HSRC

Health Services Research Centre

Anaesthesia Critical Care Covid Activity Tracking Survey: ACCC-track - round 1 (October 202

1. Introduction

In response to the pandemic NAP7 has been postponed.

After feedback from Local Co-ordinators we aim to launch NAP7 in May 2021, a year after originally planned.

The College would like to track how hospitals, anaesthesia and surgery has been and continues to be affected by COVID-19 over the next 6 months. We hope to achieve this with the help of the network of Local Co-ordinators established in early 2020 for NAP7. A series of snapshot surveys will examine hospital organisation, anaesthetic department structure/reorganisation, staff absences and anaesthetic/surgical activity. These will provide a national picture of the stresses and impact on hospitals and services in the next few months. It will also provide information which will guide whether it is practical and right to start NAP7 in May 2021.

HSRC

Health Services Research Centre

Anaesthesia Critical Care Covid Activity Tracking Survey: ACCC-track - round 1 (October 202

2. The first survey will be the most extensive (it will get easier)

We wish to collect data on surgical activity for the month October 2020. This data may be available from the electronic theatre management system, management, the business unit or by hand counting.

Please complete the survey by the 18/11/20.

We strongly recommend you read through the questions in the pdf document before starting to complete the SurveyMonkey.

One of the questions we will ask each time we send the survey is the number of cases completed in all your theatres over a 24 hour period (please choose any Tuesday, Wednesday or Thursday during October 2020). This may be available from your theatre management system, operating lists or may be something you wish to collect locally (eg as a trainee project). We would like you to ideally complete the survey on the same day of the week each time it is sent – it is important you choose only a Tuesday, Wednesday or Thursday – so we can track changes across surveys.

We will undertake further surveys approximately every 1-2 months (the interval will depend on the course of the pandemic).

If there is more than one Local Co-ordinator for your hospital, please ensure only one form is completed.

We will include all contributing LCs as collaborators in any publications that arise.

Thank you, your contribution is invaluable.

Dr Richard Armstrong, Dr Andrew Kane, Dr Emira Kursumovic
HSRC-NAP7 Clinical Research Fellows

Jasmeet Soar
RCoA Clinical Lead for NAP7

Tim Cook

RCoA Director of National Audit Projects

NIAA National Institute of Academic Anaesthesia

HSRC Health Services Research Centre

Anaesthesia Critical Care Covid Activity Tracking Survey: ACCC-track - round 1 (October 202

3. Space, Staff, Stuff and Systems

The following section is based on the Anaesthesia-ICM hub document *'Restarting planned surgery in the context of the COVID-19 pandemic A strategy document from the Royal College of Anaesthetists, Association of Anaesthetists, Intensive Care Society and Faculty of Intensive Care Medicine'*. This describes the prerequisites for restarting planned surgery in terms of space, staff, stuff and systems. The red, amber and green rating for each is described below.

Choose the option that most closely matches your hospital.

Space

RED

- Critical care occupancy close to expanded capacity.
- Patients in temporary ICUs in operating theatres scheduled for elective use or in other locations to be used in the surgical pathway, eg PACU or surgical ward.
- No planning for creating COVID-19-positive and COVID-19-negative patient separation in critical care facilities to accommodate planned and unexpected admissions after elective surgery.

AMBER

- Critical care occupancy reduced from expanded capacity and approaching baseline capacity.
- Other hospitals in the regional ICU network still using temporary ICU facilities, including the use of paediatric ICUs for adult patients.
- Plans for COVID-19-positive and COVID-19-negative critical care beds and pathways in development but not complete.

GREEN

- Critical care occupancy close to 85% of baseline capacity.
- COVID-19-positive and COVID-19-negative critical care bed and pathway separation enacted and effective.

Staff

RED

- Theatre staff, perioperative care staff and anaesthetists still significantly committed to critical care duties.
- Critical care staffing ratios significantly higher than prepandemic levels and reliant on non-ICU staff.
- Out-of-hours resident on call duties being performed by consultant and SAS anaesthetists.
- Shielded and higher-risk anaesthetists not performing patient-facing activities.

AMBER

- Working patterns of anaesthetic, theatre and perioperative care staff of all professions still significantly impacted by pandemic surge conditions and recovery from these.
- Critical care staffing ratios above prepandemic levels or reliant on non-ICU staff.
- Trainee on call rotas restored but less than normal number of trainees available for work.
- Plans in place for sufficient numbers of consultant and SAS anaesthetists to be available to provide cover for planned surgical activity, but not yet fully in place.
- Planning for adequate staff numbers to restart non-theatre anaesthetic activities such as preoperative assessment, acute pain rounds and perioperative medicine activity but adequate numbers not yet available.
- Planning for returning higher-risk anaesthetists to patient-facing activities after appropriate risk assessments but not yet implemented.

GREEN

- Elective surgical pathways fully staffed by intact theatre and perioperative care staff rotas.
- Critical care staffing ratios at or near prepandemic levels.
- Trainee on call rotas restored with normal numbers of trainees.
- Sufficient numbers of consultant and SAS anaesthetists available to provide normal staffing levels for the planned surgical activity to be delivered.
- Non-theatre activities ready to be restarted.
- Higher-risk anaesthetists returned to patient-facing activities where appropriate.

Stuff (equipment)

RED

- Equipment used in surgical pathways still in extensive use for critical care patients, eg anaesthetic machines and infusion pumps.
- Shortages of PPE and other equipment necessary for effective infection control.
- Non-availability or low stock levels of key drugs used in critical care and anaesthesia such as first-line choice of neuromuscular blocking drugs, opioid analgesics, hypnotics, sedatives, inhalational anaesthetics, inotropes and vasopressors.
- Non-availability of postoperative critical care equipment either in general ICU capacity or for specific forms of support such as RRT or non-invasive ventilation.

AMBER

- Adequate numbers of anaesthetic machines and infusion pumps available but insufficient in reserve in case of damage or machine malfunction.
- Stocks of PPE and other equipment necessary for effective infection control adequate for potential increases in critical care activity and increasing surgical activity but supply chain not assured.
- Stocks of key drugs used in critical care and anaesthesia adequate but uncertain resupply through normal supply chain routes.
- Postoperative critical care capacity limited and in competition with ongoing COVID-19 requirements.

GREEN

- Minimal equipment usually used in the surgical patient pathway in use in critical care, with adequate equipment in reserve in case of damage or machine malfunction.
- Adequate stocks of PPE and other equipment necessary for effective infection control for potential critical care and planned surgical activity with assured supply chain.
- Adequate supplies of key drugs used in critical care and anaesthesia with secure supply chain identified.
- Good availability of critical care capacity and all relevant organ support modalities.

Systems

RED

- COVID-19-positive and COVID-19-negative pathways for surgical care not developed or implemented.
- COVID-19 testing not sufficiently available for patients and staff.
- Anaesthetic services key to supporting theatre activity not active, eg preoperative assessment, acute pain service and perioperative medicine activity.

AMBER

- COVID-19-positive and COVID-19-negative pathways for surgical care planned but not yet implemented.
- COVID-19 testing available for patients and staff, with clear policies in development for how testing can protect staff, protect patients and facilitate efficient surgical services.
- Staffing and facilities for anaesthetic services key to supporting theatre activity available.
- Policies in development for the rational prioritisation of surgical patients as theatre capacity becomes available but does not yet fully match demand.
- Policies in development for the rational prioritisation of surgical patients as critical care capacity becomes available but does not yet fully match demand.

GREEN

- COVID-19-positive and COVID-19-negative pathways for surgical care fully implemented.
- Anaesthetic services key to supporting theatre activity functioning well.
- COVID-19 testing available for patients and staff, with clear policies in place for how testing will protect staff, protect patients and facilitate efficient surgical services.
- Policies for the rational prioritisation of surgical patients as theatre capacity becomes available are fully implemented.
- Policies implemented for the rational prioritisation of surgical patients as critical care capacity becomes available.

1. Please indicate where your department lies regarding space, staff, stuff (equipment) and systems for **restarting planned (elective surgery)**.

	RED	AMBER	GREEN
SPACE	◯	◯	◯
STAFF	◯	◯	◯
STUFF (equipment)	◯	◯	◯
SYSTEMS	◯	◯	◯

Comments

HSRC

Health Services Research Centre

Anaesthesia Critical Care Covid Activity Tracking Survey: ACCC-track - round 1 (October 202

4. Qualitative questions

2. What are the main problems or barriers you have faced while attempting to deliver perioperative care in your hospital/s during the COVID-19 pandemic?

3. What are the factors that have acted as facilitators or have enabled you to deliver perioperative care in your hospital/s during the COVID-19 pandemic?

HSRC

Health Services Research Centre

Anaesthesia Critical Care Covid Activity Tracking Survey: ACCC-track - round 1 (October 202

5. Hospital activity

4. How many hospitals do you represent?

- 1
- 2
- 3
- 4
- 5
- 6
- >6

5. What region are you reporting from?

Please answer the following questions to best represent the **main hospital(s)** that you represent as a NAP7 Local Coordinator. Please *always report for the same hospital(s)* when you complete this survey.

6. Please provide the name of the hospital.

7. Is this an NHS or independent hospital?

- NHS
- Independent
- Both

8. How many theatres (excluding non-theatre sites) were open for activity in your hospital **this time last year**?

9. How many theatres (excluding non-theatre sites) are **currently** open for activity in your hospital?

10. How many theatres are **currently** undertaking surgery for your hospital at *other locations* (eg independent sector)?

11. Do you have a designated ‘low/lower risk’ COVID-19 theatre area/suite? Tick all that apply.

- [ ] Yes (on-site only)
- [ ] Yes (external site eg independent hospital, another Trust)
- [ ] Yes (another hospital, same Trust)
- [ ] No

HSRC

Health Services Research Centre

Anaesthesia Critical Care Covid Activity Tracking Survey: ACCC-track - round 1 (October 2020

6. In-theatre activity and efficiency

12. Please provide activity data for activity for the month October 2020 compared to the same month last year? Please state whether this is an accurate answer or an estimate.

	Percentage of last year's activity (%)	Accurate OR Estimate number
Cancer operations		
Non-cancer elective operations		
Emergency surgery		
Paediatric surgery		

13. Today, only considering the theatres that are active, what do you estimate is the average theatre productivity (cases completed) compared to the same theatres before COVID-19?

Please ignore theatres that are not running.

- ◯ <25%
- ◯ 25-50%
- ◯ 50-75%
- ◯ 75-100%
- ◯ >100%

7. Total cases count (elective and emergency)

14. Which DAY are you collecting cases from? Choose any Tuesday, Wednesday or Thursday in October 2020.

This will need to be the same day for future surveys and please avoid Friday-Monday.

- ◯ Tuesday
- ◯ Wednesday
- ◯ Thursday

Theatre locations

15. Please indicate the TOTAL number of operations completed in ALL your **theatres in all locations** over 24 hours.

[ ]

16. Is this an accurate or an estimate number?

- ◯ Accurate
- ◯ Estimate with margin of error <10%
- ◯ Estimate with margin of error >10%

17. What would this total have been **one year ago**?

[ ]

18. Is this an accurate or an estimate?

- ◯ Accurate
- ◯ Estimate with margin of error <10%
- ◯ Estimate with margin of error >10%

Non-theatre locations

19. Please indicate the TOTAL number of operations completed in **non-theatre locations** over 24 hours.

[ ]

20. Is this an accurate or an estimate number?

- ◯ Not applicable
- ◯ Accurate
- ◯ Estimate with a margin of error <10%
- ◯ Estimate with a margin of error >10%

21. What would this total have been one year ago?

[ ]

22. Is this an accurate or an estimate number?

- ◯ Not applicable
- ◯ Accurate
- ◯ Estimate with a margin of error <10%
- ◯ Estimated with a margin of error >10%

NIAA National Institute of Academic Anaesthesia

HSRC Health Services Research Centre

Anaesthesia Critical Care Covid Activity Tracking Survey: ACCC-track - round 1 (October 2020

8. Staffing changes

23. Compared to December 2019 how many anaesthetists (including locums) are there employed in your hospital?

	December 2019	October 2020
Consultants		
SAS		
ST3-ST7 level or equivalent		
CT1-CT3 level or equivalent		
Anaesthesia Associates		
Other		

24. Compared to December 2019 how many intensivists (*if separate from anaesthesia and not counted above already*) are there employed in your hospital?

	December 2019	October 2020
Consultants		
SAS		
ST3-ST7 or equivalent		
CT1-CT3 or equivalent		
Other		

25. How many of the normal anaesthesia workforce are currently redeployed to other patient facing services e.g. intensive care?

(Please include whole time equivalents where anaesthetists with work programmes including ICU have been 'shifted' to more ICU work)

a. Number of anaesthetists switching to be on ICU rota.

b. Number of anaesthetist/intensivists switching to full time ICU.

c. Number of anaesthetists on MERIT/Airway team each day.

26. How many anaesthetists and or intensivists are:

a. Redeployed to non-patient facing roles?

b. Off work with sickness as a result of COVID-19?

c. At home shielding?

d. At home due to self-isolating and/or quarantine?

HSRC

Health Services Research Centre

Anaesthesia Critical Care Covid Activity Tracking Survey: ACCC-track - round 1 (October 202

9. What arrangements are currently in place at your hospital for elective ADULT surgery?

Tick all that apply.

27. **Self isolation**

- [ ] Not applicable - no elective adult surgery
- [ ] 14 days
- [ ] 7 days
- [ ] From day of PCR test
- [ ] No self-isolation
- [ ] Other (please specify)

28. **PCR antigen SARS-CoV-2 pre-op testing**

- [ ] Not applicable - no elective adult surgery
- [ ] Single test within 72 hours
- [ ] Single test within 48 hours
- [ ] Two tests
- [ ] No tests
- [ ] Other (please specify)

29. **COVID-19 symptoms screening**

- [ ] Not applicable - no elective adult surgery
- [ ] Patients contacted on the day before surgery
- [ ] Assessed on hospital arrival
- [ ] No COVID-19 symptoms screening
- [ ] Other (please specify)

30. **Patient flow**

- [ ] Not applicable - no elective adult surgery
- [ ] Separation of pathways for elective (lower COVID-19 risk) patients from rest of hospital
- [ ] Staggered admission to match theatre scheduling
- [ ] None
- [ ] Other (please specify)

HSRC
Health Services Research Centre

Anaesthesia Critical Care Covid Activity Tracking Survey: ACCC-track - round 1 (October 2020

10. What arrangements are currently in place at your hospital for elective PAEDIATRIC surgery?

Tick all that apply.

31. **Individuals required to self-isolate**

- [ ] Not applicable - no elective paediatric surgery
- [ ] Patient
- [ ] Household
- [ ] No self-isolation
- [ ] Other (please specify)

32. **Length of self-isolation**

- [ ] Not applicable - no elective paediatric surgery
- [ ] 14 days
- [ ] 7 days
- [ ] From day of PCR test
- [ ] No self-isolation
- [ ] Other (please specify)

33. **PCR antigen SARS-CoV-2 pre-op testing**

- [ ] Not applicable - no elective paediatric surgery
- [ ] Single test within 72 hours
- [ ] Single test within 48 hours
- [ ] Two tests
- [ ] No tests
- [ ] Other (please specify)

34. **COVID-19 symptoms screening**

- [ ] Not applicable - no elective paediatric surgery
- [ ] On the day before surgery
- [ ] On day of surgery only
- [ ] No COVID-19 symptoms screening
- [ ] Other (please specify)

35. **Patient flow**

- [ ] Not applicable - no elective paediatric surgery
- [ ] Separation of pathways for elective (low COVID-19 risk) patients from rest of hospital
- [ ] Staggered admission to match theatre scheduling
- [ ] None
- [ ] Other (please specify)

HSRC

Health Services Research Centre

Anaesthesia Critical Care Covid Activity Tracking Survey: ACCC-track - round 1 (October 202

11. What arrangements are currently in place at your hospital for elective OBSTETRIC surgery? **Tick all that apply.**

36. **Individuals required to self-isolate**

- [ ] Not applicable - no elective obstetric surgery
- [ ] Patient
- [ ] Birthing partner
- [ ] No self-isolation
- [ ] Other (please specify)

37. **Length of self-isolation**

- [ ] Not applicable - no elective obstetric surgery
- [ ] 14 days
- [ ] 7 days
- [ ] From day of PCR test
- [ ] No self-isolation
- [ ] Other (please specify)

38. **PCR antigen SARS-CoV-2 pre-op testing**

- [ ] Not applicable- no elective obstetric surgery
- [ ] Single test within 72 hours
- [ ] Single test within 48 hrs
- [ ] Two tests
- [ ] No tests
- [ ] Other (please specify)

39. **COVID-19 symptoms screening**

- [ ] Not applicable- no elective obstetric surgery
- [ ] On the day before surgery
- [ ] On day of surgery only
- [ ] No COVID-19 symptoms screening
- [ ] Other (please specify)

40. **Patient flow**

- [ ] Not applicable- no elective obstetric surgery
- [ ] Separation of pathways for elective (low COVID-19 risk) patients from rest of hospital
- [ ] Staggered admission to match theatre scheduling
- [ ] None
- [ ] Other (please specify)

HSRC
Health Services Research Centre

Anaesthesia Critical Care Covid Activity Tracking Survey: ACCC-track - round 1 (October 202

12. Personal protective equipment

Airborne = FFP3, fluid repellent long sleeved gown, gloves, eye protection

Droplet = Fluid resistant surgical mask, apron, gloves +/- eyewear

Contact = Standard face mask, apron, gloves, +/- eyewear

None specific = Standard face mask only

41. What PPE is used in each of the following procedures **for a COVID-19 low risk pathway**?

	Airborne precautions	Droplet precautions	Contact precautions	None
Performing aerosol-generating procedures (AGPs)	○	○	○	○
Performing regional anaesthesia	○	○	○	○
During surgery without AGPs	○	○	○	○
Recovery area	○	○	○	○
Pre-op assessment of patients on ward or theatre admission area (patient contact)	○	○	○	○
Pre-op assessment of patients on ward or theatre admission area (no patient contact)	○	○	○	○
Ward staff post-operatively (within 2m of patient)	○	○	○	○

42. What PPE is used in each of the following procedures **for a COVID-19 high risk pathway**?

	Airborne precautions	Droplet precautions	Contact precautions	None
Performing aerosol-generating procedures (AGPs)	○	○	○	○
Performing regional anaesthesia	○	○	○	○
During surgery without AGPs	○	○	○	○
Recovery area	○	○	○	○
Pre-op assessment of patients on ward or theatre admission area (patient contact)	○	○	○	○
Pre-op assessment of patients on ward or theatre admission area (no patient contact)	○	○	○	○
Ward staff post-operatively (within 2m of patient)	○	○	○	○

NIAA
National Institute of Academic Anaesthesia

HSRC
Health Services Research Centre

Anaesthesia Critical Care Covid Activity Tracking Survey: ACCC-track - round 1 (October 202

13. Turnaround times/fallow periods

43. What is the time taken *in minutes* for ONE air exchange in your non-laminar flow theatres (average or indicative time)

Please indicate how much time you wait after each of these events before others may enter and routine theatre activity (eg surgery, or cleaning) can commence.

If times vary by theatre please use an indicative, typical or average time.

COVID-19 low risk pathway

44. What is the time *in minutes* and number of air exchanges required to resume normal activity in a COVID-19 low risk pathway?

	Time (minutes)	Number of air exchanges
After tracheal intubation		
After tracheal extubation		
After regional anaesthesia in awake patient		
At end of surgery in awake patient		

45. What is the time *in minutes* and number of air exchanges required until patient can leave theatre for a COVID-19 low risk pathway?

	Time (minutes)	Number of air exchanges
After tracheal extubation		

46. Where are supraglottic airways removed in your low-risk pathways?

- In theatre
- In recovery
- Other (please specify)

COVID-19 high risk pathway

47. What is the time in minutes and number of air exchanges required to resume normal activity for a COVID-19 high risk pathway?

	Time (minutes)	Number of air exchanges
After tracheal intubation		
After tracheal extubation		
After regional anaesthesia in awake patient		
At end of surgery in awake patient		

48. What is the time in minutes and number of air exchanges required until patient can leave theatre for a COVID-19 high risk pathway?

	Time (minutes)	Number of air exchanges
After tracheal extubation		

HSRC

Health Services Research Centre

14. Any other comments

49. Is there anything else you would like to add?

NIAA

National Institute of Academic Anaesthesia

HSRC

Health Services Research Centre

Anaesthesia Critical Care Covid Activity Tracking Survey: ACCC-track - round 1 (October 2020

15. Thank you, your contribution in invaluable.