Plain English Summary

# A Retrospective Evaluation of Post-operative Alternatives to Critical Care (REPACC)

# The structural and organisational impacts of perioperative enhanced care services in the UK

Hello! We are running a study across the UK entitled “The structural and organisational impacts of perioperative enhanced care services in the UK: A Retrospective Evaluation of Post-operative Alternatives to Critical Care (REPACC)”. We have written a plain English summary of our study below so that participants can get a better understanding of what their involvement means, and who to contact if they have any questions.

#### Why are we running this study?

The NHS is under significant pressure due to the cancellation of planned surgeries because of a lack of post-operative high dependency beds. With waiting lists lengthening, the introduction of enhanced care units – able to provide higher levels of care than a standard ward, but without all of the capabilities of intensive care – have been developed in many hospitals across the UK. The aim of these units is to provide a post-operative destination that might take pressure off intensive care and prevent surgical cancellations due to a lack of a beds due to occupancy by non-operative patients. They are often anaesthetist led and able to care for roughly 4 patients, providing a variety of different services from increased nursing to patient ratios, to the ability to provide more advanced levels of respiratory support, amongst other things that are not feasible on a standard surgical ward. These units have generally been developed independently in each region, therefore there are discrepancies between the structure, function, and organisation of these units in different hospitals.

There has been very little research into how these individual models of care might affect the patient journey. We are also currently unsure whether these units achieve their objective of relieving the pressure on intensive care, or whether they might introduce inefficiencies in the way we deliver our services. Our aims are to describe the different models of care used in these enhanced care units across the UK, to analyse any organisational reasons for surgeries cancelled on the day of the operation, and use this information to compare the efficiency of each model of enhanced care.

#### What are we planning to do?

To do this we will gather information that describes the model of enhanced care used in each hospital including who runs it, how many beds it has, what services it can offer, and what the referral process is. We will then record the daily number of referrals and admissions to these units, cancellations on the day of surgery, alongside the type of surgeries being performed at each location. We will also investigate the number of referrals and admissions to intensive care to see how these resources are used in conjunction with enhanced care units. Due to the unpredictable nature of surgery, we will assess how many patients had their post-operative destination changed either during their operation or immediately post-operatively. This will tell us whether people were referred for an enhanced care bed which they did not end up requiring, or if they were not referred pre-operatively and had to be during the operation or whilst in recovery.

We will then follow up all of the patients who were referred for any enhanced care bed, including those admitted to intensive care, regardless of if they ended up requiring it. This will allow us to gain a picture of the type of patient each enhanced care unit is being referred, and whether there are any significant differences between the various ways of delivering this type of care.

#### What data are we going to collect, who will access it, and how will it be stored?

We plan to collect data covering the period between 01/09/23 and 30/11/23. All patients that underwent an operation between these dates that were referred or admitted to enhanced care will be followed up. During the process of data collection, clinicians at each hospital will need to access patient record systems. All of the investigators that access patient notes will be volunteers that are directly responsible for the care of the patients they are following up. Local investigators will use hospital numbers to identify each patient. Personal information that would be routinely available to these clinicians, such as name and date of birth, will be visible at this stage of the process but will not be recorded anywhere outside of the systems it is already stored.

We will record details about the journey each patient undergoes around their surgery with details of their procedure, the referral process to enhanced care, where they went after surgery, how long they were in hospital, whether their procedure was cancelled and, if so, the reason for this. We will also record the age, gender, and ethnicity of participants, alongside their past medical history in broad terms – for example, “heart disease”. This will be used to help us build a picture of the type of patients that are referred to each enhanced care facility. These pieces of information will be recorded in a secure database at each hospital which will be stored on password protected drives.

Once this data is collected, local investigators will anonymise the data by converting the hospital numbers of each participant into a unique study identification number. This means that the only way of linking the information we collect back to personally identifiable information, such as name or date of birth, would be to access the table that shows which study identification number corresponds to which hospital number. This information will also be kept on a password protected database that will only be accessible to the clinicians involved in the data collection process at each hospital. The anonymised data will then be sent to the team that is running the study at Kingson Hospital in London via the secure NHS email system.

#### What will we do with the data?

The team at Kingston Hospital will use the anonymised data from all of the hospitals involved to perform our final analysis. We plan for the data collection process to take roughly 9 months. Once this is complete, we will publish the findings of our analysis in a medical journal where clinicians and interested members of the public will be able to see our results. We will not publish any personally identifiable information. At most, the average of each parameter we collect may be described for each hospital. For example, we may publish the average age of patients referred to enhanced care at each hospital without detailing the ages of each participant. In future, anonymised source data may be made available to other researchers if they have the appropriate permissions in place. Strictly anonymised data will only be provided in the event that this data may help to deliver better care for patients.

#### Will I be contacted if I am involved?

This study is purely observational, patient care will not be affected by the conduct of this study during the study period. There is no potential for harm as a result of involvement in this study. We will not need to make contact with participants to collect data. As this study involves the use of routinely collected data, and this data will only be accessed by clinicians that are directly responsible for the care of these patients, we will not attempt to contact participants to inform them of their involvement.

If you have had a surgery between 01/09/23 and 30/11/23, were admitted to enhanced care, or if you are unsure of whether you were admitted to one of these units, and would like to discuss your involvement in the study please feel free to get in touch! We are happy to inform you of whether your hospital is included in this study and to discuss removing your data from our records if that is what you would prefer.

If this is the case, please email repacc.plan@gmail.com and we will aim to respond as soon as possible!