Appendix 1: Enhanced Care Guidance - Methodology

Provision of Enhanced Care Services in the Acute Hospital Setting

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on behalf of the FICM Enhanced Care Working Party and the National Working Group for Enhanced Care in Medicine

Background

The increasing requirement for an intermediate level of care between the ward and HDU, sometimes called Level 1+, Level 1½, 24hr recovery, High Observation (HOBS) beds etc., was raised by respondents to the FICM 'Beyond Comprehensive Care' survey in 2015. As a result, one of the recommendations of Critical Futures, published in November 2017, was the development of this 'Enhanced Care' which the Faculty decided to take responsibility for. To facilitate this a working party was established in early 2018 to take this piece of work forward. In 2019, the Royal Colleges of Physicians of the UK (ie Edinburgh, Glasgow and London) decided to consider provision of enhanced care for acute medical patients and contributed, as an additional working party. The objective was to publish a document with guidance and recommendations for organisations already delivering enhanced care and also to provide support for those that wished to do so. The aim was for a document that wasn't restrictive but would establish an overarching governance structure to allow equity of access. With the patient as the focus it is hoped that enhanced care services will ensure that they receive the right care, in the right place and at the right time.

Methods

The Enhanced Care Working Party (ECWP) had representation from FICM, RCoA, Perioperative Medicine, RCSEng, BARNA, UKCCNA, ICS, CRG and ACCPs and was chaired by FICM's Vice Dean. At the first meeting in May 2018, terms of reference and a timeline were established.

At that time there were already a significant number of these services being delivered around the country and it was decided that these organisations should be approached to learn from their experience. A questionnaire was developed and circulated in June 2018, via survey monkey, to all perioperative medicine leads and to the leads of the SNAP-2 programme where their organisation had declared the existence of Enhanced Care services. The results of the survey were discussed at the second ECWP meeting in November 2018 and incorporated into a first draft document.

A focus group meeting, held in February 2019, gathered information from individuals who had successfully developed Enhanced Care and this data was used to create vignettes for the document and also helped in shaping the recommendations that were incorporated into the second draft document following the third ECWP meeting in April 2019.

The final document was circulated for internal stakeholder consultation in July 2019. At the same time, the Royal Colleges of Physicians of the UK and the Society for Acute Medicine convened a working party to explore medical Enhanced Care. The FICM working party chair was invited to be a member, facilitating discussion around the document developed to date. At the first meeting in August 2019 it was decided that, in its current state, all that was required was the addition of specific vignettes and guidance aimed at the acutely unwell medical patient and some amendments to the text. Following its presentation at the

CCLF meeting in September and a further working party meeting in October the final version of the document went for open consultation and endorsement. The document was published in February 2020.

Results

An abridged version of the survey results is available in appendix 2. A guidance document was published incorporating the survey findings, input from the focus group attendees and from members of the working party.

Discussion

The patient population in hospitals has changed dramatically over the last 20 years with sicker patients undergoing more complex surgery and being admitted with more co-morbidities. An expansion of critical care has occurred to try and meet this demand, but it is obvious that not all these patients require the level of support traditionally delivered within critical care facilities. This, as well as the drive for earlier identification of the patient at risk has created a cohort of patients not sick enough to need admission to critical care but who cannot be safely managed on a ward. This has led to the ad hoc development of an intermediate level of care, variably called level 1+, level 11/2 high care areas etc., all capable of providing safe care but with no overarching governance or guidance on implementation and development.

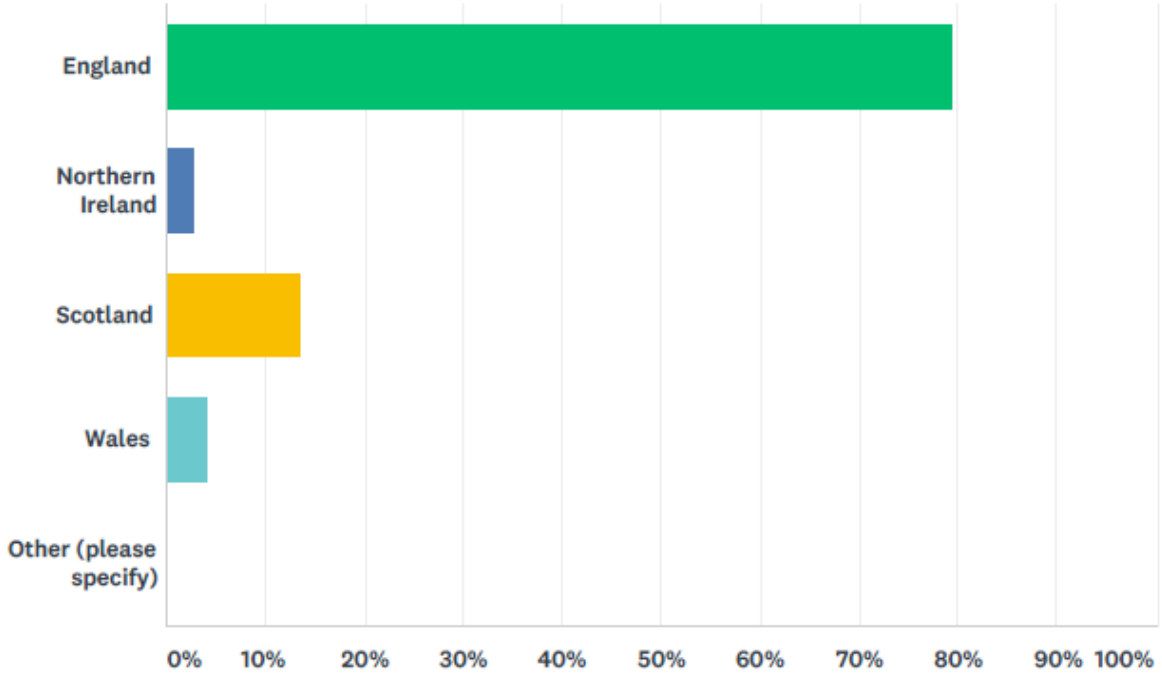
Having gathered information about these services; establishing the obstacles faced during their development, how they overcame them, the strengths and weaknesses of the service, how they developed and the impact of this within the organisation, it was clear that whatever we were to recommend in the document should not have a negative impact on established services and, indeed should be supportive.

The document sets the scene by describing what Enhanced Care is and, specifically, what it should not deliver. It identifies service objectives, which clearly are dependent on the drivers for implementation and the patient group being cared for. Models of funding are also outlined. Key principles have been established under four headings; Patient centred care, Governance, Service Model and Patient pathways; and recommendations made in each area.

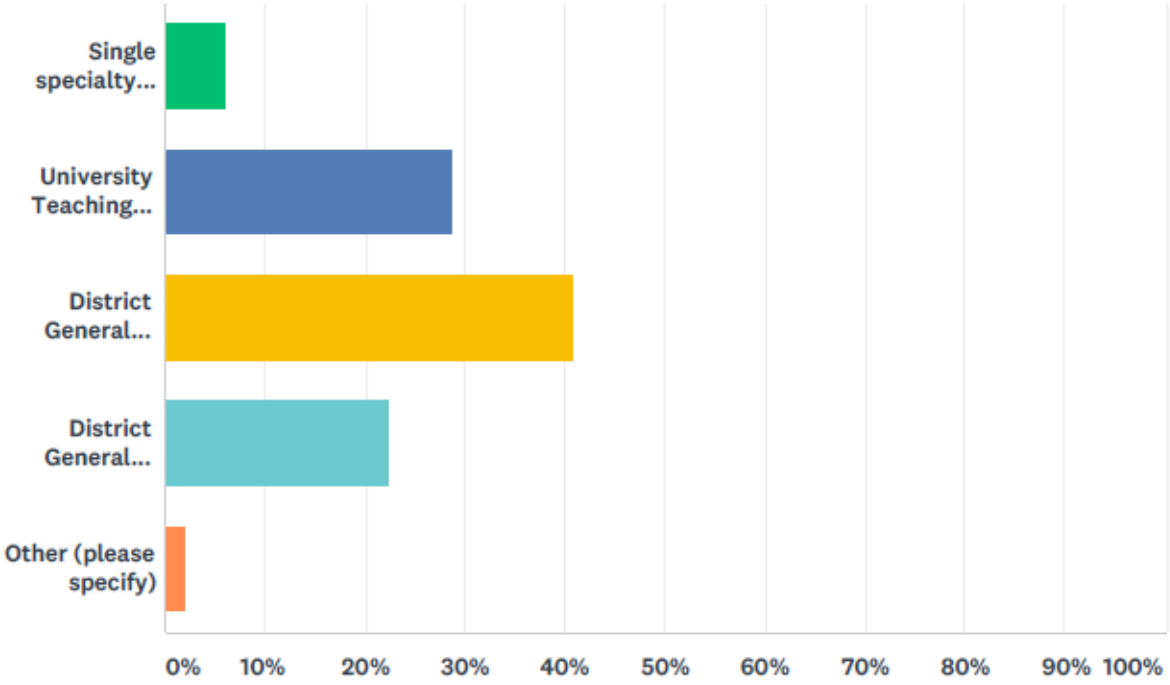
Appendix 2: Enhanced Care Guidance – Survey Summary Data

SurveyMonkey was used for the questionnaire that was sent to 249 SNAP-2 sites in England, Scotland, Wales and Northern Ireland. Out of 141 responses, 80 sites had an Enhanced Care Service of some kind. The following questions are a selection of those asked with a summary of the free text replies.

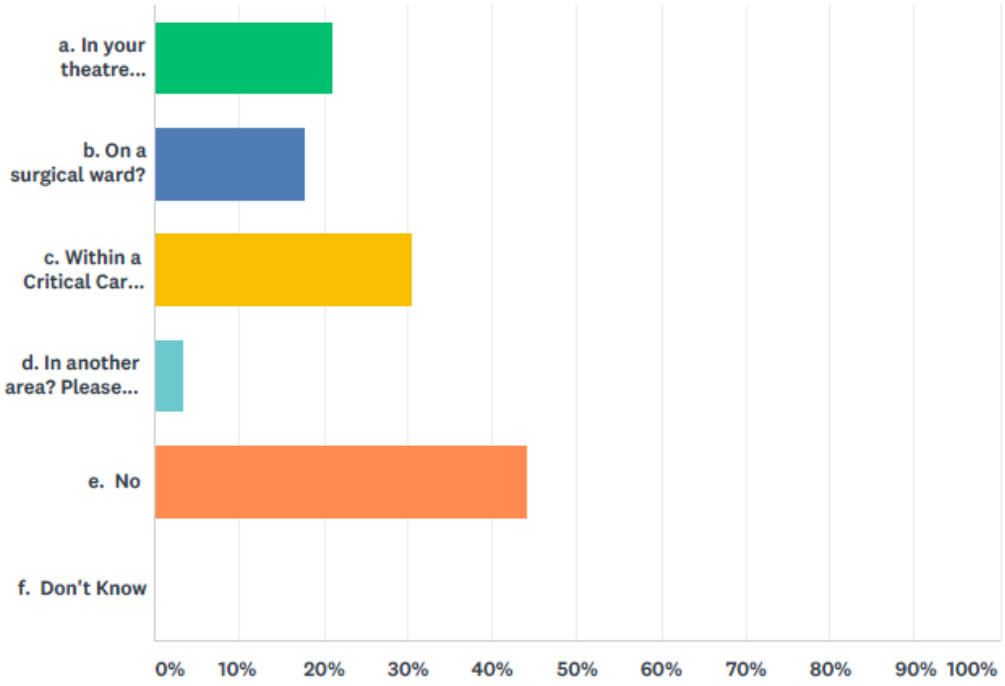
1. Please select the COUNTRY where your hospital is based



2. Please select the type of your Hospital from the list below



3. **Do you have an area or provide a service that routinely accepts patients for planned overnight recovery/Enhanced Care (this can include any Post-Anaesthetic Care Units (PACUs), Overnight Intensive Recovery (OIR), or other wards with "monitored beds")? Please select all that apply**



4. **What were the drivers for developing the service?**

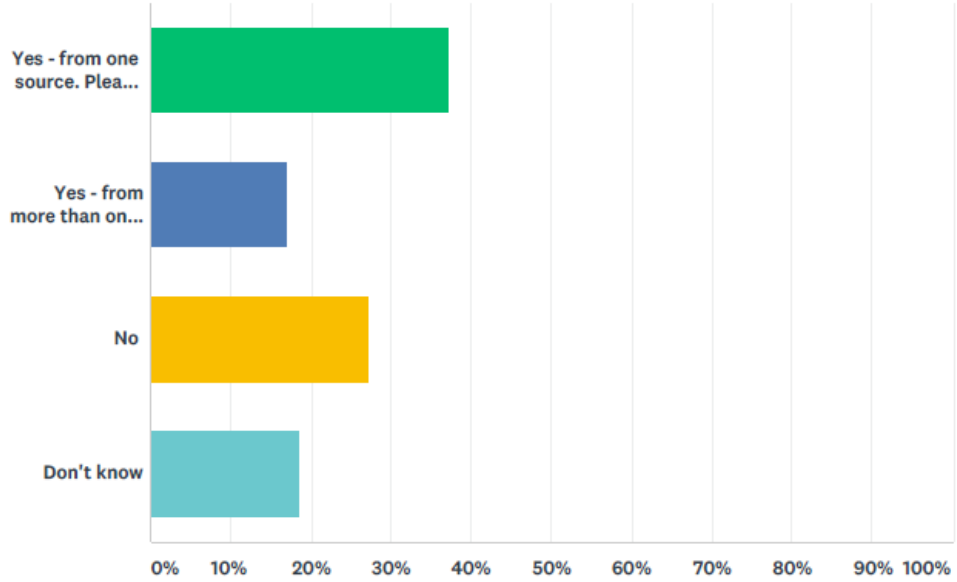
The overwhelming majority of respondents stated that the drivers, in some form or another, were to improve patient care. This was usually due to the lack of critical care capacity resulting in cancelled operations and loss of revenue, delayed theatre starts or patients remaining in PACU overnight.

It was recognized that the lack of critical care capacity was due to the increasing number of patients admitted for a level of care that cannot safely be provided in a normal ward environment but do not receive level 2 care. Likewise, patients who have received level 2 or 3 care cannot be discharged to the ward if they still require an enhanced level of care.

The commonest specialties to have developed Enhanced Care are orthopaedic, vascular, colorectal and cardiac surgery but there are some upper GI and neurosurgical services, free flap care and any procedure where the is an increased risk of bleeding requiring frequent/continuous monitoring. Some of these were part of an ERAS programme.

In some cases, the service had been developed for a particular patient pathway e.g. elective cardiac surgery, but the impact has led to expansion to include planned, high-risk non-cardiac surgery. This could either be the patient themselves poses a high risk or the surgical complexity.

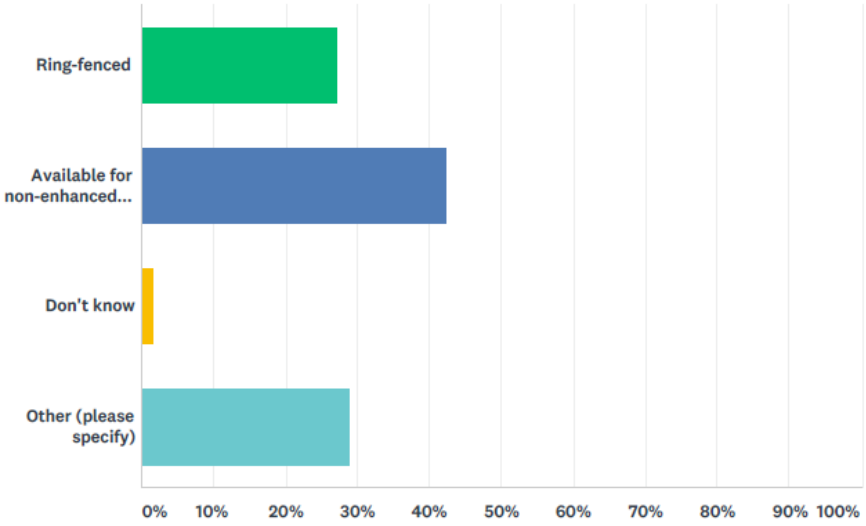
5. Is there funding identified for the service?



The majority of funding has come from using critical care tariffs. Some have been funded from local budgets depending on which specialty uses the service and in these cases there is often more than one source e.g. the trust funds the nursing element but HEE funds the junior medical staffing. The loss of revenue from cancelled elective surgery has been identified to support development of Enhanced Care in some organisations whilst in others service reconfiguration led to an opportunity to remodel postoperative care.

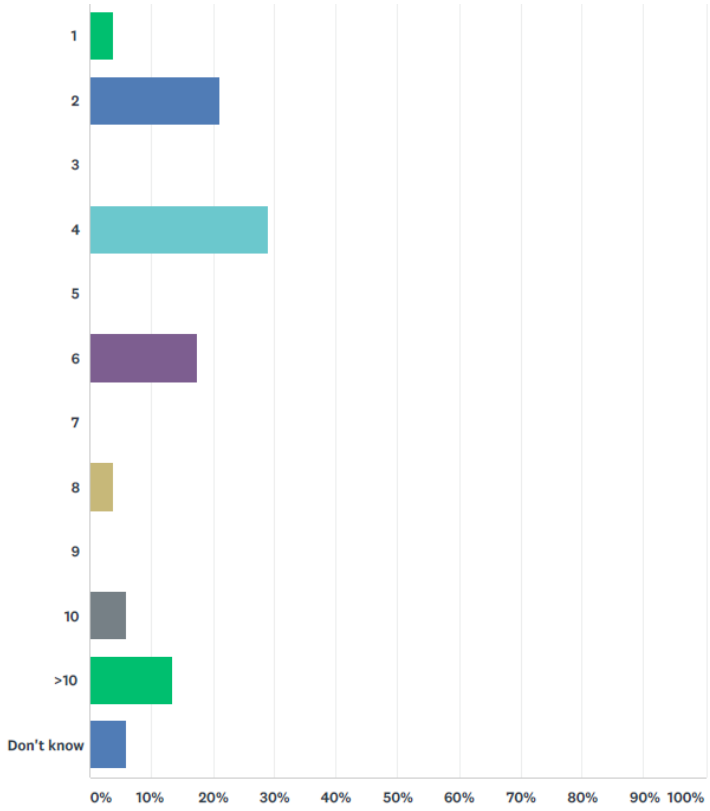
"NHS … agreed to undertake upper GI surgery on patients from an adjacent Health Board. This additional work was accompanied by additional funding but there was a lack of capacity in critical care to accommodate the additional postoperative GI surgery patients. Using some of this funding to open a Level 1 area in the Vascular Surgery ward markedly reduced the number of postop vascular surgery patients admitted to critical care, making it possible to accommodate more GI surgery patients"

6. Are the beds ring-fenced or available for non-enhanced care patients?



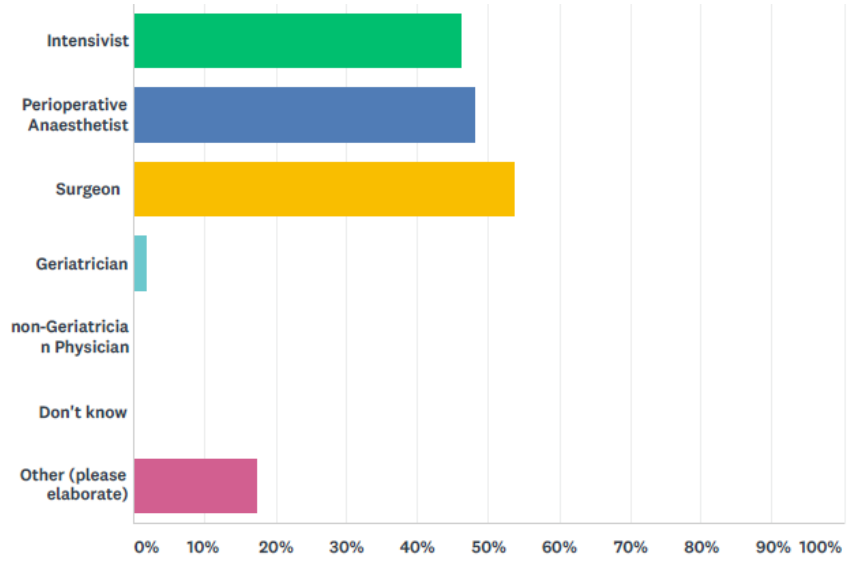
Where beds are ring-fenced, there is a recognition that sometimes patients remain there when no longer requiring Enhanced Care due to lack of ward capacity. In addition, when the system is pressured a ward patient or a critical care patient may be admitted. A greater proportion of respondents implied that this flexibility was built-in to the service by not ring-fencing beds.

7. How many patients can you look after in this service?



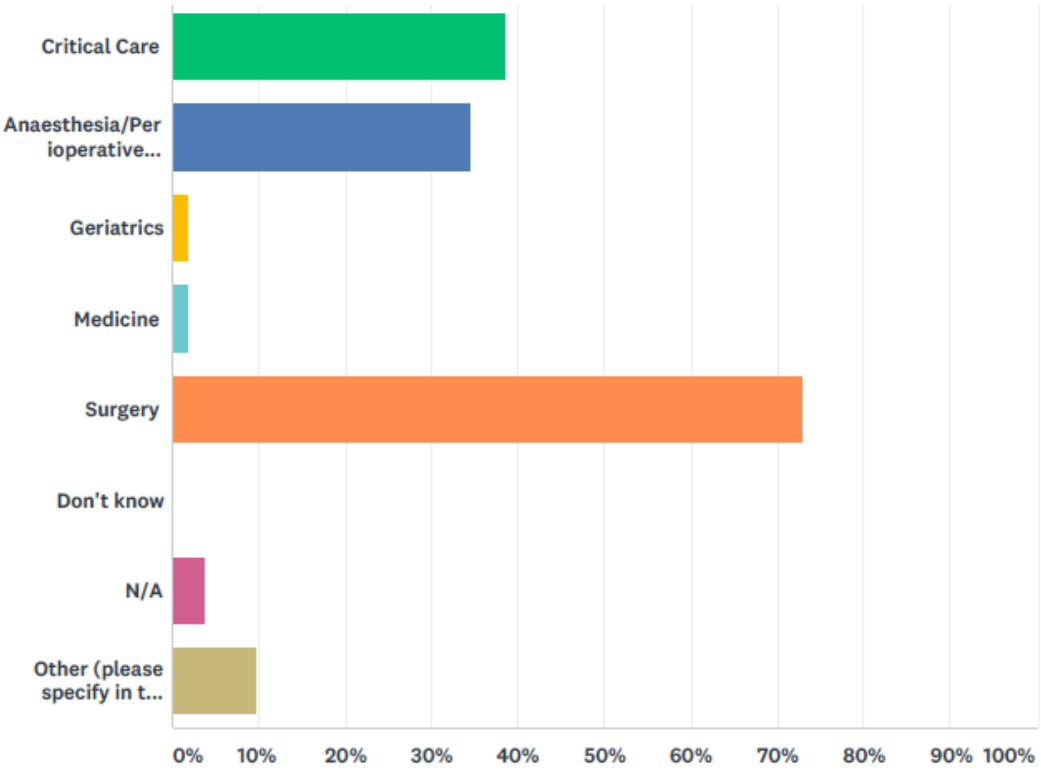
The commonest number of patients in an Enhanced Care area is four. Those that state they care for more appear to be where the service is provided within an existing critical care facility. One reply commented that patients present one at a time and might explain the above results.

8. How is the care delivered in this unit /area at consultant level? For example, is it shared?



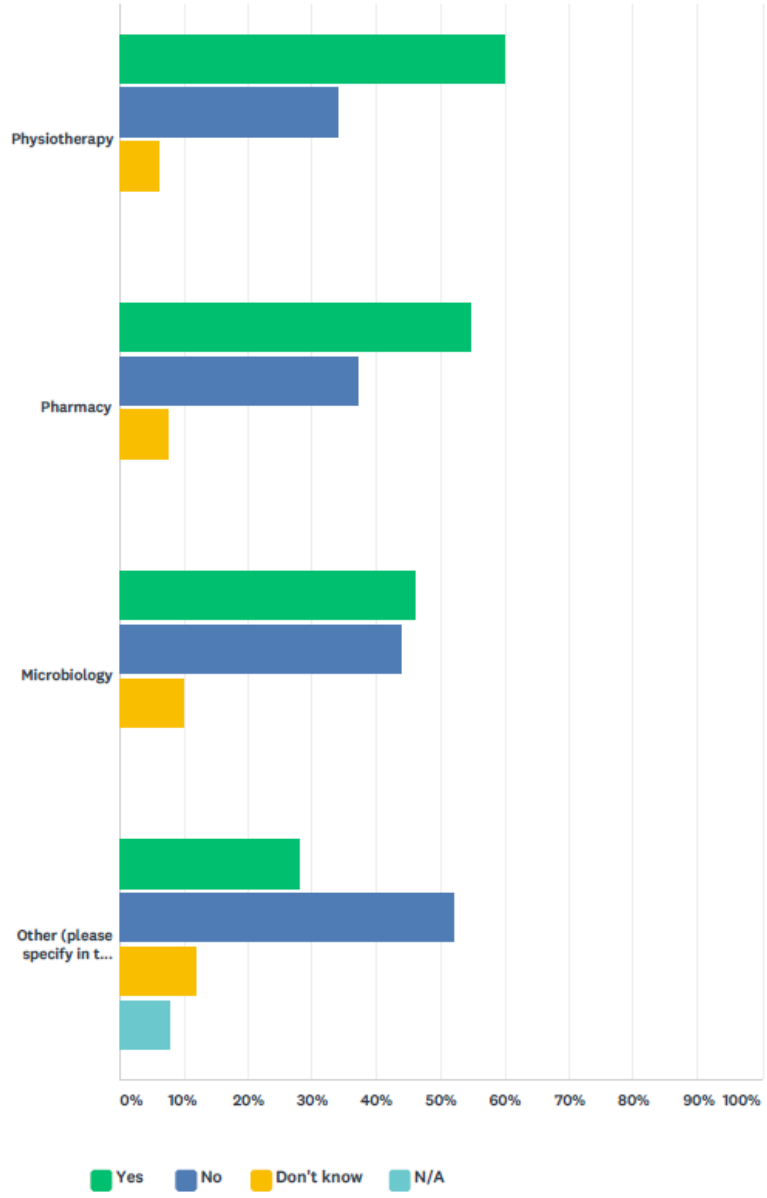
The comments accompanying "Other" were either about non-consultant input or care changing either at different times of day e.g. between normal working hours and night or when level of care changed.

9. **Is there a daily ward round with input from the following specialties? Please select all that apply:**



Other input included microbiology and dietetics, outreach and acute pain team. Where care is delivered in a recovery area a formal ward round is less likely.

10. Does the ward round have input from other professionals?



Others included dietician, SALT, OT and neurophysiotherapy.

11. What are the admission criteria?

This produced a huge diversity of answers reflecting the variation in type of service being delivered. Some were very specialty/procedure specific. Some used outcomes such as frailty scores, predicted 30 day mortality >1% or undergoing major surgery with a pPOSSUM >10%. Some patients are identified on an ad hoc basis either during pre-assessment or on the day of surgery; others use very clearly defined criteria:

- *"Postoperative endovascular AAA repair and carotid endarterectomy patients are admitted as a routine. Other postoperative patients e.g. post op amputation in a patient with cardiac disease, are admitted at the request of the anaesthetist or surgeon. Vascular surgery patients being transferred out of critical care. Patients already on the vascular surgery ward who it is thought would benefit from an enhanced level of care / monitoring but do not require critical care admission"*

- *"This unit is for surgical patients. There is a separate unit for trauma patients. Patients with epidurals and central lines are accepted. Patients with epidurals allowed metaraminol infusions. No arterial lines or other inotropes permitted"*

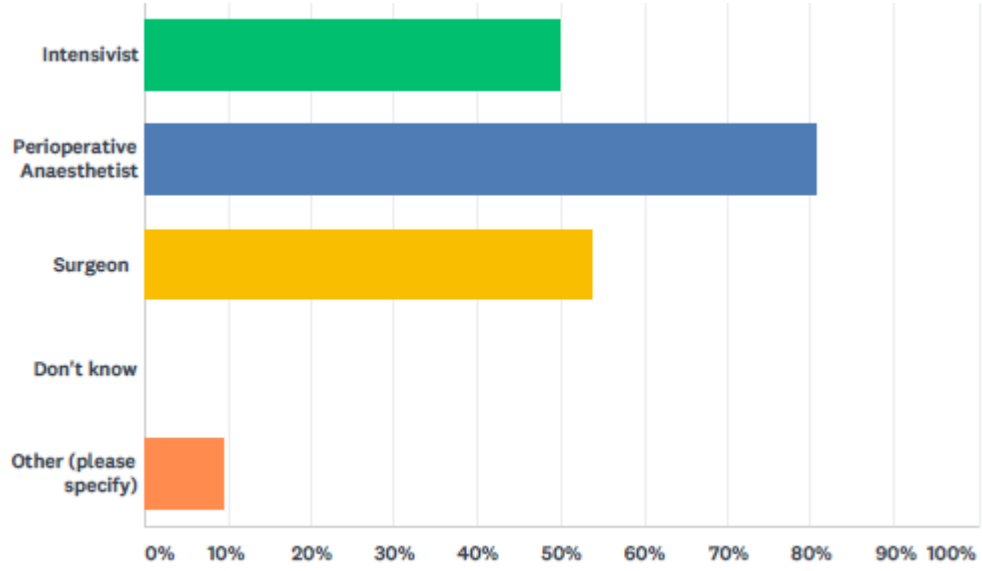
- *"Postoperative cases which need higher level of monitoring with arterial lines and CVP lines and who have had major surgery where you don't want to step down to the ward straight away"*

- *"Upper GI patients on ERAS protocol who do not require critical care post of (mostly gastrectomy)"*

- *"Elective patients on a case by case basis. All emergency laparotomies routinely admitted"*

- *"Complex airway surgery and sleep apnoea".*

12. Who is responsible for decision making around admission?

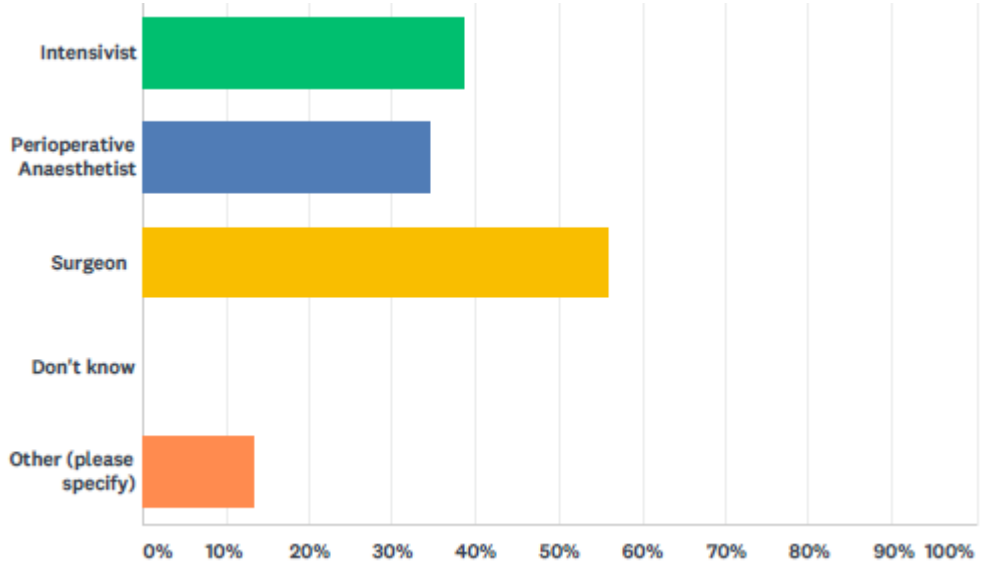


In most cases, joint decision-making is utilised either during the pre-assessment process or on the day of surgery. Often the admission is part of a planned patient care pathway and the nurse in charge will make the decision depending on capacity.

13. What are the discharge criteria?

The majority of patients are discharged when they no longer require an enhanced level of care and their needs can be safely met on a normal ward. Some services have very formalized criteria based on ERAS or other care pathway. Where the service has developed to support surgical throughput there is a predefined length of stay to facilitate theatre scheduling. In these circumstances, if the patient does not meet the discharge criteria they are transferred to a higher level of care.

14. Who is responsible for decision making around discharge?

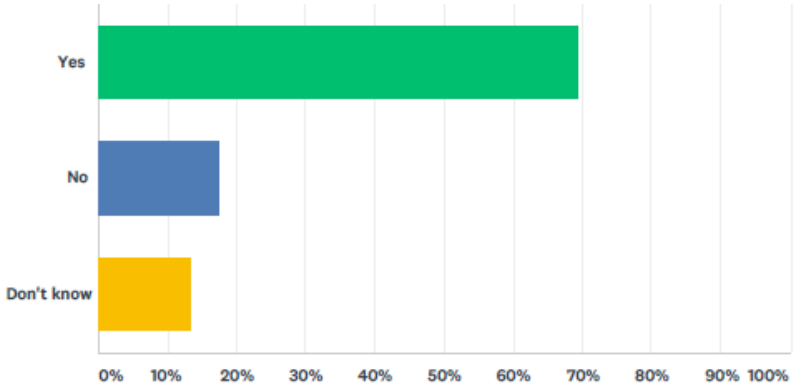


The "other" were all nurse or physio led discharge.

15. Is the service 24/7/365?

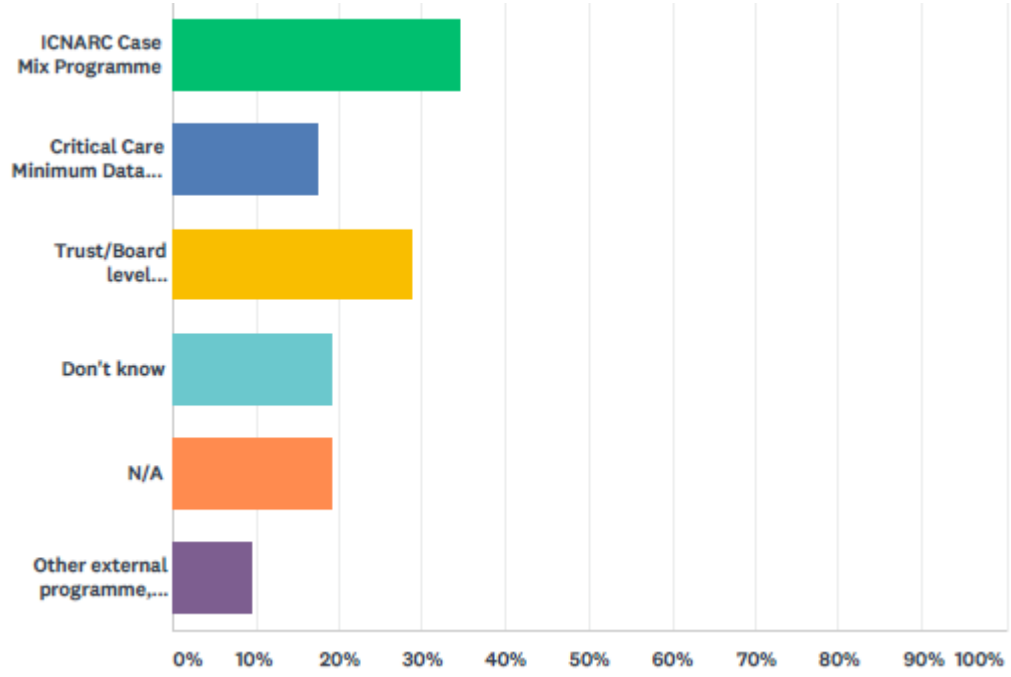
80% of services provide care around the clock. The remainder offer the service based around operating schedules eg Monday to Friday/Saturday midday, 13:00 Monday to 07:30 Friday.

16. Do you collect audit data for the service?

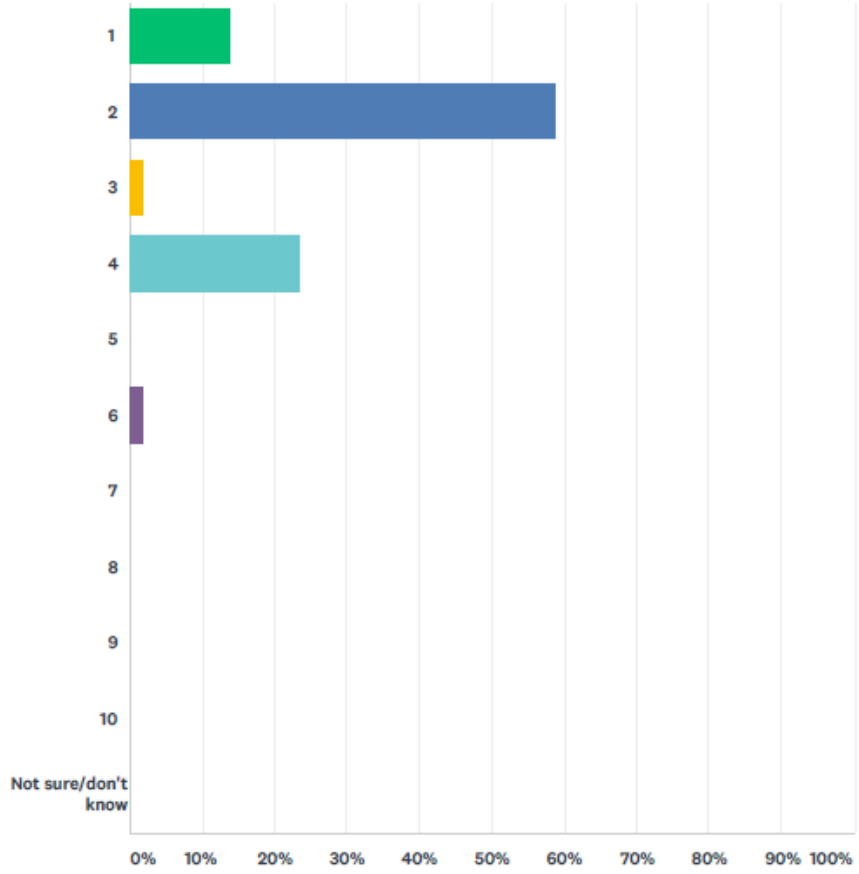


The majority of services collect audit data, some of which is regular but some is intermittent. Some of this data is fed into a critical care performance framework and some forms part of a national data collection programme.

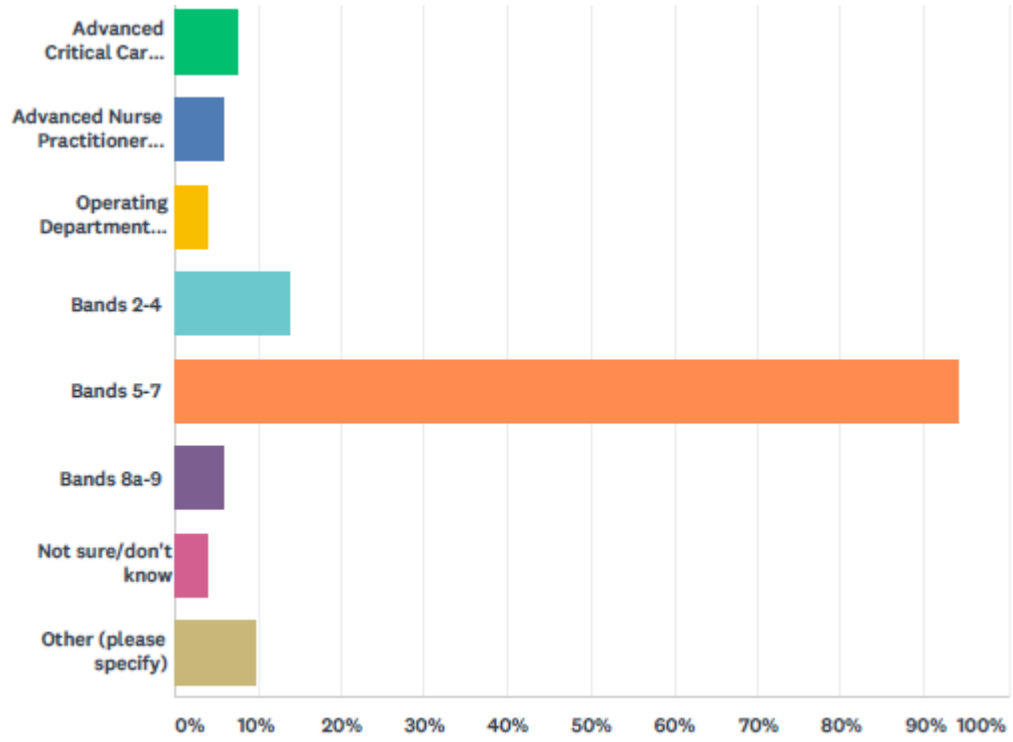
17. If you do collect audit data for the service, is the data provided for any of the following? Please select all that apply:



18. How many patients does one qualified nurse typically look after?

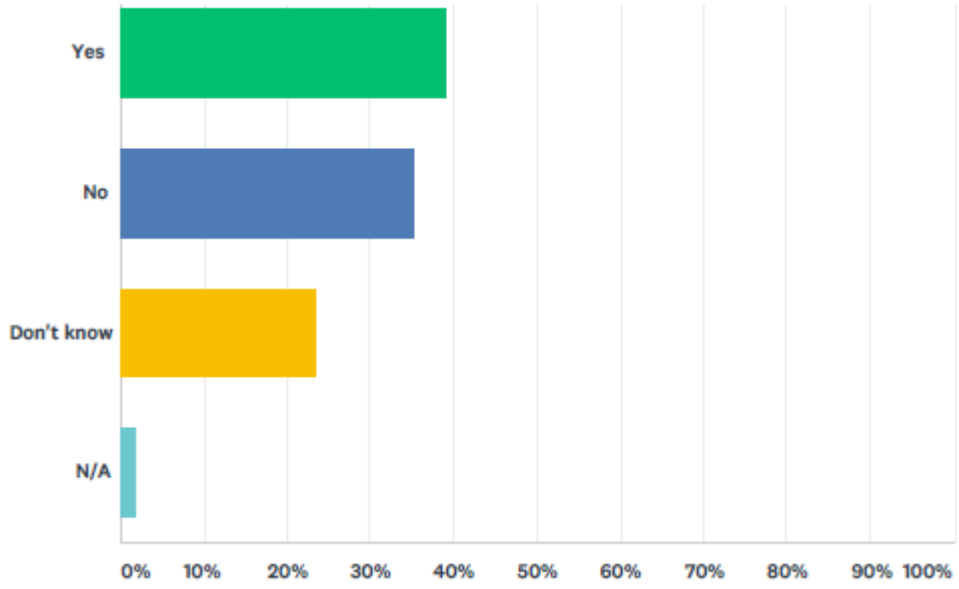


19. What grade of nursing/non-medical staff are usually rostered to deliver care on a normal shift?



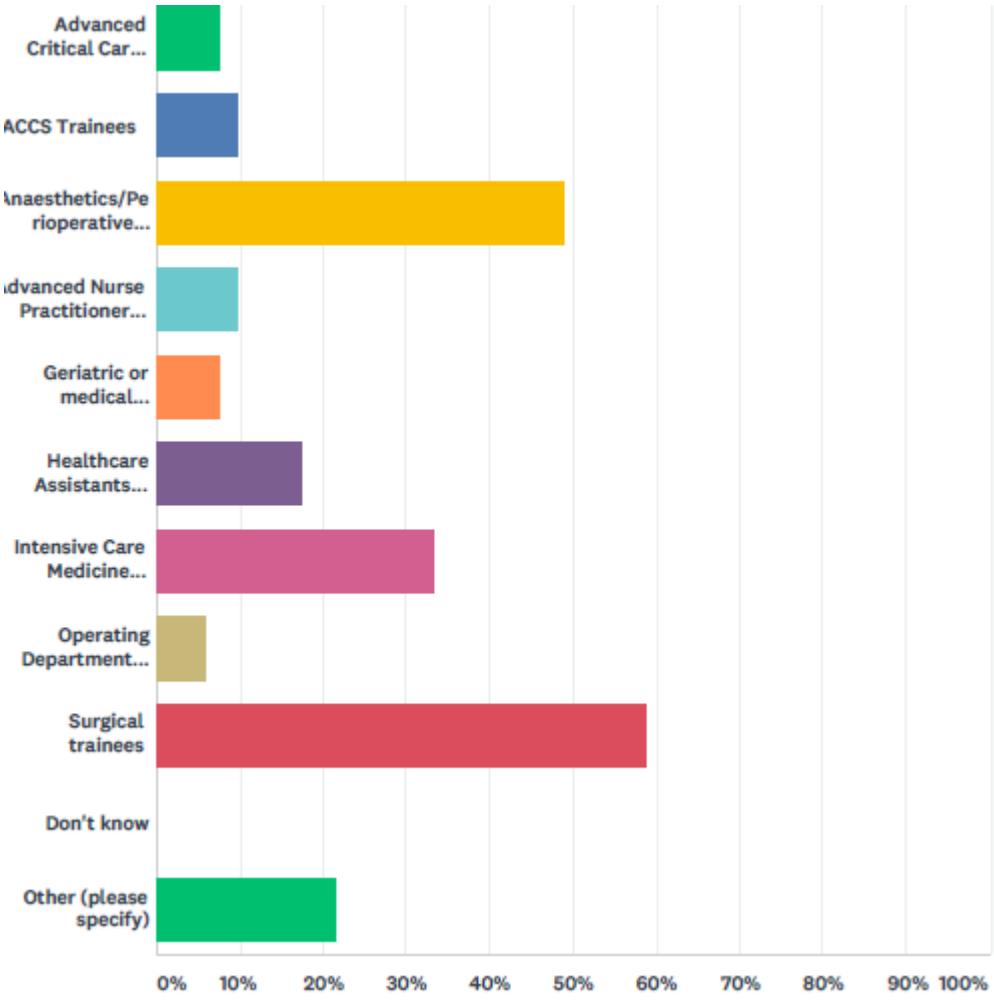
Outreach nurses provide care during the daytime in some areas.

20. Have any staff had to have or obtain additional training or qualifications in order to be able to deliver this service?

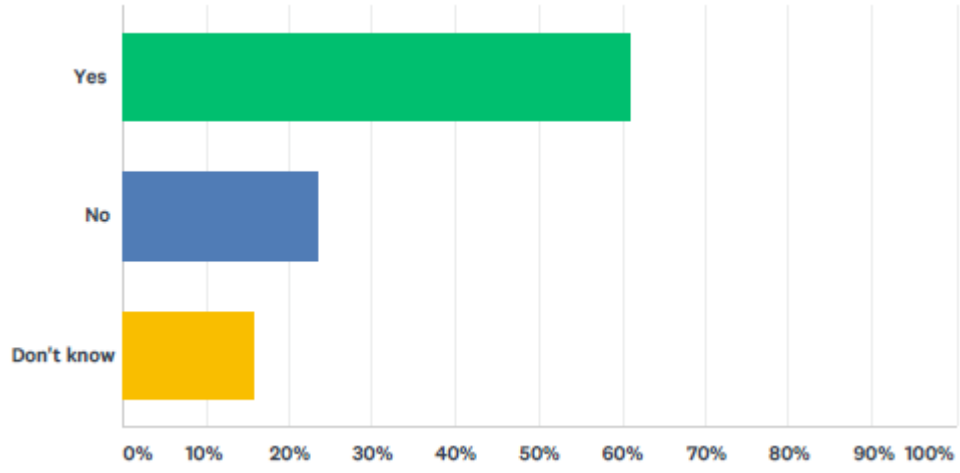


Examples of some of the training required are a critical care course, non-medical prescribers course, Level 1 Critical Care Competencies, "Foundations of Critical Care", 3 day in house "Introduction to Critical Care" course, in house training for local protocols for delivery of metaraminol infusions and care of arterial lines.

21. Who routinely provides daily medical input for these patients? Please select all that apply:

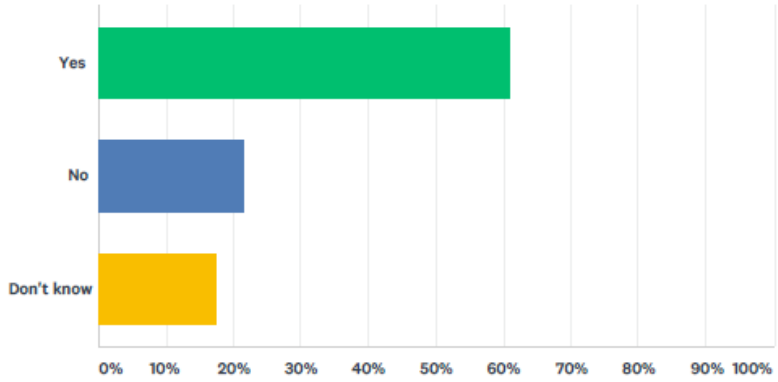


22. Is there a medical lead for this service?

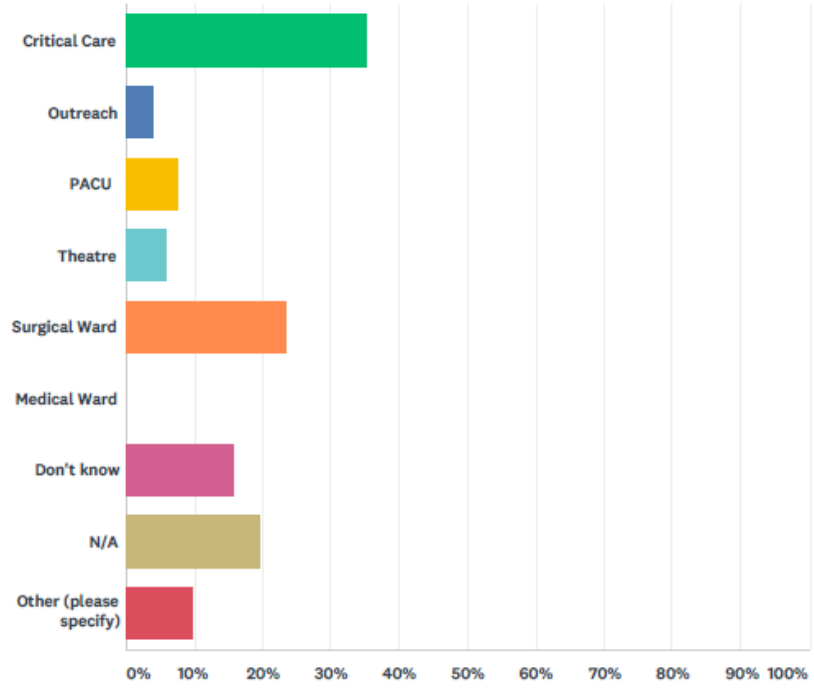


It is usually a consultant from anaesthesia and/or intensive care medicine identified as the medical lead. Occasionally there is a surgical lead, either solely or jointly.

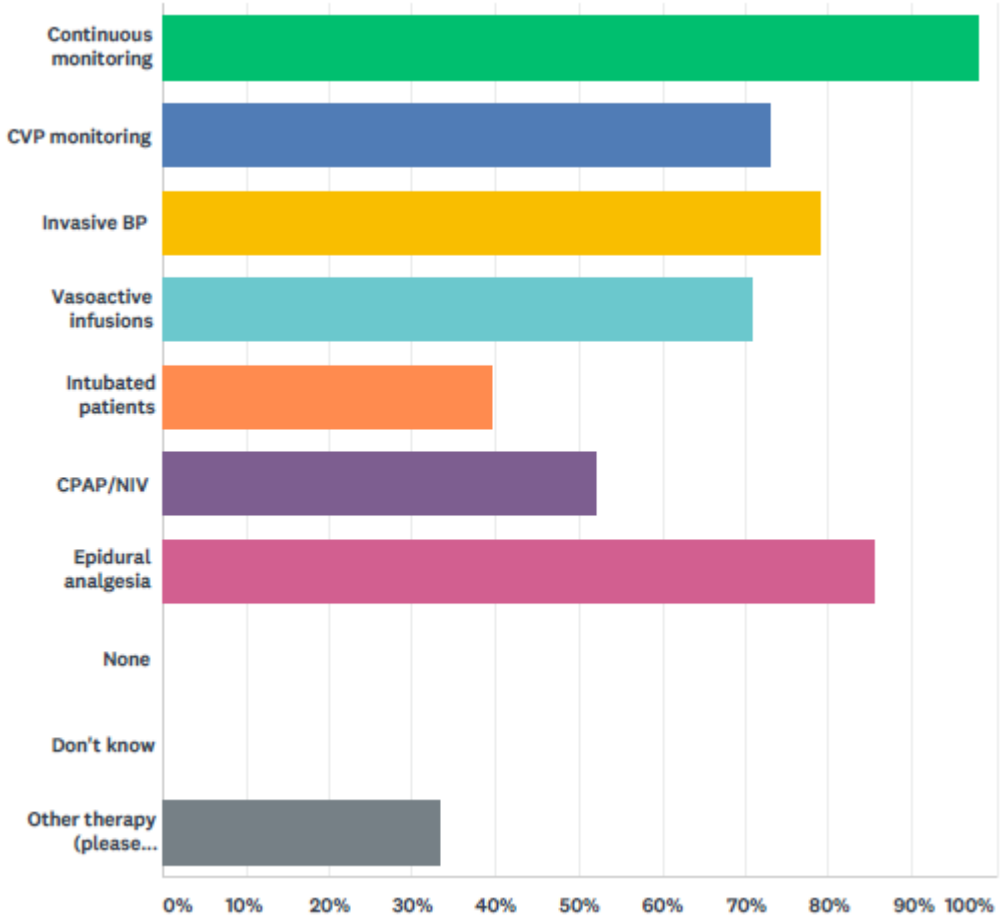
23. Is there a nursing lead for this service?



24. What is the clinical background of the nursing lead? Please check all that apply:



25. What kind of monitoring and/or physiological support is available for patients? Please select all that apply:



All services can provide continuous monitoring and some undertake specific observations related to the surgical procedure. The ability to care for intubated patients is misleading as some respondents provide their Enhanced Care within a critical care facility. Some services commonly deliver phenylephrine and labetalol infusions, others will only accept metaraminol infusions where the hypotension is related to an epidural. Other infusions included magnesium, amiodarone and electrolyte correction. The initial management of atrial fibrillation was also undertaken by some units.