

PLAN Annual Scientific Meeting 2019

How to Plan a Project

Programme



27th June 2019

Chancellor's Hall

Senate House

London

**Pan-London Perioperative
Audit & Research Network**

Session 1

0845—0900: Registration

0900—0915: Welcome and Introduction to PLAN

Dr Kate Grailey, Chair of PLAN

0915—0925: Trainee Presentation 1: Implementation of routine screening for cognitive impairment in patients undergoing pre-operative assessment for major surgery in two tertiary centres

Dr Ching Ling Pang, Royal London Hospital

0925—1005: Keynote 1: Doing improvement but avoiding QIPS [1105]

Dr Carolyn Johnston, St. George's University Hospital

1005—1025: PLAN Project Proposal 1: LOndon Audit of Day Surgery (LOADS)

Session 2

1100—1110: Trainee Presentation 2: Craniotomies: high pressure or not?

Dr Cherry Wang, Moorfields Eye Hospital NHS Trust

1110—1120: Trainee Presentation 3: Prevention of Inadvertent Perioperative Hypothermia

Dr Nicholas Coombes, Queen Elizabeth Hospital, Woolwich

1120—1200: Keynote 2: How to understand operating theatre management: How simple questions lead to big projects [1102,1105]

Prof. Jaideep Pandit, Oxford University Hospitals

1200—1220: PLAN Project Proposal 2: Screening for Undiagnosed Cognitive Impairment in Patients presenting for Major Surgery

1220—1240: PLAN Project Proposal 3: Frailty Risk Assessment and management provision In London Hospitals. ('FRAIL')

1240—1320: Keynote 3: Money for nothing? Creating time for research [3J03]

Prof. Ramani Moonesinghe, UCL Hospitals

Session 3

1410—1420: Trainee Presentation 4: Post-operative Analgesia for Emergency Laparotomy at University Hospital Lewisham: A Quality Improvement Project
Dr Fay Riley, University Hospital Lewisham

1420—1430: Trainee Presentation 5: Pregnant women with a high booking body mass index (BMI) being seen in a high-risk clinic by an Anaesthetist
Dr Nnaemeka Egbunu, Queen's Hospital, Romford

1430—1510: Keynote 4: Do I need permission from someone to do my study?
[3J03]
Prof. Andrew Klein, Royal Papworth Hospital

1510—1550: Workshops

- *How to develop a Trial?*
- *How to conduct Systematic Reviews and Meta-analyses?*
- *Quality Improvement (QI) Methodology*

Session 4

1615—1625: Trainee Presentation 6: An audit of current practice of consenting for and managing post-surgical peripheral nerve injury

Dr Chantal Heppolette, UCL Hospitals

1625—1640: PLAN Project Update: DREAMY

Dr Peter Odor, Lead for DREAMY

1640—1655: PLAN Project Launch: SCOPE

Dr Andrew Gardner, SCOPE Team

1655—1715: Results of PLAN Project Selection and Awarding of Trainee Presentation Prizes

Dr Kate Grailey, Chair of PLAN

Keynote Speakers

Dr Carolyn Johnston



Carolyn is a consultant anaesthetist at St. Georges Hospital, working in obstetrics, high risk clinic and prehabilitation amongst other things. She has been involved with PLAN since it started. She is the Associate Director of St Georges QI Academy- providing QI training and project coaching as well as QI training for Foundation Doctors in St George's Foundation School. She is the Chair of the RCoA Quality Improvement working group, establishing a 'quality network' within College, and revising the QI/audit recipe book with HSRC fellow Maria Cheresheva.

Carolyn is the Improvement lead for the National Emergency Laparotomy Network and a trustee of Birthrights- a charity protecting human rights in childbirth.

She is the owner of 2 small boys, and so spends much of her free time transporting people to and from sports pitches.



Prof. Andrew Klein

Andrew Klein is a Cardiothoracic Anaesthetist at Royal Papworth Hospital in Cambridge. He is the Editor-in-Chief of Anaesthesia, which has an Impact Factor of 5.4 and is very active on social media. He is on the Board and Council of the Association of Anaesthetists, the membership organisation for > 11,000 anaesthetists in Great Britain

and Ireland. He also sits on the Board and Council of the National Institute of Academic Anaesthesia (NIAA), which manages research grant funding in the UK.

Andrew's main research area is pre-operative anaemia and the effects of iron replacement therapy. He is one of the Principal Investigators of the ITACS trial (Intravenous Iron for the Treatment of Anaemia before Cardiac Surgery). He has recently chaired two Working Parties updating the national Guidelines for Cell Salvage and for the Management of Jehovah's Witnesses patients undergoing surgery. He is also currently researching new point-of-care testing technology for managing haemorrhage during surgery and high-flow nasal oxygen to improve recovery after major surgery, including thoracotomy, emergency laparotomy and sternotomy.

Andrew is a keen cricket supporter and member of the Marylebone Cricket Club (MCC) at Lord's in London, and a lifelong and long-suffering West Ham United season ticket holder.

Prof. Ramani Moonesinghe



Professor Moonesinghe is a Consultant and Honorary Senior Lecturer in Anaesthesia and Intensive Care Medicine at University College London Hospitals (UCLH). She is Director of the NIAA's Health Services Research Centre based at the Royal College of Anaesthetists, and the NIHR funded UCLH Surgical Outcomes Research Centre. She is a Health Foundation Improvement Science fellow and leads the Perioperative Quality Improvement Programme

and the Sprint National Anaesthesia Projects. She was Academic training advisor to the National Institute for Academic Anaesthesia for 4 years, and was the first academic Training Programme Director for the London Academy of Anaesthesia. She was a Council Member of the Royal College of Anaesthetists between 2008 and 2012, and since 2016 has been the Associate National Clinical Director for elective care at NHS England. In 2018, she was awarded the Macintosh Professorship of the Royal College of Anaesthetists and has been appointed Professor of Perioperative Medicine and Anaesthesia at UCL (starting August 2018).

Her academic interest is Health Services and Improvement Research in perioperative medicine: in particular, the use of data, risk stratification and outcome measurement with a view to improving the quality of care for patients undergoing major surgery.



Prof. Jaideep Pandit

Consultant anaesthetist at the Oxford University Hospitals and Fellow of St. John's College, Oxford. Prof. Pandit is a member of the Research Council of the NIAA, Scientific Officer of the Difficult Airway Society and was the Clinical Lead of NAP5 investigating awareness under general anaesthesia.

He trained in Medicine at Oxford (Corpus Christi College) and obtained a First in Physiology along with University prizes in Medicine, Cardiology and Clinical Pharmacology. After a Wellcome Trust Research Fellowship to support a DPhil in Respiratory Physiology, he undertook anaesthetic training in the Oxford region. He was Assistant Professor of Anesthesiology at the University of Michigan, Ann Arbor, USA (1998-9), appointed to his NHS Consultant post at the John Radcliffe in 1999 and elected to St John's 2000. He served as the Jobson Visiting Professor to the University of Sydney in early 2017, and in late 2017 will serve as USP Visiting Professor at the University of Michigan in Ann Arbor.

His talk will be based upon his recently released book *"Practical Operating Theatre Management"*.

Workshops (1510—1550)

Several highly interactive workshop sessions will also be run. They will be broadly structured around the following themes but these are highly flexible, so if a topic you are interested in is not covered, please ask!

How to develop a Trial? [3J03]

Dr Peter Odor, Dr Helen Laycock, Prof. Andrew Klein

Court Room

A broad overview of the things to consider when setting up a trial, including who to contact, how to set up a steering group, overview of R&D/IRAS/HRA/REC, external agencies that can help (CRNs, R&D design service, PCPIE), principles of trial design, practical tips on getting funding, engaging investigators and heading off common problems.

How to conduct Systematic Reviews and Meta-analyses? [3J03]

Dr Oliver Boney

Chancellor's Hall

The appeal of these projects is that they can often be run without external funding or ethics/R&D approval, however their methodology is often complex and daunting. Join us to unravel the mysteries of these projects that are considered to be the highest form of evidence available for a particular intervention.

Quality Improvement (QI) Methodology [1J05]

Dr Liana Zucco

Chancellor's Hall

The overall aim of all research in the health services is to improve the care delivered to patients. In this workshop, we will discuss exactly how this improvement is performed, including how to get 'buy-in' from your department and how to measure whether your intervention has had an effect.

Abstracts

Six trainee abstracts have been selected for oral presentation at the meeting and they are provided on the following pages.

1. Implementation of routine screening for cognitive impairment in patients undergoing pre-operative assessment for major surgery in two tertiary centres.

CL Pang¹, N Hester¹, M Gooneratne², N MacDonald², S Jhanji³, R Kasivisvanathan³

1: ST6 Anaesthesia, Royal London Hospital

2: Consultant Anaesthetist, Royal London Hospital

3: Consultant Anaesthetist, Royal Marsden Hospital

Background

Cognitive impairment is an important but poorly recognised predictor of perioperative delirium. Recent national and international guidelines recommend routine screening for cognitive impairment for all patients age 65 and over who present for anaesthetic assessment prior to major surgery. We describe the introduction of routine screening using the Mini-Cog across two tertiary centres.

Methods

Traditional quality improvement methodology (Plan-Do-Study-Act) cycles were used in conjunction with discussions with key stakeholders at each site to determine the best way of introducing screening. Compliance was assessed regularly and repeat PDSA cycles instituted based on the data collected.

Results

23.6% of patients who presented to pre-assessment clinic met screening criteria. In the first week, just 35-50% of patients received screening. Compliance improved significantly after the implementation of teaching as well as email and verbal reminders. By the end of the project, a total of 85.7% of patients had received screening. We demonstrated a sustained and significant improvement in screening whilst not increasing the perceived workload of the staff involved.

Conclusion

Our outcomes demonstrate the successful introduction of a screening program for cognitive impairment in preassessment clinic.

2. Craniotomies: high pressure or not?

Pramitha Chinduluri¹, Cherry Wang², Kanthi Raveendran³

1: ST4 Anaesthetics, Barts Health NHS Trust

2: ST5 Anaesthetics, Moorfields Eye Hospital NHS Trust

3: Consultant Anaesthetist, Barking, Havering & Redbridge NHS Trust

Background and Objective

There are no clear blood pressure guidelines for patients undergoing elective craniotomies. Severe traumatic brain injury (TBI) have recommendations from the Brain Trauma Foundation of maintaining a systolic blood pressure (SBP) greater than 90mmHg (1). A balanced anaesthetic provides good cerebral perfusion pressure with optimal operating conditions. Perioperative hypertension may contribute to cerebral oedema, raised intracranial pressure and postoperative haematomas (2). Our objective is to assess current practice of perioperative management of blood pressure in a tertiary neurosurgical centre.

Methods

All patients undergoing elective or emergency craniotomies in June-August 2018 were retrospectively identified from theatre logbooks. Data collected included patient demographics, antihypertensive treatment, any set blood pressure targets and perioperative hypertensive episodes (defined as a SBP > 160mmHg). We also identified their post-operative destination and any arising complications.

Results

37 patients, the majority of whom were > 40 years old, underwent craniotomies. 24% had existing hypertension. All neuroanaesthetists used remifentanyl intraoperative & one patient required hydralazine. 54% of patients had target SBP aims, however there were conflicting instructions set by the anaesthetic, surgical or ITU team. Acute antihypertensives had to be given to 19% of patients in the first 24 hours post-op. There were three poor outcomes, one caused by rebleeding.

Conclusions

Perioperative blood pressure requires careful management and a good handover to minimise poor outcomes. A multidisciplinary discussion at the end of surgery, during the WHO Sign Out, would ensure target SBP parameters are set. Rescue medication was not routinely prescribed in Recovery, which could delay treatment for haemodynamic instability.

References

1. Krishnamoorthy V, Chaikittisilpa N, Kiatchai T, Vavilala M. Hypertension After Severe Traumatic Brain Injury: Friend or Foe?. *J Neurosurg Anesthesiol.* 2017;29(4):382–387. doi:10.1097/

3. Audit: Prevention of Inadvertent Perioperative Hypothermia.

Nicholas Coombes¹, Sanjay Gupta¹

1: Queen Elizabeth Hospital, Woolwich

Background

Perioperative hypothermia is associated with an increased risk of coagulopathy, surgical site infection, perioperative MI and delayed recovery.

Aim

To determine whether our department is compliant with NICE CG65 best practice guidelines for the prevention of inadvertent perioperative hypothermia.

Methods

50 patients' notes were reviewed in recovery on a randomised selection of days over a 4-month period. Details of the patient demographics, surgery, and anaesthetic were collected, alongside indicators of compliance with guidelines. Specifically, this included: (1) Preoperative temperature measurement (ensuring >36), (2) Intraoperative temperature measurement every 30mins, (3) Intraoperative fluid warming (if >500mL), (4) Intraoperative body warming (if high risk or procedure lasting >30mins), (5) Post operative temperature measurement. Incidences of postoperative hypothermia were also reported.

Results

Our department was fully compliant with NICE CG65 on only one indicator: post operative temperature measurement (50/50, 100%). Moderate compliance was seen with preoperative temperature measurement (41/50, 82%), and intraoperative warming (39/48, 81%). Poor compliance was seen with regular temperature monitoring (6/50, 12%) and use of fluid warmers (10/44, 23%). In addition, there were a total of 17 cases (34%) of postoperative hypothermia. Of these, 3 experienced significant complications.

Conclusions

There is an urgent need for improvement in temperature monitoring and warming practices in our department. This may be the result of inadequate awareness, misconceptions, or deficiencies in temperature monitoring equipment. Interventions have included educational sessions, governance meeting discussion, posters, and discussions with procurement.

4. Post-operative Analgesia for Emergency Laparotomy at University Hospital Lewisham: A Quality Improvement Project.

Fay Riley¹, James Saffin¹, Gnananandan Janakan¹, Ben Eden-Green¹

1: University Hospital Lewisham

Background

Complications from inadequate analgesia post-laparotomy and side effects from opioids can lead to significant patient morbidity.

Aim

To review pain management strategies following emergency laparotomy surgery with a view to implementing a safe and effective intervention to improve pain scores and reduce opioid use.

Methods

A retrospective case notes audit was carried out for patients undergoing emergency laparotomy June- December 2018, identified from the National Emergency Laparotomy Audit database. Data collected included regional analgesia, post-operative pain scores and post-operative opioid requirements.

Results

25 patients were identified, and data was available for 19. Epidural analgesia was used in two patients and abdominal wall blocks in eight patients. Contraindications to epidural were recorded in eight patients. Mean pain scores post-extubation were 2.9/10, 2.4/10 and 1.6/10, on days 0, 1, and 2 respectively. Post-extubation opioid requirements in oral morphine equivalents were 89.6mg, 64.7mg and 54.9mg on days 0, 1, and 2. Pain scores and opioid use were lower on day 0 in patients with epidurals but similar on days 1 and 2.

Discussion

Although post-laparotomy pain scores were relatively low, there was a high opioid requirement and few patients received epidural analgesia. No patients received rectus sheath catheters (RSCs), which have been shown to provide a safe alternative to epidural analgesia and a reduction in post-operative opioid requirements^{1, 2}. In response to our findings, we have developed local guidelines and surgical teaching on RSCs to increase their utilisation. A re-assessment is in progress to review their efficacy and safety.

References

1. Rucklidge M, Beattie E. Rectus sheath catheter analgesia for patients undergoing laparotomy. BJA

5. Pregnant women with a high booking body mass index (BMI) being seen in a high-risk clinic by an Anaesthetist.

S Choudhury¹, N Egbuonu¹, V Duzel¹, M Doraiswami¹

1: Queen's Hospital, Romford

Introduction

High BMI poses many patho-physiological risks to the mother and has serious practical implications for theatre staff and resources.

Aim/Objective

We reviewed our Trust's compliance against the Obstetric Anaesthetists' Association (OAA) and Royal College of Anaesthetists (RCOA) standard of seeing high BMI pregnant women in high-risk clinic.

Method

Retrospective electronic data collection (using E3 and Medway software) of all women that delivered at Queens Hospital between October 2019 and March 2019 with BMI >35.

Result

Out of 113 pregnant women that had a booking BMI>40, 85 (75%) were appropriately seen, falling short of 90% set by the RCoA. Out of 229 women with 35< BMI < 40, 92 had one or more co-morbidities, but only 34 were seen in the high risk clinic. Furthermore, we did not provide adequate anaesthetic information to these women antenatally and our software does not allow midwives to tick that anaesthetic information leaflets have been given.

Conclusion

We will be teaching midwives on the importance of providing anaesthetic information leaflets antenatally to pregnant women, as this is currently not the practice. We will also be implementing changes to our electronic system to make it easy to highlight and refer high BMI pregnant women. As a result of our audit, we will be updating our paper-based database to an electronic one.

6. An audit of current practice of consenting for and managing post-surgical peripheral nerve injury.

CAA Heppollette¹, M Thompson¹

1: University College London Hospital.

The risk for permanent or severe peripheral nerve injury (PNI) following surgery is very low, recently described as 3 in 10,000. It is however increased by certain surgical, patient and anaesthetic factors. PNI is higher in orthopaedics and in patients with hypertension and those who smoke tobacco. PNI is also associated with general anaesthesia (GA), but not with peripheral nerve block (PNB).

We conducted a questionnaire in the anaesthetic department at University College London Hospital, a centre with a dedicated nerve block room, in order to establish the current knowledge surrounding PNI. There were 41 responses, including 22 consultants, 13 registrars and 6 core trainees.

We found that 58% of clinicians across all levels of experience, thought that PNI was more associated with PNB than with GA. 51% of clinicians did not identify HTN or smoking to have the highest association with PNI. When consenting patients for surgery, 95% discussed the risk of PNI with patients undergoing PNB, but only 17% of clinicians discussed this risk with patients undergoing GA. This result was maintained across all clinician grades. When asked about confidence in managing acute nerve injury, 12% of clinicians described themselves as very confident, all of whom were consultants, and the more junior clinicians described themselves as less confident.

Given these results we will be conducting an educational session on PNI and will re-audit these findings in order to establish whether we can improve knowledge of the aetiology and management of PNI and the quality of the consenting process.



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