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Weight Loss Surgery: A Comprehensive Medical Team Approach

Editors: Gillian Moore-Groake and Colm O’Boyle
ISBN-10: 1782188045
Publisher: Currach Press
Price: £12.50

Given that more than half the population of Ireland is overweight or obese, there is a huge public interest in all potential treatment options. Bariatric surgery in particular, attracts much attention because of the life-changing weight loss associated with it. While the media is awash with TV shows, articles and features dedicated to weight management there is surprisingly little information available to individuals which is written by experienced members of multidisciplinary weight management teams. This book "Weight Loss Surgery: A Comprehensive Medical Team Approach" is from such a team in the Bon Secours Hospital in Cork. It offers practical, easy to read and patient-centred advice aimed at those considering bariatric surgery.

Each chapter is written by a specialist in their field, and includes experiences from patient’s that have had bariatric surgery. Topics covered include weight loss surgery options, psychological aspects of surgery and the effects of surgery on medical conditions such as diabetes, cardiovascular disease and sleep disorders. There is advice on healthy eating, the post operative liquid diet, recipes and meal plans, and common nutritional problems encountered. A physiotherapy programme is also provided, with easy to follow pictorial instructions. A chapter on nursing explains the patient pathway during the hospital admission for surgery, and the final chapter gives insight on the role of the patient support group within the service.

The book is based on best evidence and practice, and the information presented is concise and easy to read. It provides answers to the frequently asked questions and reputable resources for further information. Once in a while, you read a book or an article and say to yourself “We could have done that” – but now it has been done and in this book done very well. We will be recommending this book to those patients considering weight loss surgery. It will also be a very useful resource for healthcare professionals, to provide insight, information and patient perspectives on this topical and growing area of weight management.

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In this Month’s IMJ

Paediatric HIV: The experience in Ireland 2004-2011: Assaf et al provide a detailed analysis of the 42 children diagnosed with HIV in a 7 year period. The majority 90% were born to African mothers. The mean age at diagnosis was 6 years. Eleven of the children were born in Ireland. Maternal seroconversion during pregnancy emerged as an important factor and occurred in 4 of the 10 Irish born cases. Twenty five cases were late diagnoses, 11 of the children being symptomatic. The authors emphasise the importance of vigilance and a more systematic approach to screening of children coming from high risk HIV areas. HIV testing must become normalised as a routine test in general paediatric practice.

Barriers to accepting and completing latent tuberculosis infection treatment: Kane et al found that compliance with latent tuberculosis infection (L TBI) treatment was low. Among the study group only 49% completed the course of therapy. The main cause of not completing treatment was concerns about side-effects. In recent years the number considered at increased risk of LTBI has risen due travel, migration and the administration of immunosuppressive therapies such as TNF blockers. The study outlines strategies for supporting patients on therapy.

Long term follow up for colon cancer in a minimally invasive colorectal unit: Nason et al report on their experience with laparoscopic colon cancer resection in a series of 108 patients. The conversion to open surgery during the procedure was 11% but this has decreased over time to 4% in 2011. The 5 year survival following laparoscopic resection was 80%. Survival appears to have been higher when compared with the open surgery resection group. The advantages of the technique are shorter length of stay, faster return of bowel function, decreased use of analgesia and less wound complications.

Chronic disease management in patients attending Irish general practice training practices: O’Shea et al state that national policy favours the shift of medical care from hospitals to general practice. The authors have attempted to quantify the general practice workload in caring for patients with chronic diseases. The study involved 160 patients across 33 practices under the care of 58 GPs. The average number of GP visits for each patient was 1.6 per year. The mean number of medications per patient was 6.8. Over one quarter of patients needed assistance to attend the GP. One third of the patients rated their health as fair/poor. The authors comment on the paucity of available nursing services and urge that this be explored.

Operative surgical yield from general surgical outpatient clinics: time to change the way we practice: Irfan et al have undertaken a detailed audit of surgical outpatients attendances and subsequent operative theatre activity. There were 6503 surgical appointments and 1489 (22.9%) non-attendances. The quantum of surgical work generated by the OPD attendances was 13470 cases, endoscopies 1470 cases, minor operations 475 cases. The overall theatre work produced by the OPD was 16.5%. One of the authors’ recommendations is to reduce the number of return/ review appointments. Another suggestion is better dialogue/education about the indications for a surgical referral.

A dermatology outpatient waiting list initiative: Foley et al report on an exercise to reducing waiting list time to under 120 days for dermatology patients. At the time there were 830 patients on the St. James waiting list, of whom 143 had been waiting greater than 120 days. This group of patients were offered an early appointment and backlog was seen over a 5 week period. There were no cases of melanoma diagnosed among the cohort which indicates that the initial prioritisation was satisfactory.
The Role of Simulation Training in Medicine

Greenspan1 in a recent BMJ report stated that simulation training can help in the establishment of consistent standards by defining how things should be done. She was writing in relation to its role in improving patients’ outcomes as outlined by defining how things should be done. She was writing in training can help in the establishment of consistent standards and procedures have to be undertaken quickly.

Miller’s ladder of professional expertise- knows/ knows how/ does. These 4 steps correspond to knowledge, competence, performance, action. The task can be repeated as often as is necessary and gaps in skills and knowledge shows how/ does. These 4 steps correspond to knowledge, competence, performance, action. The task can be repeated as often as is necessary and gaps in skills and knowledge addressed. It is very suited to emergencies when a large number of procedures have to be undertaken quickly.

Simulation training is divided into low, medium and high fidelity. Low fidelity simulation is the use of written case studies or role playing. Medium fidelity simulation is the use of a mannequin head to practice bag and mask ventilation and intubation. High fidelity simulation is the use of computerised mannequins to mimic real life clinical situations that require the correct intervention on the part of the trainee. The latter provides a ‘total immersion’ experience. Simulation can be used, for example, to assess the trainee’s efficacy at cardiac compression. High fidelity simulation training is already well established in anaesthetics and surgery and is increasingly being utilised in other areas. Simulation helps to develop leadership and decision making as well as technical mastery. The debriefing after the exercise is important. It can be conducted using a format based on the Pendleton framework. Asking the trainee ‘what went well with that?’ assesses conscious competence. Further discussion led by the trainer brings out areas of competence that the trainee was unaware of- unconscious competence. Asking the trainee what he was less pleased about brings out conscious incompetence.

Fourthly when the trainee brings up where he feels the trainee needs to improve he identifies the unconscious incompetence. When time is short the interaction can be reduced in order to concentrate on the areas that need immediate attention.

Simulation training does have its limitations. It can’t anticipate patients’ unpredictable responses to resuscitation measures, medications or a surgical procedure. It requires personnel and specific time set aside. There must be good instructor – trainee arrangements. The differences between communication during simulation and real life critical care situations needs to be recognised and addressed. The dialogue between the members of the team must be targeted and effective throughout the resuscitation or procedure. If simulation sessions are not well conducted they can have the counter effect of making the participants feel uncomfortable and threatened. The process has the potential to be harmful rather than helpful.

Simulation training programmes are now in place in a number of Irish centres. The College of Anaesthetists launched the CAST programme (college of anaesthetists simulation training) in 2010. Crina Burlacu6 points out that training in anaesthesia followed the apprenticeship model which relied heavily on clinical exposure. Despite years of clinical training, junior may have only limited experience of life-threatening situations. This problem is exacerbated by the reduction in working hours. Simulation provides an opportunity to conduct crisis management scenarios. Skills facilities have also been established across the Dublin teaching hospitals and in Cork and Galway. There are plans to set up assessment mechanism including inspection, evaluation and accreditation. This evaluation process will provide consistency across all the centres.

Simulation training in medicine is gaining in importance and popularity. It facilitates honest constructive feedback and improvement without attributing blame. The challenge into the future will be to make it available and relevant for all healthcare workers dealing with acute or complex medical situations. The other factor is determining the magnitude of the role that it should play in undergraduate and postgraduate training programmes.

JFA Murphy

3. Gwande A. The checklist manifesto: how to get things right. 2011
The Jade Goody Legacy Has Undoubtedly Saved Lives, But What Will be the Michael Douglas Effect?

Public health practitioners’ are aware of the mesmeric power of celebrities to generate disease awareness. Indeed, Jade Goody’s tragic death in 2009 was likely to be foremost in the minds of Irish parents’ decision to vaccinate their girls against cervical cancer. Unintentionally it seems, Michael Douglas, has spectacularly raised awareness of a subset of head and neck cancers (HNC). In a candid interview with the Guardian newspaper on June 2nd 2013, he attributed some throat cancers to oral sex. For the uninstructed the common factor in both stories is the Human Papilloma Virus (HPV) - a family of more than 100 virus types that can infect the epithelium of the skin, cervix, vagina, anus, vulva, penis, mouth, and throat.

A lot remains unknown about the natural history of this viral infection. It has been labelled the most common sexually transmitted infection in the US1 - Over 75% of sexually active people will be infected with HPV at some stage. The vast majority of infections are cleared without any problems. A small proportion will develop genital warts (e.g. HPV-6, 11) and an even smaller proportion will develop HPV-related cancer (e.g. HPV-16, 18).

That this virus causes oropharyngeal (tonsillar) cancer in men was probably news to many in the medical community here in Ireland. To put HPV in perspective, it has been estimated that >5% of all cancers occurring worldwide are attributable to this infection2. In a candid interview with the Guardian newspaper on June 2nd 2013, he attributed some throat cancers to oral sex. For the uninitiated the common factor in both stories is the abundance of lymphoid tissue of the tonsils, soft palate and posterior tongue being the most common primary site. Patients normally present with persistent difficulty swallowing or sore throat; otalgia; many cases may indeed present with a metastatic node in the neck.

Another issue that arose with the Michael Douglas story was the implications for spouses and long-term partners of patients. In HPV-related oropharyngeal cancer, the causal infection was likely to have occurred 10-40 years prior to the development of the cancer. A retrospective study from Sweden published in 2000 showed that higher rates of tonsillar cancer among husbands of cervical cancer patients than those without. Recently however, preliminary findings showed that spouses and long-term partners of patients diagnosed with HPV-positive oropharyngeal cancer were no more likely to test positive for oral HPV infection than people in the general population and have a low risk of developing HPV-related oropharyngeal cancer3.

As for vaccination - The public health community are genuinely excited at the prospect of tackling the HPV-related cancer epidemic. Results from a HPV vaccination programme in Australia, has already shown a dramatic decrease in genital warts among vaccinated women with a herd immunity effect on men4. Most first world countries routinely vaccinate girls against the HPV infection. As the incidence of HPV-related HNC is clearly on the increase, the argument for also vaccinating boys continues to gain momentum (>20% of HPV-related HNC are caused by HPV-16). Michael Douglas’s subsequent endorsement may well increase that clamour for HPV vaccination in boys. Earlier this year, Australia added boys to their HPV school-based vaccination program. It should be noted that Gardasil® & Cervarix® are licensed for use against cancer in men in Europe.

For now, every HPV-positive HNC patient presents an opportunity to learn more about the disease. Given the suspected numbers involved, medical professionals and policy-makers in Ireland must continue to closely observe the national and international research into these increasingly common, but highly treatable subgroup of cancers.

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Funding
Promotional activities relating to the HPV and Head and Neck Cancer symposium from May 17th 2013 are covered by a NUIG millennium grant.

References
Pediatric HIV: The Experience in Ireland 2004-2011

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Abstract

Despite effective prevention strategies pediatric HIV infection remains an important condition in Ireland. To characterise presentation and identify barriers to optimal management a retrospective chart review of HIV-infected children presenting in Ireland, 2004-2011 was undertaken. Forty-two HIV-infected children were identified; (25 male). Median age at presentation was 6 years (range 0-16 years). 38 children (90%) were born to African mothers. Eleven (26%) were born in Ireland. Twenty-five (59%) were late diagnoses; 11 were symptomatic. Ten of 12 foreign born HIV-infected children had antiretroviral exposure with frequent resistance associated mutations. Seven of 8 children with stage C disease had previously been admitted to hospital in Ireland before diagnosis. Maternal non-adherence to recommendations and seroconversion in pregnancy challenge the goal of pediatric HIV eradication. Targeted strategies for women at risk of infection in pregnancy are required. Late HIV diagnosis remains common, highlighting the need for a more proactive approach to HIV testing.

Introduction

The epidemiology of pediatric HIV infection in Ireland has changed considerably since the first child was diagnosed in Ireland in 1985. Initial studies reported that most infected children were born to Irish women with intra-venous drug use (IVDU) related infection. The vertical transmission rate (VTR), at 12-15%, was at the lower end of the reported range. This low transmission rate was attributed to the fact that this was primarily a non-breast-feeding population, in the relatively early stages of the HIV epidemic. Thereafter, coupled with the economic upturn of the mid to late nineties, Ireland experienced a marked increase in immigration, particularly from sub-Saharan Africa. In the absence of interventions, a VTR of approximately 30% might have been anticipated in this largely African breast-feeding population. Fortunately, these demographic changes coincided with the roll out of routine antenatal testing and the introduction of the Irish programme for prevention of mother to child transmission (PMTCT) of HIV in 1998 – 1999. There followed a reduction in the vertical transmission rate to <1%. Despite this success, HIV-infected children continue to present for care and new infections, often at an advanced stage, are diagnosed each year. This study sought to characterise the current modes of presentation of HIV-infected children in Ireland in order to highlight the continuing importance of HIV infection as a diagnostic consideration, even in this era of effective prevention, and to identify barriers to the early diagnosis and optimal management of infected children.

Methods

The Rainbow Clinic at Our Lady’s Children’s Hospital, Crumlin and the Children’s University Hospital, Dublin is the national referral centre for all HIV-infected children in the Republic of Ireland. A retrospective chart review of all HIV-infected children who presented between 2004 and 2011, inclusively, was undertaken. Children were categorised by place and timing of diagnosis.

Group 1 included children diagnosed prior to arrival in Ireland; Group 2, infants born to mothers known to be HIV positive and diagnosed during postnatal monitoring (i.e. early diagnosis); Group 3, all other infants and children diagnosed in Ireland, i.e. late diagnosis. The CDC classification of Paediatric HIV infection was used. Data collected on a standardized data sheet included: demographics, duration of residence in Ireland, hospitalisations in Ireland prior to HIV-diagnosis, antiretroviral (ARV) exposure history, clinical presentation, CDC stage, co-infections, CD4 count, viral load and resistance associated mutations.

Results

Forty-two HIV-infected infants and children were identified; 25 male and 17 female. The median age at presentation was 6 years (range 0-16 years). Overall 90% (38/42) were born to African mothers; 69% (29) in Africa. HIV transmission was vertical in 90% (38/42), horizontal in 5% (2) and unknown in 5% (2). Seventy-one percent (30) of children were newly diagnosed at presentation. The characteristics of each group are listed in Table 1.

Group 1: Children diagnosed prior to arrival in Ireland

Twelve children had been diagnosed with HIV prior to arrival in Ireland; 10 in Africa, and two in Europe. Ten of 12 children (83%) were receiving or had previous exposure to ARVs at the time of presentation; 5 were on highly active antiretroviral therapy (HAART) of whom 3 were virally suppressed. Five, off treatment, had prior ARV exposure (1 HAART, 2 dual or monotherapy, 2 infant post exposure prophylaxis (PEP)). Of the 10 patients with ARV exposure, 6 of 7 with detectable viremia had baseline resistance testing. Three, each with prior HAART exposure, had detectable resistance associated mutations, (K103N, Y181C, M184V, M41L, T215Y). Two children were ARV naive. The history of prior diagnosis and/or ARV exposure was not always immediately disclosed, leading to delay in initiation of appropriate ARV therapy in one case. Two children had tuberculosis. There were no co-infections with hepatitis B or C.

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CPD available online at www.imj.ie and questions on page 223
newly diagnosed in Ireland. The median time to diagnosis after arrival in Ireland was 1.6 years (range 0.02 – 8.6 years), with a significant minority (4/19) living in the country for 4 or more years prior to diagnosis. None of the 25 (36%) late diagnoses had a previous hospital admission in Ireland. Seven of 8 children with CDC stage C disease, clinical AIDS, had previously been hospitalised in Ireland prior to diagnosis. Seventeen children had baseline resistance testing. No significant resistance associated mutations were detected in this group.

**Discussion**

The arrival of HIV-infected children from Africa who have been exposed to ARVs, increasing numbers of whom are receiving or have previously received HAART, is a relatively new phenomenon and presents new challenges. While the increased availability of ARVs is a welcome development, history of prior treatment is not always disclosed and treatment may have been intermittent or non-suppressive, all of which can increase the risk for ARV resistance. In this review, half of the children diagnosed prior to arrival who had been exposed to HAART were not virally suppressed and almost one third of those had resistance associated mutations, illustrating the importance of baseline resistance testing. In contrast, consistent with prior reports, viral resistance was not detected amongst the ARV-naïve children, suggesting that, as yet, transmitted resistance in the paediatric population remains uncommon.

The routine programme for prevention of mother to child transmission of HIV in Ireland involves opt out antenatal HIV screening, antenatal and infant postnatal ARV treatment and intravenous intrapartum ARV as necessary. Despite the success of this prevention programme a low level of residual transmission persists. Maternal seroconversion in pregnancy has emerged as an important cause of infection and often delayed HIV diagnosis. Four of 10 Irish-born children, diagnosed after establishment of routine antenatal testing, were infected in association with documented maternal seroconversion in pregnancy. A call for repeat routine HIV testing in pregnancy has been made, the case for which is strong in high incidence areas. A recent Irish economic evaluation found that the cost of introduction of repeat universal routine antenatal HIV screening in the third trimester is high compared to expected benefits. Similarly, in 2009, the UK antenatal screening review committee concluded that routinely offering a second test to all pregnant women is not justifiable. Instead they recommended focusing efforts on implementation of current policies, maximising initial test uptake, and that repeat testing should be readily available on maternal request. Notably in this study, only one of four mothers who seroconverted requested a repeat test.

In general, selective screening programmes have not met with great success. We are therefore faced with the challenge of developing appropriate interventions for this group. Population based educational programmes on benefits of HIV testing and the importance of adherence to recommendations must be coupled with targeted interventions aimed at those at ongoing risk of transmission. Where universal repeat testing in late pregnancy or delivery is not justified, it is important to raise awareness of the need for repeat testing in those at risk e.g. serodiscordant partner, continuing intravenous drug use, from high prevalence community, and to ensure that such testing is readily available on request. Despite the success of PMTCT programmes, HIV infection in children remains an important problem, even in the developed world. While the numbers of new infections have declined, in this study the majority (59%) of HIV-infected children diagnosed in Ireland were diagnosed late, (median age 10.4 years). Most children were ultimately tested for HIV, often after prolonged investigations, because of symptomatic disease or because of diagnosis in a family member. Six children (14%) were the index case in the family, and almost one fifth had progressed to AIDS at an age of less than 1 year.
time of diagnosis. For 36% of children with late diagnosis at least one opportunity for earlier diagnosis (i.e. during a previous hospitalisation) was missed.

Failure to diagnose HIV is associated with significant risk of progressive immune compromise and associated morbidity. As optimal benefit is associated with initiation of treatment prior to the development of severe immune deficiency, such delays ultimately compromise treatment benefit.\(^5\) Missed opportunities for diagnosis suggest either a lack of awareness among physicians of the diversity of the clinical presentation of HIV infection or a reluctance to routinely undertake HIV testing. HIV testing should no longer be the sole preserve of paediatricians in infection or a reluctance to routinely undertake HIV testing. HIV physicians of the diversity of the clinical presentation of HIV for diagnosis suggest either a lack of awareness among practitioners routinely test children for a variety of conditions associated with a poorer prognosis than HIV. No doubt, the reluctance to test stems from the early days of the epidemic when testing was associated with little individual patient benefit and a range of negative experiences.

This study highlights the continuing under-diagnosis of HIV infection in children and the need for a proactive approach to testing. If routine repeat HIV screening in pregnancy is not feasible, a strategy to effectively reach women at risk for seroconversion in pregnancy is needed. Given the benefits of early diagnosis and the relentless progression of disease in the absence of treatment, a more systematic approach to the screening of all children coming from high prevalence countries should be undertaken. In order to allow HIV-infected children the full benefit of ARVs HIV testing must be normalised as a routine test in general paediatric practice.

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References

Barriers to Accepting and Completing Latent Tuberculosis Infection Treatment

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Abstract
Treatment of Latent Tuberculosis Infection (LTBI) is an important component of any TB control strategy. Acceptance and completion of treatment is poor. We undertook this study to identify barriers to acceptance & completion of treatment. Patients attending TB clinics completed a self-administered survey. Medical notes and electronic pharmacy records were reviewed. 143 surveys were completed. 70 (49%) completed treatment. Patients were less likely to accept treatment (p=0.01, RR 0.78, CI 0.584-0.985) and less likely to complete treatment (p=0.01, RR 0.64, CI 0.462-0.885) when concerned about the side effects of LTBI medication. Completion of LTBI treatment is sub-optimal. The major barrier identified was fear about side effects caused by LTBI medications.

Introduction
Ireland has one of the lowest TB incidence rates in Western Europe with an average rolling incidence rate of 11/100,000 pop/year.\(^12\) Treatment of Latent Tuberculosis Infection (LTBI) is an important component of any TB control strategy. In recent years, there has been an increase in the number of individuals considered to be at high risk for LTBI due to travel and migration.\(^2\) Increasing rates of conditions such as HIV and treatment with
immunosuppressants such as TNF-blockers have resulted in greater risk of progression from latent to active disease. Other at-risk groups include diabetics, new tuberculin skin test converters, homeless and health care workers (HCW’s). High-risk groups should receive priority treatment for LTBI. However, rates of acceptance and completion of treatment are poor. Our previous study reported that of 243 HCW’s referred to the LTBI clinic, only 158 (65%) attended, 21% accepted and 13% completed treatment. The reasons for non-acceptance and failure to complete treatment in our population, including non health care workers, have not been elucidated. The objective of this study was to identify the patients’ views of LTBI and potential barriers to acceptance and completion of treatment.

Methods
The Patient Advocacy Committee has responsibility for approving surveys conducted in the hospital and gave approval for this study. Participation was voluntary. Consent was implied by completion of the questionnaire. Patients were recruited from two TB outpatient clinics in St James Hospital, Dublin (1) the LTBI clinic which receives referrals from the occupational health department, GP’s or consultants and (2) the public health clinic which provides a contact tracing service. An average 350 new patients are seen between both clinics annually. HIV+ patients with LTBI are seen in a different clinic, and were not included.

Screening at clinics consists of Mantoux test, chest x-ray, physical examination, medical history and baseline liver function test. A LTBI diagnosis was made in patients with a positive skin test (based on size listed in the Guidelines of the Prevention and Control of Tuberculosis in Ireland 2010) in the absence of any clinical or radiological evidence of active tuberculosis. Unless contraindicated, all clinic attendees with LTBI were offered treatment. First line treatment provided was oral isoniazid 300mg daily for six to nine months. Standardised one to one verbal and written education regarding diagnosis, treatment, and side effects was provided. Patients were followed up monthly to six-weekly. Liver function tests were monitored and medications dispensed at clinic. Patients had access to the team by phone between visits. LTBI consultations, medication and tests are without charge. Patients were recruited between June 2008 and June 2010 using consecutive sampling. Treatment naive patients, 18 years or older, with a confirmed diagnosis of LTBI were included. Patients received their diagnosis and education and then were invited to complete the survey, regardless of their intention to accept or decline treatment. Patients were excluded from the study if they had a diagnosis of active TB, previous TB treatment or if isoniazid was contraindicated.

The first outcome measure was patient acceptance or refusal of LTBI treatment as recorded in the medical notes. The second outcome measure was patient views gathered by survey at the first clinic visit. The third outcome measure was completion of treatment, defined as taking 180 daily doses or more of isoniazid, which was recorded in the electronic pharmacy dispensing record and medical notes. A survey designed by Shieh et al, was adapted for the Irish healthcare setting. The self administered survey comprises of 7 demographic questions and 21 multiple-choice questions relating to health beliefs, lifestyle, clinics and treatment regimens. The questionnaire was in English. Professional interpreters used in clinic could assist the patient in completion where required. All collected data were stored in Excel (Microsoft) database. R version 2.10.1 was utilised for analysis. Relative risks for acceptance of treatment and completion of treatment were calculated for groups agreeing/disagreeing with survey statements. 95% confidence intervals were constructed and univariate p-values obtained.

Results
Acceptance & Completion of LTBI Treatment
150 patients were approached, 5 refused, 2 surveys were incomplete and 143 surveys were completed. 101 of these patients (70%) accepted treatment. 70 (49%) patients completed treatment. In 16 cases treatment was stopped by a physician due to side effects and 12 patients failed to attend clinic after commencing treatment (Table 1).

Respondent Demographics & TB Risk Factors
Mean age 39.8 years (range 21 to 88 years). 64.3% of participants were female, 52% were HCW’s, 43% were born in a TB endemic country, 24% were recent contacts of active TB cases and 17% were due to commence biological agents (Table 2). Demographics such as gender (p= 0.725), social class (p= 0.225), country of birth (p=0.328) or ethnicity (p= 0.300) did not influence the participants’ decision to accept or decline treatment. However, the patient’s occupation and risk factors did show a trend towards having a statistically significant influence on acceptance or declining treatment. Hospital workers were less likely...

<table>
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<tr>
<th>Reason Referral</th>
<th>Patients with side effects (n=16)</th>
<th>Failed to attend clinic (n=12)</th>
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<td>Positive Mantoux</td>
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<tr>
<td>Pre-Employment Screening</td>
<td>2 (13)</td>
<td>2 (17)</td>
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<td>Pre Biological Agents</td>
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<tr>
<td>Out rule Active TB</td>
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<td>Contact Tracing</td>
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<td>Reason Stopping</td>
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<tr>
<td>Elevated LFT’s</td>
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<td>1 (8)</td>
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<td>Peripheral neuropathy</td>
<td>2 (13)</td>
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<td>GI Upset</td>
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<td>Malaise</td>
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<table>
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<th>Demographic Variable</th>
<th>Number (%) (n=143)</th>
<th>Accepted Treatment (%)</th>
<th>Completed Treatment (%)</th>
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<td>LTBI treatment</td>
<td>143</td>
<td>101 (70.6)</td>
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<td>Gender</td>
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<td>49 (34.26)</td>
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<td>Female</td>
<td>Yes</td>
<td>64 (96.9)</td>
<td>43 (64.7)</td>
</tr>
<tr>
<td>Unknown</td>
<td>Yes</td>
<td>2 (100)</td>
<td>2 (100)</td>
</tr>
<tr>
<td>Age</td>
<td>143</td>
<td>67 (46.85)</td>
<td>48 (71.6)</td>
</tr>
<tr>
<td>&lt;35 years</td>
<td>Yes</td>
<td>33 (49.2)</td>
<td>51 (70)</td>
</tr>
<tr>
<td>&gt;35 years</td>
<td>Yes</td>
<td>37 (50)</td>
<td>51 (70)</td>
</tr>
<tr>
<td>Race</td>
<td>143</td>
<td>108 (75.52)</td>
<td>72 (66.7)</td>
</tr>
<tr>
<td>White</td>
<td>Yes</td>
<td>72 (66.7)</td>
<td>47 (43.5)</td>
</tr>
<tr>
<td>Black or Black Irish</td>
<td>Yes</td>
<td>91 (96.6)</td>
<td>9 (75)</td>
</tr>
<tr>
<td>Asian or Asian Irish</td>
<td>Yes</td>
<td>78 (94.8)</td>
<td>11 (88)</td>
</tr>
<tr>
<td>Other incl. Mixed background</td>
<td>Yes</td>
<td>2 (100)</td>
<td>2 (100)</td>
</tr>
<tr>
<td>Place of birth</td>
<td>143</td>
<td>100 (69.03)</td>
<td>66 (66)</td>
</tr>
<tr>
<td>West European</td>
<td>Yes</td>
<td>46 (46)</td>
<td>46 (46)</td>
</tr>
<tr>
<td>East European</td>
<td>Yes</td>
<td>43 (33.3)</td>
<td>33 (25)</td>
</tr>
<tr>
<td>Asian</td>
<td>Yes</td>
<td>11 (88)</td>
<td>11 (88)</td>
</tr>
<tr>
<td>African</td>
<td>Yes</td>
<td>9 (75)</td>
<td>9 (75)</td>
</tr>
<tr>
<td>TB Risk Factor</td>
<td>143</td>
<td>43 (30.06)</td>
<td>35 (81.9)</td>
</tr>
<tr>
<td>Foreign-born, TB endemic country</td>
<td>Yes</td>
<td>3 (13.6)</td>
<td>3 (13.6)</td>
</tr>
<tr>
<td>Hospital worker</td>
<td>Yes</td>
<td>74 (51.74)</td>
<td>47 (63.5)</td>
</tr>
<tr>
<td>Contact of active TB case</td>
<td>Yes</td>
<td>35 (24.7)</td>
<td>25 (71.4)</td>
</tr>
<tr>
<td>Pre biological agents</td>
<td>Yes</td>
<td>25 (17.48)</td>
<td>22 (88)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 2 Demographics and TB Risk Factors</th>
<th>Number (%)</th>
<th>Accepted Treatment (%)</th>
<th>Completed Treatment (%)</th>
</tr>
</thead>
</table>

Original Paper
Irish Medical Journal July-August 2013 Volume 106 Number 7 www.imj.ie
to accept treatment (p = 0.067) whereas patients due to commence biological agents were more likely to accept treatment (p = 0.096).

Perceived Barriers
Participants had good general knowledge about LTBI. 85% believed that there was a chance that this could wake up and make them sick and 90% of participants believed that the LTBI treatment would kill the LTBI in their lungs. Life style and clinic arrangements such as travelling time and expenses, frequency of appointments, times and duration of visits, taking time off work or college were not identified as barriers to treatment. Elements of the treatment regimen such as being unable to take paracetamol or alcohol and the need for venepuncture were not identified as barriers. However, participants were less likely to accept LTBI treatment (p = 0.01, RR 0.781, CI 0.643-0.950) and less likely to complete LTBI treatment (p = 0.01, RR 0.640, CI 0.462-0.885) when concerned about the side effects of LTBI medication (Table 3).

Discussion
This paper reports the barriers to accepting and completing LTBI treatment. 70% of those recommended to start treatment commenced it, a result similar to other health centres41. But less then 50% of those advised to commence treatment went on to complete it. HCW’s were less likely to accept treatment, whereas patients due to commence biological agents were most likely to accept treatment. The main barrier to accepting and completing LTBI treatment was the fear of side effects. The standard treatment of LTBI is isoniazid therapy for 6 to 9 months. This is fraught with evidence of poor compliance which is particularly worrying in HCW’s whose risk of reactivation poses a potential risk of nosocomial exposure to tuberculosis. Many of these HCW’s were recruited from countries with high TB prevalence. Screening and treating hospital staff is important. In 2002, 4% of TB cases in New York were in HCW’s, an increase from 2.5% in 1994 even though overall TB rates had declined. Of the HCW’s with TB, nearly 60% had positive Mantoux at the start of employment, but the majority did not receive prophylaxis treatment12.

HCW’s in our study had the lowest treatment acceptance rate (63%). Many of our HCW’s were young female nurses. Kwarar et al found that pregnant women or those planning to become pregnant were less likely to accept and adhere to treatment13. Family planning may have contributed to the lower acceptance rate, although we did not find a statistically significant association with gender. Furthermore, HCW’s might have the opinion that their positive mantoux is a result of past BCG vaccination i.e. a “false positive” and opt out of treatment. 35% of those vaccinated at an older age can have a BCG related positive mantoux test14,15. The use of Interferon-Gamma Release Assays (IGRA) in addition to mantoux testing has been recommended in the diagnosis of LTBI because IGRA has a higher specificity and is unaffected by prior BCG vaccination16,17.

Table 3 Barriers to LTBI Treatment Acceptance

<table>
<thead>
<tr>
<th>Survey Issues</th>
<th>Answer</th>
<th>Response (%)</th>
<th>Acceptance (%)</th>
<th>Barrier</th>
<th>RR</th>
<th>CI</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>The amount of time I spend at the clinic is too long</td>
<td>Agree/Not sure</td>
<td>62.6</td>
<td>70.1</td>
<td>Yes</td>
<td>1.042</td>
<td>0.841-1.292</td>
<td>0.71</td>
</tr>
<tr>
<td>Monthly clinic visits are difficult for me.</td>
<td>Agree/Not sure</td>
<td>65.4</td>
<td>78.2</td>
<td>Yes</td>
<td>0.779</td>
<td>0.602-1.007</td>
<td>0.06</td>
</tr>
<tr>
<td>I would prefer to go to an evening clinic.</td>
<td>Agree/Not sure</td>
<td>55.4</td>
<td>66.2</td>
<td>Yes</td>
<td>1.169</td>
<td>0.949-1.440</td>
<td>0.14</td>
</tr>
<tr>
<td>Sometimes I forget about clinic appointments.</td>
<td>Agree/Not sure</td>
<td>68.1</td>
<td>71.7</td>
<td>Yes</td>
<td>1.005</td>
<td>0.802-1.260</td>
<td>0.97</td>
</tr>
<tr>
<td>I am unhappy giving up paracetamol while on TB medication.</td>
<td>Agree/Not sure</td>
<td>67.4</td>
<td>78.4</td>
<td>Yes</td>
<td>0.835</td>
<td>0.686-1.047</td>
<td>0.12</td>
</tr>
<tr>
<td>It is important to take the TB medication every day until the doctor tells me to stop.</td>
<td>Agree/Not sure</td>
<td>91.9</td>
<td>74.4</td>
<td>Yes</td>
<td>1.364</td>
<td>1.078-2.632</td>
<td>0.02</td>
</tr>
<tr>
<td>If I am worried about side effects caused by TB medication.</td>
<td>Agree/Not sure</td>
<td>92.6</td>
<td>81.0</td>
<td>No</td>
<td>0.925</td>
<td>0.666-1.298</td>
<td>0.45</td>
</tr>
<tr>
<td>I would like more information about TB.</td>
<td>Agree/Not sure</td>
<td>90.4</td>
<td>72.0</td>
<td>Yes</td>
<td>1.105</td>
<td>0.865-1.375</td>
<td>0.42</td>
</tr>
<tr>
<td>I dislike taking tablets every day.</td>
<td>Agree/Not sure</td>
<td>95.6</td>
<td>70.9</td>
<td>No</td>
<td>0.378</td>
<td>0.319-0.648</td>
<td>0.01</td>
</tr>
<tr>
<td>There is a chance that the latent (“sleeping”) TB will wake up and make me sick.</td>
<td>Agree/Not sure</td>
<td>95.4</td>
<td>72.9</td>
<td>Yes</td>
<td>0.378</td>
<td>0.319-0.648</td>
<td>0.01</td>
</tr>
<tr>
<td>I dislike having blood tests at clinic.</td>
<td>Agree/Not sure</td>
<td>96.4</td>
<td>60.0</td>
<td>No</td>
<td>0.120</td>
<td>0.587-2.493</td>
<td>0.81</td>
</tr>
<tr>
<td>It is difficult to take time off work or college.</td>
<td>Agree/Not sure</td>
<td>92.6</td>
<td>63.8</td>
<td>No</td>
<td>1.006</td>
<td>0.802-1.260</td>
<td>0.97</td>
</tr>
<tr>
<td>I am unhappy giving up alcohol while on TB medication.</td>
<td>Agree/Not sure</td>
<td>97.4</td>
<td>71.4</td>
<td>No</td>
<td>0.190</td>
<td>0.709-1.998</td>
<td>0.51</td>
</tr>
</tbody>
</table>


HCW’s also had the lowest completion rate (42%). One explanation offered is that this group may never have intended initiating treatment but were unwilling to refuse the offer of treatment. This may be particularly relevant when being treated in the hospital they also work in. Of the 12 participants who failed to attend clinic after commencing LTBI treatment, 7 of these were HCW’s. This may be explained by their unwillingness to refuse treatment, however the multitude of reasons why patients fail to attend appointments cannot be extrapolated from this study. Patients’ perception of the degree of risk of developing TB can influence their decisions. Patients commencing immunosuppressive biological agents were the most likely to accept and complete treatment. Their risk of reactivation of LTBI is 10 to 20 per cent after commencing biological agents. This higher risk may have resulted in their willingness to take treatment, additionally awareness that treatment with biological agents may be denied, if they refuse LTBI treatment. Twenty two of the 25 patients in this cohort accepted treatment and 1 failed to attend clinic after commencing LTBI treatment. Biological agents were withheld in all patients who did not complete treatment.

Frequently it is assumed that health beliefs differ among and are influenced by ethnicity and demographics. Demographic associations with acceptance and completion of LTBI treatment have varied between studies. Despite the diverse demographics of the participants in the study, neither, social class nor ethnicity influenced their decision to accept or decline treatment. The chief finding identified in our study is that patients who were concerned about treatment side effects were less likely to accept and complete treatment. Preventative measures at the clinic were in line with American Thoracic Society guidelines. Despite the incidence rate of isoniazid related hepatitis being only 1 in 1000, patients still had concerns about side effects outweighing the benefits of treatment. Treatment was stopped due to side effects in 16 patients; these included elevated transaminases, peripheral neuropathy, GI upset and all reversed on cessation of therapy (Table 1). In each case the physician, in conjunction with the patient, made a decision to stop isoniazid therapy as the risk of the adverse event outweighed the benefit of continuing to treat LTBI. Published data demonstrate that 10% to 20% of persons taking isoniazid will have some mild, asymptomatic elevation of liver enzymes. Other factors such as giving up alcohol, venepuncture, knowledge and information about TB, were not significantly associated with treatment completion. Our findings differ from those reported by Shieh, where concern about venepuncture was an identified barrier. A focus group of HCW’s in the US did identify adverse events as a barrier to taking LTBI treatment. The fear of side effects of medication is a genuine concern.

The option to take a shorter course may be more attractive for patients. Adherence is better with 4 month rifampicin course compared to isoniazid. Rifapentine plus isoniazid once weekly for 3 months has been shown to be as effective as 9 months of isoniazid. Additionally it had a higher completion rate albeit directly observed therapy was utilised. The population studied was heterogeneous, this reflects the TB clinic population. It was unrealistic to cohort patients as the numbers in each category would be small and have weak statistical results. The patient
population was heavily weighted to HCW’s. Their views may not be representative of all patients. However, they are a substantial population of LTBI patients for whom treatment is recommended. Completion of LTBI treatment is sub-optimal, even in a population that includes health care workers and high-risk individuals. The causal reasons for non-acceptance and non-completion of treatment are multifactorial. However this study found that fear of side effects stopped patients accepting or completing treatment. We need to support patients from decision making to the end of treatment, with the availability of IGRA, side effect information and shorter treatment regimens.

Acknowledgements
C Ni Chieallaigh for her advice and encouragement. This study was part funded by a grant from the Health Service Executive’s Intercultural Health Care Project.

References
16. NICE. Tuberculosis Guidelines 2006. UK, National Institute for Clinical Excellence, NICE.

Long Term Follow up for Colon Cancer in a Minimally Invasive, Colorectal Unit

GJ Nason, BD Barry, NS Rajaretnam, PC Neary
Department of Colorectal Surgery, AMNCH, Tallaght, Dublin 24

Abstract
Our aim was to assess the long term survival advantage associated with the laparoscopic approach for colon cancer resection in an Irish minimally invasive unit. Between January 2005 and December 2006, 154 patients underwent resection for colon cancer. 108 underwent a laparoscopic resection, with a conversion rate of 11%. The overall 5 year survival was 71.4%. The overall 5 year survival rate for laparoscopic resections was 80.6% where as the overall survival for open resection was 50%. Laparoscopic surgery had a significant 5 year overall survival advantage compared to open in both non metastatic disease (Stage I and II) (92.2% vs. 69.6%, p=0.0288) and metastatic disease (Stage III and IV) (68.4% vs. 30.4%, p=0.0022). Laparoscopic surgery in a dedicated minimally invasive unit with verified low conversion rates is feasible and in our experience associated with a long term survival advantage for colon cancer.

CPD available online at www.imj.ie and questions on page 223
Introduction
Cancer of the colon is the third most common cancer in men and women in the developed world, and surgical resection is the only curative treatment. Three notable randomised control trials (COLOR, MRC CLASSIC and COST) have reported laparoscopic surgery to be an acceptable alternative to open surgery. These studies have proven laparoscopic surgery to offer non inferior survival outcomes. The Barcelona trial (Lacy et al.), suggested laparoscopic assisted colectomy may be more effective than open colectomy for the treatment of non metastatic colon cancer. Laparoscopic colectomy has clear benefits compared with open colectomy with shorter length of stay, faster return of bowel function, decreased use of analgesia and lower rates of wound complications. These benefits are offset by prolonged operative time, intra-operative cost and the learning curve associated with this technically challenging approach. Within Ireland our unit is the first unit to report 5 year survival data following laparoscopic colon resection. Our aim is to establish the long term survival associated with laparoscopic resectional colon surgery in a minimally invasive surgical (MIS) unit in an Irish setting.

Methods
Patients were identified retrospectively from a prospectively recorded database. Patients were analysed on an intention to treat basis. All patients underwent colonoscopy, biopsy, tumour markers and computed tomogram of the thorax, abdomen and pelvis. All cases were discussed at our multi-disciplinary conference. Open resections were advised on bulky tumours, patients with multiple previous abdominal surgeries and patients with a BMI >30.

Patients were placed in the Lloyd-Davis position. Port placement consisted of a 10mm sub-umbilical camera port, a 12mm right lower quadrant port and 3 X 5mm ports in the remaining 3 quadrants. After initial mobilisation the colon was mobilised using a medial to lateral approach and the vessels (inferior mesenteric or iliacolic) were identified, skeletonised and early flush ligation performed. For right hemo-colectomies, the hepatic flexure and remaining lateral attachments were then divided, the specimen delivered through a mini-laparotomy (<5cm) at the umbilicus, the remaining mesentery ligated and divided and after delivery of the specimen a stapled functional end-to-end anastomosis was fashioned extracorporeally. For left sided lesions, the lateral attachments were divided and splenic flexure taken down, after transsection distal to the tumour the bowel was delivered through a <5cm incision extended form the left iliac fossa port site. After the specimen was resected and pulsatile flow confirmed and end-to-end anastomosis was fashioned with a circular stapler (Ethicon, Inc.) intracorporeally. All mini-laparotomy sites were covered with 3M® Steri-Drape® wound protector. Conversion was defined as intra-abdominal dissection carried out through an extended extraction or new incision site.

Post operatively patients were managed according to a revised enhanced recovery program which proven to enhance recovery and shorten hospital stay, the RAPID protocol (remove, ambulate, post-operative analgesia, introduce diet). All patients were analysed for the following parameters: histopathology (including tumour type, TNM status, nodal yield), Operative parameters (including operative time, conversion rate, morbidity and mortality rates and length of stay). The use of adjuvant chemotherapy was decided at the multi-disciplinary conference. All 5 year survival figures were confirmed with the National Cancer Registry of Ireland. Follow-up consisted of an initial out-patient appointment 1 month after discharge. Subsequently, patients were followed up in a dedicated cancer outpatient clinic (OPD) led by a colorectal oncology nurse. This consisted of an OPD every three months for the first two years and then six monthly for the subsequent 3 years. Surveillance consisted of both history and physical examination (including faecal occult blood testing) along with haematological investigations (including serum CEA levels). CT TAP and endoscopy were performed annually. Statistical analysis was performed using GraphPad Prism (California, USA). A p value of 0.05 was deemed statistically significant.

Results
Between January 2005 and December 2006, 154 consecutive patients underwent resectional colon surgery. 108 patients underwent laparoscopic resectional surgery for colon cancer, 96 patients were completed laparoscopically with an 11% (10 patients) conversion rate. 48 patients had a de novo open resection. The median length of stay was 10 days (range 5 – 35). Of the 12 patients converted to an open procedure, three were due to failure to progress as a result of dense adhesions, five were due to bulky adherent tumours, two were due to technical difficulties as a result of obesity, one was due to difficult haemorrhage at the splenic angle and one was due to respiratory compromise secondary to the pneumoperitoneum.

Procedures performed included: anterior resections (97- 63%), abdomino-perineal resections (8- 5.2%), left hemo-colectomy (10- 6.5%) and right hemo-colectomy (39- 25.3%). All pathological subtypes were adenocarcinoma. The median number of lymph nodes retrieved was 14 (range 2 - 37). 87 (56.4%) patients received adjuvant chemotherapy following discussion at the multidisciplinary conference. According to the AJCC staging system, stage I, 15 (35.7%) stage II, 73 (74.7%) stage III 7 (4.5%) stage IV. Of the converted cases, one was stage I, 3 were stage II, 7 were stage III and 1 was stage IV.

Table 1 Demographics

<table>
<thead>
<tr>
<th>Operative Procedures</th>
<th>Lap</th>
<th>Open</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anterior Resection</td>
<td>97</td>
<td>63</td>
</tr>
<tr>
<td>Abdomino-Perineal Resection</td>
<td>8</td>
<td>5.2%</td>
</tr>
<tr>
<td>Left Hemicolectomy</td>
<td>10</td>
<td>6.5%</td>
</tr>
<tr>
<td>Right Hemicolectomy</td>
<td>39</td>
<td>26.3%</td>
</tr>
</tbody>
</table>

The overall 5 year survival was 71.4%. The overall 5 year survival rate for laparoscopic resections was 80.6% whereas as the overall survival for open resection was 50.5%. The overall number of deaths was 44, of which 36 were colon cancer related, as cross referenced with the National Cancer Registry, Ireland. Laparoscopic surgery in non metastatic disease (Stage I and II) had a significant 5 year overall survival advantage compared to open (92.2% vs. 69.6%, p=0.0286). Laparoscopic surgery also had a significant 5 year overall survival in metastatic disease (Stage III and IV), (68.4% vs. 30.4%, p= 0.0026).

Overall, laparoscopic surgery resulted in a significant 5 year overall survival advantage compared to open surgery (80.0% vs. 50.5%, p=0.0002). Resections completed by the laparoscopic approach resulted in a significant survival advantage compared to those converted to an open procedure (83.3% vs 58.9%, p= 0.045).

There was no significant difference noted between de novo open
Discussion
This study reports for the first time the 5 year survival outcomes for colon cancer in an Irish unit which specialises in minimally invasive surgery. Our unit's rate of laparoscopic surgery has improved from 70.1% in 2005 to 92.4% in 2011. During the study period the unit had 3 colorectal surgeons with varying levels of laparoscopic experience. The overall conversion rate of the unit was 11.1% (Range 8.7-14.3%), the individual conversion rates were indicative of the surgeon's laparoscopic training and experience. In 2011, the unit's conversion rate has decreased to 4% with 98% of resections been carried out by a single surgeon. Our unit continues to establish itself as a dedicated MIS unit with a growing laparoscopic experience. This is one of the largest studies in the British Isles to report long term outcomes for laparoscopic surgery.

Interestingly, our study has not only shown a survival advantage for non metastatic resectional surgery, as Lacy et al.4 have shown, we have demonstrated an overall survival advantage favouring the laparoscopic approach. In our study, we report a unit conversion rate of 11.1%. This compares with the COLOR, CLASICC, COST and Barcelona trials (17%, 25%, 21% and 11%). This also compares favourably to a composite figure of 14% conversion rate has been calculated by the European Association of Endoscopic Surgery consensus group looking at 2800 published cases10. A low conversion rate is reflective of a rich expertise in case selection as well as technical proficiency. This study has analysed our units first two years with a dedication to laparoscopic surgery, our conversion rate has significantly improved since as our laparoscopic caseload has increased and surgeon's experience, with a 92% laparoscopic caseload for 2011 with a 4% conversion rate, more in line with dedicated minimally invasive units11-13. With an increased laparoscopic caseload and the adoption of an enhanced recovery program (RAPID protocol) the unit's length of stay for colorectal resection has decreased from 10 days in 2005 to 6 days in 2011. Strict adherence to a modified enhanced after surgery recovery program aimed at early ambulation, removal of tubes, parenteral analgesia and early resumption to diet aids a quicker recovery8. Our length of stay reflects stringent institutional discharge criteria which include: absence of sepsis, resumption of premorbid dietary intake and the passage of formed stool. The advantage of this comparatively longer mean stay is a 0% 30 day readmission rate7.

In an Irish context, there is limited published survival data available. In 2006, a case mix of 100 cases with 61 cancers resected concluded the challenge facing Irish surgery is to disseminate this technique in a controlled and safe manner for Irish patients14. Our study is the first Irish study reporting long term follow up of laparoscopic colon resection. In 2011, Markey et al. published the long term experience for open colorectal resections in a peripheral hospital in Ireland, reporting an overall 5 year survival rate of 61.8%15. Our data compares favourably with this, highlighting the survival advantage of the laparoscopic approach in a dedicated minimally invasive unit. The overall survival rates for the open cases in this series is reduced in comparison to other reported series and our laparoscopic cohort, possible reasons for this include the favoured laparoscopic approach of the unit limiting the number of open resections and those converted to open from the laparoscopic approach (50% vs 58.3%, p= 0.75).

Table 3 AMNCH 5 year survival

<table>
<thead>
<tr>
<th>AJCC Stage</th>
<th>Lap (N)</th>
<th>Open (N)</th>
<th>Lap Survival (N)</th>
<th>Open Survival (N)</th>
<th>Lap Conversions (N)</th>
<th>Open Conversions (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>15</td>
<td>3</td>
<td>15</td>
<td>3</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>II</td>
<td>32</td>
<td>20</td>
<td>32</td>
<td>13</td>
<td>2</td>
<td>90.6</td>
</tr>
<tr>
<td>III</td>
<td>46</td>
<td>20</td>
<td>35</td>
<td>6</td>
<td>3</td>
<td>76.1</td>
</tr>
<tr>
<td>IV</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>33</td>
</tr>
</tbody>
</table>

(n=46) and the pre-operative case selection of laparoscopic cases at the multi disciplinary meeting. De-novo open cases were undertaken due to increased BMI (>30), multiple previous abdominal surgeries or bulky tumours. Furthermore, the mean age of the open cases was significantly older (71.3 vs 62.5 years, p=0.041). This difference between our open and laparoscopic series although not comparable, outlines the further benefits of a high volume unit demonstrated with our favourable laparoscopic outcomes.

Limitations include this study was carried out in dedicated MIS unit which favours the laparoscopic approach where possible, with published low conversion rates and a high proportion of laparoscopic caseload. Furthermore, a direct comparison between our laparoscopic and open caseload is not valid as there is a limited number of open cases performed in the unit. The open cases were excluded from a laparoscopic approach pre-operatively which again makes direct comparison flawed. Our experience in a dedicated minimally invasive surgical unit advocates the laparoscopic approach for colon cancer as a safe alternate to conventional open surgery. Excellent long term survival rates can be achieved with laparoscopic surgery when performed in the expert hands.

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References
Chronic Disease Management in Patients Attending Irish General Practice Training Practices

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Abstract

Complexity and workload for patients with chronic diseases in General Practice are poorly understood. Government policy envisages moving workload into primary care. Data was obtained from a GP delivered survey (58 GPs/33 practices) of 160 patients with one or more chronic diseases, and by concurrently extracting data from the patients electronic medical record. Care is physician intensive (average number GP visits 9.2 pa), with limited input from Practice Nurses (1.62 visits pa). Care co-ordination is significant, given complex co morbidity, polypharmacy (average number of medications per patient = 6.8), and numbers of OPD attended (3.8). Over a quarter of patients (51/160 (27%)) required assistance attending their GP; 60 (31%) self rated their health as fair/poor. Patients are positively disposed towards transfer of care to General Practice. This study provides baseline data on complexity/workload in care delivered in GP Training practices, before implementation of change.

Introduction

Irish health care is undergoing policy driven change1 from a taxation funded two-tiered service to universal health care, with compulsory health insurance and universal access as the main driver. Economic contraction means no additional resources are available for transition, which includes establishing a universal system and providing care for those with chronic disease. Reform must be research driven, ensuring best outcomes and value. National policy favours shifting care from hospitals into primary care, but an agreed delivery model is not yet defined. Chronic diseases are a major issue (length and complexity of treatment, frequent hospital admissions, risks associated with polypharmacy, complex co morbidity). According to the ESRI, Ireland has a rapidly ageing population. Over 30 years, numbers of patients over 65 years are estimated to triple; chronic diseases will increase proportionately. It is estimated 10% of patients (in Ireland) consume 60% of resources2. Recent research on GPs indicates most GPs report ‘fundamental changes’ are needed to make chronic disease management (CDM) effective.3 This study describes workload and complexity relevant to CDM; data may be useful as a baseline in the future, as care is reorganised.

Methods

This study used a cross sectional design. Ethical approval was obtained (TCD HSE GP Training Programme Ethics Committee). GPs were invited from the TCD HSE GP Training Scheme, recruiting trainees, Trainers, and Directing Team (58 GPs in 33 practices). Participating practices included those from rural (6), urban (10) and mixed (17) backgrounds; most (31/33) were group practices (2 or more GPs). Participating GPs each surveyed 5 patients (serial patients attending, children and adults), with one or more chronic diseases. Patients were given written explanation regarding the study and invited to participate or decline; none declined, possibly reflecting trust of these patients, known frequent users of GP services. Important of inviting all patients meeting inclusion criterion was emphasised verbally, and in the protocol, in order to reduce probability of selection bias. The survey was piloted (n=20); pilot data was not included. The survey included a doctor delivered patient questionnaire (completed by carer if patient unfit) and concurrent review of electronic medical record. Questions included number of morbidities, (informed by access to the medical record), extent of polypharmacy, health service utilization, and by inference, requirement for care coordination by the GP. Patient and doctor were asked to separately rate patient health. Data was analysed using SPSS.

Results

Response rate
Of 290 surveys sent, 190 were returned (66% response rate).

Profile of patients
105 (55%) patients were female; mean age 61.5 years (19.3 sd), range 4-98 yrs. Most (155 or 84%) were entitled to the General Medical Services (GMS) card.

Morbidities
Patients had a range of multimorbidities, including cardiovascular, respiratory, nervous, endocrine, and musculoskeletal diagnoses. A total of 56 (29.5%) patients had one chronic condition, fifty-four patients (28%) had two, thirty-nine (20%) had three, twenty-four (13%) had four, and 17 (10%) had five or more. Average number of medications was 6.8 (4.9sd, range 0-30)) per patient.

Health service utilization

Within the practice
Average number of GP visits per patient per year was 9.2 (9.0sd), (group range 1-52). Average number of nurse visits was 1.6 (2.2sd) (group range of 0-15 visits). Average number of house calls per patient was 0.33 (1.5sd) (group range of 0-11 house calls). Average number of out-of-hours visits was 0.3 (0.7sd) (group range of 0-5).

Outside of the practice
Average number of OPD services patients attend was 3.8

To receive CPD credits, you must complete the questions online at www.imj.ie.

CPD available online at www.imj.ie and questions on page 223
(5.29±sd) (group range of 0-7). Average number of acute admissions was 0.5 (1.1sd) (group range of 0-7 admissions). Data was obtained from medical record, and asking patients in consultation.

**Health service utilisation**

Average number of consultations per patient (OPD, GP and practice nurse visits) was 14.8 (12.7sd) (data obtained from medical record, and on asking patient, adding figures for OPD/Practice Nurse/GP). Patients attended several associated professionals, including physiotherapy (n=29; 15%), occupational health (n=9; 5%), dietician (n=21; 11%), psychologist (n=9; 5%), counsellor (n=11; 6%), and social work services (n=7; 4%). Some patients had services at home, including palliative care (n=1; 0.5%) public health nurse (n=20; 11%), or home help services (n=12; 6%).

**Fee paying patients**

The sample included 31 (16%) fee paying patients. When asked, over half (16 or 52%) indicated 'no difficulty' in paying, and similarly (16 or 52%) indicated this 'never' caused them delay in attending. However, almost one quarter (7 or 23%) indicated need to pay 'always' caused them delay in attending.

**Rating of health**

A total of 14 (7%) patients rated their health as poor, 46 (24%) fair, 73 (39%) good, 47 (25%) very good, and nine (5%) as excellent. There was no statistical difference between doctor rated health of patient (X=2.93; sd=1.02) and the patient’s (X=2.95, sd=0.99) self rating of their health (t=33.96, p=5.99).

**Functionality and mobility**

One quarter (51 or 27%) indicated requiring help attending their GP. Assistance was provided by daughters (n=16; 31%) or spouses (n=11; 21%). A total of 75 patients (40%) indicated limited functional activity; 41 patients (21%) indicating functional activity as 'severely restricted.'

**Practice Interactions**

Patients rated themselves 'very interested' in receiving more care within the practice on a 1-5 rating scale (mean=4.2, sd=1.14). Thirty-four patients (18%) indicated paying money to attend their GP, with 3 (8%) indicating payment was 'a major difficulty.'

**Discussion**

Results indicate complex, intensive and predominantly physician driven care. Most patients (84%) were GMS eligible, possibly reflecting concentration of morbidity within the sample, given the long established practice of granting medical card eligibility on medical grounds. For that minority of fee paying patients, it is of concern that almost 1:4 (7/31 or 23%) indicated need to pay 'always' caused them delay in attending. However, almost one quarter (7 or 23%) indicated need to pay 'always' caused them delay in attending.

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Operative Surgical Yield from General Surgical Outpatient Clinics; Time to Change the Way We Practice?

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Abstract
The aim of this study was to compare the number of patients attending surgical outpatient clinics in a general hospital to the number of resulting elective procedures scheduled in a single year. Patients initially assessed at private consulting rooms are not included in this study. The number of surgical outpatient appointments issued in 2011 totalled 6503 with non-attendances running at 1489 (22.9%). The number of elective surgical theatre cases performed in 2011 (i.e. the surgical yield from that period) came to 1078 with an additional 1470 patients referred for endoscopy and 475 patients referred for minor operations. Operative surgical yield from the currently structured outpatient clinic model is low, with the number of theatre cases coming to only 16.58% of the original number of outpatient appointments issued. Recommendations for the improvement of outpatient services are made. These findings are relevant in the context of streamlining access to surgical services.

Introduction
With the advent of the austerity era, funding of hospital services in Ireland remains a significant challenge. It is likely that recessionary pressures will continue to have a serious impact on the capacity of publicly funded hospitals to deliver the range and volume of services required by an ageing population into the future. Changes in clinical practice are therefore necessary to meet multiple challenges ahead with particular emphasis on...
greater productivity and more efficient use of hospital resources. Significant changes in surgical practice were introduced at our institution in June 2010 with the introduction of ring-fenced inpatient beds. The great majority of elective inpatients are admitted to our hospital on the morning of surgery in line with the objectives of the Elective Surgery Programme. Despite such changes in resource utilisation aimed primarily at inpatient care, concern remains nationally regarding the administration of outpatient clinic services. Information regarding the large numbers of patients waiting to be assessed at existing outpatient clinics is now undergoing validation by the Health Service Executive. Against this background, we endeavoured to compare the relative numbers of outpatient attendees with the numbers of elective general surgical procedures generated from these clinics and performed at our institution over a one year period.

Methods
This study was carried out at Mayo General Hospital (MGH) which serves as the primary hospital for a population of over 130,000 people. There are three consultant-led surgical teams in place at MGH and surgical outpatient clinics are held three times per week. Due to the heterogeneity of patients presenting to MGH, the surgical department performs a wide range of procedures. For reference purposes we have divided the surgical procedures performed into 5 categories as per Table 1. Liaising with the outpatient department at MGH, the figures for surgical clinic attendances in 2011 were obtained. We then determined the number of patients who were classified as new attendees, the number classified as reviews and the number of missed appointments throughout the year. We subsequently reviewed our theatre records to determine the number of elective surgical procedures which took place in the same year for those patients who were seen at the surgical outpatient department. The type of surgical intervention received by each patient was categorised into one of five types as listed in Table 1. While our primary focus was on the theatre cases, we also compiled data on the numbers referred for endoscopy and minor operations. Patients were included in the study on the basis of having an elective episode following an outpatient surgical appointment as a public patient in MGH between the first of January 2011 and the thirty-first of December 2011. Patients were excluded on the basis of having private health insurance i.e. only those patients who had all aspects of their care managed within the public sector of the health service were deemed suitable for inclusion.

Results
The total number of outpatient appointments across all specialties at MGH during 2011 was 58647. The total number of surgical outpatient appointments issued during 2011 was 6503. The total number of new patients scheduled for surgical outpatient appointments in 2011 was 3075, less than half the total surgical outpatient list for that year. The ratio of new patients to reviews was 1:1.1. The number of patients who failed to attend surgical outpatient appointments came to 1489 (22.9%). The total number of surgical theatre cases (adult/paediatric and day-ward theatre cases) performed in the same year came to 1078 with an additional 1470 patients referred for endoscopy and 475 patients referred for minor operations. When we directly compared the number of theatre cases to the number of surgical appointments issued in the same year, we noted that the total number of theatre cases came to only 16.58% of the total outpatient appointments issued (1078 theatre cases vs. 6503 outpatient appointments). The breakdown of surgical procedures is displayed in Table 2.

Discussion
It is our experience that the surgical yield from general outpatient clinics is low when compared with the volume of patients attending clinic. We note that 16.58% of surgical outpatient appointments issued resulted in patient episodes requiring operative surgical intervention. Increasing outpatient referrals may delay patient assessment with potential to delay diagnosis and therapeutic intervention. A major priority of the health service in recent years has been to reduce patient waiting times and outpatient waiting lists are therefore coming under scrutiny. The current outpatient waiting list in our institution varies between six and nine months for non-urgent referrals. It is reasonable to suggest that the cohort of patients who are attending clinic but who are not undergoing any active surgical intervention should be targeted for discharge from clinic follow-up where possible.

There are numerous ways in which this could be achieved including more appropriate referrals by general practitioners and decreasing the number of "routine" follow-up appointments for patients who are well post-surgery. The literature suggests that the number of unnecessary clinic appointments could be decreased by implementing stricter policies regarding patient attendance at clinic for review and although patients must be considered on a case-by-case basis, criteria for follow-up should be made available to all junior staff to avoid unnecessary clinic attendances. Novel methods of patient follow-up have been attempted which are less labour intensive, one of the more practical being a 'paper clinic', in which patient cases were reviewed on paper and subsequent management, investigation and discharge decisions being made without the patient actually attending hospital. Although such methods are obviously less time-consuming and do not need the manpower of a normal clinic, they are not without their draw-backs, foremost among which is the lack of doctor/patient contact and the inability to examine a patient physically. It is known that the number of patients who fail to attend clinic on their appointment date is consistently high and our findings showed a disturbing trend of non-attendance with almost twenty three per cent of patients failing to show up on the appropriate day. Several interventions have been suggested to decrease rates of non-attendance. A study of outpatient absenteeism in Urology outpatients suggested that those with benign pathology who failed to attend were issued no further appointments. An electronic booking system in general practice is another intervention which has potential to improve attendance as choice of dates for clinic attendance is important to patients and increases the chances that they show up.

Considering the distribution of elective procedures performed during 2011 (Table 2), it is clear that the commonest surgical

<table>
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<th>Table 1 Type of Surgical procedure</th>
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<td><strong>Type of Surgical procedure</strong></td>
</tr>
<tr>
<td>Endoscopic evaluation performed in surgical day ward</td>
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<td>Minor operations performed in surgical day ward</td>
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<tr>
<td>Electively scheduled Adult theatre cases</td>
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<td>Electively scheduled Paediatric theatre cases</td>
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<td>Day-ward theatre cases</td>
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<th>Table 2 Patient numbers for all elective procedures performed during 2011 and originally seen at outpatient clinics</th>
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<tr>
<td><strong>Type of Surgical procedures</strong></td>
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<tr>
<td>Total theatre cases</td>
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<tr>
<td>Electively scheduled Adult theatre cases</td>
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<td>Minor operations performed in surgical day ward</td>
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intervention carried out at MGH, as with most general surgical departments, is endoscopic evaluation of patients thought to be at risk of gastrointestinal pathology. Given the relatively high number of endoscopies performed in comparison to other surgical procedures, it is obvious that such patients make up a considerable number of the outpatient attendees. A randomised clinical trial published in 2003 has suggested that patients requiring endoscopic evaluation for large bowel symptoms received no additional benefit from visiting a surgical outpatient clinic prior to the procedure and that properly selected patients could be effectively referred directly by the general practitioner to an open-access endoscopy unit. This study also suggested that the open-access unit may be financially favourable although it could be argued that this system has the potential to over-investigate.

Based on our findings we have a number of recommendations which may help to address existing shortcomings in the management of outpatient referrals. Firstly, all outpatient referrals should be triaged by a Consultant member of surgical staff and in accordance with the nature and urgency of referrals. General practitioners should be allowed to add detail to their referrals to ensure that surgical staff grade referrals appropriately. Second, general practitioners should be made aware of the exact surgical specialties available at each hospital to avoid referral of patients to general outpatient clinics who cannot be dealt with at that centre. Third, junior staff in surgery should avoid booking patients for unnecessary follow-up and especially if they undergo uncomplicated minor surgery. Fourth, patients attending surgical clinic without any active surgical intervention planned should be targeted for discharge. Text message surveillance decreases outpatient waiting times and increases quality of care. Fifth, general practitioners should be provided with the option of an electronic booking system. Such a system provides flexibility for patients with regard to outpatient appointments. Sixth, we suggest that patients referred with benign pathology who fail to attend outpatient appointments should not be issued with further appointments. Instead such patients should only be rebooked if requested by their general practitioner. Finally, in addition to providing hospitals with improved information technology systems in order to properly validate outpatient waiting lists, a booking system whereby patients can reschedule appointments and offering more flexibility than the present fixed appointment system is desirable. The Department of Health’s Special Delivery Unit (SDU) launched a national initiative in March 2012 to deal with outpatient waiting lists. The SDU has yet to define targets for waiting times for outpatient appointments. It is anticipated that outpatient waiting time will eventually become a key performance indicator linked to hospital funding. At our institution surgical inpatient beds have been ring-fenced since June 2010. We have demonstrated multiple patient benefits as a consequence including decreased length of inpatient stay, decreased elective cancellation rates and decreased surgical site infection rates. Such changes in working practices have the potential to considerably enhance the objectives of the Elective Surgery Programme and where necessary the SDU.

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References

Seppuku: A Modern Approach to an Ancient Injury

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Abstract
A 67 year-old man with paraplegia and depression presented with self-inflicted evisceration and small bowel injury. Damage control surgery was undertaken at emergency laparotomy with definitive anastomosis performed at second-look laparotomy following 24 hours resuscitation in ICU. He had an uncomplicated post-operative course and was discharged to an inpatient psychiatric unit.

Introduction
Part of the bushido honour code of the Japanese samurai, seppuku (colloquially more familiar as hara-kiri) is a form of ritualised suicide by disembowelment carried out by samurai warriors after suffering a dishonour or as a form of capital punishment. It is extremely rare in modern-day Japan.
Case Report

A 67-year-old man was brought to the emergency department with a self-inflicted abdominal wound. Forty years previously he had sustained a gunshot wound to the back while serving as a teenage soldier, resulting in paraplegia. He had more recently developed a severe depressive illness and had twice been admitted for management of his depression, once after a suicide attempt with a medication overdose. He had stabbed himself in the insensate left upper abdominal quadrant with a kitchen scissors, extended the incision medially, pulled out multiple loops of small bowel and separated a substantial length of bowel from its mesentery.

On arrival to the emergency department he was shocked with a blood pressure of 64/33, a heart rate of 120, temperature 36°C (which dropped intra-operatively to 33). Haemoglobin was 78g/dL. He was transferred to the theatre for aggressive resuscitation and emergency laparotomy. The wound was extended to a rooftop incision. The eviscerated small bowel had been devitalised, there was profuse abdominal wall bleeding, multiple stab wounds in the sigmoid mesentery and a 1cm enterotomy in the distal sigmoid colon. As the patient was shocked, hypothermic and coagulopathic, the principles of damage control were engaged. Identifiable bleeding points were controlled, the infarcted small bowel was resected, the sigmoid colotomy was repaired (Figure 1), the viable ends of bowel were stapled off and the abdomen closed. The patient was then transferred to the intensive care unit for further resuscitation and correction of coagulopathy. The total duration of anaesthesia was 90 minutes.

When fully resuscitated and normothermic, with acidosis and coagulopathy corrected, he was brought back to the theatre 24 hours later. At reoperation there was no further bleeding and the remaining 150cm of small bowel appeared healthy. Jejunum and terminal ileum were anastomosed (Figure 2). He developed a superficial wound infection and required loperamide to control diarrhoea, but post-operative course was otherwise unremarkable. He was then transferred to the inpatient psychiatric unit.

Discussion

Damage control surgery is increasingly recognised and applied as an important concept in the management of the severely injured trauma patient. The objective is to stabilise or temporise immediately life-threatening injuries at initial operation, avoiding prolonged procedures on unstable patients and enabling correction of systemic or end-organ dysfunction prior to definitive procedures at an appropriate interval, such as in this case, bowel anastomosis. This is in respect of the high mortality in surgical patients who develop the ‘lethal triad’ of hypothermia, acidosis and coagulopathy, which begets a vicious cycle of hypothermia, worsening platelet dysfunction and coagulopathy, which exacerbates bleeding and hypothermia leading to ischaemic organ damage and acidosis, further intensifying coagulopathy and the likelihood of irreversible end-organ injury and mortality.

Pringle and Halsted both described packing liver injuries in the early 20th century in preference to immediate definitive surgery. Stone in 1983 described intra-abdominal packing for intraoperative clinically apparent coagulopathy with expedient termination of laparotomy to enable correction of coagulopathy prior to definitive procedure and observed a 35% mortality rate in patients who had undergone a staged, damage control approach compared to 93% in those who had undergone definitive surgery ab initio. The term ‘Damage Control Surgery’ was coined in 1993 by Rotondo et al who found in a series of major trauma cases that in the subset of patients with major vascular injury and two or more visceral injuries the survival rate was 77% with Damage Control Surgery versus 11% with Definitive Laparotomy™. While thankfully very rare, patients who have attempted seppuku are more likely to have small bowel injuries in conjunction with major vascular injuries compared with self-inflicted simple abdominal stab wounds and correspondingly have a significantly higher mortality.

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References

3. Halsted W. Ligature and suture material: the employment of fine silk in preference to catgut and the advantages of transfixing tissues and vessels in controlling hemorrhage-also an account of the introduction of gloves, gutta-percha tissue and silver foil. JAMA. 1913:LX:1119-112
Life Threatening Sepsis While on High Dose Steroids Requiring Extra-Corporeal Membrane Oxygenation

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Abstract
We present a case of life-threatening streptococcal sepsis in a young man with a history of Behçet's disease within two weeks of commencing high dose corticosteroid therapy for an exacerbation of Behçet's disease.

Case Report
A 33 year old male, originally from Eritrea and living in Ireland for two years, presented to the emergency department with severe shortness of breath, several episodes of haemoptysis, and generalised, non-focal chest pain. Little was known about his background medical history, but that he had been told he had Behçet's disease, and two weeks earlier his corticosteroid dose was increased to treat an exacerbation of his joint pains. He had no symptoms at the time to suggest a viral aetiology. He was now taking prednisolone 60mg daily, which had been increased from his maintenance dose of 10mg. He was also taking azathioprine 100mg daily, increased at the same time as the prednisolone, from 50mg daily. He was also anti-coagulated with warfarin for recurrent deep vein thrombosis. His blood pressure, heart rate, respiratory rate, temperature and oxygen saturation were normal on presentation. His first laboratory results are depicted below (Table 1).

The chest radiograph showed marked opacification of most of the left hemithorax, and less marked opacification at the lower zone of the right hemithorax. Co-amoxiclav was commenced given the radiographic findings. The patient continued to have episodes of frank haemoptysis. His INR was 7.83. He deteriorated rapidly over the following two hours, becoming tachycardic, profoundly hypotensive and very difficult to oxygenate. He required intubation and ventilation. It was thought that there was a pulmonary haemorrhage. The INR was reversed with Vitamin K and Octaplex and a computerised tomography (CT) thorax was emergently arranged. A representative image is displayed below (Figure 1).

The images displayed extensive, dense lung consolidation. No features suggestive of the presence of alveolar haemorrhage could be seen. The patient was brought to the Intensive Therapy Unit and, in light of the CT result, antimicrobials were continued. Oxygenation and ventilation remained a difficulty 24 hours into admission despite high frequency oscillatory ventilation on 100% oxygen. The patient developed multiple organ failure and required high inotropic support. The urine pneumococcal antigen was positive, and streptococcus pneumoniae was identified in respiratory secretions. The patient had a normal functioning spleen. All blood cultures were sterile. Polymerase chain reaction for influenza was negative, and the patient tested negative for HIV.

The patient was transferred to another hospital were extra-corporeal membrane oxygenation was available. He returned to our hospital several days later and was successfully weaned off a non-invasive positive airways pressure machine. The radiographic changes resolved in parallel with his clinical improvement. He made a full recovery and was sent home on methotrexate with follow up at a rheumatology clinic.

Table 1

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Ref. Range</th>
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<tbody>
<tr>
<td>Hb</td>
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<tr>
<td>WCC</td>
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</tr>
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<td>INR</td>
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<tr>
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<tr>
<td>Protein</td>
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<td>g/L</td>
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<tr>
<td>Albumin</td>
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Discussion
Systemic corticosteroid therapy is associated with a dose-dependent increase in the risk of infection, especially with common bacterial, viral and fungal pathogens. Corticosteroids act by several complex molecular mechanisms to cause severe suppression of the immune system. They inhibit the expression of genes coding for many cytokines (eg IL1-7), reducing T-cell proliferation, and inducing immature T-cell apoptosis. The causal role of glucocorticoids in serious infections is well established.

Figure 1
Computerised tomography thorax; this representative image shows complete opacification of the left lung field and more limited opacification of the right lung consistent with pneumonia.
One large meta-analysis of controlled trials in which glucocorticoids or placebo were given, reported that infection occurred significantly more often with steroid therapy (12.7 versus 8.0 percent with placebo, relative risk 1.6). A dose dependence was noted in both the corticosteroid and placebo treated groups, which suggests that the activity of the underlying disease is also a risk factor for infection. With respect to azathioprine, bacterial infections usually occur in the clinical setting of leukopenia. This was not the case in our patient.

In the largest study to date reporting on outcomes in patients with Behçet's disease, following 387 patients over twenty years, 42 patients died. Pulmonary artery aneurysm was given as the most likely cause of death in 9 cases, with massive haemoptysis in 3 of these cases. In the same report, sepsis did not feature as a cause of death in any patient. This case highlights the need to be aware of the significant risk of sepsis in patients taking high dose corticosteroids.

References

The National Single Assessment Tool (SAT) A Pilot Study in Older Persons Care-Survey Results

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Abstract
Following a consultation and review process, the interRAI suite of assessment tools was chosen as the most suitable instrument for assessment of the care needs of older people in Ireland. We used previously validated questionnaires to examine the usability, practicality and acceptability of these tools to professionals, carers and clients in rural and urban acute, long-term care and community settings. Of the 45 professionals, 42-44 (93-98%) agreed or strongly agreed with 14 of 15 positive statements regarding the acceptability, clinical value and ease of use of the interRAI tools; 39 (87%) felt the terminology was consistent and familiar, although 35 (78%) felt some areas would require further explanation. Responses from carers (n=15) and clients (n=68) were similarly overwhelmingly positive regarding the experience of being assessed using these tools. These results support the clinical utility and practicality of using this approach to assess older people in Irish clinical practice.

Introduction
In 2010 the Health Service Executive (HSE) set up a multi-agency and multi-disciplinary National Single Assessment Tool Working Group (SAT WG) with the task of selecting, piloting and recommending a Single Assessment Tool (SAT) for use with older people nationally. The initiative aimed to address Irish health and social care policy requirements for a national standardised needs assessment, to better support integrated service delivery and best practice in older persons care. A number of processes were used to select a suitable SAT. These included: a ‘Values and Principles’ exercise, a Literature Review, a Market Sounding exercise and a detailed Options Appraisal. Following extensive stakeholder consultation and review, it was agreed that a computerised assessment tool would be preferable and three assessment tools were shortlisted. Selection criteria were agreed and a decision-matrix approach using a quantitative technique was employed, to rank each tool against the multi-dimensional options of the set of criteria. This resulted in the interRAI suite of assessment tools being chosen as the most suitable instrument.

The first interRAI instrument, commonly known as the Resident Assessment Instrument (RAI), was developed in the United States to assess nursing home residents. Subsequently, a network of international clinicians and researchers set up interRAI™, as a not for profit collaborative organisation to apply the RAI to nursing home residents in other countries and to develop other structured, multi-disciplinary assessment tools to assess the wide-range of health and social care needs of older people. Currently, the suite comprises 14 instruments available for use across a range of settings. By using a common language of assessment, the interRAI system facilitates information sharing in a consistent and transferable way between health and social service agencies. Aggregated data can be used to support outcome measurement, resource allocation, service planning, quality measurement, research and policy decision-making (Figure 1). Internationally, these tools are used in over 30 countries and have been extensively tested with proven reliability, validity and sensitivity.

The primary aim of this pilot was to explore the suitability of the interRAI system in the Irish healthcare context by examining the views of Irish assessors’ (health professionals), clients’ (older
ranging from ‘Strongly Agree’ to ‘Strongly Disagree’. Two open-

participants’ views are self-rated using a four point Likert Scale

positive. More than 95% of respondents agreed or strongly

Overall, the responses to 16 survey questions were strongly

longer.

of participants (n=26) reported that interRAI assessments took

completions times were compa rable (31%, n=14). However, 58%

(n=19) reported the interRAI took less time (11%, n=5) or that

assessors’ usual work place assessments, 42% of participants

less than 1.5 hours. Completion times ranged from less than 1

22% in the community and 16% in acute hospitals. The majority

settings or who were undergoing assessment in community or

acute services regarding the need for long-term care admission or

home care packages were eligible for inclusion in the interRAI

data analysis strand. For survey and focus group inclusion, clients

to have sufficient mental capacity to participate. The Standardised Mini Mental Status Exam

(SMMSE) was used to support professional judgement: SMMSE

scores of 0-20 (severe to moderate cognitive impairment [CI])

and less than 25 were used as a guide to insufficient capacity for

the survey and focus groups, respectively.6 Those who did not

participate to informed professional judgement: SMMSE

data that could inform good practice and be responsive to clients’

in using the interRAI assessment system in Irish health care.

The surveys demonstrate the largely positive views of participants

agreed that the interRAI tool promotes the person’s perspective

throughout the assessment process, captures the needs of the

individual and the individual’s wishes and preferences on their

goals for care, triggers further assessment where appropriate,

provides evidence for multidisciplinary team recommendations

based on the individual’s care needs and promotes professional

judgement. 93% reported that they felt competent in completing a

computer-based interRAI assessment, although 78% reported

areas which would require further explanation.

In the open-ended questions assessors recorded their views on what worked well / did not work so well. The majority of positive comments (n=31) centred on the benefits of the interRAI’s comprehensiveness in identifying clients’ health and social care needs, particularly with regard to previously unidentified needs. Other positive areas included the system’s in-built supports for care planning and the system’s user friendliness. Negative comments (n=37) mainly focused on assessors’ difficulty/frustration in entering clients’ medications and disease diagnoses into the system. The fact that medications were loaded into the software system using trade as opposed to generic names caused frustration as several trade names exist for each medication. Similarly, the fact that the entire International Classification of Diseases (ICD) was loaded into the software system caused delays in accessing appropriate codes for clients’ diagnoses. Other areas included: the time taken to complete assessments; terminology coding difficulties when using the interRAI HC tool in acute care; variances in the interRAI standards from Irish practice standards; and internet connectivity difficulties; and laptops were seen by some as a barrier to person centred care.

Client/Carer Survey

Survey response rates were 100% for clients (n=68/68) and

83% for carers (n=15/18). Again survey reposes were

overwhelmingly positive (Table 1). Clients and carers found the

language easy to understand and stated they were ‘happy’ or

‘satisfied’ with the assessment process. Negative comments

(n=4) were concerned with the length of time to complete the

assessment (n=2 clients) and the use of a computer during

assessment which was found to impact negatively on person-

centred assessment processes (1 client and 1 carer).

Discussion

The surveys demonstrate the largely positive views of participants

in using the interRAI assessment system in Irish health care.

Professionals found that these tools provided useful and accurate
data that could inform good practice and be responsive to clients’

needs and preferences. Clients and carers were satisfied with the assessment process. For assessors the main areas of frustration related to the medications and disease diagnosis sections. These problems can be rectified by uploading medications onto the system by their generic names and by using established ‘stripped’

Figure 1 The interRAI Model
ICD lists. Other areas of concern can be targeted through future health professional education and development training sessions. Overall, the three surveys demonstrate a high level of acceptability of the interRAI system as an assessment tool for older people in both rural and urban Irish settings.

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Acknowledgements
The work of the SAT Working Group and the many health professionals, older people and their families who gave willing of their time to participate in this project.

References
8. Dewing J. (2007) Participatory research A method for process consent with persons who have dementia, Dementia, 6:1 11-25

Table 1 Clients’ and Carers’ response rates to survey statements

<table>
<thead>
<tr>
<th>Statement</th>
<th>Participant</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The purpose of the assessment was explained</td>
<td>Client</td>
<td>48%</td>
<td>52%</td>
<td></td>
</tr>
<tr>
<td>Carer</td>
<td>60%</td>
<td>40%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I clearly understood why the assessment was being done</td>
<td>Client</td>
<td>44%</td>
<td>56%</td>
<td></td>
</tr>
<tr>
<td>Carer</td>
<td>60%</td>
<td>40%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What to expect following assessment was explained to me</td>
<td>Client</td>
<td>35%</td>
<td>65%</td>
<td></td>
</tr>
<tr>
<td>Carer</td>
<td>60%</td>
<td>40%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I clearly understood what to expect following assessment</td>
<td>Client</td>
<td>37%</td>
<td>62%</td>
<td>1%</td>
</tr>
<tr>
<td>Carer</td>
<td>53%</td>
<td>47%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Privacy was respected throughout the assessment</td>
<td>Client</td>
<td>47%</td>
<td>53%</td>
<td></td>
</tr>
<tr>
<td>Carer</td>
<td>60%</td>
<td>40%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explanation was provided, that I could stop the assessment at anytime, if</td>
<td>Client</td>
<td>43%</td>
<td>57%</td>
<td></td>
</tr>
<tr>
<td>I did not wish to continue.</td>
<td>Carer</td>
<td>47%</td>
<td>53%</td>
<td></td>
</tr>
<tr>
<td>I felt comfortable asking questions</td>
<td>Client</td>
<td>41%</td>
<td>59%</td>
<td></td>
</tr>
<tr>
<td>Carer</td>
<td>53%</td>
<td>47%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The language used during assessment was clear and easy to understand</td>
<td>Client</td>
<td>46%</td>
<td>54%</td>
<td></td>
</tr>
<tr>
<td>Carer</td>
<td>47%</td>
<td>53%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I was able to state my own (or the person I’m representing) needs for</td>
<td>Client</td>
<td>47%</td>
<td>53%</td>
<td></td>
</tr>
<tr>
<td>care</td>
<td>Carer</td>
<td>57%</td>
<td>43%</td>
<td></td>
</tr>
<tr>
<td>I was able to state my own (or the person I’m representing) preferences</td>
<td>Client</td>
<td>38%</td>
<td>62%</td>
<td></td>
</tr>
<tr>
<td>for care</td>
<td>Carer</td>
<td>53%</td>
<td>47%</td>
<td></td>
</tr>
<tr>
<td>I was able to state my own (or the person I’m representing) abilities</td>
<td>Client</td>
<td>40%</td>
<td>60%</td>
<td></td>
</tr>
<tr>
<td>and strengths</td>
<td>Carer</td>
<td>47%</td>
<td>53%</td>
<td></td>
</tr>
<tr>
<td>I felt it was a good, thorough assessment</td>
<td>Client</td>
<td>44%</td>
<td>56%</td>
<td></td>
</tr>
<tr>
<td>Carer</td>
<td>33%</td>
<td>67%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I felt comfortable with the assessment process</td>
<td>Client</td>
<td>41%</td>
<td>57%</td>
<td>2%</td>
</tr>
<tr>
<td>Carer</td>
<td>40%</td>
<td>53%</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>At the end of the assessment I was able to discuss the results of the</td>
<td>Client</td>
<td>37%</td>
<td>63%</td>
<td></td>
</tr>
<tr>
<td>the assessment with the health professional who did the assessment</td>
<td>Carer</td>
<td>47%</td>
<td>53%</td>
<td></td>
</tr>
<tr>
<td>The result of the assessment was similar to what I felt was needed</td>
<td>Client</td>
<td>32%</td>
<td>68%</td>
<td>2%</td>
</tr>
<tr>
<td>Carer</td>
<td>47%</td>
<td>47%</td>
<td>6%</td>
<td></td>
</tr>
</tbody>
</table>

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A Dermatology Outpatient Waiting List Initiative
CC Foley, P Corby, L Barnes
St James’s Hospital, James’s St, Dublin 8

Abstract
Skin disease is the most common reason for people to present to their general practitioner (GP) with a new episode of disease. In England and Wales, in 2006, 24% of the population (around 13 million people) visited their general practitioners with skin problems.1 In Ireland, dermatology waiting lists are notoriously long, with 4th on the national outpatient waiting lists that account for patients waiting longer than one year for an outpatient appointment, after orthopaedics, ENT and general surgery.2 In April 2010 there were estimated 23,000 patients on dermatology outpatient waiting lists, including almost 11,000 patients waiting over 6 months.3 St. James’s Hospital, similar to other Irish hospitals had long waiting lists. Our aim was to reduce the unacceptable waiting time for a new patient dermatology appointment, and as such a waiting list initiative was undertaken as one short term measure to tackle the problem.

In August 2011 there were 830 patients awaiting a new patient dermatology appointment in St. James’s Hospital, of whom 143 (17%) were waiting between 120 and 365 days. All referral letters are date stamped on receipt. In order that each patient is seen according to the ‘right person, right place, first time’ principle the referrals are triaged by the same consultant and distributed to the appropriate clinic or consultant dermatologist. Individual consultants then assign a priority to the referral – routine, soon or urgent. Priority is decided on the basis of the information provided in the referral letter. Dedicated clinics are scheduled for urgent suspected skin cancers, inflammatory skin conditions, complex multisystem disease and urgent new patients. In July 2011 the Surgical and Medical Subspecialities (SaMS) Directorate, the administrative section responsible for dermatology in St. James’s Hospital, decided to tackle the waiting list by scheduling ten extra clinics over a defined period of 5 weeks. Patients who were waiting more than 120 days for a new patient appointment were identified, their appointments were validated by administrative staff and they were offered a sooner appointment. The clinics were run out of hours and were staffed from within the hospital and were staffed from within the dermatology department (nursing and clerical) working overtime. All patients were seen by the same consultant dermatologist (LB, author).

Methods
We analysed the data of the 200 dermatology outpatient visits scheduled under an initiative to target patients waiting more than 120 days for an appointment. Information was gathered from the referral letter, the clinical notes from the initial consultation, the proforma response sent after the first visit to the referring doctor and from subsequent treatments or investigations carried out within the hospital. Data collected included demographics (age, gender), date of receipt of referral letter, wait time prior to rescheduling, difference in wait time by rescheduling for the waiting list initiative, if the presenting complaint was the primary reason for attending the general practitioner, if the patient was previously seen by a dermatologist, diagnosis, treatment, investigations and follow up within the hospital.

Results
In total, 200 appointments were scheduled for 10 clinics over a five week period in August and September 2011. There were 171 (85.5%) patients seen, however 29 (14.5%) patients did not attend the appointment. Of the 171 patients seen, complete data was available on 165 patients. Three patients were excluded because the initial date given to them was unsuitable and so waiting time was inaccurate. One patient was excluded because the assessed priority of the letter was unknown. The data from 161 patients was included in the analysis. The age range was 16-93 years with an average of 48.31 years and 79 (49%) patients were male, 82 (51%) were female.

The patients were referred by their GP in 88.8% cases (143 patients) while referrals from other specialties within the hospital accounted for 11.2% (18 patients), 73.9% (119) patients were initially prioritised as routine with an average waiting time 248.94 days (range 130-463) and an average change in waiting time as a result of the extra clinics 76.83 days (range 18-195). 26.1% (42) patients were initially prioritised as urgent with an average waiting time of 165.17 days (range 125-196) and an average change in waiting time of 38.29 days (range 8-67). No patients prioritised as urgent were included as they were not waiting longer than 120 days for an appointment. Of 90 patients asked whether the presenting complaint was the primary reason for their visit to the hospital, 85.6% (78) said that it was.

Introduction
Skin disease is the most common reason for people to present to their general practitioner (GP) with a new episode of disease. In April 2010 there were estimated 23,000 patients on dermatology outpatient waiting lists in Ireland, including almost 11,000 patients waiting over 6 months.4 We analysed the data of 200 dermatology outpatient visits scheduled under an initiative to target patients waiting more than 120 days for a new dermatology outpatient appointment. There were 171 (85.5%) patients seen, 29 (14.5%) patients did not attend the appointment. The data from 161 patients seen under the initiative was included in the analysis. Skin lesions accounted for 81 (50%) referrals, of these 71 (44%) patients had benign skin lesions and 10 (6%) patients were considered to have suspicious skin lesions. There was no case of malignant melanoma. After the initial consultation, 66% (106) of the patients were discharged to their primary care physician.

Figure 1

Diagnoses
- Suspicious skin lesion* 6%
- Benign skin lesion 44%
- Skin infection 3%
- Other 11%
- Acne, psoriasis, eczema, alopecia, etc 28%

*SCC, BCC, Bowen's
**Acne, psoriasis, eczema, alopecia, etc
GP, 63 (70%) answered yes and 27 (30%) patients answered no. Data was not available on 53 patients and 18 were referred from other specialties so, for these patients, the question was not relevant.

Patients were referred with benign skin lesions in 44% (seborrheic keratoses, actinic keratoses, warts) and 6% were considered to have suspicious skin lesions (including basal cell carcinoma, squamous cell carcinoma and Bowen’s disease) (Figure 1). There was no case of malignant melanoma. After the initial consultation, 66% (106) of the patients were discharged to their primary care physician. Follow up was arranged for 55 (34%) of patients. Of these 27 (16.7%) were brought back to dermatology outpatients, 14 (8.7%) to nurse led clinics, 8 (5%) to minor surgery lists, 4 (2.5%) were referred to other specialties (2 plastic surgery, 1 ophthalmology and 1 GUIDE) and 2 (1.2%) patients were referred to dermatology daycare for phototherapy. 41 (25.5%) of patients had previously been seen by a Dermatologist - 19 (11.8%) of these for the same problem, 11 (6.8%) for a different problem and 11 (6.8%) unknown. There was no case of melanoma in the entire clinic cohort.

Discussion

This outpatient waiting list initiative was undertaken by the department of dermatology in St. James’s Hospital as part of a strategy to reduce what at the time was the longest outpatient waiting list in the hospital. The majority of patients were referred by their GP. It is helpful to know that 11.2% of patients seen were referred from other specialties within the hospital. This is a rather high intra-hospital referral rate and possibly reflects the complexity of casemix within the hospital. Despite the fact that all patients were contacted and participated in the re-scheduling of their appointment there was a DNA rate of 14.5%. This is disappointing and indicates that many patients do not value their clinic appointment. Clinical validation may have a role to play in reducing this figure. The processes involved from the point at which a referral is requested to the actual clinic visit involves many steps and is therefore costly. Of 90 patients questioned, 30% said the presenting complaint was not the primary reason for attending the GP on the day of referral. This suggests that the presenting complaint was not bothersome for the patient, and is reflected in the DNA rate. Some patients did not know why they had been referred to dermatology but attended the appointment none the less and had no skin problem at the time. A high proportion of patients (66%) were reassured and discharged after one visit. A further 8% had no skin abnormalities to find on examination. This reflects the non-serious nature of the presenting complaint in a majority of referrals. The impact on dermatology daycare services in this cohort was 14.9%, spread between nurse led clinics, phototherapy and minor surgery.

Our results indicate that the prioritisation method used in our department for this small sample did not miss any cases of suspected melanoma. We are reassured that, within our department, referral letters are being appropriately prioritised. There is increasing pressure to improve access to outpatient services. Our study was undertaken as part of a strategy to reduce what, at the time, was the longest outpatient waiting list in the hospital. We must take into consideration the resources required to run these clinics – space, equipment and consultant, nursing and clerical time. Currently, 10 months after the initiative, there are no patients waiting longer than 120 days for a dermatology outpatient appointment in St. James’s Hospital. This initiative contributed significantly to reducing our waiting list. The challenge now is to maintain the waiting time less than 120 days for a new patient dermatology appointment.

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References
2. Business Intelligence Unit, Health Service Executive. 2012

Re: Preparing New Doctors for Clinical Practice: An Evaluation of Pre-Internship Training

Sir

I read with interest the article by Byrne et al1. I would like to firstly commend the authors on an informative and thought-provoking article. I commenced medical training at The University of Dundee in 1994. Year one of the undergraduate programme consisted of a traditional format of lectures and practicals in Anatomy, Physiology and Biochemistry. During this first year, a new format for training in years two to five was approved. This ‘new curriculum’ was centred around the principles of problem based learning, and was the first of its kind in the UK.

The mainstay of the philosophy of this curriculum was an end to learning reams and reams of facts, and a focus on learning information that would be of use on day one as a doctor and beyond. We were exposed to ward based educational sessions immediately in year two, and by year four our teaching was predominantly conducted in a ward and out-patient clinic setting, dealing with real patients and real clinical situations. In year five we spent twelve weeks on the wards that we would be working on as interns. We shadowed the interns on those wards
Use of Oxygen Blenders for Neonatal Resuscitation

Sir,

Ten percent of infants require some resuscitation at birth. There is evidence that oxidative stress following resuscitation of infants using 100% oxygen is associated with increased mortality and morbidity\(^1,2\). We surveyed all nineteen maternity units in Ireland regarding the availability of oxygen blenders for neonatal resuscitation. Four out of nineteen units in Ireland do not have blended oxygen available. In other hospitals, oxygen blenders are available in some areas but are not located in all the key areas where resuscitation of newborns is likely to occur. Six out of nineteen units do not have oxygen blenders available in delivery ward, while seven out of nineteen units do not have oxygen blenders available in theatre.

A Cochrane review of randomized trials comparing resuscitation with air versus 100% oxygen in 2006 noted a significant reduction in mortality in infants who were resuscitated in room air\(^3\). However this review noted that a quarter of infants randomized to room air received back up supplementary oxygen during resuscitation. Therefore international resuscitation guidelines including NRP and ILCOR have recommended initiation of resuscitation in room air with the continued use of supplemental oxygen if required since 2006. The use of oxygen blenders for resuscitation has been endorsed in these international resuscitation guidelines since 2010. Oxygen blenders cost €2000 to purchase. They require piped air which can readily be provided through air cylinders which are cheap and easy to install.

Initial resuscitation of term infants should start in room air.

Supplemental oxygen can then be provided as required aiming to maintain oxygen saturations similar to those of infants requiring no resuscitation based on oxygen saturation percentiles. Dawson et al. created oxygen saturation percentiles based on a prospective study of 468 infants in 2010\(^4\). In infants requiring no resuscitation after delivery the median SpO\(_2\) at 1 minute was 86% and it took a median of 7.9 minutes to achieve oxygen saturations greater than 90%. These oxygen percentiles provide a basis of targeting oxygen saturation during neonatal resuscitation.

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References

2. Vento M, Sastre J, Asensi MA, Vifia J. Room-air resuscitation causes less damage to heart and kidney than 100% oxygen. Am J Respir Crit Care Med. 2005 Dec 1;172:1393-8.

Ocular Chemical Burns in a Paediatric Population

Sir,

I would like to highlight the results of a study carried out in the Eye casualty Department of Cork University Hospital. This retrospective study looked at the current incidence of ocular chemical injuries in a paediatric population. We particularly focussed on ‘liquitabs’ as we noticed that this was a frequent cause of casualty attendances in children. In 2005 a report published in the Lancet, highlighted the rising incidence of ocular chemical burns caused by liquitabs\(^1\). A report in the BMJ in 2010 showed that 40% of paediatric ocular chemical burns, in 1 year, were caused by liquitabs\(^2\). Both authors highlighted the need to increase consumer awareness. A report by the Poisons Information Centre of Ireland in 2005, stated that the household products that they received most enquiries about were liquid detergents, in particular liquid detergent capsules. The majority of these enquiries were regarding children less than 10 years.\(^3\)

It is for this reason that I found the article interesting and informative. The programme initiated by Professor Kerin and his team is undoubtedly of fantastic benefit to newly qualified doctors, and is certainly long overdue. The authors acknowledge that further development of the programme is required, but suggest the current programme could be used as a useful model for medical students in other countries. Whilst I couldn’t agree more, I feel obliged to point out that one University in a country not particularly far from Galway have been running a very similar programme for the past eighteen years.

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Reference

The current study looked at medical records of 27 consecutive patients, aged between 9 months and 11 years, with a median age of 3, who presented with ocular chemical injuries from June 2010 to June 2011. Eight (30%) were caused by liqitabs, 5(18%) were caused by household sprays, 3(11%) were caused by household liquids and 11(40%) were caused by other chemicals such as petrol and cosmetics. Four of these children required hospital admission and 1 required a general anaesthetic to evaluate and treat. All 4 admitted cases were aged less than 2 years. Corneal epithelial loss from ranged from 0-100% with the most extensive epithelial loss as a result of a liqitab. Younger age was significantly and positively correlated with greater epithelial loss (Pearson correlation: r = -0.87; p <0.05). Liquitabs are packaged in such a way that they appeal to young children, they are brightly coloured with a jelly like consistency, which when squeezed with enough force may allow the contents to squirt out. Other factors leading to severe injuries in such young children may be the tendency to present late due to limited communication abilities and poor cooperation with attempted washout leading to delay in diagnosis and treatment.

To conclude, I again wish to highlight the risk posed by all household agents to children. Despite the danger highlighted by past studies, the incidence of paediatric ocular chemical injuries is still too high. Safety warnings on packaging remain inadequate. Ocular chemical injuries in this age group pose a significant problem to manage, both in the emergency setting and in the longer term. Emergency management with copious irrigation, is very difficult and distressing for a child of less than 3 years. Longer term management may involve intensive topical ocular medication over 6 times a day for many weeks. This is an important public health issue, we would like to raise awareness among all health practitioners and parents regarding the role of these products in preventable serious ocular injuries and the need for adequate storage of such chemicals.

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References

Smokers Need Not Apply
Sir,

Smoking remains the largest preventable risk factor for morbidity and mortality. Despite the success of the workplace smoking ban,1,2 it is clear that more action is required. The Minister for Health should introduce a ban on smokers seeking employment in the State health sector. The WHO already operate such a ban on new employees,3 as do employers such as the Cleveland Clinic, the American Cancer Society, the American Lung Association, and a number of health insurance firms.4,5 Three arguments have been put forward to support such moves. Some employers argue that they aim to promote wellness6 and as such, first-hand, second-hand, and third-hand7 smoke are unacceptable. The WHO argues that hiring smokers normalises tobacco use, and is therefore unacceptable.7 The third argument concerns equity and productivity.8

Evidence suggests that smokers take more breaks and sick-leave, as well as increasing health insurance costs.4 A CDC study found annual productivity and health care costs of $3391 per smoker.9,10 Exploring these arguments, it is clear that the Irish Government is committed to a “Tobacco Free Society”11 because of the devastating impact of smoking. Secondly, it is self-evident that employing smokers normalises and accepts this behaviour. On the issue of productivity, Ireland’s adverse economic circumstances make this argument appealing. While acknowledging media rhetoric, sick pay in the health services is an issue. The Government’s public service sick pay bill may be “unsustainable”.12 Estimates put its annual cost at over €550m.13 The Government has warned that “is not in a position to sustain the cost of the current arrangements”, and that as a result “significant changes are likely to be sought.”13 The Oireachtas report noted that the health sector has the largest sick leave bill costing 255 million a year in certified sick leave, and 35 million a year in uncertified sick leave.12,13 Any moves to reduce such costs must be explored. The implementation of such a ban can vary. Some companies operate an honour system based on the smoking question on application forms.5 However, agencies such as the WHO treat dishonest answers to this question as similar to the presentation any other false information on an application.3 Other employers have employed nicotine testing that can result in fines or dismissal.5 Such an initiative towards both smoke free and smoker free work environments is likely to spark fierce debate.4 However, union opposition seems unlikely given that differential contracts for new entrants already exist in the HSE. Civil liberties groups in the US have been fighting such legislation for many years.4 Interestingly, although over half of the states in the US prohibit discrimination on the basis of the use of legal products, some states make an exception for health care organisations.4 Siegel has warned of the further marginalisation of smokers, and raised concerns over compounding the impacts of smoking, with unemployment.4

Other groups have noted the differential social distribution of smoking, noting that such a ban will adversely impact on low paid unskilled workers more than the medical personnel.4 Such initiatives are also seen as a ‘slippery slope’ and raise issues concerning alcohol, diet, and sexual activity.4 However, others have mentioned the motivation towards smoking cessation that such a ban can generate.4 An audacious approach to combat smoking is required. Ireland led the world with its national ban on workplace smoking, and should similarly lead in introducing a ban on the recruitment of smokers to State health services.

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References
Hemophilia and Hemostasis

Editors: Alice D. Ma, Harold R. Roberts, Miguel A. Escobar

Publishers: Wiley-Blackwell
Cost: €82.60

This short book describes a series of 60 individual case studies, all of which are focussed on a variety of different disorders of haemostasis. In particular, the authors have placed a major emphasis on patients with inherited bleeding disorders, including haemophilia and von Willebrand disease, as well as some of the other rare coagulation factor deficiencies. The selection of cases is heavily weighted towards cases with underlying bleeding diatheses (n=52), with only eight cases dealing with prothrombotic disorders. For example, there are no cases dealing with any of the novel oral anticoagulant therapies. In general terms, the case studies appear to have been selected in a rather ad hoc manner. Moreover, the individual cases are not presented in any systematic fashion, and a number of the case discussions lack depth. Finally, the book would certainly have benefited from the inclusion of additional illustrations.

Notwithstanding these minor critiques, when considered in its entirety, the book does provide a general perspective and useful framework regarding some of the complex clinical management issues that are involved in managing this cohort of patients. As such it is likely to be of considerable interest to all members of the multidisciplinary team involved in providing clinical care for such patients. Moreover, as highlighted in the Introduction, unfortunately there are relatively few randomised controlled clinical trials to provide a strong evidence base to guide the day-to-day clinical management of patients with haemostatic disorders. Consequently, this collection of individual case reports will constitute a useful addition to the library.

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Practical Teaching in Emergency Medicine

Editors: Robert L. Rogers, Amal Mattu, Michael E. Winters, Joseph P. Martinez, Terrence Mulligan

Publisher: Wiley-Blackwell
Cost: £49.99

Reviewing Practical Teaching in Emergency Medicine was a pleasure but reading the book was the easy part - I now see how much more I could do to be an effective medical educator and am challenged to implement new teaching tools and most, though not all, of the advice contained in this book. It was written by Emergency Physicians (EPs) for EPs as a best practice resource for teaching the art and science of Emergency Medicine (EM) but it would also be of great benefit to teachers and senior trainees in other front-line acute hospital specialties. The book emphasised for me how far medical education has progressed in recent years.

Generic educational areas are well covered and include mentoring, providing feedback, adult learner concepts, teaching trainees to teach, consultation skills, small group discussions, teaching invasive medical procedures and teaching to an international audience. Each chapter contains clear tables and concise summaries, making it easy to grasp key concepts. The technology sections highlight the range of educational opportunities now available to us and explain terms such as wikis, RSS and microblogging for the less techno-adept among us. There is always a risk of course that this material will be out of date as soon as it is printed.

The unique learning opportunities and challenges inherent in ED teaching are well described, perhaps repetitively so and it is reassuring that US experts in EM education also struggle to balance students’ and doctors’ training needs with ensuring timely individual patient care and responding to service demand. This is a book written with a US EP audience in mind. Although many international EM organisations are mentioned, the multiple references to US structures will likely try the patience of many non-US readers. I think we’re too self-deprecating on this side of the Atlantic to adopt one author’s recommendation to repeat silently “I’m wonderful” to calm pre-presentation nerves, or perhaps we should give it a try.

Overall this book is well worth reading and I expect to return to it frequently as a resource to improve my teaching skills. It includes many pearls of wisdom, one of which is a quotation from George Bernard Shaw “The biggest problem in communication is the illusion that it has taken place” – good advice for the classroom, the clinical environment and beyond.

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Paediatric HIV: The Experience in Ireland 2004-2011

Question 1
The number of HIV positive children in the study was
a) 12
b) 22
c) 32
d) 42
e) 52

Question 2
The median age of presentation of the HIV positive children was
a) 2 years
b) 4 years
c) 6 years
d) 8 years
e) 10 years

Question 3
The number of late HIV diagnosis children was
a) 5
b) 10
c) 15
d) 20
e) 25

Question 4
The number of HIV positive children born in Ireland was
a) 7
b) 9
c) 11
d) 13
e) 15

Question 5
The number of HIV positive children born to African mothers was
a) 36
b) 38
c) 40
d) 42
e) 44

Long Term Follow up for Colon Cancer in a Minimally Invasive, Colorectal Unit

Question 1
The total number of patients who underwent resection for colonic cancer was
a) 124
b) 134
c) 144
d) 154
e) 164

Question 2
The number of patients who underwent laparoscopic colonic cancer resection was
a) 108
b) 112
c) 116
d) 120
e) 124

Question 3
Among the laparoscopic colonic cancer surgery group the conversion to open surgery rate was
a) 5%
b) 7%
c) 9%
d) 11%
e) 13%

Question 4
The 5 year survival rate for laparoscopic colon cancer resection patients was
a) 64.6%
b) 68.6%
c) 72.6%
d) 76.6%
e) 80.6%

Question 5
The mean age of the patients in the study was
a) 58-60 years
b) 61-63 years
c) 64-66 years
d) 67-69 years
e) 70-72 years

Chronic Disease Management in Patients Attending Irish General Practice Training Practices

Question 1
The number of practices in the survey was
a) 24
b) 27
c) 30
d) 33
e) 36

Question 2
The mean number of patient GP visits annually was
a) 5.2
b) 6.2
c) 7.2
d) 8.2
e) 9.2

Question 3
The proportion of patients needing assistance to attend the GP was
a) 21%
b) 23%
c) 25%
d) 27%
e) 29%

Question 4
The survey response rate was
a) 66%
b) 68%
c) 70%
d) 72%
e) 74%

Question 5
The average number of medications per patient was
a) 4.8
b) 5.8
c) 6.8
d) 7.8
e) 8.8
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