Background and Aims

CASCADE Launch Event

Ieva Jakaityte
Steering Committee | University of Exeter
Overview

1. Risk of cardiac complications after major abdominal surgery

2. The new consensus definition of perioperative cardiac complications

3. Identified gaps

4. Our aims and intended impact
Major Abdominal Surgery

Risk factor for postoperative cardiac complications (PCC).\(^1\)

Incidence of PCC varies between studies from 4.9\% to 46.9\%.\(^2\)

Partly due to the lack of consensus definition of PCCs.
In 2021, the StEP COMPAC Initiative paper defined the key PCCs.

**Systematic review and consensus definitions for the Standardized Endpoints in Perioperative Medicine (StEP) initiative: cardiovascular outcomes**

W. Scott Beattie¹,* Manoj Lalu², Matthew Bocock², Simon Feng², Duminda N. Wijeysundera³, Peter Nagele⁴, Lee A. Fleisher⁵, Andrea Kurz⁶, Bruce Biccard⁷, Kate Leslie⁸, Simon Howell⁹, Giovani Landoni¹⁰, Hilary Grocott¹¹, Andre Lamy¹², Toby Richards¹³, Paul Myles¹⁴ on behalf of the StEP COMPAC Group¹

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Identified Gaps

We recognise a deficit of robust evidence regarding the risk factors, incidence and outcomes of major abdominal surgery:

- Lack of present-day data on PCC with new StEP definitions.
- Limited European guidelines regarding prevention and management of PCC.
Aims

Primary
• To audit compliance to pre-, intra-, and postoperative audit standards in reducing the risk of postoperative cardiac complications

Secondary
• To characterise the incidence of PCC following major abdominal surgery
• To identify risk factors of PCC
• To explore the association of postoperative anaemia with short term outcomes (30-day complications and readmission, cardiovascular morbidity, mortality, critical care admission, length of stay).
Audit standards

Pre-operative

• BMI
• Pre-operative scoring tools
• ECG pre-operatively
• Cardiopulmonary exercise testing
• Pre-operative iron supplementation in IDA
Audit standards

Intra-operative

• WHO Checklist

Post-operative

• Early recognition of specialist input
• Post-operative iron transfusion in IDA
• Extended VTE prophylaxis
By identifying the **incidence and risk factors for PCC**, CASCADE will provide benchmarking data for future RCTs contributing to decreasing complications after major abdominal surgery.

We expect CASCADE to help create better informed perioperative guidelines on the prevention and management of PCC.
Impact of Previous RECON Audit

Informed Clinical Trials

Multiple Publications

BJS
Death following pulmonary complications of surgery before and during the SARS-CoV-2 pandemic
STARSurg Collaborative and COVIDSurg Collaborative

+ Other papers under review
Thank you!

CARdiovASCuLAr outcomes after major abDOMinal surgEry

A student-led observational prospective audit of postoperative cardiovascular complication after major abdominal surgery