To Whom It May Concern:

I am writing to give further information about the secure online REDCap database which will be used to collect data for the CovidSurg-3 study.

REDCap databases at the University of Birmingham have been successfully used for a number of international studies, including:


The REDCap database used for the CovidSurg-3 study is run by the NIHR Global Health Research Unit on Global Surgery, within the University of Birmingham Virtual Machine architecture which is physically secured. The architecture is the responsibility of the Storage and Virtualisation Team at the University of Birmingham, Edgbaston, Birmingham, B15 2TT. “At rest” encryption is in place on the database server. Raw data will be stored and will remain at the Birmingham site; it will not be offshored to any other location. The site is physically secure. The virtual hosting service is designed to have no single point of failure with physical redundancy deployed for server, network and storage infrastructure. The virtual server software supports live migration of virtual machines between the physical servers called hosts. Live migration is automatically performed to
balance the server load across available infrastructure. On physical server failure the
virtual machine is automatically restarted on another host. During host maintenance or
intrusive maintenance of the virtual server software, virtual machines are manually
migrated to prevent any interruption to service. All physical infrastructure is monitored
and automatic alerts generated to systems staff on any failure. All virtual machines are
not installed on a single physical server but a range of hosts on which virtual machines
automatically live migrate on. Therefore, since there is no one physical location for our
machine, it can be considered physically secure. All physical infrastructure and the
virtual server software are maintained by the University of Birmingham IT Services. All
physical infrastructure is monitored and automatic alerts generated to systems staff on
any failure.

The security of the study REDCap database system is governed by the policies of the
University of Birmingham UK, in accordance with the requirements of the General Data
Protection Regulations (GDPR). The study will be conducted at collaborating sites in
accordance with the country-specific data protection requirements. Once data collection
is complete, the electronic research files containing anonymised data will be stored on
secure non-networked desktop computers for up to 25 years, in line with current
regulations. Access will be restricted to the researchers themselves. Personal data will
remain securely at local hospitals.

No sensitive or identifiable data will be collected on the database; the patient’s clinical
team will only upload on-identifiable data. Access to data will be restricted, each
individual collaborator entering data for CovidSurg-3 will have their own username and
password. Each patient will be allocated a unique study number at entry. The central
research team will not have any access to patient identifiable data. All communication
will use this study number. All data will be analysed and reported in summary format. No
individual patient data will be identifiable in public reports.

Yours faithfully,

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