

Welcome to the sixth edition of the Perioperative Medicine Reviews Newsletter, containing a selection of the best perioperative medicine articles news and reviews published in the past month.

Several of the articles listed are pay per view. If you want access to a pdf then email me at [johnwhittle@doctors.org.uk](mailto:johnwhittle@doctors.org.uk) and where possible I will send you a copy.

The Periop team will be at various conferences this year with information about our constantly evolving MSc and other projects.

Keep an eye on our Twitter feed: @PeriopMedUCL, look out for our new website and get involved in the conversation.

Please keep the contributions coming!

### Perioperative News

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This month saw the publication of new collaborative AAGBI guidelines for the management of hypertension before surgery. These guidelines are the result of a fruitful collaboration between anaesthetists and primary care and surely pave the way for more successful cross specialty programmes. This month's infographic focuses on this publication.

<http://onlinelibrary.wiley.com/doi/10.1111/anae.13348/full>

Our home team have been busy again; this (<http://bj.oxfordjournals.org/content/116/2/241.abstract>) paper focusing on the measurement of quality of recovery 15 days after day surgery using the QoR-15 questionnaire is of great interest.

The perioperative sympatholysis debate continues, this paper (<http://openheart.bmj.com/content/2/1/e000268.abstract>) aims to delineate a cohort of patients who preoperatively show evidence of sympathetic autonomic hyperactivity in the hope that this might help direct active perioperative beta-blocker therapy towards those who may benefit the most and be harmed the least.

Dr Ramani Moonesinghe's fascinating editorial ([bit.ly/1Sj0e2C](http://bit.ly/1Sj0e2C)) in the February edition of the BJA focuses on the necessity of a quality mixed methods approach in evaluation of new models of care to ensure that new ways of working are actually better. This clearly applies to the plethora of new approaches to perioperative care that are being rolled out worldwide and at our own institution. To this end, this useful article ([bit.ly/1Vy5c94](http://bit.ly/1Vy5c94)) sets the scene for a nuanced, collaborative and standardised approach to research endpoints, allowing appropriate comparisons between studies to be made. A short review is included below.

# The management of Hypertension Before Elective surgery

## AAGBI 2016 Guidelines

\* Different blood pressure thresholds are set for primary care and secondary care

\*There is no evidence that perioperative blood pressure reduction reduces the risk of cardiovascular events beyond that expected in a month in primary care

\* Hypertension remains a major risk factor for perioperative cardiovascular morbidity

**AIM: BLOOD PRESSURE < 160/100 MMHG IN PRIMARY CARE BEFORE REFERRAL FOR ELECTIVE SURGERY**

...recorded in past 12 months and in referral letter

... continue with referral if optimal therapy or patient refuses antihypertensive treatment

Don't try to diagnose hypertension in secondary care... proceed with surgery if clinic BP <180/110 mmHg

full guidelines at [bit.ly/1RSUx10](http://bit.ly/1RSUx10)

**Original Research:**

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Preoperative

**The incidence of un-indicated preoperative testing in a tertiary academic ambulatory center: a retrospective cohort study**

Reference: DOI: 10.1186/s13741-015-0023-y

The incidence of ordering “at least one un-indicated preoperative test” in low-risk patients undergoing low-risk surgery remains high even in academic tertiary institution

Link to article:

<http://perioperativemedicinejournal.biomedcentral.com/articles/10.1186/s13741-015-0023-y>

Theme: Preoperative assessment

Key words: Preoperative testing/Ambulatory/laboratory test

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**The effect of an anaesthetic patient information video on perioperative anxiety: A randomised study**

Reference: Lin SY, Huang HA, Lin SC, Huang YT, Wang KY, Shi HY. The effect of an anaesthetic patient information video on perioperative anxiety: A randomised study. Eur J Anaesthesiol. 2016 Feb;33(2):134-9.

Information videos, given to pre-operative patients, can be more effective at allaying anxiety than verbal briefing.

[http://journals.lww.com/ejanaesthesiology/Abstract/2016/02000/The\\_effect\\_of\\_an\\_anaesthetic\\_patient\\_information.11.aspx](http://journals.lww.com/ejanaesthesiology/Abstract/2016/02000/The_effect_of_an_anaesthetic_patient_information.11.aspx)

Theme:

Perioperative anxiety

Key words:

Anxiety, patient information video

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Intraoperative

**Long-term Survival for Patients Undergoing Volatile versus IV Anesthesia for Cancer Surgery: A Retrospective Analysis.**

Reference: Anesthesiology. 2016 Jan;124(1):69-79 Wigmore TJ, Mohammed K, Jhanji S.

This retrospective analysis demonstrates an association between type of anesthetic delivered and survival. Volatile inhalational anesthesia was associated with a hazard ratio of 1.59 (1.30 to 1.95) for death on univariate analysis and 1.46 (1.29 to 1.66) after multivariable analysis of known confounders in the matched group.

Link to article: <http://www.ncbi.nlm.nih.gov/pubmed/?term=Long-term+Survival+for+Patients+Undergoing+Volatile+versus+IV+Anesthesia+for+Cancer+Surgery>

Theme: Perioperative Medicine, Oncology

Key words: survival, general anaesthesia, cancer, volatile, TIVA

This article featured in last month's infographic. An interesting editorial in this month's anaesthesia complements this theme nicely :

Anaesthesia for oncological surgery – can it really influence cancer recurrence?

<http://onlinelibrary.wiley.com/doi/10.1111/anae.13342/abstract>

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**Association between Intraoperative Hypotension and Myocardial Injury after Vascular Surgery**

Anesthesiology. 2016 Jan;124(1):35-44

van Waes JA, van Klei WA, Wijeyesundera DN, van Wolfswinkel L, Lindsay TF, Beattie WS.

Headline Summary:

In elderly vascular surgery patients, IOH defined as a 40% decrease from the preinduction mean arterial blood pressure with a cumulative duration of more than 30min was associated with postoperative myocardial injury.

Link to article:

<http://www.ncbi.nlm.nih.gov/pubmed/?term=Association+between+Intraoperative+Hypotension+and+Myocardial+Injury+after+Vascular+Surgery>

Theme: Cardiology, MINS, Vascular

Key words: hypotension, intraoperative, myocardial injury, troponin, vascular, MINS

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Patient safety:

**Evaluation of Perioperative Medication Errors and Adverse Drug Events**

Anesthesiology. 2016 Jan;124(1):25-34

Nanji KC, Patel A, Shaikh S, Seger DL, Bates DW.

Headline Summary:

This prospective observational study found that approximately 1 in 20 perioperative medication administrations, and every second operation, resulted in a medication error (ME) and/or an adverse drug event (ADE). More than one third of the MEs led to observed ADEs, and the remaining two thirds had the potential for harm

Link to article: <http://www.ncbi.nlm.nih.gov/pubmed/26501385>

Theme: Patient Safety

Key Words: Medication Error, Patient Safety, Adverse Drug Event

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**Patient safety incident reporting: a qualitative study of thoughts and perceptions of experts 15 years after 'To Err is Human'**

Reference:

Mitchell I, Schuster A, Smith K, et al. Patient safety incident reporting: a qualitative study of thoughts and perceptions of experts 15 years after 'To Err is Human' BMJ Qual Saf 2016;25:92– 99.

Headline Summary:

11 international experts were asked to give their opinion on why incident reporting hasn't reached its full potential in the last 15 years since inception.

Link to article: (Full text/abstract)

<http://qualitysafety.bmj.com.libproxy.ucl.ac.uk/content/25/2/92.full>

Theme:

Patient safety

Key words:

Risk management, hospital incident reporting, patient safety, expert opinion

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Quality Improvement

**Innovation good ... evaluation essential. A plea for formal evaluation of new pathways of care and ways of working**

S. R. Moonesinghe. BJA 2016;116:151-153.

Headline Summary:

A summary of the challenges of traditional methods of evaluating innovations and a call for novel but robust approaches for evaluating new care pathways.

Link to article:

<http://bj.oxfordjournals.org/content/116/2/151.full>

Theme:

Evaluating services

Key words:

Service evaluation, quality improvement

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**Improved Surgical Outcomes for ACS NSQIP Hospitals Over Time: Evaluation of Hospital Cohorts With up to 8 Years of Participation**

Cohen, Mark E et. Al

Annals of Surgery: February 2016 - Volume 263 - Issue 2 - p 267–273 (click on ref to link)

Headline Summary:

The American College of Surgeons National Surgical Quality Improvement program data (2006-2013) is used in this article to create mortality and morbidity predictions. These were then used to benchmark performance over time, showing a reduction in adverse events with engagement with the program .

Theme: Patient Safety, Quality Improvement

Key Words: NSQIP, Quality Improvement

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### Shared Decision Making – Finding the Sweet Spot

Reference:

N Engl J Med 2016; 374:104-106

Headline Summary:

The importance of shared decision making is increasingly recognised, but the patient's role is frequently not matched to clinical circumstances.

Link to article: (Full text/abstract)

<http://www.nejm.org/doi/full/10.1056/NEJMp1510020?query=TOC>

Theme:

Quality Improvement, Shared Decision Making

Key words:

Shared decision making

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### Review Articles

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This review of perioperative fluid therapy provides an overview of the components of an effective perioperative fluid administration and plan and addresses both the physiologic principles and outcomes of fluid administration.

<http://perioperativemedicinejournal.biomedcentral.com/articles/10.1186/s13741-015-0014-z>

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**Basic Science**

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**Intermittent Hypoxia Causes Inflammation and Injury to Human Adult Cardiac Myocytes**

Reference:

Wu J, Stefaniak J, Hafner C, Schramel JP, Kaun C Wojta. Intermittent Hypoxia Causes Inflammation and Injury to Human Adult Cardiac Myocytes. *Anesth analg.* 2016;122(2):373–380

Headline Summary: (no more than two lines of 12pt text)

Human adult cardiac myocytes were exposed to various hypoxia states. Intermittent severe hypoxia induced inflammation & cell injury where constant, mild hypoxia did not.

Link to article: (Full text/abstract)

[http://ovidsp.tx.ovid.com.libproxy.ucl.ac.uk/sp-3.18.0b/ovidweb.cgi?&S=LAAJFPDHNJDDAFPONCJEDGCKDHCAA00&Link+Set=S.sh.22.23.26|13|sl\\_10](http://ovidsp.tx.ovid.com.libproxy.ucl.ac.uk/sp-3.18.0b/ovidweb.cgi?&S=LAAJFPDHNJDDAFPONCJEDGCKDHCAA00&Link+Set=S.sh.22.23.26|13|sl_10)

Theme:

Critical Care

Key words:

Cell hypoxia, Cardiac myocytes, inflammation

## Important Particles

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### Guidelines & Position Statements

The measurement of adult blood pressure and management of hypertension before elective surgery.

Joint Guidelines from the Association of Anaesthetists of Great Britain and Ireland and the British Hypertension Society.

<http://onlinelibrary.wiley.com/doi/10.1111/anae.13348/full=>

### Courses/Meetings

9–10 March 2016 ANNIVERSARY MEETING –INNOVATING AND IMPROVING WITHIN PERIOPERATIVE MEDICINE The Mermaid Conference Centre, London. See the RCOA website. [www.rcoa.ac.uk](http://www.rcoa.ac.uk)

## Perioperative Medicine Journal

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*Perioperative Medicine* is an open access peer-reviewed journal that publishes highly topical clinical research relating to the perioperative care of surgical patients.

<http://www.perioperativemedicinejournal.com/>

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I hope these links and commentaries are useful. Please feel free to contact me with suggestions or contributions for the improvement of this newsletter. John