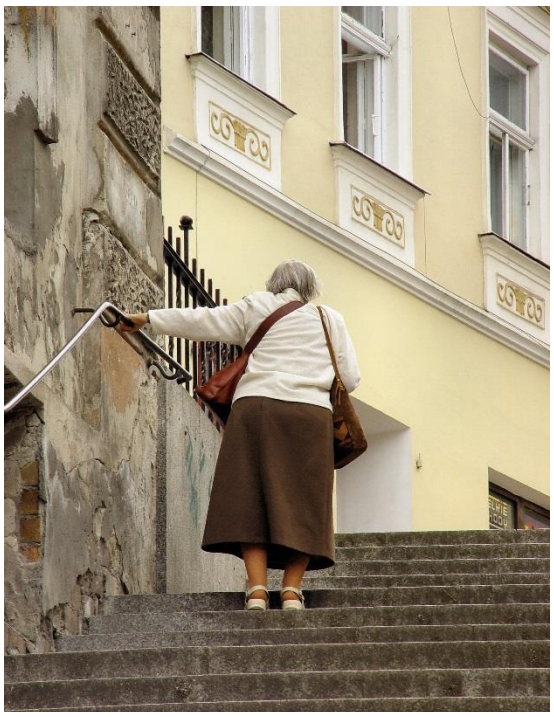
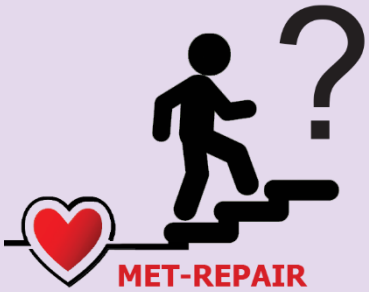


SELF-REPORTED CARDIOVASCULAR FUNCTIONAL CAPACITY AND CARDIOVASCULAR OUTCOMES AFTER NONCARDIAC SURGERY: ARE WE ASKING OUR PATIENTS THE RIGHT QUESTIONS?

ESA Clinical Trial Network

MET-REPAIR STUDY

MET: ***RE***evaluation for ***P***erioperative c***A***rd***I***ac ***R***isk



Fast Facts

- *Round 10 million European at risk for cardiovascular events undergo noncardiac surgery yearly.*
- *The evidence supporting the use of MET to predict perioperative cardiovascular events is scarce.*
- *Currently, over 180 registered centres in 26 countries.*
- ***Join MET REPAIR to answer the question:***
  "In patients undergoing elevated risk noncardiac surgery, are METs estimated by questionnaire associated with perioperative cardiovascular events or mortality?"

MEDICAL PROBLEM

In Europe, inhospital mortality after noncardiac surgery exceeds 7% in both patients with coronary artery disease as well as in those with congestive heart failure. Within 30 days, 8% of patients will suffer a major cardiovascular event.

A core question in the preoperative cardiac risk assessment recommendations by international anesthesiology and cardiology societies is the estimation of cardiovascular functional capacity in metabolic equivalents (METs). However, the evidence supporting the use of MET to predict perioperative cardiovascular events is scarce and non-conclusive.

Therefore, anaesthesiologists all over Europe are currently forced to decide on the preoperative work-up and perioperative management of round 10 million European patients every year based on limited data.

OBJECTIVE

To answer the question: "In patients undergoing elevated risk noncardiac surgery, are METs estimated by questionnaire associated with perioperative major adverse cardiovascular events or cardiovascular mortality?" If so: What is the optimal cut-off for METs? How does the optimal cut-off compare with the currently guideline-endorsed 4-MET cut-off?

STUDY DESIGN

International Prospective, observational, multi–centre cohort study.

Nested cohort studies include MET REPAIR-Frailty and MET REPAIR-Presepsin. Participation to these nested cohorts is optional.

INCLUSION & EXCLUSION CRITERIA

Inclusion Criteria

Included are inpatients, 45 years of age or older, undergoing elective elevated-risk noncardiac surgery as defined by either a Revised Cardiac Risk Index ≥ 2 OR NSQIP MICA >1% OR aged ≥65 years and undergoing intermediate or high-risk procedures according to ESA guidelines, signed written informed consent form.

Exclusion Criteria

Non-elective surgery; acute coronary syndrome or uncontrolled congestive

heart failure within the last 30 days; stroke within the last 7 days of planned day of surgery ; patients unable to perform ambulation due to congenital or longstanding illnesses/states (e.g. paraplegics, polio, etc; patients unable or unwilling to participate; previous enrollment in MET-REPAIR (in case of repeated surgery)

OUTCOMES

Primary endpoint:

Composite of intra- or postoperative inhospital cardiovascular mortality, nonfatal cardiac arrest, acute myocardial infarction, stroke, and congestive heart failure requiring transfer to a higher unit of care or prolonging stay on ICU/intermediate care (≥24h).

Secondary endpoints:

Secondary endpoints: the composite endpoint at 30days after surgery; single items of the primary composite endpoint, inhospital all-cause mortality, complications ≥ 3 in Clavien Dindo Classification [30], length of stay, length of ICU stay, and myocardial injury after noncardiac surgery (MINS) for centres implementing a perioperative troponin screening.

SAMPLE SIZE AND CENTRES

The planned sample size is 15,000 patients.
Centres are expected to include between 50 and 500 patients. The sample size for each centre (in excess of 50 patients) is at the discretion of the local PI. Centres will recruit during a minimum of 8 consecutive weeks and up to the sample size planned at centre-level. Recruitment started in June 2017 and to date round 7'000 patients are registered in the database. Centres started (and will start) at different times and recruitment will last at least until the planned sample of is enrolled.
Each centre will have a local and a national coordinator who will ensure that all participating centres in her/his country are in accordance with the study protocol.

SPONSOR

MET-REPAIR is sponsored by a grant from the European Society of Anaesthesiology Clinical Trial Network (ESA CTN). The aim of the ESA CTN is to provide an infrastructure for clinical research in the fields of anaesthesia, pain, intensive care and emergency medicine by transnational European collaborative studies.

STEERING COMMITTEE

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CALL FOR CENTRES

Please fill in the online call for centre form on the ESA website: **http://www.esahq.org/ctnform**

More Information

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European Society of Anaesthesiology ESA