NIHR Global Health Research Unit on Global Surgery

NIHR Global Research Unit on Global Surgery
Floor 2, Institute of Translational Medicine
Heritage Building, Mindelsohn Way
Birmingham
B15 2TH

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d.nepogodiev@bham.ac.uk

RE: CovidSurg-3 study approval

To Whom It May Concern:

I am writing to you regarding study approval for the CovidSurg-3 study. In order to participate in the study, collaborators must ensure that the study is registered and approved with respect to all applicable local and/or national regulations.

In hospitals which have already participated in the CovidSurg-1 study, collaborators should explore with the relevant committee (e.g. research ethics committee or institutional review board) whether this extension (CovidSurg-3) can be registered as a substantial amendment to the existing CovidSurg-1 approval.

Background to the CovidSurg-1 study

CovidSurg-1 was set up rapidly in March 2020 to match the urgency of the SARS-CoV-2 pandemic. It was the first international study to demonstrate that perioperative SARS-CoV-2 infection increases the risk of postoperative mortality (24% at 30-days) and pulmonary complications (51% at 30-days). CovidSurg-1 data was also used to develop and validate a perioperative mortality risk score for use during the pandemic. However, since CovidSurg-1 data were collected new treatments and vaccines have been developed and new SARS-CoV-2 variants of concern (most recently Omicron) have emerged. Therefore, there is a need for renewed rapid data collection to guide global practice in 2022 onwards.

Relationship of CovidSurg-3 to CovidSurg-1

The patient-level component of CovidSurg-3 is a direct extension of CovidSurg-1. CovidSurg-1 was set up rapidly to match the urgency of the SARS-CoV-2 pandemic. In those initial stages of the pandemic little was known about the impact of COVID-19 on surgery. Based on what we have learnt since then, some study definitions for CovidSurg-3 have been clarified to reflect current practice.

The following key features are broadly consistent between the two studies:

- The aims of both studies are the same; to define the impact of perioperative SARS-CoV-2 and predictors of adverse postoperative outcomes.
- Inclusion criteria for both studies are the same, other than the SARS-CoV-2 case definition in CovidSurg-3 being restricted to patients with positive SARS-

COV-2 PCR swab or rapid antigen test. This reflects the greater availability of SARS-CoV-2 testing now than in 2020.

- The primary (30-day mortality) and secondary (30-day pulmonary complications) outcome measures are the same for both studies.
- The follow-up procedures for both studies are the same for both studies.

The table below summarises the changes to the case report form from CovidSurg-1 to CovidSurg-3.

Data points removed	
Body mass index	This was found to be difficult to collect in some participating hospitals. It has not been prioritised for collection in CovidSurg-3.
BCG/ tuberculosis status	This is no longer relevant.
Preoperative physiological values	This was found to be difficult to collect in some participating hospitals. It has not been prioritised for collection in CovidSurg-3.
Clinical findings at admission	This has not been prioritised for collection in CovidSurg-3.
Preoperative delay	This has not been prioritised for collection in CovidSurg-3.
NSAID use	This is no longer relevant.
Drug treatments	This has not been prioritised for collection in CovidSurg-3.
Renal dialysis	This has not been prioritised for collection in CovidSurg-3.
Length of hospital stay	This has not been prioritised for collection in CovidSurg-3.
Data points changed	
Date of surgery	Week rather than month of surgery will be collected. Information on week of operation is important in order to match to country-level statistics on spread of the Omicron variant.
Comorbidities	Most specific comorbidities were found to be non-informative. Instead CovidSurg-3 will collect targeted information to calculate Revised Cardiac Risk Index, a validated perioperative risk score.
Preoperative screening	This has been simplified in light of the existing evidence, to focus on SARS-CoV-2 PCR swab and rapid antigen screening only.
COVID-free pathways	This has been simplified in light of the existing evidence.
Anaesthesia	This has been simplified to ease data collection.
Indication for surgery	This has been changed from a free text field to simplified categories.
Postoperative respiratory support	This has been simplified to ease data collection.
Mortality	This has been simplified to capture 30-day mortality status only.
Complications	Most specific comorbidities were found to be non-informative. Instead CovidSurg-3 will collect targeted information required for the pre-stated secondary outcome measures (postoperative pulmonary complications and venous thromboembolism).

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New data points added	
VTE prophylaxis	Since CovidSurg-1, evidence has emerged that perioperative SARS-CoV-2 increases venous thromboembolism (VTE) risk. Therefore, to inform assessment of VTE rates, information on prophylaxis will be captured.
SARS-CoV-2 variants	Since CovidSurg-1, new SARS-CoV-2 variants have emerged whose impact on surgery is unknown.
Previous infection	Since CovidSurg-1, some patients have had SARS-COV-2 infection. The impact of previous SARS-CoV-2 infection on outcomes of peri-operative SARS-CoV-2 is unknown.
SARS-CoV-2 vaccination	Since CovidSurg-1, SARS-COV-2 vaccines have been developed. The impact of SARS-CoV-2 vaccination on outcomes of peri-operative SARS-CoV-2 is unknown.
Operative approach	This has been added as a key marker of peri-operative risk.

Why a substantial amendment may be appropriate

The reasons why a substantial amendment may be appropriate are:

- CovidSurg-3 is coordinated by the same research group (CovidSurg Collaborative, based at the University of Birmingham, UK) as CovidSurg-1.
- All the studies are focused on the same topic; the impact of SARS-CoV-2 infection on postoperative outcomes.
- The primary and secondary outcome measures are the same in both studies.
- The principles of the data collection are the same in both studies. Both are observational studies which do not require any changes to normal patient care. No additional tests or follow-up are required.
- The core data points collected in CovidSurg-3 will be broadly the same as in CovidSurg-1; some additional data points have been added to address issues relating to vaccination and previous infection.
- The data collection platform is the same in for both studies. Non-identifiable data will be uploaded to a secure, online REDCap database. The same REDCap server will be used for CovidSurg-3 as for CovidSurg-1.

Yours faithfully,

Dmitri Nepogodiev, MBChB MPH
On behalf of the CovidSurg-3 steering group

UNIVERSITY OF BIRMINGHAM