

Welcome to the latest 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 and where possible I will connect you.

Perioperative News

The big news of the month is Sepsis-3, the new sepsis definition and diagnostic tool, published in February's issue of JAMA and referenced below in both info graphic and review form. New definitions are always tricky, especially of such a heterogeneous syndrome as sepsis, provoking much debate in various forums. The essence of the new definition is a move away sepsis equalling suspected infection + SIRS and moving towards suspected infection + dysregulated host response to that infection. The JAMA February edition is well worth a read, and the additional online content (including videos) worth perusing.

The February edition of anaesthesia contains an elegant study and linked editorial continuing the ongoing discussion about whether anaesthetic technique can truly influence the likelihood of postoperative metastases after cancer surgery. While the final page has not yet been written on this debate, all perioperative medicine practitioners should pay close attention to the developing story.

<http://onlinelibrary.wiley.com/doi/10.1111/anae.13342/abstract> &
<http://onlinelibrary.wiley.com/doi/10.1111/anae.13331/abstract>

Finally, in the latest Annals of Surgery, an interesting article and linked editorial (http://journals.lww.com/annalsofsurgery/Citation/2016/03000/Calling_Is_Not_a_Sign_of_Weakness.2.aspx) look at training methods for junior surgeons to encourage safe, timely and structured escalation of care for critically ill surgical patients. These methods could surely be employed throughout the perioperative MDT, promoting timely care and intervention for the deteriorating patient.

SEPSIS-3

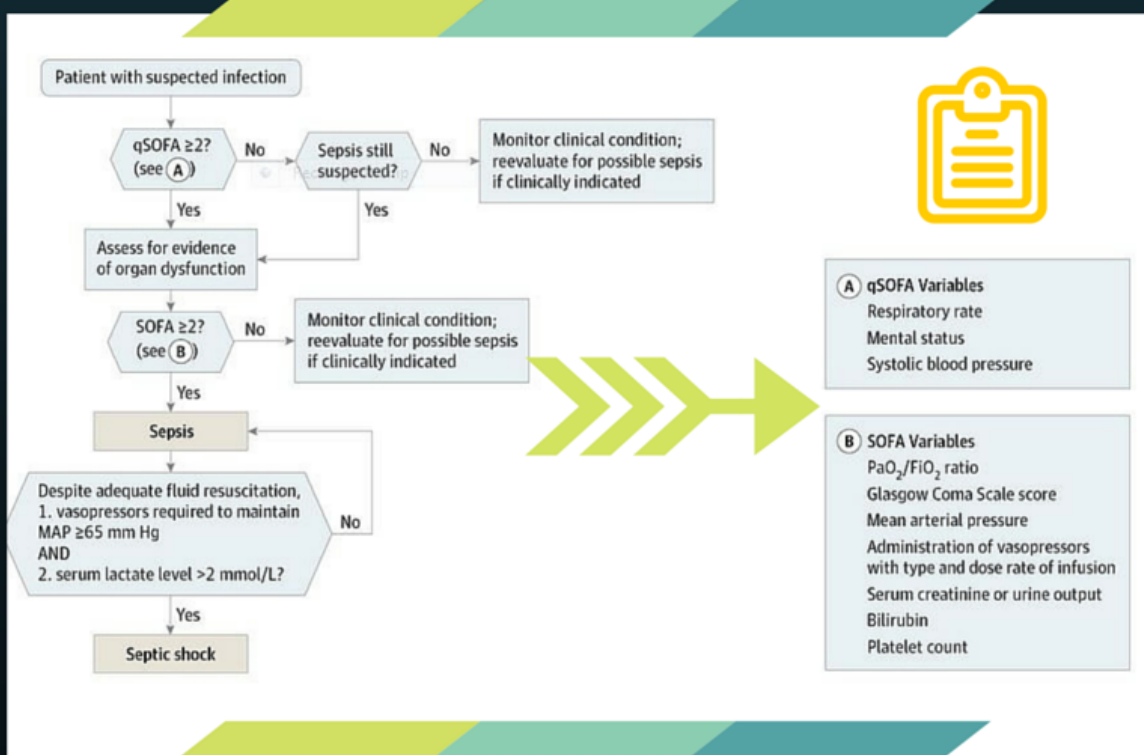
2016

International Consensus Definitions for Sepsis

Sepsis is defined as life-threatening organ dysfunction caused by a dysregulated host response to infection.

Organ dysfunction can be identified as an acute change in total SOFA score ≥ 2 points consequent to the infection.

This reflects an overall mortality risk of approximately 10% in a general hospital population with suspected infection.



Original Research/Opinion:

Preoperative:

Editorial: Limitations of body mass index as an obesity measure of perioperative risk

Reference:

U. Gurunathan and P. S. Myles BJA 2016; 116: 319-321.

Headline Summary:

Measurement of BMI as a marker of obesity and perioperative risk has limitations, use of waist circumference and waist hip ratio may be more useful to identify obesity associated perioperative risk.

Link to article:

<http://bj.oxfordjournals.org/content/116/3/319.full>

Theme:

Perioperative risk & obesity

Key words:

Obesity, perioperative risk, BMI, waist circumference

a A perioperative consult service results in reduction in cost and length of stay for colorectal surgical patients: evidence from a healthcare redesign project

Reference:

Matthew D. McEvoy, Jonathan P. Wanderer, Adam B. King, Timothy M. Geiger, Vikram Tiwari, Maxim Terekhov, Jesse M. Ehrenfeld, William R. Furman, Lorri A. Lee and Warren S. Sandberg

Perioperative Medicine 2016 5:3 DOI: 10.1186/s13741-016-0028-1

Restructuring of perioperative care delivery through the launch of a perioperative consult service reduced LOS and total cost in a significant and sustainable fashion for colorectal surgery patients.

Link to article:

<http://perioperativemedicinejournal.biomedcentral.com/articles/10.1186/s13741-016-0028-1>

Theme: Preoperative assessment

Key words: Care redesign; Outcomes; Length of stay; Cost; Colorectal surgery; Consult service; Multimodal

Process & Quality Improvement:

Value of small sample sizes in rapid-cycle quality improvement projects

Reference:

Etchells E, Ho M, Shojania KG. Value of small sample sizes in rapid-cycle quality improvement projects. *BMJ Qual Saf* 2016;25:202-206

Headline Summary:

Demonstrating worth in using small sample sizes for quality improvement projects, audits and broader service evaluations

Link to article:

<http://qualitysafety.bmj.com.libproxy.ucl.ac.uk/content/25/3/202.full.pdf+html>

Theme:

Quality Improvement

Key words:

Quality improvement, Health services research

Standardizing Patient Outcomes Measurement

N Engl J Med 2016; 374: 504-506

Headline Summary:

Systematic outcomes measurement is essential to quality improvement, but remains limited. We must commit to measuring a minimum standardised set of outcomes for every condition.

Link to article:

<http://www.nejm.org/doi/full/10.1056/NEJMp1511701?query=TOC>

Theme:

Surgical Outcomes, Quality Improvement

Key words:

Outcomes, quality improvement

Editorial: The high-risk surgical patient: a role for a multi-disciplinary team approach?

Reference:

A. R. Whiteman, J. K. Dhesi and D. Walker.

BJA 2016; 116: 311-314.

Headline Summary:

A summary of the benefits and weaknesses of multidisciplinary working and how the model can be adopted to provide better perioperative care for the most complex surgical patients.

<http://bj.oxfordjournals.org/content/116/3/311.full>

Theme:

Perioperative care models

Key words:

Multidisciplinary team, perioperative care

General:

The Physiology of Cardiopulmonary Resuscitation

Lurie KG, Nemergut EC, Yannopoulos D, Sweeney M. The Physiology of Cardiopulmonary Resuscitation (Review) *Anesth Analg.* 2016; 122(3):767-783.

Headline Summary: A summary of latest evidence regarding prevention of reperfusion injury after cardiac arrest.

Link to article: (Full text/abstract)

<http://ovidsp.ovid.com/ovidweb.cgi?T=JS&CSC=Y&NEWS=N&PAGE=fulltext&D=ovft&AN=0000539-201603000-00025&PDF=y>

Theme:

Resuscitation, critical care

Key words:

Cardiopulmonary resuscitation, heart arrest

Assessment of Clinical Criteria for Sepsis For the Third International Consensus Definitions for Sepsis and Septic Shock (Sepsis-3)

Reference:

JAMA. 2016;315(8):762-774. doi:10.1001/jama.2016.0288

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

Among ICU encounters with suspected infection, the predictive validity for in-hospital mortality of SOFA was not significantly different than the more complex LODS but was statistically greater than SIRS and qSOFA, supporting its use in clinical criteria for sepsis.

Among encounters with suspected infection outside of the ICU, the predictive validity for in-hospital mortality of qSOFA was statistically greater than SOFA and SIRS, supporting its use as a prompt to consider possible sepsis.

Link to article: (Full text/abstract)

<http://jama.jamanetwork.com/article.aspx?articleid=2492875>

Theme:

Critical care, post op complications, sepsis

Key Words

Sepsis

Review Articles

This review **Making the elderly fit for surgery** from the British Journal of Surgery is worth a skim.

<http://onlinelibrary.wiley.com/doi/10.1002/bjs.10033/pdf>

Basic Science

Remote ischaemic preconditioning as a method of preventing or mitigating ischaemia reperfusion injury has been in and out of the press for a while now... it still shows promise and surgery, a timed predictable event, is clearly a massive potential arena for its institution. This brief editorial gives an overview of it in this context.

<http://bit.ly/1pmvLo5>

Important Particles

Guidelines & Position Statements

The AAGBI has produced an app for it's members containing all their up to date guidelines in an easily accessible format :

<http://www.aagbi.org/publications/guidelines-app>

The Royal College of Anaesthetists have produced their 2016 guidelines for the provision of anaesthetic services (GPAS). These are comprehensive, linked to ACSA standards and available here:

<http://www.rcoa.ac.uk/news-and-bulletin/rcoa-news-and-statements/gpas2016-now-published>

Upcoming Meetings

The RCOA anniversary meeting "Innovating and improving within Perioperative Medicine" has a packed programme and still has places available: 9th to 10th March

<http://www.rcoa.ac.uk/anniversary/programme>

Perioperative Medicine Journal

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

Its essence is the distillation, examination and application of clinical evidence to improve surgical outcome.

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

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

John