Age Anaesthesia Association

Annual Scientific Meeting

Abstracts and Biographies for Grantham Meeting

16th – 17th May 2019

Belton Woods
Belton
Grantham
NG32 2LN

Age Anaesthesia Association

Thursday 16th – Friday 17th May 2019

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SESSION 1 | ELECTIVE SURGERY IN THE OLDER PERSON

09.15 – 09.35	Cardiac surgery in the older patient - what's new? *Dr Guillermo Martinez, Cambridge*
09.35 – 09.55	What has the National Joint Registry taught us in the past 14 years about arthroplasty in older patients? *Prof John Skinner, Stanmore*
09.55 – 10.15	Pre-assessing the older patient in a DGH *Dr Emma Chan, Peterborough*

SESSION 2 | EMERGENCY LAPAROTOMY IN THE OLDER PATIENT

10.55 – 11.15	National Emergency Laparotomy Audit Update *Dr Hannah Boyd-Carson, Derby*
11.15 – 11.35	The surgeon's view *Mr Nick Lees, Salford*
11.35 – 12.00	Physicians' views *Dr Barry Evans, Nottingham & Dr Arturo Vilches-Moraga, Salford*
12.00 – 12.15	The anaesthetist's update *Dr Mevan Gooneratne, London*

SESSION 3 | THE OLDER PATIENT AND COGNITIVE IMPAIRMENT

13.15 – 13.35	AAGBI Guidelines for surgery in patients with dementia *Dr Stuart White, Brighton*
13.35 – 13.55	Translating guidelines into clinical practice – perioperative care of patients with dementia. *Dr Adam Gordon, Nottingham*
13.55 – 14.15	What do the patients with cognitive disorders want? *Dr Cliff Shelton, Lancaster*
14.15 – 14.45	KEYNOTE ADDRESS: Neurocognitive Decline *Prof Lars Rasmussen, Denmark*

SESSION 4 | PERIPROSTHETIC FRACTURES – THE NEXT TSUNAMI

15.30 – 15.50	What about the medical and ethical aspects? *Dr Stuart White, Brighton*
15.50 – 16.10	What are the anaesthetic challenges? *Prof Richard Griffiths, Peterborough*

Friday 17th May 2019

SESSION 5 | FREE PAPER PRESENTATIONS

SESSION 6 | TRAINING & EDUCATION

10.20– 10.35	Does the surgical curriculum reflect reality? *Mr Jonathan Lund, Derby*
10.35 – 10.50	Has my anaesthetic training prepared me for dealing with reality in periop medicine? *Dr Julia Neely, Cambridge*
10.50 – 11.05	Does the anaesthesia curriculum reflect reality in dealing with the older patient? *Dr Chris Carey, Brighton*

SESSION 7 | HIP FRACTURES

11.15 – 11.35	Key findings from the NHFD report 2018 *Dr Iain Moppett, Nottingham*
11.35 – 11.55	Do we cause dementia with anticholinergic drugs? *Prof Chris Fox, Norwich*
11.55 – 12.10	Hip fracture network update *Dr Subash Sivasubramaniam, Birmingham*
12.10 – 12.25	A National Anaesthetic Guideline *Dr Dom Hurford, Glamorgan*
12.25 – 12.40	DOACs - revisit *Dr Amy Mayor, Huddersfield*
13.45– 14.15	KEYNOTE ADDRESS: An Overview of the Recommended Summary Plan for Emergency Care and Treatment (Respect) Process. *Catherine Baldock, Resuscitation Council (UK)*

SESSION 8 | OTHER TRAUMA IN THE OLDER PERSON

14.30– 14.50	An overview *Dr Mark Baxter, Southampton*
14.50 – 15.10	Trauma triage in the older patient *Dr Harriet Tucker, London*
15.10 – 15.30	What is happening with chest trauma in the older patient? *Mr Ben Olliviere, Nottingham*
15.50- 16.10	Neuro-trauma in the older patient *Dr Matt Wiles, Sheffield*
16.10 – 16.30	Peri-prosthetic fractures- should I operate? *Mr Benjamin Davies, Cambridge*

Dr Guillermo Martinez

Consultant Anaesthetist
Papworth Hospital

Dr Guillermo Martinez completed his training in Anaesthesia and Intensive Care in Madrid, Spain 2008. Subsequently, he undertook a Cardiothoracic Anaesthesia Fellowship at Papworth NHS Foundation Trust, Cambridgeshire UK.

Dr Martinez is currently working as a Consultant Anaesthetist at Papworth Hospital where he specialises in cardiothoracic anaesthesia including anaesthesia for heart and lung transplantation, pulmonary endarterectomy, TAVI and ECMO.

Dr Martinez has also developed a special interest in pulmonary hypertension and balloon pulmonary angioplasty for patient with chronic thromboembolic pulmonary hypertension. He is the Papworth anaesthetic lead for the aorta working group and he is heavily involved in the development and implementation of opioid free anaesthesia as part of the enhanced recovery programme.

"Cardiac surgery in the older patient - what's new?"

Up to 50% of cardiac surgical procedures performed yearly in the UK. The number of elderly patients presenting for cardiac interventions is expected to rise over the next few years, particularly with the increasing adoption of minimally invasive techniques for patients deemed unsuitable for open surgery.

Age and frailty are directly related and the older the patient the highest the risk of being frail and deconditioned. The frail group accounts for as much as 78% of total morbidity and death. The pathobiology of frailty is postulated to revolve around dysregulation of the immune, endocrine, and metabolic systems. The occurrence of postoperative complications leads to a cascade of events resulting in disability, dependence, reduced quality of life, increased mortality, and a dramatic increase in treatment costs. We will discuss age-related physiologic changes that affect anesthetic drugs and techniques for cardiac anaesthesia, optimal perioperative anesthetic management including innovative techniques such as opioid free anaesthesia or conscious sedation plus regional block for TAVIs.

<u>Suggested Reading:</u>

1. Partridge JS, Harari D, Dhesi JK. Frailty in the older surgical patient: a review. Age and Ageing2012;2: 142–7
2. Das S, Forrest K, Howell S. General anaesthesia in elderly patients with cardiovascular disorders: choice of anaesthetic agent. Drugs Ageing 2010; 27:265.
3. O'Hanlon S, Rechner J. Optimising pre-operative assessment for older people. Anaesthesia 2018; 73:1317.
4. Royal College of Anaesthetists, UK. Guidelines for the provi-sion of anaesthesia services for pre-operative assessmentand preparation. 2018. https://www.rcoa.ac.uk/system/files/GPAS-2018-02-PREOP.pdf (accessed 30/04/2018)
5. Krenk L, Rasmussen L, Kehlet H. Delirium in the fast-track surgery setting. Best Pract Res Clin Anaesthesiol 2012; 26: 345-353.

Learning Objectives:

After the session the attendee should be able to:

1. Describe the new cardiac procerdures available to treat the elderly population.
2. Recognise the anatomy and physiological changes of age and frailty that impact the perioperative care of cardiac surgery patients
3. Perform an adequate preoperative risk assessment for frail patients
4. Explain the anaesthetic strategies to minimise complications in elderly and frail patients
5. Name the main drugs used to facilitate and enhanced recovery after surgery including early eating and drinking

Prof John Skinner

Consultant Orthopaedic Surgeon
Royal National Orthopaedic Hospital

John Skinner qualified at King's College Hospital School of Medicine in 1988. He trained in Norwich and London. He was appointed a senior lecturer at the Institute of Orthopaedics in 1999 and also a consultant at the Royal National Orthopaedic Hospital, before becoming Professor of Orthopaedic Surgery. In 2004 he was awarded the ABC travelling fellowship to the United States of America. He is a member of the International Hip Society (100 members worldwide). His surgical practice is divided between tumour surgery and hip and knee surgery. He has a large practice in revision joint replacements. His research interests have included DVT prevention, metal on metal hips and aspects of reconstruction and implant design after lower limb surgery. At the RNOH Stanmore he has chaired the Infection Control Committee and the Medical Staff Committee. He chaired the MHRA Expert Advisory Committee advising on metal bearing hips for 10 years and has been the advisor to the British Hip Society and the BOA on metal hips for the last 15 years. He is a co-director of the London Implant Retrieval Centre. He has served as President of the British Hip Society. He is a Trustee and the Honorary Treasurer of the British Orthopaedic Association and sits on the NICE guideline committee on joint replacement surgery. He is a member of the Editorial Board of the Bone and Joint Journal and reviews papers for seven journals worldwide.

Dr Emma Chan

Consultant Anaesthetist and Clinical Lead for Theatres
Peterborough

Dr Emma Chan qualified from University College London. Her anaesthesia training took her to Peterborough, then London and then back to Peterborough, with a few other places in the middle! Emma took up her consultant post in Peterborough in 2009 and is currently the Clinical Lead. Her clinical interests include children's anaesthesia, perioperative medicine in adults and risk assessment.

"Pre-assessing the older patient in a DGH"

As increasing numbers of elderly patients are undergoing surgery for an increasing variety of conditions, this poses many challenges to us as anaesthetists preparing these patients for their operations. We, with the help of various healthcare professionals, stratify risk, assess functional reserve and make adjustments to reduce risk. Detailed discussions then follow with the patient and family to find out the patient's preferences and values in order to work out what would be the best care for that individual.

Dr Hannah Boyd-Carson

Surgical Registrar
East Midlands

Hannah is a General Surgical Registrar from the East Midlands. She is the National Emergency Laparotomy Audit Surgical Research Fellow and is currently in an "Out of Programme for Research" period undertaking a PhD at the University of Nottingham.
She will be providing an update of the National Emergency Laparotomy Audit's most recent findings with a focus on the over 70s.

Mr Nick Lees

Consultant Colorectal Surgeon
Salford Royal NHS Foundation Trust

Nick Lees qualified from Oxford Medical School in 1992 and undertook most of his higher surgical training in the North West of England. He has been a consultant general, colorectal and intestinal failure surgeon at Salford Royal since 2004. He has been the Royal College of Surgeons of England representative on the Clinical Reference Group of the National Emergency Laparotomy Audit since 2013 and co-wrote the 2014 Royal College of Surgeons of England and Association of Surgeons of Great Britain and Ireland Commissioning Guide on Emergency Surgery (Acute Abdominal Pain). He led a multidisciplinary group of 16 experts in writing the 2018 Royal College of Surgeons of England document *The High-Risk General Surgery Patient; Raising the Standard* that makes a series of Key Recommendations on the care this group of patients should receive. He advised NHS England on the Best Practice Tariff for Emergency Laparotomies, due to go live in April 2019. Since 2012 he has been the Clinical Champion for *Healthier Together,* a Commissioner-led transformation of General Surgery services in Greater Manchester, describing the Case for Change and developing a Future Model of Care that successfully passed through a Public Consultation in 2015.

Dr Barry Evans

Registrar in Geriatric and Internal Medicine
Nottingham

Barry Evans is a final year registrar in geriatric and internal medicine. He has previously collaborated with surgeons, anaesthetists and geriatricians in Derby to deliver a surgical liaison service for older perioperative and emergency laparotomy patients. His main interests are in quality improvement work around services for older people in an inpatient setting. He has also collaborated on a number of QI projects which focus on improving working lives for junior doctors in training. He is currently completing an MA in Clinical Leadership and Management with the University of Swansea.

"Physicians' Views"

A large proportion of emergency Laparotomy interventions are carried out in older patients. We will describe how geriatricians in two different Trusts (Derby & Salford) provide multidisciplinary collaborative work at local level. We will describe our perceived strengths, opportunities, aspirations and results (SOAR).

Dr Arturo Vilches-Moraga

Consultant Geriatrician and Physician
Salford Royal NHS Foundation Trust

After graduating from Woodbury high school (New Jersey, US) and obtaining his medical degree (Madrid, Spain), Dr Vilches-Moraga completed his training in the Northwest Deanery (CCST 2005). He was appointed Consultant Geriatrician at Complejo Hospitalario Universitario de Vigo where he developed a broad range of Services in acute geriatric medicine and heart failure. In 2014 Arturo returned to Salford Royal NHS Foundation Trust where he shared responsibility for the development of a Liaison Service for Older People admitted to General Surgery. An Honorary Senior Lecturer (University of Manchester), Arturo's research interests include POPS, heart failure and falls/syncope prevention. Dr Vilches-Moraga has received research grants, published in peer reviewed journals; has acted as reviewer for various academic journals and is a board member of the NELA Clinical Reference Group, Centre of Excellence for Safety of Older People and Middle-East Academy of Ageing.

"Physicians' Views"

A large proportion of emergency Laparotomy interventions are carried out in older patients. We will describe how geriatricians in two different Trusts (Derby & Salford) provide multidisciplinary collaborative work at local level. We will describe our perceived strengths, opportunities, aspirations and results (SOAR).

Dr Stuart M. White, FRCA, BSc, MA

Lead Consultant for Anaesthesia for the Elderly
Brighton and Sussex University Hospitals

Dr White is Lead Consultant for Anaesthesia for the Elderly at Brighton and Sussex University Hospitals, and jobbing anaesthetist. His research interests are eclectic, but include the perioperative care of elderly patients, particularly those undergoing hip fracture repair. He was a member of the AAGBI working parties that produced the Perioperative care of the Elderly 2014 and Management of Proximal Femoral fractures 2011 guidelines and co-chaired the Anaesthesia for people with dementia working party 2018. He is an ex-Council member of the AAA, an (ex-)editor of Anaesthesia, and edited the 2014 Anaesthesia supplement Anaesthesia for the Elderly. Age is catching up with him: sea swimming soothes the inflammation, and he's finally bought an electric bike.

Dr Adam Gordon

Clinical Associate Professor in Medicine of Older People
University of Nottingham

Adam Gordon is Clinical Associate Professor in Medicine of Older People at the University of Nottingham. His research interests are in models of care for older people, particularly how Comprehensive Geriatric Assessment can be adapted to work in clinical settings – much of this work has focussed on care home populations. He was one of the founders of the Systematic Care of Older People in Elective Surgery (SCOPES) service at Nottingham University Hospitals where he ran elective orthopaedic and spinal surgery geriatric medicine liaison services. He moved the University Hospitals of Derby and Burton in 2015 and has since established a nationally recognised, award winning geriatric medicine liaison service for older people undergoing emergency laparotomy. He is Vice President for Academic Affairs of the British Geriatrics Society.

"Translating Guidelines into Clinical Practice – Perioperative Care of Patients with Dementia."

Older people with dementia present a number of challenges when it comes to surgery. Issues around mental capacity can complicate routine approaches to consent, they can be more prone to adverse reactions to anaesthetic agents, they are more prone to post-operative delirium and they present a different sort of challenge to rehabilitation specialists. Effective management requires mechanisms to identify and respond to cognitive impairment in the pre-operative context, to spot early-on the development of acute delirium and to respond with appropriate multimodal interventions, to modify shared decision making approaches to allow families to engage with the multiple teams involved in good peri-operative care, and to build effective multidisciplinary conversations into decisions about post-operative rehabilitation into surgical discharge pathways. This talk will consider where guidelines about effective operative management meet guidelines about effective dementia care and provide practical recommendations about how to develop and deliver gold-standard care processes.

Dr Cliff Shelton

Registrar in Anaesthesia
Lancaster Medical School

I am a final-year registrar in anaesthesia and have recently completed an NIHR doctoral research fellowship at Lancaster Medical School. I am looking forward to commencing my consultant post at Wythenshawe Hospital (part of Manchester University NHS Foundation Trust) in September.

My clinical interests include age anaesthesia, trauma and obstetrics, and my academic interests include care quality, patient safety and medical education. I am a trainee/podcast editor for *BJA Education* and an assistant editor for *Anaesthesia Reports.* For the last three years I have been undertaking my doctoral study, entitled 'what is a good anaesthetic for hip fracture repair?' This involved me observing anaesthetic practice for hip fracture surgery in three hospitals in the north-west of England, talking with patients about their experiences, and asking health professionals about their interactions with anaesthetic practice.

I believe that there is a vital role for qualitative research in the context of ageing and frailty, particularly when used in combination with quantitative methods.

"What do Patients with Cognitive Disorders Want?"

Cognitive disorders are commonplace in the context of age anaesthesia. For example, according to the Association of Anaesthetists 25% of patients with hip fracture have cognitive impairment pre-operatively, and on the basis of findings from the National Hip Fracture Database, delirium has been styled 'the commonest complication of hip fracture surgery.'

Impaired cognition is far from benign; it is associated with an increased risk of morbidity and mortality, and alterations in in cognitive function can have profound negative impacts on quality of life. Furthermore, it can make the consent process challenging and anaesthetists often feel compelled to use more invasive techniques because of concerns about patient cooperation.

In this lecture I will consider how cognitive impairment influences patient-centredness in anaesthesia. Drawing on case studies from my doctoral study 'what is a good anaesthetic for hip fracture repair?', I will illustrate the positive and negative effects that anaesthetic care can have on patients with impaired cognition. I will explain how anaesthetists work with patients with cognitive impairment in practice. Based on these examples, I will suggest some ways in which we can provide patient-centred anaesthesia whilst providing the best possible standard of care.

Professor Lars S. Rasmussen

Consultant Anaesthetist
Rigshospitalet, University of Copenhagen

Lars S. Rasmussen is Consultant in anaesthesia, Department of Anaesthesia, Centre of Head and Orthopaedics, Rigshospitalet, University of Copenhagen, Denmark and Professor of Anaesthesiology.
His research has been focused on geriatric anaesthesia and especially cognitive deterioration after surgery. The Ph.D. dissertation and Medical Doctoral Thesis were based on studies conducted by the multinational ISPOCD group who has done numerous investigations of postoperative cognitive dysfunction. Lars S. Rasmussen has also been involved in emergency medicine research, including airway management and trauma care. He has published more than 240 articles and supervised 25 Ph.D.-students. He has been a member of the editorial board for Acta Anaesthesiologica Scandinavica 2002 to 2017 and Editor-in-Chief 2009-2015.

"Neurocognitive Decline"

Neurocognitive decline is common in surgical patients, especially in older subjects. A number of different conditions have been described in the literature and these include delirium, dementia, and postoperative cognitive dysfunction (POCD). There are now accurate criteria for delirium and dementia, but only recently has a group proposed a nomenclature that also covers the phenomenon called POCD.
Neurocognitive decline may be detected at various time points in connection with surgery and anaesthesia and it is often overlooked prior to a procedure. The detection of decline can be based on subjective complaints using for instance questionnaires, but neuropsychological test batteries allow an objective assessment of performance. Numerous different tests are available but it is essential to carefully select tests that are adequate in the relevant groups of surgical patients and a comparison with a control group is needed. Otherwise, it is impossible to know what the expected level would be and any change will also be very difficult to interpret because cognitive tests are characterized by considerable variability and important practice effects. It is now recommended to look also at the level of functioning, which could be the ability to perform activities of daily living.
Cognitive function is difficult to assess in surgical patients, and the performance may be adversely affected by pain, medication, sleep deprivation, and other factors early after surgery. It is therefore suggested that cognitive decline detected within the first 30 days is called delayed neurocognitive recovery.
At a later follow-up, the terms postoperative mild or major neurocognitive decline will be used, according to the level of functioning which can be maintained or impaired, respectively.

Richard Griffiths MD FRCA

Stamford, UK

Consultant in Peterborough since 1996. Trained in Nottingham, Leicester and San Francisco. Involved in promoting hip fracture anaesthesia since 1999, Life Time Membership of Age Anaesthesia in 2010, John Snow Silver Medal from Association of Anaesthetists 2017, Dudley Buxton Medal from RCOA 2015, Presidents Medal from BSOA 2018.

Welsh rugby supporter, so pretty happy at present, married to Melanie (physiotherapist not actress), two daughters Emma 28, Rebeca 26, both now off the pay roll.

"Periprosthetic Fractures – The Next Tsunami"

There can be no doubt that major joint arthroplasty was the surgical success story of the later part of the 20th century. Many, who would otherwise, have been left immobile by pain have had their lives transformed. In the U.K., the National Joint Registry (NJR), of which more will be presented at the meeting, is now into the 15th annual report, and collects data on both lower and upper limb arthroplasties.

However, with life expectancy increasing, although it may have stalled recently, there will be increasing problems of failure of joint arthroplasty by fracture of bones near or within the arthroplasty. I think that every trauma doctor will recognise that the numbers of these patients are starting to rise.

There is considerable variation in the type of fracture, and the physiological insult to the patients, but as yet there is no accurate information on the numbers. The NJR does collect information on the major joint revisions that are performed owing to periprosthetic fractures but does not record information on the simple fixations. Most of the fractures are in the lower limb, proximal or distal femoral from either hip or knee arthroplasty.

Another success story for the NHS is the National Hip Fracture Database (NHFD), with an impressive fall in mortality since the start in 2007. Periprosthetic fractures are not included in this database, although there are certainly some parallels between the patient populations.

In March 2015 NHS England decided to streamline the coding for periprosthtic fractures, M96.6, was recorded for all in patient stays with a fracture. Since then the numbers have been going up year by year with an approximate 20% increase every year. There is very little information in the literature about this patient group. There are some comparisons with proximal femoral fractures, although many will have more complex, and longer revision procedures. I will present the data for England since 2015 and will review the very scanty literature that exists. Now is the time for each trust to start to record the patient characteristics in more detail. The other problems that are looming are orthogeriatric cover for these patients, should they be included with proximal femoral fractures? Surgical expertise and training may need to be reviewed and is there a case for tertiary centres dealing with these cases? These are questions that will need to be addressed in the near future.

Dr Julia Neely

Speciality Trainee in Anaesthesia
East of England

I am a Specialty Trainee in Anaesthesia in the East of England region, having completed previous training rotations in London, Oxford and Australia.

"Has my Anaesthetic Training prepared me for dealing with reality in Perioperative Medicine?"

My presentation focuses on whether the current UK Anaesthesia curricular requirements and the experience offered during training in Anaesthesia enables us to meet the challenges of perioperative medicine in clinical practice. I will examine this from personal experience, that reported by trainees, and an education perspective. Translation of medical education into real life clinical development, and sustained behaviour change are of particular interest to me. I am currently undertaking a Masters research project on this theme.

Dr Chris Carey

Consultant Anaesthetist
Brighton & Sussex University Hospitals

Dr Carey trained in North West London before being appointed as a consultant in Brighton & Sussex University Hospitals where he specialises in neuroanaesthesia. He served as College Tutor before being appointed as Head of the KSS School of Anaesthesia from 2010-16 since when he has been an Associate Postgraduate Dean for HEE KSS. He was elected to RCoA Council in 2017 and is chair of the Training Committee.

"Does the anaesthesia curriculum reflect reality in dealing with the older patient?"

The primary aim of the CCT curriculum in anaesthesia is to train consultants who are able to work effectively in the NHS. Unlike many specialties there is huge diversity of clinical demands for anaesthetists and one of the key challenges in training is to ensure that doctors are provided with an appropriate balance of exposure to different areas of practice.
This has traditionally involved a model with units of training in different surgical specialties. Over the past few years specific units of training in Perioperative Medicine has been introduced which employs a more patient-centred approach and include particular reference to the elderly. A new CCT curriculum is currently in development. It is hoped that this will support the profession to provide excellent care for patients in the context of changing demographics and in particular the considerable increase in the elderly population that today's trainees will encounter over the course of their careers.

Dr Subash Sivasubramaniam

Consultant Anaesthetist
Sandwell and West Birmingham Hospitals

Subash Sivasubramaniam is a consultant anaesthetist at Sandwell and West Birmingham Hospitals. He has subspecialty interest in Perioperative medicine and Hip fracture care. He played a crucial role in setting up and developing the perioperative services at City and Sandwell Hospitals. This includes the concept of "trauma anaesthetist of the week" and an additional ward based "perioperative anaesthetist". A core group of senior anaesthetists provide standardised care to these patients, seven days a week, not only within the operating theatre but also during their perioperative period, from admission to 48 hours after surgery. This has led to several demonstrable improvements in perioperative care for hip fracture patients. He currently manages the NHS Hip Fracture Perioperative Network (HipPeN) site which is affiliated to the Age Anaesthesia Association.

"Hip Fracture Network Update"

The Hip Fracture network is a very vibrant site and an excellent forum to have discussions about hip fracture perioperative care. It was started in 2008 with an attempt to address the wide variation in perioperative anaesthetic practice across the country and conjure solutions to address these issues. It has gradually grown up to its current membership of 366.

It grew along with the inception of several national audit programmes, leading to significant changes and parallel improvements in perioperative care. It is a forum where essential and contentious areas of hip fracture perioperative care are discussed. It helps to promote ideas, policies, guidelines and areas of good practice which can be shared and emulated. It aims to encourage evidence-based perioperative care, audit and research amongst the hip fracture care community.

There are several ongoing changes with the network, and we hope it will provide a single point of reference for hip fracture perioperative care. There is scope for strengthening collaboration amongst the leads in the various regions and attempt standardisation of practice. It would be a platform for running national surveys and communication of crucial information regarding hip fracture care at a national level.

This is especially relevant with anaesthetists urged to expand their scope of practice and responsibility into the perioperative period.

We urge local champions to encourage regional collaboration aimed at providing consistent, and good quality standardised care. Please subscribe to the network today

Dr Dom Hurford MB ChB FRCA

Consultant Anaesthetist
Cwm Taf Morgannwg University Health Board

Dom is a Consultant Anaesthetist at Cwm Taf Morgannwg University Health Board, in South Wales, where he is also the Health Board's Clinical Lead for Frailty Fractures. He has been the Chairman of the multidisciplinary Welsh Frailty Fracture Network for the last 2 years and has also been part of the AoA Working Party for updating Hip Fracture guidelines.

Dom trained in Bristol and the West Country, where he still lives and as such is very grateful for the end of the Severn Bridge tolls. Dom is married to a GP and appreciates every day how much easier it is to work in a hospital. He has two amazing, but very active children and any spare time is spent out cycling.

Dr Amy Mayor

Consultant Anaesthetist
Calderdale and Huddersfield NHS Foundation Trust

Dr Amy Mayor is a Consultant Anaesthetist at Calderdale and Huddersfield NHS Foundation Trust where she also holds the Clinical Lead roles for Trauma & Orthopaedics and Fractured Neck of Femur care. She is also the Research Lead for the Division of Surgery and Anaesthesia and Principal Investigator for the international randomised control trial HIP ATTACK.

"DOACs – Revisit"

Amy is presenting her guideline for fractured neck of femur anaesthesia and surgery in patients taking the new direct acting oral anticoagulants (DOACs), alongside evidence of the protocol's safety and a summary of the evidence in the international literature of the issues surrounding hip fracture surgery and anaesthesia in patients taking these new oral anticoagulant drugs.

Catherine Baldock RGN BSc (Hons) M Med Ed

Clinical Lead
ReSPECT at the Resuscitation Council (UK)

Catherine has a background in nursing, critical care, education and resuscitation. She has a BSc (Hons) in Nursing Studies and a Masters in Medical Education.

Catherine led the implementation of the Recommended Summary Plan for Emergency Care and Treatment" (ReSPECT) process across Coventry and Warwickshire in December 2016 when she was working as the Head of Resuscitation, Clinical Skills and Simulation at an acute teaching hospital in Coventry.

In 2017 she was seconded part-time to the Resuscitation Council (UK) as the project manager for ReSPECT to oversee the national adoption of the process. In January 2019 Catherine moved into the Clinical Lead role for ReSPECT at the Resuscitation Council (UK). She is responsible for providing direction and management for the introduction of the ReSPECT process across the United Kingdom and for overseeing its development.

"An Overview of the Recommended Summary Plan for Emergency Care and Treatment (Respect) Process."

ReSPECT is a process that creates personalised recommendations for a person's clinical care in a future emergency in which they are unable to make or express choices themselves. It is a national initiative which is being adopted across the United Kingdom.

The first implementation of the ReSPECT process was in December 2016. Since this time there has been a steady growth in the number of organisations adopting ReSPECT in England and Scotland.

The ReSPECT process has been received positively by clinicians and patients. Early audit data and service evaluation suggests there is some evidence of increased conversations when compared to DNACPR, increased compliance with documentation, a reduction in complaints and inappropriate transfers and admissions to hospital.

The ReSPECT process continues to be iterative and, as such, will develop over time. There are currently a number of initiatives and developments around the ReSPECT project.

Dr Harriet Tucker

Emergency Medicine and Pre-hospital Emergency Medicine Registrar
London and Air Ambulance Kent Surrey Sussex

Dr Harriet Tucker is an emergency medicine and pre-hospital emergency medicine registrar working in London and with Air Ambulance Kent Surrey Sussex. She qualified from Oxford University Medical School and moved to London for her emergency medicine training. Having completed PHEM-subspecialty training, she is starting a PhD in pre-hospital whole blood transfusion. Together with Dr Donna Peel, a fellow London Emergency Medicine registrar, she has developed a trauma triage tool for detecting major trauma in the over 65 year olds and is currently working on a pre-hospital tool.

"Trauma Triage in the Older Patient"

Elderly patients are making up an increasing proportion of traumatically injured patients. Current triage tools are not sensitive or specific enough to detect severe traumatic injury in this population. This has negative effects on their initial management, investigation and subsequent clinical interventions. Dr Tucker will talk about the challenges associated with the recognition of severe injury in the elderly population, the limitations of current triage tools, and ongoing work to improve the recognition of severe traumatic injury in the elderly and thus improve their clinical management and outcomes.

Dr Matthew Wiles

Consultant in Neuroanaesthesia/ICU & Major Trauma
Sheffield Teaching Hospital NHS Foundation Trust

Matt Wiles completed anaesthetic training in Nottingham in conjunction with a research post as a Clinical Lecturer at the University of Nottingham, before taking a consultant post at Sheffield Teaching Hospitals NHS Trust. His clinical commitments primarily involve sessions in neuroanaesthesia (with a particular interest in pituitary and major spinal surgery), neurocritical care and pre-operative assessment. His other interests include the management of major trauma and he is the Trust lead for the consultant major trauma service. He is also a member of the Editorial Board of the journal Anaesthesia.

http://www.researcherid.com/rid/F-5612-2015

"Neuro-trauma in the Older Patient"

This talk will aim to review the changing demographics of brain injury in older patients, the management challenges and difficulties in prognostication. The use of specific therapeutic targets, e.g. blood pressure transfusion and intracranial pressure will also be reviewed.

Mr Benjamin Davies

Clinical Lecturer in Trauma and Orthopaedics
University of Cambridge

Benjamin is a Clinical Lecturer in Trauma and Orthopaedics at the University of Cambridge. He completed the majority of his surgical training in the Oxford region, where he also undertook in DPhil in Musculoskeletal Sciences before moving to Cambridge to take up his current post. He has an interest in translational medicine and the use of large datasets to help inform policy and practice.

"Peri-prosthetic Fractures- Should I Operate?"

Peri-prosthetic fractures present an ever-increasing volume of work. The increase in the availability of total joint arthroplasty, combined with the ageing population means that this workload will continue to grow. These individuals present a significant challenge, both anaesthetically and surgically. Surgical options are traditionally guided by the type of injury sustained and the type of arthroplasty involved. However, given the medical co-morbidities that these patients often have the question we must ask ourselves is should we alter our surgical approach to take into account the frailty of these individuals.

AGE ANAESTHESIA ASSOCIATION

Poster Presentations

Pre-operative anaemia and post-operative outcomes in proximal femoral fracture surgical patients
Dr A A Gilani and Dr S. Sivasubramaniam

Improving pre-operative assessment and optimisation in patients admitted with hip fracture
J Shak, M Chablani, S Joachim

Knowledge of frailty assessments amongst senior anaesthetists at a UK teaching hospital
Dr Helen Prescott, Dr Emily Edmondson, Dr Tanuja Shah and Dr Richard Curtis

Enhanced Recovery for Hip Fracture Patients: A Service Evaluation
Rahil Mandalia, Sagar Tiwatane, Maryam Umar, Paul Marval

Elderly Care Liaison and Emergency Laparotomy: does it make a difference?
K. Reeve, R. Hryniv and K. Jenkins

Understanding frailty: developing a collaborative approach
Dr Katie Stewart, Dr Samantha Leung, Dr Susan Chapman, Dr Elizabeth Broadbent, Miss Eilidh Gunn and Dr Christina Beecroft

Standardising Handover of Hip Fractures Patients in Wales
Dr Dom Hurford on behalf of the Welsh Frailty Fracture Network

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Pre-operative anaemia and post-operative outcomes in proximal femoral fracture surgical patients

Dr. A A Gilani and Dr S. Sivasubramaniam

Introduction
Pre-operative anaemia in proximal femoral fracture patients is not uncommon. These patients are often elderly and frail. We identified pre-operative untreated anaemia in these patients are associated with worse outcomes post-operatively. We aimed to evaluate how untreated pre-operative anaemia, defined as haemoglobin levels (Hb) 70-100g/L, can adversely effect post-operative outcomes in these patients.

Methods
We retrospectively identified patients, using our 'Perioperative Trauma Care' database, who had proximal femoral fracture surgery between January 2016 to November 2016. We were able to collect pre- and post-operative Hb, and the timings of blood tests. Patients who were transfused blood were identified via our local blood bank database. Post-operative complications were identified through our 'Perioperative Trauma Care' database and patient discharge summaries. Ethics approval was sought and approved from our local institutional board.

Results
We identified 364 patients. 93 patients had a Hb70-100g/L pre-operatively, of which 77% required blood products intra- or post-operatively with the highest proportion on day 2. This, subsequently, delayed mobilisation due to symptomatic effects. Complication rates within 28 days post-operatively (chest infection, acute kidney injury, delirium, cerebrovascular events) were higher if the patient's pre-operative Hb was 70-100g/L (48% versus 25% if Hb>100g/L). Comparative mortality within 28 days post-operatively were also raised if their Hb was 70-100g/L – 14%, versus 3% if Hb>100g/L. The average length of stay for all patients was 15.3 days, with it being 21.8 days for patients with a pre-operative Hb70-100g/L.

Conclusions
Our data demonstrates adverse outcomes in this elderly subgroup of patients if their pre-operative Hb is 70-100g/L. Such patients require early identification of anaemia and correction to facilitate their recovery, mobilisation and improve outcomes.

Improving pre-operative assessment and optimisation in patients admitted with hip fracture

J Shak, M Chablani, S Joachim

Patients with hip fractures are medically complex with diverse biopsychosocial needs. NICE Guidelines states that surgery should be performed less than 48 hours post admission, identifies correctable co-morbidities and emphasises early medical and orthogeriatric involvement.

This quality improvement project took place in a district general hospital treating approximately 360 patients with hip fractures per year. The unpredictable nature of trauma theatre, as well as complexity of hip fracture patients can lead to delays in operating start time and delay between admission and operation. The aim is to facilitate early pre-operative assessment, correction of co-morbidities and identification of rehabilitation needs.

A cross-sectional audit of 14 inpatients with hip fractures highlighted cases of sub-optimal management. There was a case of ECG with missed ischaemic changes. One case was delayed due late diagnosis of severe aortic stenosis.

An initiative was implemented to alert the on-call anaesthetist upon admission of patients with hip fracture. Education was given to identify reversible co-morbidities. A new assessment proforma was designed to highlight functional assessment and reversible co-morbidities.

Early audit cycles identified challenges, including miscommunication between respective teams, on-call demands of the anaesthetist and slow uptake of the new proforma. After further educational interventions and wider distribution and modifications of the new proforma, the rate of early pre-assessment improved from 15 to 75% in three months. Issues highlighted by anaesthetic teams have included ischaemic changes on ECG, respiratory infections and hypovolaemia.

Further audit cycles and staff engagement aims to achieve universal early pre-operative assessment of patients with hip fracture, improve treatment of medical co-morbidities, reduce delay to operation and facilitate efficient use of theatre time.

Knowledge of frailty assessments amongst senior anaesthetists at a UK teaching hospital

Dr Helen Prescott, Dr Emily Edmondson, Dr Tanuja Shah and Dr Richard Curtis

Introduction: An increasing number of elderly patients are undergoing emergency laparotomy. It has been suggested that frailty scoring systems should be used to help risk assess these patients and the National Emergency Laparotomy Audit now asks whether an assessment of frailty has been undertaken. We therefore sought to determine the number of anaesthetists within our department who are aware of frailty scoring systems. Where necessary this was used as a foundation to improve awareness.

Methods: Senior anaesthetists (consultants and staff grade doctors) working at a UK teaching hospital were asked in person about their knowledge and use of frailty assessments. The results of the initial survey were presented at a divisional meeting and posters detailing a commonly used frailty assessment were placed in and around the emergency theatre. A second survey was subsequently undertaken in the same manner as the first and the results compared.

Results: Initially 8 out of 40 senior anaesthetists (20%) could give details of frailty assessments. Just 4 used one in their routine clinical practice. Our subsequent survey found 12 out of 37 anaesthetists (32%) could give specific details of a frailty assessment, 13 (35%) stated they were now aware they existed but could not give further details but just 6 used one in their routine practice.

Conclusions: The majority of anaesthetists in our department have little previous experience of frailty assessments. Promotion of such assessments saw some improvement in awareness but little change in clinical practice. How we promote frailty assessment as a key and routine part of pre-operative assessment for the older population remains to be determined.

Enhanced Recovery for Hip Fracture Patients: A Service Evaluation

Rahil Mandalia, Sagar Tiwatane, Maryam Umar, Paul Marval

Introduction

Enhanced recovery after surgery (ERAS) is of proven benefit across planned orthopaedic surgery. We extended these principles to emergency patients admitted with fractured neck of femur (#NOF). We reviewed the #NOF best practice tariff, AAGBI guidelines and our elective

orthopaedic ERAS pathway. A pathway mapping exercise was completed incorporating all appropriate components to optimise and standardise the pathway. We audited certain perioperative components of this pathway, with their potential to impact upon day 1 post-operative mobilisation, a national key performance indicator.

Methods
A retrospective audit of patients undergoing #NOF surgery in November 2018 was undertaken. The chosen components to indicate pathway compliance were: provision of patient/relatives information booklet; fascia iliaca block (FIB) in the emergency department (ED) and anaesthetic room (AR); nutrition delivery; surgical delay >36 hours; use of tranexamic acid (TXA); haemoglobin measurement in recovery; standardised post-operative prescriptions; orthogeriatric assessment; day 1 physiotherapy assessment and mobilisation success.

Results
Thirty-four patients were included. Over 80% compliance was achieved for: FIB in ED; orthogeriatric review; post-operative prescriptions; surgery within 36 hours and haemoglobin measurement. Compliance could be improved with: patient information booklet provision; nutrition delivery; FIB in AR and use of TXA.
All patients had a physiotherapy assessment. Seventeen patients achieved successful day 1 mobilisation. Reasons for not achieving mobilisation included: low blood pressure(n=4), pain(n=3), declined(n=2), delirium(n=2) and other medical issues(n=5).

Conclusions
The National Hip Fracture Database day 1 mobilisation rate is 80.2% compared to 61.9% at our institution (2018). We have identified a number of less compliant components of the pathway. These require discussion with the multidisciplinary teams as to the barriers of consistent delivery, and anaesthetic department promotion of best practice evidence, to improve upon mobilisation success rates.

Elderly Care Liaison and Emergency Laparotomy: does it make a difference?

K. Reeve, R. Hryniv and K. Jenkins

Introduction
National Emergency Laparotomy Audit (NELA) recommends that patients over 70 years undergoing emergency laparotomy should have elderly care input, although current national compliance is only 23%. Geriatrician review is associated with reduced post-surgical mortality. We evaluated the impact of introduction of elderly care liaison (ECL) at our Trust.

Methods
NELA data were reviewed for 12 months preceding and following introduction of elderly care liaison. We compared mortality and length of stay (LOS) in those under 70 and 70+ years, and the impact of elderly care liaison in the older group.

Results
In total, 407 cases were reviewed. Prior to elderly care liaison, crude in-hospital mortality was higher in the 70+ group (22.3% vs. 9.2% <70) reflecting higher mean P-POSSUM mortality risk scores (22% 70+ vs. 15% <70). Mean length of stay (days) was similar in both groups (7.1 in 70+ vs. 8.7 <70). The older patients were more likely to go to intensive care (ICU) postoperatively (79% vs. 66% <70).

Following introduction of ECL, crude mortality was still higher in the 70+ group (22% vs. 11.3% <70). However in the 70+ patients seen by ECL, mortality fell to 15%. More of the older group

went to ICU (73% vs. 57%). Mean LOS was 21 days in 70+ and 17.8d in <70. There was no difference in LOS or ICU admission if seen by elderly care.

Conclusions
The introduction of elderly care liaison for emergency laparotomy patients in our Trust led to a reduction in crude in-hospital mortality in patients over seventy years old. No reduction in length of stay was observed.

Understanding frailty: developing a collaborative approach

Dr Katie Stewart, Dr Samantha Leung, Dr Susan Chapman, Dr Elizabeth Broadbent, Miss Eilidh Gunn and Dr Christina Beecroft

Introduction
As the population ages, we face the challenge of increasing numbers of complex frail patients undergoing surgery. Our group have established that 15% of elective surgical patients and 33% of emergency surgical patients in our hospital are frail. Furthermore, surgical inpatients over 65 years have a mean number of 4 co-morbidities. Frail patients with complex multi-system disease are at higher risk of post-operative complications and prolonged hospital stays. We realised we needed to gain greater insight into the issues facing frailty elderly patients.

Methods
We reviewed referrals to medicine for the elderly (MFE) over a six-month period, excluding those to the established ortho-geriatrics service. Pareto analysis of the data identified the key geriatric domains.

Results
84 referrals were made to MFE within the study period, of which 68% were from surgical specialties (N=57). The commonest reasons for referral were confusion, mobility or falls, frailty and discharge planning. Amongst the surgical referrals, 23 involved 3 or more of the common domains. Advice on Polypharmacy sought by 4 clinical teams. Other common themes were ‘please take over care’ (n=14) and nutrition, hydration or weight loss (n=5).

Conclusions
The project highlights the challenges we face in coordinating the care of the frailer surgical patient. In identifying the main referral domains, we can now plan improvement initiatives. Multidisciplinary partnership of MFE, surgery and perioperative medicine teams is essential to improve pathways of clinical care and ensure scare resources are targeted optimally.

Standardising Handover of Hip Fractures Patients in Wales

Dr Dom Hurford on behalf of the Welsh Frailty Fracture Network

Introduction
Mobilising patients on day one is an essential target for rehabilitation and one of the National Hip Fracture Database (NHFD) recorded variables. Wales is generally underperforming on this target, mobilising only 72% of the time compared with 81% of cases across the UK. Considering the minimum requirement to meet the definition of mobilising is to bed hoist 2 inches above the mattress this is a hard standard not meet.

Method
Welsh Frailty Fracture Network (WFFN) looked at the 3 main factors that affect mobilisation on day 1. A triad of essential factors, influenced by Anaesthetists, were highlighted:

1) *Blood Pressure* - due to hypovolaemia
2) *Anaemia* - Haemoglobin levels not being aggressively managed, trigger of 100g/l as standard.
3) *Analgesia* - dynamic pain needs more attention so WFFN recommends a standardised approach limiting delirium, constipation and anorexia inducing medications.

Standardising how we approach reducing the impact of all three factors is an obvious progression of Anaesthetic care. We have developed a handover document, completed by in theatre Anaesthetist, for Recovery and Ward staff setting out minimum standards of care and when to call for reviews by junior and Anaesthetic teams for managing these 3 factors.

Since its introduction, in a few pilot hospitals, the document has been welcomed by ward staff, nurses and junior doctors. The numbers are too small at present to demonstrate but anecdotally there is a small increase in calls to Anaesthetists, these have been appropriate resulting in some patients being admitted to HDU for blood pressure management.

Conclusion
Standardising approach extends Anaesthetic influence beyond theatre with better care delivered. Wales now has a standard, easily implemented, approach to anaesthetic guided post-operative care.

Peri-operative monitoring of anaemia in patients undergoing surgery for proximal femur fractures

Dr Andrew Woodgate

Introduction:
Anaemia is a common peri-operative factor in the management of proximal femur fractures. The multiple causes include blood loss from the fracture site, haemodilution/concentration and co-morbid disease. Anaemia is associated with adverse post-operative outcomes including: reduced mobility, prolonged hospital stay and increased mortality.
AAGBI guidelines (2011) recommend routine use of point-of-care haemoglobin analysis post-operatively to assess anaemia and guide blood transfusion.

Method:
The blood tests, transfusion records and peri-operative notes (anaesthetic and recovery charts) of patients undergoing proximal femur fracture surgery over the course of one month were reviewed and assessed for: 1) haemoglobin drop from pre-op to post-op. 2) haemoglobin drop from presentation to pre-op level 3) whether blood transfusion was required. 4) whether peri-operative point of care haemoglobin testing was under taken.

Results:
The notes of 41 patients were reviewed.
1) Pre to post-op haemoglobin drop: -16g/L [-61 to +6]
2) Presentation to pre-op haemoglobin drop (n=11): -9g/L [-31 to +27]
3) 10 (24%) patients received blood transfusions within a week of surgery.
4) 9 patients (22%) received point of care haemoglobin assessment. Of the 10 patients transfused; 8 (90%) received point of care testing.

Conclusion:
- Peri-operative blood loss may be significant pre-operatively and intra-operatively.
- Haemodilution/concentration influence haemoglobin levels.
- Point of care testing of haemoglobin levels is not routine practice at the hospital but is focused on those patients felt to be at risk.

Introducing Frailty Scoring into Pre-Operative Assessment

J. Barrington, A. James, V. Hilton, M. Cole

Introduction:
Frailty is widely reported as an important risk factor for postoperative complications and increased length of stay. With an increasingly sedentary population, frailty may become more widespread in younger age groups. Despite limited evidence, prehabilitation is promising to be more effective than post-operative rehabilitation. For this reason, we investigated which frailty scoring systems are effective at identifying high risk patients as part of their pre-operative assessment and developed a clinical pathway to better prepare them for surgery.

Methods:
A literature review was carried out to identify the most suitable frailty scoring tools. The Rockwood Clinical Frailty Scale was used, with patients scoring ≥6 then completing an Edmonton Frailty Questionnaire which identifies causes of frailty.

Results:
Over a 3-week period, we scored 169 patients, with an average age of 59.3. 2 of these patients had a Rockwood score of 6 (moderately frail) and 3 patients had a score of 7 (severely frail and completely dependent for personal care). Despite a positive correlation between Rockwood score and age, not all frail patients were elderly.

Conclusion:
We have identified 5 patients over 3 weeks who we feel would be suitable for a potential ‘High Risk Clinic’ to assess areas for improvement pre-operatively. In its first phase, this clinic will involve a face-to-face discussion with an anaesthetist to discuss perioperative risks and to identify any opportunities for optimisation. Utilising the Royal College of Anaesthetist’s ‘Fitter, Better, Sooner’ toolkit, we have produced a patient information board and display optimisation videos in our waiting area. In later phases we would like input from geriatricians and therapies with a view to prehabilitation.

AGE ANAESTHESIA ASSOCIATION

Oral Presentations

Enhancing perioperative care for proximal femoral fractures patients
Dr. A A Gilani and Dr S. Sivasubramaniam

Breaking down barriers: a quality improvement project exploring the potential for early integrated preoperative optimisation of older patients for elective surgery
Dr Tessa O'Halloran

Preoperative physical activity measurement in high risk elderly patients using accelerometers: Objective, feasible and a potential target for intervention
Dr Lisa Grimes, Mrs Joanne Outtrim, Prof Simon J Griffin and Dr Ari Ercole

Hip fracture management in Wales – how are we doing?
Dr D. Hurford, Dr E. Gott, and Dr V. Victor on behalf of the Welsh Frailty Fracture Network

Enhancing perioperative care for proximal femoral fractures patients

Dr A A Gilani and Dr S. Sivasubramaniam

Introduction:
We addressed the need for a comprehensive, interdisciplinary, consultant led perioperative trauma care service for our elderly patients in our district general hospital. Prior to 2015, our Trust demonstrated worse perioperative outcomes compared to national standards in the National Hip Fracture database. Anecdotally, we noticed a variation in practice, lack of coordinated ward care, and the need to address individualised patient care. We feel we can demonstrate how we have improved our practice, increasing our rating nationally, with the culmination of a 'Perioperative Trauma Care Bundle'.

Methods:
In 2014, a team of 'Perioperative Trauma Consultants' demonstrated change was needed in anaesthetic practice, medical care, and communication with patients and relatives. A baseline audit lead to the formation of the 'Perioperative Trauma Care Bundle' commenced in 2015. This went in conjunction with the creation of the 'perioperative anaesthetist' and 'perioperative ward rounds'. Our main objective was standardising practice, creating a consultant led service providing individualised perioperative care for all our elderly proximal femoral fracture patients, with the intention of reducing morbidity and mortality. Ethics approval was sought and approved from our local institutional board.

Results
Using the perioperative pro-forma we can chart our progress and collect data continuously. Contrasting the 374 patients in 2014 with outcome data for 359 patients in 2018, we demonstrated standardisation in anaesthetic practice, improved pain scores, reduced delirium rates, reduced length of stay, and reduced complications such as post-operative hypotension.

Conclusions
Our bundle is now routine practice for all our proximal femoral fracture patients. We believe our simple and continuous clinical governance process has allowed us to identify and further improve patient perioperative needs.

Title Breaking down barriers: a quality improvement project exploring the potential for early integrated preoperative optimisation of older patients for elective surgery

Dr Tessa O'Halloran

Aims
1. To evaluate enablers and barriers to primary care engagement in preoperative optimisation
2. To develop a strategy for primary care-led, integrated preoperative optimisation of older patients.

Methods
1. Evaluation of the current enablers and barriers:
   - Stakeholder interviews
   - National survey of primary care
   - Pathway analysis
2. Coproduction of:
   - An education programme for local primary care practices
   - A referral pathway between primary care and POPS

Results
Pathway analysis revealed unused 'wait' time after referral from primary care, available for time-sensitive optimisation.
Stakeholder interviews and interim survey analysis showed:
Enablers:

- 84% of GPs believe that preoperative optimisation of older patients improves their postoperative outcomes.
- 80% of GPs believe that it is the role of primary care to discuss modifiable risk factors with high risk surgical patients.

Barriers:

- 72% of GPs reported feeling that they did not have adequate training to deliver preoperative optimisation, with the majority of GPs having received no or very little training in perioperative medicine at any stage in their career.
- 50% of GPs reported being aware of no access to perioperative medicine services. Only 22% of GPs were aware of having access to geriatrician-led perioperative medicine.

Conclusion
As increasing numbers of older people are having surgery, with high levels of multimorbidity and frailty, there is an escalating need for whole-system integrated surgical pathways designed to handle patient complexity.

The first phase of this quality improvement initiative identified a need in primary care for education and access pathways to perioperative medicine, in order to address the untapped potential of early preoperative optimisation.

Preoperative physical activity measurement in high risk elderly patients using accelerometers: Objective, feasible and a potential target for intervention.

Dr Lisa Grimes, Mrs Joanne Outtrim, Prof Simon J Griffin and Dr Ari Ercole

Introduction
Reduced physical activity (PA) is a defining feature of frailty; itself a key characteristic of the high-risk surgical population. It is plausible that reduced PA is a risk factor for perioperative complications and may also represent a target for preoperative intervention. Accelerometers can provide an objective measure of PA, but the feasibility, acceptability and normative data have not been established in this setting.

Methods
We conducted a feasibility study of wrist-worn accelerometers in 35 frail patients awaiting various high-risk surgeries. Accelerometery data was acquired for two 7-day periods before and after a routine clinical intervention aimed at improving preoperative activity. PA was measured as mean daily Euclidean norm minus one (ENMO) in milli-gravitational units (m*g*). Participants also self-rated their PA during the same time period using a validated tool, and rated the tolerability of wearing the accelerometers.

Results
We found high acceptability ratings and data-completeness. The median baseline PA was 15.3m*g* (IQR10.1-23.5) for orthopaedic patients and 12.7m*g* (IQR 9.2-16.6) for non-orthopaedic patients (p=0.271). There was no significant correlation between accelerometery measured PA and self-reported PA (ρ=0.162, p=0.4). There was an improvement (p=0.019) in PA following the

intervention in non-orthopaedic patients (21.49m*g* (IQR 18.04-25.82) which was sustained throughout the study period.

Conclusions
Accelerometery measured PA is feasible and acceptable in this patient population. Self-report tools are a poor surrogate for objective assessment. The increased PA following the intervention suggests that the preoperative period may represent a teachable moment where health behaviour change interventions may be successful. Accelerometers may therefore be a useful tool in the design and validation of prehabilitation interventions.

Hip fracture management in Wales – how are we doing?

Dr D. Hurford, Dr E. Gott, and Dr V. Victor on behalf of the Welsh Frailty Fracture Network

Introduction
Our aim was to identify the key areas of variability in the peri-operative care of hip fractures across Wales and to profile individual hospitals' compliance with standards with the view to improve and standardise care across Wales.

Methods
Data was collected across all hospital in Wales over a 5 week period using an online data collection form produced by the Welsh Digital Data Collection Platform. Anaesthetists were encouraged to provide details of the type of anaesthetic, spinal doses and use of opiates, seniority of anaesthetists and surgeon, duration of delay, incidence of hypotension, the use of regional block, sedation, Tranexamic Acid and BIS monitoring, plus location of post-operative care

Results
We collected data for 163 patients across 8 hospitals in Wales. General anaesthesia was the anaesthetic of choice in 64% of cases however there was considerable variation between hospitals in which they were performed. 93% cases were anaesthetised by consultants. 77% of patients received a Fascia Iliac block prior to surgery. Intrathecal morphine or diamorphine was used in quarter of cases remainder with fentanyl or no opiate. There was a considerable variation in the choice of sedation used. 16% patients had a delay of >48 hours for their surgery. There was limited use of Tranexamic acid, BIS monitoring and HDU/ICU post operatively across all the hospitals in Wales.

Conclusions
Despite the introduction of an All Wales hip fracture management guideline, there remains variation in perioperative care across departments. There was improved use of nerve blockade and senior anaesthetist compared with the ASAP study 2013 and adoption of the Guideline was well received. A proportion of patients are still waiting >48 hours for their surgery.