboratory conditions. We speculate that the contributing factors here may be bile acids or food related factors.

Figure 1 - Genetic Organisation of R391





RESULTS

Genetic studies on the factors that might control the spread of such elements 'in vivo' have been carried out. Using the complete nucleotide sequence of R391 available at EMBL [AY090559](#) (Boltner *et al* 2002) we have generated a number of site directed deletion mutations of the entire element. One class of mutant isolated, termed coins (for conjugation inhibition), abolishes conjugative transfer even under inducing conditions. The protein responsible for this has been cloned and expressed and is currently undergoing structural studies. This may offer a realistic target for prevention of spread of this class of emerging genetic drug resistant elements in the future.

Table 1 - Effect of UV and mutagens on the transfer rate (expressed per donor) of the drug resistant determinant R391

Treatment	Donor	Recipient	Transfer rate
Control	<i>E.coli</i> R391	<i>Salmonella</i> LT2	2×10^5
Control	<i>E.coli</i> R391	<i>E.coli</i> wt	2×10^5
30 J. m ⁻²	<i>E.coli</i> R391	<i>Salmonella</i> LT2	3×10^2
30 J. m ⁻²	<i>E.coli</i> R391	<i>E.coli</i> wt	3×10^2
2 µg MMS	<i>E.coli</i> R391	<i>Salmonella</i> LT 2	2×10^2
2 µg Cis Platin	<i>E.coli</i> R391	<i>Salmonella</i> LT2	3×10^2

CONCLUSION

Antibiotic use, and sometimes abuse, has generally been considered as the major factor contributing to the widespread prevalence and spread of antibiotic resistance. Our data show that environmental factors may constitute yet another mechanism of promoting antibiotic spread that is as yet little understood.



REFERENCES

1. Ahmed AM, Shinoda S, Shimamoto T. A variant of *Vibrio cholerae* SXT element in a multidrug-resistant strain of *Vibrio fluvialis*. FEMS Microbiol. Letts. 2005;242:241-247.
2. Böltner D, MacMahon C, Pembroke JT, Strike P, Osborn AM. R391: a conjugative integrating mosaic comprised of phage, plasmid and transposon elements. J. Bacteriol. 2002;184:5158-5169.
3. Dalsgaard A, Forslund A, Sandvang D, Arntzen L, and Keddy, K. *Vibrio cholerae* O1 outbreak isolates in Mozambique and South Africa in 1998 are multiple-drug resistant, contain the SXT element and the aadA2 gene located on class 1 integrons. Antimicrob Agents Chemother. 2001;48(6):827-838.
4. Ehara M, Nguyen BM, Nguyen DT, Toma C, Higa N, Iwanaga M. Drug susceptibility and its genetic basis in epidemic *Vibrio cholerae* O1 in Vietnam. Epidem. and Infect. 2004;132(4):595-600.
5. Iwanaga M, Toma C, Miyazato T, Insisiengmay S, Nakasone N, Ehara M. Antibiotic resistance conferred by a class I integron and SXT constin in *Vibrio cholerae* O1 strains isolated in Laos. Antimicrob. Agents Chemother. 2004;48(7):2364-2369.
6. McGrath BM, Pembroke JT. Detailed analysis of the insertion site of the mobile elements R997, pMERPH, R392, R705 and R391 in *E. coli* K12. FEMS Microbiol. Letts. 2004;237(1):19-26.
7. McGrath BM, O'Halloran, JA, Pembroke JT. Pre-exposure to UV irradiation increases the transfer frequency of the IncJ conjugative transposon-like elements R391, R392, R705, R706, R997 and pMERPH and is recA+ dependent. FEMS Microbiol. Letts. 2005;243:461-465.
8. Pembroke, JT, McGrath B, MacMahon C. The role of conjugative transposons in the Enterobacteriaceae. Cellular and Molecular Life Sciences (CMLS). 2002;59(12): 2055-2064.
9. Pembroke JT, McGrath BM. Pulsed Field Gel Electrophoresis to rapidly detect the presence of IncJ conjugative transposon-like elements. Letters in Applied Microbiology. 2005;41:258-261.
10. Phantouamath B, Sithivong N, Sisavath L, Munnalath K, Khampheng C, Insisiengmay S. et al. Transition of drug susceptibilities of *Vibrio cholerae* O1 in Lao People's Democratic Republic. Southeast Asian J Trop Med Public Health. 2001;32(1):95-9.

Clinical Research

Microbiology

TITLE Occurrence of Clostridium Difficile Infection in a County General Hospital

AUTHORS Khan, F.U., Moloney, M.
Nenagh General Hospital, Nenagh, Co. Tipperary

INTRODUCTION

C.Difficile infection contributes significantly to length of stay in hospital, and may be associated in some elderly adults with chronic diarrhoea, and occasionally other serious or potentially life threatening consequences.

OBJECTIVE

In our study we have tried to find out the number of cases of C.Difficile in our County General Hospital over a one year period, from January to December 2004. We have also tried to find out the relation of C.Difficile infection to different antibiotics and proton pump inhibitors.

METHODOLOGY

We revied charts and drug cardex and results of stool analysis of all patients who had acquired C.Difficile infection from 1st of January 2004 to 31st of December 2004.

RESULTS

There were fifty four cases of C.Difficile infection over this period. Among these, nineteen were male patients and thirty five were female patients. Six of the patients were in the Intensive Care Unit when they developed C.Difficile infection. Twenty of these patients were on proton pump inhibitor (twelve received iv protium), twenty two patients responded symptomatically after stopping antibiotics. Twenty eight patients were treated with metronidazole; four patients received a combination of metronidazole and vancomycin due to severe symptoms. Half of the patients who developed C difficile infection had treatment with multiple antibiotics. More than one third of the patients with C difficile infection had proton pump inhibitors. The relation to antibiotic is given in Table 1.

Table 1: Medications taken by the patients before developing C. Difficile infection

Drugs implicated	Number of patients
Co-amoxiclave alone	8
Moxifloxacin alone	3
Moxifloxacin plus clarithromycin	6
Clarithromycin	3
Multiple antibiotics	24
Cefotaxime alone	6
No antibiotic	4
Proton pump inhibitors	20



Table 2: Monthly distribution of the C. Difficile infection

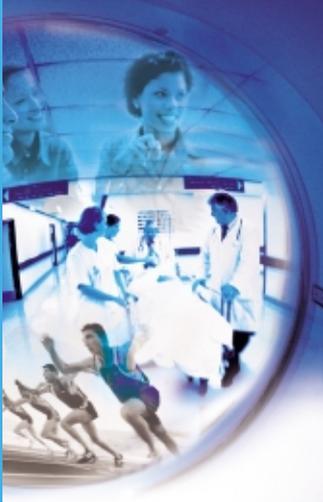
Month	Number of cases
January	10
February	6
March	9
April	8
May	3
June	1
July	4
August	0
September	4
October	3
November	3
December	3

DISCUSSION

Clostridium difficile remains the commonest cause of nosocomial diarrhoea in Irish hospitals, and broad-spectrum antibiotics are recognized as the main causative factor. We reviewed all adult cases of toxin-positive diarrhoea in our hospital from 1st January 2004 to 31st December 2004, with the aim of identifying the main anti-microbial agents involved. It is clear from this study that the use of multiple antibiotics should be avoided if possible to reduce the incidence of C difficile infection in hospitals. The role of proton pump inhibitors in inducing C difficile infection needs to be studied further. The role of hand hygiene can be crucial in preventing cross infection of C difficile.

PRESENTED

At the Irish Society of Gastroenterology Meeting in Limerick on June 10th and 11th, 2005 by Dr. Farman Ullah Khan.



Clinical Research

Clinical Services

TITLE	Detection of Group B Streptococci in the Urine of Pregnant Women Using "Granada" Chromogenic Agar
AUTHORS	<i>Powell, J., Vaughan, D., Doran, K. Microbiology Department, Mid-Western Regional Hospital, Limerick</i>

INTRODUCTION

Group B streptococcus (GBS) is a leading cause of morbidity and mortality in neonates. Neonatal infections most commonly present as sepsis followed by meningitis, pneumonia, and focal infection¹ and has an incidence rate in Ireland of approximately 0.6/1000 live births². GBS is known to colonise the vagina of 25% of expectant Irish women³. The Royal College of Obstetricians and Gynaecologists Guidelines state that routine screening for antenatal GBS carriage is not recommended⁴, while the Centres for Disease Control (CDC) recommend universal screening between 35 and 37 weeks of gestation⁵. The CDC Guidelines also state that the presence of GBS in urine is a reliable marker of heavy genital colonization⁶. In this laboratory urine requests from either obstetricians or physicians clinically detailing pregnancy were checked specifically for GBS and typical uropathogens.

OBJECTIVE

The study aimed to comparatively analyse Granada Chromogenic Agar (GCA) and Staph/Strep Agar (SSA) for the detection of GBS in the urine of pregnant women.

METHODOLOGY

Between the 6th July and 16th August 2005, 5,776 Urines were processed by the Microbiology Department. Of these, 752 qualified for the study by either having "pregnant" as a clinical detail or were requested by a consultant obstetrician. The urines were processed routinely. Additionally, 1µL aliquots were inoculated onto a SSA and 1/4 GCA plates and incubated for 18-24 hours at 37°C. Positive results were recorded for haemolytic colonies on SSA with positive Group B Latex antigen tests and for orange colonies on GCA.

RESULTS

Fifty two urines (52/752) were positive for GBS (6.9% by routine testing). Only 44/52 urines were tested on both media. All 44 GBS were detected on GCA (100%) whilst 39/44 were detected on SSA (88.6%).

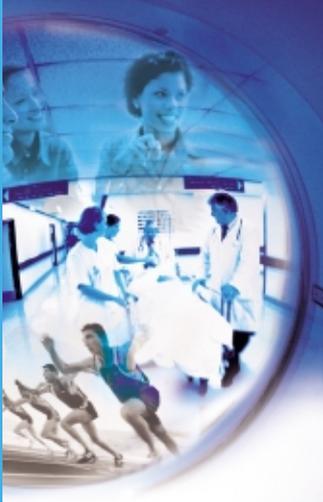
CONCLUSIONS

GCA is a simple and sensitive method for the detection of GBS from antenatal urine samples.



REFERENCES

1. Gupta C, Briski LE. Comparison of two culture media and three sampling techniques for sensitive and rapid screening of vaginal colonization by group B streptococcus in pregnant women. *J Clin Microbiol.* 2004 Sep;42(9):3975-7.
2. Heath PT, Balfour G, Weisner AM et al. Group B streptococcal disease in UK and Irish infants younger than 90 days. *Lancet.* 2004 Jan 24;363(9405):292-4.
3. Kieran E, Matheson M, Mann AG, et al. Group B streptococcus (GBS) colonisation among expectant Irish mothers. *Ir Med J.* 1998 Jan-Feb;91(1):21-2.
4. Hughes RG, Brocklehurst P, Heath P, Stenson B. Prevention of Early Onset Neonatal Group B Streptococcal Disease. Royal College of Obstetricians and Gynaecologists Recommendations from Green-Top Guidelines No.36 November 2003.
5. Schrag S, Gorwitz R, Fultz-Butts K, Schuchat A. Prevention of perinatal group B streptococcal disease. Revised guidelines from CDC. *MMWR Recomm Rep.* 2002 Aug 16;51(RR-11):1-22.
6. Tamayo J, Gomez-Garces JL, Alos JI. Evaluation of Granada agar plate for detection of *Streptococcus agalactiae* in urine specimens from pregnant women. *J Clin Microbiol.* 2004 Aug;42(8):3834-6.



Clinical Research

Technological Applications

TITLE	Coping with Asthma through Innovative Digital Technology – The VisiBreath Project at the University of Limerick
AUTHORS	<i>Lennon, M., Ó hAodha, M. Computer Science and Information Systems Department, University of Limerick</i>

INTRODUCTION

Can technology help children with asthma? This is a question that researchers at the Interaction Design Centre in the University of Limerick have been exploring for the past two years. Approximately one in seven children in Ireland has asthma. Despite many excellent initiatives on the part of the health services in Ireland, much research still remains to be done to aid parents in their understanding and management of their child's asthma and to help children to participate in asthma management activities.

RATIONALE

This paper describes the VisiBreath Project at the University of Limerick. This project has been exploring the potential of computer games to assist asthma patients (particularly children) to monitor and manage their asthma condition.

METHODOLOGY

The VisiBreath research team has worked alongside children using user-centred-design methods to develop content and activities appropriate to their needs. This paper examines the research findings of this project, including the development of new digital technology in asthma management. A particular emphasis is placed on the development of a range of computer-based technologies. It is intended to deliver a product to the youth market using mobile telecommunication, in particular the use of the mobile phone as a computational platform, a market that is rapidly growing in popularity. Research released by mobileYouth, a leading British market research and consultancy company has highlighted that there is a growing number of young children with mobile phones in Britain. The study conducted across the 5-24 year olds highlights that there are now about half a million children in the UK under the age of 10 who own a mobile phone, as against only 80,000 in 2000. Working with children, it has emerged that lack of motivation or interest in carrying out daily management activities essential to monitoring and controlling asthma, is problematic. Mobile technology can deliver information to health professionals, allow for storage of data, and engage users through gaming activities. These technologies will work to continuously motivate children in aspects of asthma management. VisiBreath intends to engage children in the following asthma management processes:

- Identification of early asthma triggers.
- Identification of early asthma symptoms.
- Learning correct techniques for the inhalation/taking of medication.
- Monitoring lung function.

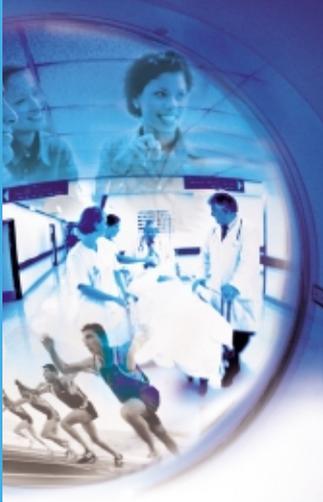


CONCLUSION

This paper examines the outcomes of the VisiBreath research project. This includes the methodology for gathering needs of the intended users as part of a technology design process, and it outlines the appropriateness of mobile technology development for a health management domain.

FUNDING

Funding for this project was received from the Interaction Design Centre, University of Limerick.



Population Health

Public Health

TITLE	A Qualitative Study of Health and Social Needs of Patients in a Socially Deprived Area
AUTHORS	<i>Chan, W.,¹ Whitford, D.L.,¹ Van Doorslaer, O.,² Gibney, D.,³ Hollywood, B.³ Department of Family Medicine and General Practice, Royal College of Surgeons in Ireland¹ Freelance Qualitative Research Methods and Analysis Consultant² Ballymun Primary Care Implementation Site, Ballymun Health Centre³</i>

INTRODUCTION

People living in socio-economically deprived areas suffer poorer health. The National Health Strategy in Ireland states equity as one of its fundamental principles. Ballymun, a suburb of North Dublin, is an area of extreme deprivation. The 3 practices in the local health centre are one of ten Primary Care Implementation pilots in Ireland, and are putting into service a full primary care team and set of services. Here we describe how those living in an area of extreme deprivation feel about their current health care prior to the full implementation of this pilot.

OBJECTIVE

To understand how patients from a socio-economically deprived area view their primary care service, and to gain their views and experiences in consulting with members of the primary care team.

METHODOLOGY

A theoretical sample of patients was invited to participate in the focus groups. The focus groups were audiotaped and transcribed with the informed consent of participants. Data collection continued until data saturation, in line with the Grounded Theory approach. All themes and ideas from the data were discussed and agreed by the research team. Reliability and trustworthiness were achieved by two researchers independently analysing the data and through member checking.

RESULTS

Six focus groups, using a purposive sample of patients, took place. One group featured exclusively patients on methadone treatment. Fifty one percent of those who had agreed to participate attended the meetings. Participants were unhappy with their primary care provisions especially the facilities, the lack of some relevant services, the appointment system and their access to health staff. Methadone patients and drug abusers in the health centre was a particular area of concern. Methadone patient focus group highlighted issues of privacy and confidentiality as problems. Participants admitted that they lacked knowledge and understanding of the services available and how to access them.

CONCLUSIONS

People living in an area of extreme deprivation are dissatisfied with their primary health care, and need more information regarding the services available to them. From the findings of the study, a rethink into how primary care can be delivered to those living in deprived areas may be appropriate.



PRESENTED

At the Association of University Departments of General Practice in Ireland (AUDGPI) Eighth Annual General Scientific Meeting in Dublin Castle on 4th March, 2005 by Dr Wai Sun Chan.

FUNDING

This research is funded by the Health Research Board Primary Care Fellowship.

Population Health

Public Health

TITLE	Discussion Piece: A Critical Take on the Obesity Debate
AUTHORS	<i>Monaghan, L.F.</i> <i>Department of Sociology, University of Limerick</i>

ABSTRACT

This paper critically engages with dominant obesity discourses, making particular reference to the perceived epidemic of 'excess' weight among men in England. It expands upon arguments written for the Men's Health Forum during the run up to their recent conference on 'tackling male weight problems'. The science which provides credibility to the war on fat is questioned as well as arguments offered by those who authoritatively tell us that overweight/obesity/fatness is a massive public health problem. A sociologically imaginative approach to the obesity debate is encouraged in line with a critical realist appreciation of health and its determinants.

FUNDING

This research was funded by the UK's Economic and Social Research Council.

SOURCE

Social Theory and Health. 2005; 3,4.

Population Health

Health Promotion

TITLE	"Good Habits Early"; A Nutrition and Oral Health Awareness Programme for 0-5 Year Olds, Health Service Executive Mid-Western Area
AUTHORS	<i>Lyons, A., Irwin, N. Health Promotion Unit, Health Service Executive Mid-Western Area, Pery St, Limerick</i>

OBJECTIVE

Raising the awareness on nutrition and oral health, through the delivery of 5 key, clear and simple messages. Targeting 0-5 year olds, through their parents and carers, in an accessible and convenient environment.

RATIONALE

Effective prevention programmes are necessary in order to lessen or reduce the rising incidences of:

1. Obesity in children and adults⁴
2. General anaesthetic used in 0 - 5 year olds for tooth extraction in North Tipperary.¹⁵

Further evidence directing this project can be found in a number of national documents and strategies available on request.

METHODOLOGY

- A stakeholder group was formed to consult with on the project.
- Four pilot locations, representing a range of services were selected. These consisted of a community crèche, a private crèche, a workplace crèche and a mother and toddler group.
- Literature research and consultation informed selection of messages and type of information tool.
- The mode of delivery of the messages was discussed and agreed with the individual preschool providers.
- Evaluation of the Process was planned.
- The time line for the study was 1 year.
- Study Resources included Leaflet, Poster, Presentation slides, and Evaluation Questionnaires.
- Intervention – Site visit by Community Dietician and Dental Hygienist.

RESULTS

Feedback from questionnaire

- All four sites found the Good Habits Early Programme beneficial and would opt to run it again.
- There was mixed feedback on whether the programme should be delivered by the health service staff or a trained member of their own staff. Reasons were recorded.
- Other comments were also recorded for feedback in tailoring the programme.

Uptake of the programme

- 4 preschool providers were asked to pilot the programme and all four agreed resulting in 100% uptake.



Table 1 - Uptake in the individual crèches

	Workplace Crèche	Private Crèche	Community Crèche	Mother and Toddler
Number of Places	46	140	30	10
Project Participants	5	39	10	10
Percentage Uptake	11%	28%	33%	100%

CONCLUSIONS

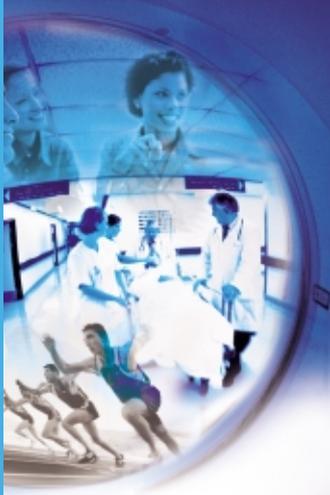
- The Dietitian and Dental Hygienist will continue to work in partnership to co-ordinate the programme.
- The feedback gathered to date will be incorporated into the leaflet which will be revised and reprinted.
- The programme will be offered to groups of preschool services as this will open the project to more participants.
- Link/contact personnel from preschool groups will be recruited and trained to deliver the programme where interested.
- The leaflet may be used through a number of other channels which will be pursued. e.g. Community Development Mother and Toddler Groups, Public Health Nurses, Childcare Training Courses, Practice Nurses and GP Surgeries.
- Ongoing evaluation of the impact of the messages is required. While the three objectives of this study were achieved, evaluation of the *process only* was carried out (as planned) which is limited in value.
- Ongoing feedback and comments from the users of the leaflet will be gathered.
- The project will be reviewed in 2 years.

REFERENCES

1. Department of Health and Children. Government Stationery Office. The Health Promotion Strategy 2000-2005. Dublin; July 2000.
2. Department of Health and Children. Government Stationery Office. The National Children's Strategy - Our children; their lives. Dublin; November 2000.
3. FSAI. Recommendations for a national infant feeding policy. 1999.
4. Department of Health and Children. Government Stationery Office. The Report of the National Taskforce on Obesity: Obesity the Policy Challenges. Dublin; 2005.
5. European Commission. International Union for Health Promotion and Education. The Evidence of Health Promotion Effectiveness (Pt 1). Brussels. 2000.
6. Oral Health Services Research Centre National University of Ireland, Cork and The Dental Health Foundation, Ireland. Oral Health in Ireland. 1999.



7. Skinner JD, Carruth BR, Bounds W, Zeigler P, Reidy K. Do food related experiences in the first 2 years of life predict dietary variety in school aged children? *J Nutr Educ Behav* 2002 Nov-Dec;34(6)310-5.
8. Naidoo J. Wills J. *Health promotion foundations for practice*. 2nd ed. Edinburgh: Bailliere Tindall; 2000. p. 222.
9. Dietitians of Canada. *Healthy Start for Life - Promoting Healthy Eating and Lifestyle during the toddler and preschool years - Needs Assessment Survey results*. [cited 2003] Available from: www.dietitians.ca/news/campaigns_partners.html
10. Fox MK, Pac S, Devaney B, Jankowski L, et al. Feeding Infants and toddlers study: what foods are infants and toddlers eating? *J Am Diet Assoc*. 2004 Jan;1 Suppl 1:22-30.
11. Specker B. Nutrition Influences Bone Development from infancy through toddler years. *J. Nutr*. 2004 Mar;134(3):691s-5s.
12. Briefel RR, Reidy K, Karwe V, Devaney B. Feeding infants and toddlers study: Improvements needed in meeting infant feeding recommendations. *J Am Diet Assoc*. 2004 Jan;1 Suppl 1:31-7.
13. Williams CL, Bollella MC, Strobina BA, Spark A, Nicklas TA, Tolos LB, et al. Healthy start: outcome of an intervention to promote a heart healthy diet in preschool children. *J Am Coll Nutr*. 2002 Feb;21(1):62-71.
14. Ewles and Simnett. *Promoting health - a practical guide*. 4th ed. Edinburgh: Bailliere Tindall; 1999.
15. Department of Dentistry Health Service Excutive Mid-Western Area, North Tipperary. *Collation of Client records*. 2004.



Health Systems Research

Health Management

TITLE	The Effects of Living in a Nursing Home on the Cognitive, Sensory and Sensorimotor Abilities of Low-Dependency Older Adults
AUTHORS	<i>Walsh, K., Waldmann, T. Manufacturing and Operations Department, University of Limerick</i>

INTRODUCTION

There is a distinct lack of categorisation in long-stay care in the Republic of Ireland, resulting in a wide range of older adults, varying in their abilities and conditions, being placed in a single facility (e.g. private nursing homes - NH).

RATIONALE

Given that the nature of the environment is likely to be dictated by the nature of the largest group of residents, which normally constitutes the most dependent individuals, (Long-Stay Activity Statistics, 2002), healthier older adults may suffer. As a consequence it is unclear whether such facilities, are a beneficial resource to assist low-dependency older adults in their lives, or whether they are a source of more problems that have to be overcome.

METHODOLOGY

This study investigated if NH institutionalisation has a negative affect on the cognitive, sensory and sensorimotor abilities of low dependency older adults. The research followed a cross-sectional comparative analysis of the cognitive, sensory and sensorimotor abilities of 50 community dwelling older adults (CDOAs) and 50 low-dependency nursing home residents (NHRs). Additional biographical, psychiatric and psychological information (e.g. education, activity participation, mental functioning, illnesses, instrumental activities of daily living-IADL, etc.) was also gathered and factored into the investigation using a multiple covariate analysis.

RESULTS

NHRs performed significantly poorer ($p < 0.05$) on ability assessments, implying they had reduced opportunities to perform instrumental activities of daily living (e.g. shopping, food preparation, house keeping, etc.). A form of learned dependency was observed in these activities due to the NHs 'over protective' regulations. The contentment of the residents not to perform such tasks was explained by their apathy and the influence of normative behaviour within the homes. Reduced participation in recreational/rehabilitative activities was connected to residents' lack of interest and the cost of taking part in professionally run events. Finally six NHRs performed on the same level as the CDOAs, which was attributed to the superiority of their respective NH environments. These establishments (four in all) had flexible routines, fostered independence and the largest numbers of low-dependency residents, and in this way were more akin to intermediate care facilities than nursing homes.

CONCLUSION

It is apparent that the current structure of nursing home care fosters dependency in healthier older adults. Consequently it is more logical to develop intermediate care provisions for low-dependency residents, allowing for a more obtainable congruence between the caring environment and the individual.

FUNDING

This research was internally funded by the Manufacturing and Operations Engineering Department of the University of Limerick

Health Systems Research

Health Management



TITLE An Exploration of the Prevalence of Bullying Within an Irish Maternity Hospital Setting

AUTHORS Gibbons, M.,¹ Mannix McNamara, P.²
St. Munchin's Regional Maternity Hospital, Health Service Executive Mid-Western Area¹
University of Limerick²

INTRODUCTION

Negative behaviour (bullying) has been internationally well documented as a problem within workplaces. The past decade has seen much research into this phenomenon focusing on prevalence, cause and effect and strategies for eradication of bullying. Professions such as teaching and nursing have been documented in the literature as areas where bullying unfortunately prevails. Clearly, bullying has a negative impact on workplace culture and the health of those working within the organisation.

RATIONALE

The Health promoting hospital (HPH) draws heavily on the value of empowerment as a key principle for working life. This is in keeping with the principles of the Ottawa Charter (1986). Health promotion goals and processes within the hospital setting aim to promote health and social well being of clients and staff. The HPH Network prioritises the promotion of policies and structures that impact positively on well-being and quality of working life. Workplace bullying, if it continues unchecked, denies the values of the HPH initiative in practice most particularly, as the HPH network prioritises the staff of an organisation as being its greatest asset.

METHODOLOGY

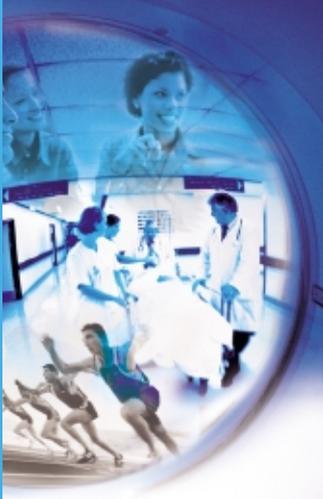
The methodology of the study was quantitative in nature due to the focus on gaining prevalence statistics with regard to bullying in this particular hospital setting. The study was conducted utilising Einersen's internationally tested standardised survey (permissions granted), the Negative Acts Questionnaire NAQ. Utilising a convenience sample in a maternity hospital setting the NAQ was distributed via internal post to all hospital employees.

RESULTS

- Bullying exists and has existed among all grades of staff with the exception of consultants.
- Reported prevalence of Bullying has reduced in last five years.
- Increased prevalence of bullying in 20-30 age group and 46-55 age group.
- No men have experienced bullying in last six months.
- 30% men surveyed have observed bullying in the last six months.
- 60% women have observed bullying in the last six months.
- Recently (in the past six months) bullying seems to have ceased for portering staff.

CONCLUSIONS

Significant numbers of respondents witnessed bullying in the workplace (witnessing bullying has been found to impact negatively on job satisfaction and the health of bystanders (Mannix-McNamara 2001). Clearly in the last five years incidence of bullying within the organisation has significantly decreased.



RECOMMENDATIONS

As the study was quantitative in nature, a more in-depth qualitative exploration of the experiences of those bullied in the workplace, and particularly what factors they understood to be the cause of this would be beneficial. Implementation of a workplace bullying policy.

In the study some respondents did not perceive themselves as experiencing bullying, however they were experiencing behaviours that were impacting on their quality of work life (such as lack of control over tasks, deadlines, workload). A study examining quality of work life and work culture would be of great benefit to continuing the commitment of this setting as a health promoting hospital.

PRESENTED

At the Health Promoting Hospitals International Conference in Dublin on May 19th and 20th, 2005 by Ms. Maria Gibbons.

Health Systems Research

Health Management

TITLE	A Comparison of the Attitudes of Acute and Long-term Healthcare Personnel towards older Adults
--------------	---

AUTHORS	<i>Gallagher, S.,¹ Halford, J.C.J.,¹ Bennett, K.M.,¹ Lyons, D.² School of Psychology, University of Liverpool, Liverpool, L69 7ZA, UK¹ Department of Medicine for the Elderly, Mid-Western Regional Hospital, Limerick, Ireland²</i>
----------------	--

INTRODUCTION

Ireland, like the rest of the Western-World, has an ageing population. In tandem with this demographic change comes an increasing utilisation of health services by this particular age group. However, health services have been identified as one of the main public agencies at the interface of ageism and negative attitudes - attitudes that can affect the quality of care delivered to older patients. In the Republic of Ireland however, the attitudes of healthcare personnel toward older adults has yet to be demonstrated. If elder care is being affected by ageist attitudes it is imperative to measure the ageist attitudes of Irish healthcare personnel as the possibility exists to change attitudes through education and training.

RATIONALE

To investigate whether acute and long-term healthcare personnel (Nurses, Attendants and Porters) possess negative attitudes towards the elderly. To examine the associations affecting this judgment: age, gender, education and years in practice.

METHODOLOGY

Attitudes towards the elderly were measured cross-sectionally using Kogan's Old Peoples Scale (KOP), which consists of 34 five-point scale items with five response categories (strongly agree to strongly disagree). A series of questions pertaining to participants' demographic characteristics were also included in the questionnaire. Ninety-nine (acute) and eighty-seven (long-term) hospital personnel completed the self-report measure.

RESULTS

Attendants and Porters had statistically more negative attitudes in comparison to Nurses ($p < 0.001$). There were no differences in attitudes between Nurses practicing in acute settings and those practicing in long-term settings. Similarly, Attendants practicing in acute settings had similar attitudes to those working in long-term settings. Men and women had similar attitudes; age, and years in clinical practice was not associated with attitudes. However, a total of 15.9% of the variability in attitudes was predicted by level of education of personnel.

CONCLUSION

In summary, these findings further extend the existing body of knowledge, and suggest that attitudes towards the elderly, in particular amongst non-professional healthcare personnel are negative. Furthermore, they suggest that these attitudes may be a function of poor education. The current findings have several implications for the provision of elderly care. Firstly, it has implications to inform the health service regarding teaching, practice and policy; secondly, to provide appropriate skills and training to combat stereotypical perceptions about the elderly, especially for Attendants, as their roles and numbers are increasing within the health service.



Table 1: Means (M) and standard deviations (SD) of healthcare personnel's attitude scores, test of differences, probability levels (P), correlations (r) and regression analyses (R²).

Acute personnel	M	SD	Tests	P =
Nurses (1)	75.8	8.8	1 vs 2	.001
Attendants (2)	86.7	10.9	2 vs 3	.49
Porters (3)	86.7	5.1	1 vs 3	.001
Long-term				
			1 vs 4	.91
Nurses (4)	76.0	10.4	4 vs 5	.001
Attendants (5)	87.8	9.8	5 vs 3	.66
Gender				
Women (6)	80.6	11.3	6 vs 7	.09
Men (7)	83.8	7.4		

	r	R ²
Education levels	-.388**	.159
Time in employment	-.075	
Specialist gerontology training	.050	
Age	-.073	

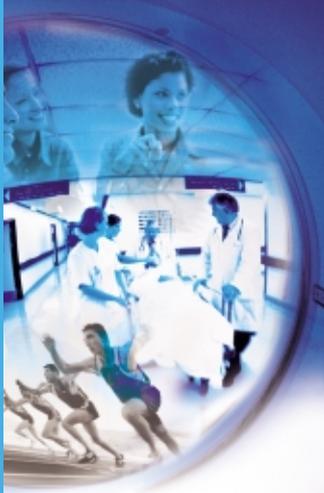
*. Correlation is sig. at the .05 level

**. Correlation is sig. at the .01 level



REFERENCES

1. Lotian K, Philp I. Care of older people: Maintaining the dignity and autonomy of older people in the healthcare setting. *British Medical Journal*. 2001;322:668-670.
2. Courtney M, Tong S, Walsh A. Acute-care nurses' attitudes towards older patients: A literature review. *International Journal of Advanced Nursing*. 2000;6:62-69.
3. Haight BK, Christ MA, Dias JK. Does nursing education promote ageism? *Journal of Advanced Nursing*. 1994;20:382-390.
4. Hope KW. Nurses' attitudes towards older people: a comparison between nurses working in acute medical and acute care of the elderly. *Journal of Advanced Nursing*. 1994;20:605-612.
5. Lookinland S, Anson K. Perpetuation of ageist attitudes among present and future health care personnel: implications for elder care. *Journal of Advanced Nursing*. 1995;21:47-46.
6. Soderhamn O, Lindencrona C, Gustavsson SM. Attitudes towards older adults among nursing students and registered nurses in Sweden. *Nurse Education Today*. 2001;21:225-229.
7. Seedhouse D, Gallagher A. Undignifying institutions. *Journal of Medical Ethics*. 2002;28:368-372.
8. Central Statistics Office (homepage on the Internet). Ireland. 2005 [cited 2004 Nov 14] Available from: <http://www.cso.ie/>.
9. Petty RE, Wegener TT, Fabrigar LR. Attitudes and attitude change. *Annual Review of Psychology*. 1997;48:609-647.
10. International Council of Nurses Credentialing Forum: Overview. 2001 [cited 2004 Apr 11] Available from: <http://www.icn.ch/Overview%20CountryReport2001.pdf>.
11. McKenna HP, Hasson F, Keeney S. Patient safety and quality of care: the role of the health care assistant. *Journal of Nursing Management*. 2004; 12:452-459.
12. Powers PH, Dickey CA, Ford A. Evaluation of a nurse/co-worker model. *Journal of Nursing Administration*. 1990;20:11-15.
13. Savage EB. HCAs in midwifery: implications for qualified staff. *Midwifery Review*. 1997;15:85-88.
14. Spencer HA. Education, training, and use of unlicensed assistive personnel in critical care. *Critical Care Nursing Clinics of North America* 2001;13:105-118.
15. Arblaster G, Streater C, Hugill L, McKenzie M, Missenden JA. Training programme for healthcare support workers. *Nursing Standard*. 2004;18:33-37.
16. McLafferty I, Morrision F. Issues and Innovations in Nursing Education: Attitudes towards hospitalized older adults. *Journal of Advanced Nursing*. 2004;47:446-453.
17. Kogan N. Attitudes towards old people: The development of a scale and an examination of correlates. *Journal of Abnormal and Social Psychology*. 1961; 62:44-54.
18. Cohen J. *Statistical power analysis for the behavioural sciences*. 2nd ed. Hillsdale: Erlbaum; 1998.



Health Systems Research

Health Management

TITLE	The Role of the Healthcare Attendant in a Maternity Setting Researched from Three Different Perspectives
AUTHORS	<i>Quigley Hughes, M. St. Munchin's Regional Maternity Hospital, Health Service Executive Mid-Western Area, Limerick</i>

INTRODUCTION

The provision of high quality maternity care relies on all those involved in providing the care having clear comprehension of their responsibilities and roles. This avoids unnecessary duplication, which can undermine continuity of care and is inefficient.¹ Support workers such as Healthcare Attendants (HCAs) have been gradually introduced into the health sector in many countries. Their introduction has taken place more rapidly and in a more urgent way in Nursing than in Midwifery.² In England, Midwives viewed the developing role of the HCA as a threat to their own independence³ whereas in Holland, it is claimed that the presence of the HCA actually enhances the Midwives¹ sense of autonomy.⁴

The role of the HCA in Ireland is relatively new in Midwifery. The *Report on the Effective Utilisation of Nurses and Midwifery Skills* by the Department of Health and Children⁵ makes many recommendations which hospitals can use as a benchmark to assess how the HCA role is integrated into the working environment.

There is a clear need for Healthcare Attendants. The maternity services in Ireland are constantly under pressure. Midwives in hospital settings often complain about the amount of administrative and household non-midwifery duties that they have to undertake and would welcome more time for the provision of care to mothers and babies, especially, on the postnatal ward⁶ and time for teaching Student Midwives.⁷

RATIONALE

The maternity unit where the research study took place employs HCAs. HCAs have been in place since 2001.

This research was designed to explore the perceptions of Midwives and HCAs on the role of the HCA in one maternity teaching hospital. In addition, it provided an insight of the role in the other six maternity teaching hospitals in Ireland. The findings from the study identified the issues surrounding 'support workers' which will need to be addressed prior to any further increase of HCAs into the hospital where the study was undertaken.

The setting in which the research study took place is in a large teaching hospital in Ireland. There are over 4,500 deliveries per year with rising caesarean section rates and a resultant increase in postnatal Midwifery workload.

METHODOLOGY

A mixed methodology approach was used. This consisted of focus groups, analysis of job descriptions and three questionnaires. The rationale for using this multi-method approach of data collection was to provide more information than would have been provided by the use of one method. An extensive literature review examined relevant issues in relation to HCAs nationally and internationally.

Data collection was in two phases. Phase 1 began with focus group discussions. The motive for using this method of data collection was to brainstorm the views of Midwives and HCAs as to the role of the HCA and to promote discussion which would lead to the formulation of the questionnaires. Themes from the focus group discussion and information derived from exploration of the literature were central to the development of the questionnaire.

Three questionnaires were developed in phase 2 and distributed to Midwives, HCAs and Directors of Midwifery. Ethical approval was sought. A purposive sample was used that included all six HCAs working in the maternity hospital, 118 Midwives and 7 Directors of Midwifery. Quantitative data was analysed by Statistical Package for



Social Sciences (SPSS) and manual content analysis was used for open ended questions. The themes that emerged were displayed in the same format as that used by Francomb³.

RESULTS

Positive and cautionary perceptions emerged from the data. Results suggest that Midwives are very much in favour of the HCA but cautionary perceptions of fear of role encroachment and erosion were evident. In addition, interpersonal relationships between Midwives and HCAs influenced the perceptions. Six overlapping themes emerged from the data which relate to the issues that will need to be addressed prior to any further increase of HCAs into the hospital.

The most significant theme that emerged was lack of awareness among Midwives that they are accountable for the supervision of the HCAs on a daily basis. Midwives did not appear to be aware of the HCAs' job description and training program. Very few Midwives have been mentors to the HCAs.

The tasks delegated by Midwives to HCAs were mainly clerical (21%) and those tasks least likely to be delegated were traditional Midwives' roles e.g vital signs, help with breastfeeding and psychological support to women.

CONCLUSION

This study has contributed to a greater understanding of the role of the HCA from three perspectives: that of the Midwives, the HCA and the Directors of Midwifery.

Mostly positive perceptions were identified which included the acknowledgement of the HCA as a valuable member of the team. The main positive perception identified was the alleviation of workload and freeing up the midwife to work to the Midwifery role and concentrate on clinical workload.

Cautionary perceptions in relation to fear of role erosion and encroachment and individual HCA attitude were also identified which when analysed may have roots in the perceived lack of clarity of the role of HCA.

The Working Group on the Effective Utilisation of Nursing and Midwifery Skills (DOHC 2001) outlines recommendations on the successful integration of the HCA into the workplace. Data analysis from this study identified six issues that currently hinder successful integration of the HCA within the maternity unit. These issues must be addressed prior to any further increase of HCA in the Regional Maternity Hospital.

The six themes/issues identified were supervision, role ambiguity and conflict, training and mentorship, resources, regulation of HCAs and pride in the job. The author makes recommendations for action based on these six themes which on the whole are achievable.

An interesting finding is that the tasks delegated by Midwives were mainly clerical which perhaps indicates that the appropriate person to recruit to support the Midwife is a ward clerk and not a HCA.

RECOMMENDATIONS

A summary of the recommendations from this study are as follows:

Recommendation 1: Information sessions on the Scope of Midwifery Practice need to be rolled out to all Midwives in order for them to realise their professional accountability with regard to the supervision of HCAs.



- Recommendation 2:** All Midwives need to be made aware of the HCA job description. This will help with role clarity and identify the tasks to be delegated.
- Recommendation 3:** Midwives should avail of courses which specifically target information on the delegation of tasks to HCAs.
- Recommendation 4:** Awareness sessions on the FETAC course need to be held so that all Midwives will be aware of the course content and the assessment process.
- Recommendation 5:** Midwives need to openly discuss the regulation of HCAs and have a clear understanding of the implications of regulation.
- Recommendation 6:** Managers need to be creative and look at all aspects of support required-not just HCA support. They need to consider that HCAs may not be the only answer to the alleviation of non-Midwifery duties.

This study has reaffirmed the findings of other studies, in that ambiguity does exist concerning the role of the HCA. It has highlighted the uncertainty that Midwives have about their own role. The study provides the basis for further research. This includes the identification of non-midwifery tasks using the data already collected and endeavoring to gain consensus among the midwives with regard to which what tasks should be delegated by using the Delphi-method approach. Another area of interest is the role relationships between HCAs and qualified staff and exploring these using truer qualitative methods e.g. observation, unstructured interviews and /or self-reflective diaries.

REFERENCES

1. RCM. The Place of Healthcare Assistants in the Maternity Services. Position Paper 5. London: RCM: 1995.
2. Mc Kenna H, Hasson,F. A study of skill mix issues in midwifery; a multi-method approach. *Journal of Advanced Nursing*. 2002;31(1):52-61.
3. Francomb H. Do we need support workers in the maternity services. *British Journal of Midwifery*. 1997 Nov 6;5(11):672-6.
4. Van Teijlingen, ER. The profession of maternity home care assistants and its significance for the Dutch system. *International Journal of Nursing Studies*. 1990;27:355-366.
5. Department of Health and Children. Government Stationery Office. *Effective Utilisation of Professional Skills of Nurses and Midwives; Report of the Working group*. Dublin; 2001.
6. Peelo-Kilroe, L. *An Explorative Study into the Expansion of Nursing and Midwifery Professional Roles in Response to the European Working Time Directive*. Limerick Nursing and Midwifery Planning and Development Unit, Mid-Western Health Board Limerick. 2003.
7. Begley, C. *A Study of Midwifery Students in Ireland*. In *Proceedings of the 19th Annual Nursing Research Conference*. Royal College of Surgeons, Dublin. 2000.

FUNDING

This research was submitted as a thesis for an M.A. in Healthcare Management and was partially funded by the Health Service Executive Mid-Western Area.

Health Systems Research

Personal and Social Services

TITLE	What Happens to Young 'Care Leavers'?: A Study of 164 Young People who have been in the Care of the Mid-Western Health Board/Health Service Executive Mid-Western Area
AUTHORS	<i>Wells, J. Health Service Executive Mid-Western Area Aftercare Service, Social Service Centre, Henry Street, Limerick</i>

INTRODUCTION

This study looks at the aftercare population of the HSE Mid-Western Area. The Aftercare Service in the Mid-Western Area was set up in 2,000 and began direct work with young people in December 2001. Data was collected on all 164 young people who had been referred to the aftercare service. The data relating to their pre-care, in care and post-care experiences was then analysed using SPSS and outcomes were determined for 130 of the young people. The young people were categorised as 'doing well', 'doing moderately well' and 'doing poorly, in terms of their accommodation, education, training, or employment, health and support networks.

OBJECTIVES

International research carried out in the UK, Australia and North America, as well as research from the Republic of Ireland, highlights a lack of research into the process of leaving care. It has identified the major areas of concern for 'care leavers' as being accommodation, education, early parenting, social support networks, employment and training. Therefore this research set out to begin the process of looking at what happens to young people in care and post-care in the Mid-Western Area. It aims to highlight the following:

- the diverse situations of young 'care leavers',
- provide a baseline for future research and evaluation of leaving care schemes in the Republic of Ireland, and
- provide an opportunity to assess how 'care leavers' are faring in their early adult lives, three years after the provision of a dedicated aftercare service.

METHODOLOGY

This research was carried out using a case study approach in order to facilitate both qualitative and quantitative elements of the project. A database was set up using data collected on the total Aftercare population. Aftercare workers gathered data from files. The data was analysed using the computer programme SPSS and the data was tested for statistical significance.

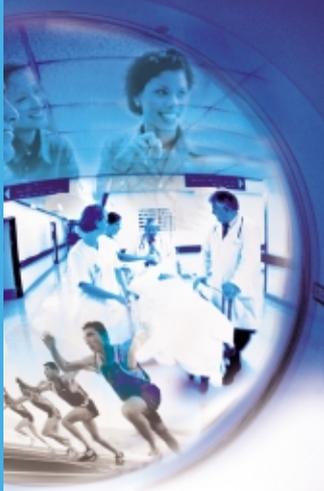
Interviews were conducted with three young people in order to relate the data to young people's lives.

RESULTS

The findings indicate that young people, whose last in-care placement is with a family, do better in terms of educational attainment and reduced likelihood of homelessness and unemployment.

Young men are more likely to be unemployed than are young women, and young women are much more likely to remain in education than are young men.

Additionally, outcomes in terms of education/employment, accommodation/homelessness and health are impacted on by in-care placement stability, the age of a child at admission to care, whether a young person has children and the level of contact the young person has with ex-foster carers post-care.



CONCLUSIONS

This research has highlighted a greater likelihood of poorer outcomes for young people in the following circumstances:

- they were admitted to care in their teenage years
- experienced multiple care placements and therefore multiple carers
- were in their last placement prior to discharge from care for less than one year
- were in a non-family based placement as their last placement prior to discharge

The characteristics of those young people whose outcomes were the most positive were as follows:

- they were admitted to care under the age of 10
- they were in a family based placement immediately prior to discharge from care
- they were in their last placement prior to discharge for more than three years
- they were without a disability
- they had regular contact with ex-foster carers

APPOINTMENT OF DR. EAMON KAVANAGH TO THE DEPARTMENT OF SURGERY AT THE MID-WESTERN REGIONAL HOSPITALS LIMERICK AND ENNIS.

Eamon Kavanagh recently joined the Department of Surgery at MWRH as the third vascular surgeon for the Mid-West region. This is a joint appointment to Limerick and Ennis and will facilitate the development of endovascular services in the region.

Eamon, a native of Monaleen, was educated at St. Clement's College Limerick and graduated from UCC Medical School in 1993. He completed basic surgical training at Cork University Hospital, becoming a fellow of the Royal College of Surgeons in Ireland in 1997. He then was awarded an Ainsworth Scholarship to travel to Boston where he spent a year as Research Fellow at Brigham and Women's Hospital/Harvard Medical School and obtained the higher degree of MD. Following this he spent further clinical years at St. James's and Mater Misericordiae Hospitals in Dublin before Specialist Registrar training at Cork, Limerick, Beaumont and St. James's Hospitals, Dublin. He finished his training with an endovascular fellowship at St. James's.

Eamon's appointment includes academic sessions and his research interests include the immune response to injury and the regulation of systemic and mucosal inflammation for which he has held project grant funding from the Health Research Board for four years at UCC. He is also currently involved in the development of novel vascular bypass grafts and improvements in endovascular technology in collaboration with Tim McGloughlin's CABER group at UL. Together with his two colleagues, Professor Pierce Grace and Dr. Paul Burke, he aims to develop a world class vascular service for the Mid-West which will continue to have a strong research component that will integrate well with the proposed medical school at UL.

APPOINTMENT OF DR. CATHAL O' DONNELL TO THE DEPARTMENT OF EMERGENCY MEDICINE AT THE MID-WESTERN REGIONAL HOSPITALS LIMERICK AND ENNIS.

Cathal O'Donnell was recently appointed Consultant in Emergency Medicine Mid-Western Regional Hospitals Limerick and Ennis this year and took up the post in August.

Cathal is a UCC graduate (1995) and completed basic surgical training in Cork University Hospital before commencing a career in Emergency Medicine. He worked in the Emergency Departments of Cork University Hospital and St. James's Hospital, Dublin, before being appointed to the Irish Higher Training Programme in Emergency Medicine in 2001. After completing this he travelled to Canada where he completed a Fellowship in Emergency Medicine and Emergency Medical Services at the University of Toronto, working in Sunnybrook and Womens Health Sciences Centre and St. Michaels Hospital as well as with the Ontario Air Ambulance Programme and the Sunnybrook-Osler Centre for Pre-hospital Care.

Cathal's subspecialty interest is in pre-hospital care and since returning to Ireland has become Medical Advisor to the Ambulance Service HSE Mid-West, as well as a director of the Munster Air Ambulance Service Trust. He also has become a tutor/supervisor with the new Emergency Medical Technician-Advanced programme which is being run jointly by UCD and the National Ambulance Training School. Limerick is currently the only area outside of Dublin where clinical training of EMT-Advanced is being provided. He hopes to establish an active pre-hospital research programme in the Mid-West in the years ahead.



APPOINTMENT OF DR. NUALA O'CONNELL TO THE DEPARTMENT OF MICROBIOLOGY AT THE MID-WESTERN REGIONAL HOSPITAL AND ST. JOHN'S HOSPITAL LIMERICK.

Nuala O'Connell recently joined the Department of Microbiology at the Mid-Western Regional Hospital in a joint appointment with St John's Hospital, Limerick. This is the first full-time dedicated clinical microbiology post within the Mid-Western Area and she is delighted to join the microbiology staff in the Regional Hospital who have been providing an excellent diagnostic and microbiological surveillance service to the Mid-West.

Nuala's early career began in University College Galway where she graduated with an intercalated BSc (Hons) degree in biochemistry before being conferred with a medical degree in 1994. Keen to pursue a career in microbiology, she undertook further postgraduate studies when she graduated with a MSc in clinical microbiology from QMW, University of London in 1997. In January 2001, following 3 years at Beaumont hospital/RSCI training and lecturing in microbiology, Nuala took up a scheme within the West Midlands, UK and passed her membership examinations in microbiology, MRCPATH. A medical doctorate was awarded in July 2003 by Warwick University for studies on the growth of *Clostridium difficile* in biofilm.

This microbiology post will involve developing a clinical liaison service with the department and providing support to the infection control services of the acute hospitals within the Mid-West Area. Nuala has a keen interest in research and teaching and hopes to foster collaborative links between the university, clinical departments within the Regional hospitals and microbiology. Key areas of interest include the molecular epidemiology of *C. difficile* infections and the diagnosis of orthopaedic-related prosthetic infections. She would like to set up a national reference centre for *C. difficile* infections as undoubtedly this common hospital-associated infection may soon warrant mandatory reporting nationally. However, she hopes there will be further clinical appointments in microbiology within the region so that these aspirations may be realised.



Funding Update

FUNDING UPDATE

1. Health Research Board (HRB)

Upcoming calls from the HRB:

- Summer Studentships – February 2006
- Building Partnerships for a Healthier Future – February 2006
- Application for Cochrane Fellowships – February 2006

Training:

- Cochrane Training on Systematic Reviews – February 2006
- Writing Workshops – February 2006
- NCI Cancer Clinical Trials Training – February 2006

For regular updates and further information visit www.hrb.ie

2. Science Foundation Ireland (SFI)

- SFI Workshop and Conference Grants – Applications must be submitted six months in advance of planned event.
- Undergraduate Research Experience & Knowledge Award - Funding for undergraduates to work with SFI funded research group for 10-12 weeks during the summer months. See www.sfi.ie for details on call update for summer 2006
- SFI Fellow Awards – no deadline for application submission.
- SFI Investigator Programme Grants – no deadline for application submission.

For further information and regular updates visit www.sfi.ie

3. Wellcome Trust

Funding opportunities are frequently available in the areas of Biomedical Science, Medical Humanities and Technology Transfer in terms of research project support, studentships and fellowships.

In addition grants are also available under Public Engagement that provides funding to support activities such as events, debates, exhibitions and for projects that consider the issues raised by biomedicine and increase public awareness of its impact on society.

For further information visit www.wellcome.ac.uk

4. EU Funding

A call for proposals has been issued in the area of NEST, New and Emerging Sciences & Technologies. Closing date for receipt of applications is February 15th 2006.

For further information visit www.welcommeurope.com



5. Enterprise Ireland

Research Commercialisation Fund. For updates on 2006 call visit www.enterprise-ireland.com

6. Irish Research Council for Science, Engineering & Technology

Postdoctoral Fellowship Schemes, Basic Research Grants Scheme and Postgraduate Research Scholarships available visit www.ircset.ie

7. Irish Cancer Society

Check www.cancer.ie for funding updates in 2006 for Cancer Related Research, Nursing Research Funds and Nurse Education Bursaries.

8. Irish Heart Foundation

Submissions for Research grants will be invited on February 2006. For updates visit www.irisheart.ie

THE 28TH ANNUAL CONFERENCE OF THE ASSOCIATION OF CLINICAL BIOCHEMISTS IN IRELAND TOOK PLACE ON OCTOBER 14TH AND 15TH, 2005 IN THE CASTLETROY PARK HOTEL, LIMERICK.

Proceedings of the event included themes of importance to clinical biochemistry and indeed to healthcare in general.

A number of keynote speakers from both home and abroad addressed the delegates on issues including "Androgens and the Ageing Male", "The Future Role of Point-of Care Testing in Healthcare", "Cancer in Ireland: Recent Trends", "The Evidence Base for Biochemistry Testing", "Metabolic and Regulatory Roles of Adipose Tissue", the "Use of Biomarkers to Study Changes in Bone Turnover" and validity and interpretation of thyroid function tests.

It was a stimulating and highly informative event with many world experts in the field gathered to enhance our knowledge and understanding of current research and practice in Clinical Biochemistry.

For further information please contact:

Dr. Ned Barrett,

Top Grade (Consultant) Biochemist,
Biochemistry Laboratory,
Mid-Western Regional Hospital,
Dooradoyle,
Limerick.

t: +353 61 482264

m: 087 299 6940

f: +353 61 482362

e: ned.barrett@mailh.hse.ie



Dr. John O'Mullane, President, Association of Clinical Biochemists in Ireland, welcoming delegates to ACBI 2005 Conference.



Professor Declan Lyons, Professor of Medical Science and Consultant Physician at The Mid-Western Regional Hospital, Limerick addressing delegates at the ACBI 2005 Conference.



Education, Training and Continual Professional Development

FINDING THE EVIDENCE FOR PRACTICE PROGRAMME FOR NURSES

BACKGROUND

In 2002 The National Council for Nursing and Midwifery (NCNM) through the Nursing and Midwifery Practice Development Units (NMPDUs) and in conjunction with The Centres for Nurse Education supported an experienced nurse with masters level education from each former Health Board area (now HSE) to attend an Evidence-Based Practice –‘Train the Trainer’ programme facilitated by York University UK. Attendance on the programme was based on the understanding that the educator would on his/her return, plan, deliver and evaluate six, two-day EBP Programmes to be accessed by nursing staff employed by the HSE Mid-Western Area. This initiative is in line with governmental, professional and organisational policies which clearly establish the requirement and justification for the provision of services that are evidence-based.

INTRODUCTION

The programme provides an opportunity for Registered Nurses employed within the HSE Mid-Western Area to explore the concept of Evidence-Based Nursing and become familiar with critiquing research for practice. Classroom and secretarial support is provided by The Centre for Nurse Education HSE Mid-Western Area under the direction of Anne Knowles. The Education Coordinator Milford Care Centre, Maria Bailey coordinated and delivered programmes in 2004 - '05 with specialist support from NIHS Information Scientist Catherine Kennedy and Statistician/Lecturer from University of Limerick Dr Jean Saunders.

The programme is designed to meet a need for nurses who have not undertaken study in this area at a higher level and who have identified a need to update their knowledge and skills in an environment away from the practice area.

Aims of the programme:

- To stimulate thought and creativity in relation to research based practice within a multidisciplinary environment
- To provide applicants with space and an opportunity to explore different areas of research
- To facilitate networking and communication with others employed in research and who are available to assist.
- To assist participants to identify the need for Practice to be Evidence-Based.
- To provide participants with information that will enable them to identify sources of evidence
- To assist participants to identify different research methods
- To enable participants to develop confidence in online searching



Aims are met through the programme where opportunities for learning are provided in the following areas:

- Introduction to Evidence-Based Practice – looking at questions such as “What is it?”, “Why do we need it?”, “On what do we currently base our decisions?”, “What are the sources of evidence available to us?”, “What is the hierarchy of research evidence?”
- Making research real – explaining the paradigms of qualitative and quantitative research
- Understanding research critique.
- Exploring and demystifying statistics in order to critically read research.
- Demystifying Random controlled trials (RCTs) “What are they?”, “Why are they considered - the gold star?”
- Putting the theory into practice – searching online with two facilitators to guide and assist.
- Opportunities provided to network with colleagues in other specialities to share knowledge and experiences in a safe environment.

Key Topics included in the programme:

- Background to programmes in context of Government Health Strategies; NCN&M; An Bord Altranais.
- Introduction to Evidence-Based Practice,
- Research methods
- Statistics
- Searching online for evidence.

Learning activities include:

- Skill/Workshops
- Lectures
- Discussion groups
- Individual weekly coaching on computer skills available by arrangement.

Future developments

In August 2005 Cora Lunn from the NMPDU HSE Mid-Western Area attended an EBP ‘Train the Trainers’ programme facilitated through Oxford University. This development acknowledges the importance of EBP and will increase opportunities to advance the knowledge and skills of nurses in this area.



DATES FOR PROGRAMMES IN 2006

Course 1

- Tuesday February 28th 06
- Tuesday March 7th 06
- Tuesday March 14th 06
- Tuesday March 21st 06

Course 2

- Tuesday May 2nd 06
- Tuesday May 9th 06
- Tuesday May 16th 06
- Tuesday May 23rd 06

Course 3

- Tuesday September 5th 06
- Tuesday September 12th 06
- Tuesday September 19th 06
- Tuesday September 26th 06

For further information:

Maria Bailey

Education Coordinator
Milford Care Centre
Castletroy
Limerick

t: 061 - 485 881

e: m.bailey@milfordcarecentre.ie

Cora Lunn

Assistant Project Manager
Development/Implementation of Post Graduate
Programmes in Specialist Practice
Nursing and Midwifery Planning and Development Unit
Health Service Executive, Mid-Western Area
Bank House, Room 9, 5th Floor
106 O'Connell Street
Limerick

t: 061-464017

m: 086-3885190

For applications:

Please book with:

Claire Meaney
Secretary,
Centre of Nurse Education
061-482336,
email claire.meaney@mailh.hse.ie

Ann Chawke
Centre of Nurse Education
061-482967
email anne.chawke@mailh.hse.ie



Call for Abstracts

Call for Abstracts for Next Issue of the NIHS Research Bulletin

Subject area: please tick the appropriate box

Medical	<input type="checkbox"/>	Personal & Social Services	<input type="checkbox"/>
Surgical	<input type="checkbox"/>	Nursing and Midwifery	<input type="checkbox"/>
Clinical Services	<input type="checkbox"/>	Research in Progress	<input type="checkbox"/>
Mental Health Services	<input type="checkbox"/>	Other *	<input type="checkbox"/>
Health Services Management	<input type="checkbox"/>		

* If 'Other', please specify _____

Is the research Completed? Ongoing? Date Started _____ Date Completed _____

Title of Research _____

Author(s) _____

Your abstract should reflect the following suggested headings:

Introduction, Rationale, Methodology, Results, Conclusion(s)

Has this research led to further research activity? If yes, please give details _____

Has this abstract been previously published? Yes No

If "yes", please state when and where: _____

Has this abstract been presented at conferences or seminars? Yes No

If "Yes", please supply conference name, venue, date, and name of speaker: _____

Your contact details (including e-mail if possible). Name: _____

Postal address: _____

Tel: _____ E-mail: _____

Please send your abstract (abstract submission guidelines overleaf) and this completed form to:

Ms. Catherine Kennedy, National Institute of Health Sciences
St. Camillus Hospital, Shelbourne Road, Limerick
t. 061-483975 m. 086-3812926 f. 061-326670 e: ckennedy@nihs.ie

We particularly welcome submissions by e-mail on the online version of this form which may be accessed by e-mailing ckennedy@nihs.ie or on our website at www.nihs.ie



Abstract Submission Guidelines

ABSTRACT CONTENT

Abstracts should be structured to include the following parts:

- **Title**
- **Author(s)**
- **Location of each author when research was carried out**
- **Introduction**
Providing the background for the study, this section should be informative and brief
- **Rationale**
Defining why the study was conducted
- **Methodology**
Indicate the context, number and type of subjects or materials being studied, the principal procedures, tests or treatments performed
- **Results**
Confirming or refuting the hypothesis, supported by statistics if appropriate
- **Conclusions**
Stating the major new findings of the study and specifying what these findings add to what is known already
- **Presented** (if appropriate)
Listing meeting name, location, date, name and title of speaker
- **Funding** (if appropriate)
Indicating any sources of funding/sponsorship received which author(s) wish to have acknowledged

ABSTRACT FORMAT

1. All text should be typed in 12 point font size Times New Roman.
2. The abstract should be typed single-spaced with one line of space between paragraphs and under headings.
3. Paragraphs or headings should not be indented.
4. Type the title in bold-face.
5. Begin a new line under the title for authors and affiliations and use italics to list both.
6. List all authors (last name, first name initial), indicating main author by superscript¹ placed after the first name initial, the second author by superscript² etc. Place superscript¹ after the affiliation of the main author and number other affiliations according to the order of the authors in the list.
7. Keep the body of the abstract to an overall word limit of 500 words.
8. Use the following headings to structure your abstract: Introduction, Rationale, Methodology, Results, Conclusions, Published, * Presented, * Funding *
* if appropriate
9. Figures and tables may be included. They should be labelled with - Table 1- / Figure 1- and provided with a title which should be inserted above the graphic.
10. Use standard abbreviations and symbols and define each abbreviation when it is used for the first time.



11. References may be included at the end of your abstract in Vancouver Style. All references should be numbered in the text with superscript and listed at the end in the following format:

Author's surname, Author's first name or initial. Title of article. Title of the Journal [abbreviated]
Year of publication; Volume Number (Issue number): Page numbers of article.

Example:

Withrow R, Roberts L. The videodisc: Putting education on a silver platter. *Electron Learn* 1987;1(5):43-4.

SUBMISSION PROCEDURE

Two options for submission are offered:

1. Online Submission

Abstracts can be submitted via the Online Research Submission Form available in the Research Bulletin Section of our website at www.nihs.ie.

2. E-Mail

Alternatively, both the abstract and the submission form can be e-mailed to ckennedy@nihs.ie.

Please note that abstracts cannot be accepted without the accompanying abstract submission form.

For any queries you may have with regard to responding to the Call for Abstracts, please contact

Ms. Catherine Kennedy,
Information Scientist,
National Institute of Health Sciences,
Health Service Executive, Mid-Western Area,
St. Camillus Hospital,
Limerick.

t. 061-483975
m. 086-3812926
f. 061-326670

e: ckennedy@nihs.ie



Abstract Submission Guidelines

The piece of research should have been published in the 6-8 month period prior to December or June for inclusion in this section of the National Institute of Health Sciences Research Bulletin.

ABSTRACT CONTENT

Abstracts should be structured to include the following parts:

- **Title**
- **Author(s)**
- **Location of author(s) when research was carried out**
- **Abstract**
A summary of the piece of research providing brief descriptions of the background, rationale, methodology, results and conclusion. This can all be included in one segment of text
- **Source**
Name of publication, volume, issues, year, page range
- **Keywords**
Main terms covered by the research
- **Presented (if appropriate)**
Listing meeting name, location, date, name and title of speaker
- **Funding (if desired)**
Indicating any sources of funding / sponsorship received which author(s) wish to have acknowledged
- **Published**
Including full details of where the research has been published ie. journal title, volume, issue, year, page range

ABSTRACT FORMAT

1. All text should be typed in 12 point font size Times New Roman.
2. The abstract should be typed single-spaced with one line of space between paragraphs and under headings.
3. Paragraphs or headings should not be indented.
4. Type the title in bold-face.
5. Begin a new line under the title for authors and affiliations and use italics to list both.
6. List all authors (last name, first name initial), indicating main author by superscript¹ placed after the first name initial, the second author by superscript² etc. Place superscript¹ after the affiliation of the main author and number other affiliations according to the order of the authors in the list.
7. Use standard abbreviations and symbols and define each abbreviation when it is used for the first time.



SUBMISSION PROCEDURE

Two options for submission are offered:

1. Online Submission

Abstracts can be submitted via the Online Research Submission Form available in the Research Bulletin Section of our website at www.nihs.ie.

2. E-Mail

Alternatively, both the abstract and the submission form can be e-mailed to ckennedy@nihs.ie.

Please note: Abstracts cannot be accepted without the accompanying abstract submission form.

For any queries you may have with regard to responding to the Call for Abstracts, please contact:

Ms. Catherine Kennedy,
Information Scientist,
National Institute of Health Sciences,
Health Service Executive,
Mid-Western Area,
St. Camillus Hospital,
Limerick.

t. 061-483975

m. 086-3812926

f. 061-326670

e: ckennedy@nihs.ie

e-library

the best and most current healthcare
information at your fingertips @ www.nihs.ie

clinical
evidence



E-Journals

Health & Wellness
RESOURCE CENTER

CommunityWISE

ChildData

HMIC DATABASE

knowledge
exchange



NATIONAL INSTITUTE OF
HEALTH SCIENCES



HE
Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive



Caredata

PsycINFO

Useful Web Links

- MEDLINE
- Biomedical Reference Collection
- CINAHL
- Nursing & Allied Health Reference Collection
- SPORTdiscus
- AMED

Use the e-library for:

- best available evidence to inform your practice
- vital support for your research activity
 - support for continuing professional development
 - 24 X 7 access from any online location



St. Camillus Hospital
Shelbourne Road
Limerick, Ireland

T: 061 483975

F: 061 326670

E: info@nihs.ie

W: www.nihs.ie