Review of General Surgery 2022

Preoperative Assessment Workstream

Authors

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Introduction

Preoperative assessment is an integral part of perioperative practice and involves the optimisation of patients and working with them to formulate a plan for their perioperative care. Patients undergoing surgical procedures are increasingly more likely to have co-morbid conditions which may place them at increased risk of perioperative morbidity. Preoperative assessment allows for a comprehensive evaluation of co-morbidities, in the context of surgical complexity, whilst allowing for a frank and honest discussion of risk with patients and their families.

Recent national multi-organisational guidance[1] has outlined the key aspirations of preoperative assessment in that by the time a patient undergoes surgery they should:

- have shared in the decision to proceed to surgery, feel empowered to ask questions, and engage in their perioperative healthcare;
- be fully informed of the risks and benefits of surgery vs. other treatment options (including doing nothing), as applied to them, and including their individualised risk assessment of adverse outcomes in accordance with the principles laid out by the Montgomery ruling;
- have had significant comorbidities which could potentially impact on perioperative care and outcomes identified and optimised where possible, with a perioperative plan of care in place
- have started to improve modifiable risk factors, including smoking, reduced physical

activity, excess alcohol and poor nutrition, and improved their psychological

- preparedness, following general and targeted advice;
- be entered into a system of active clinical surveillance to ensure that significant changes in health and fitness while on a waiting list are made known to the perioperative team.

In addition, the Royal College of Anaesthetists have specific requirements for preoperative assessment as laid out in the guidelines for provision of anaesthetic services[2]. These include the necessity that:

- All patients should be assessed prior to anaesthesia or anaesthesia-led sedation. This could be conducted face to face in a clinic or virtually. The majority of preoperative assessment will be nurse led and delivered.
- An anaesthetic preoperative assessment service should involve senior anaesthetist involvement. Dedicated anaesthetic presence must be available in the preoperative assessment and preparation clinic.
- An appropriate level of staffing and suitable facilities should be available to deliver a good quality preoperative service.
- Preoperative assessment should occur as early as possible in the patient's care pathway. Greater than two weeks preoperatively is recommended as good practice and preferably as close to the point of contemplation of surgery as possible to allow for the optimisation of chronic health conditions and health behaviours, so that all essential resources and obstacles can be anticipated prior to the day of procedure, including discharge arrangements.
- Where possible, it is preferable for one stop arrangements to be implemented so that patients can attend preoperative assessment during the same hospital visit as their surgical outpatient assessment.
- The secondary care preoperative service should liaise closely with primary care, other secondary care professionals and commissioners to promote a 'fitness for referral' process in line with best practice.

- Agreed internal referral pathways to other specialties should be in place for the minority of cases in which this may be required to expedite further investigation and patient optimisation.
- Consideration should be given to the use of formal prehabilitation pathways as well as services for nutritional assessment, smoking cessation, alcohol / drug addiction services and psychological support
- Consideration should be given to a designated pharmacist being available to provide advice and input into anaesthetic and preoperative assessment.

Preoperative assessment in context of General Surgical Review

This workstream, as part of the general surgical review, aims to identify common issues affecting the delivery of preoperative assessment across all Trusts whilst avoiding duplication of ongoing collaborative work which is currently being undertaken as part of the Encompass Digital Health Record project.

As part of this workstream, preoperative assessment clinical leads and senior members of nursing staff from all Trusts came together to discuss current practices and challenges (Appendix 1). Engagement with representatives from primary care and pharmacy to discuss common issues was sought and discussion with counterparts in England and Wales was undertaken to identify areas of regional good practice.

Current model of preoperative assessment in Northern Ireland

Each of the five Health & Social Care Trusts in Northern Ireland have established preoperative assessment services which comply with the RCOA guidance for provision of anaesthesia services. These clinics involve most assessments being undertaken by experienced nursing staff trained in POA with support from consultant anaesthetists in the form of both notes review and patient assessment.

During the COVID-19 pandemic, services were significantly affected by the redeployment of staff and the downturn in elective surgical provision. Staff moved quickly to the use of telephone assessment and many sites continue to use this service either for the majority or a significant number of patients. Whilst telephone POA is useful in many cases, the return to face-to-face assessment of more high-risk patients is a necessary component of perioperative care, allowing shared decision making with both patients and their families.

Current challenges & recommendation

1. **Insufficient workforce**

   As with all areas of perioperative practice, workforce issues are paramount. Significant recruitment and training of specialised preoperative assessment staff, including anaesthesia, nursing and allied health professionals, is essential to meet not only the current demand for urgent and elective surgery but to address the significant backlog of almost 120,000 patients awaiting inpatient treatment[3].

   All sites are currently in need of additional nursing staff to maintain current services with some sites requiring significant additional staff to expand their provision to baseline levels. All Trusts have identified the need for further consultant anaesthetist sessions to support the delivery of POA and in particular the need for rapid decision making in patients who require time-critical procedures.

   Recommendation

   Comprehensive workforce planning is required on a regional basis to establish the additional staff required not only for rebuild but to expand preoperative assessment in the context of increased elective care delivery.

2. **Need for digital transformation**

   NIECR is a critical tool for preoperative assessment to establish both a patient's medical history and ongoing investigations or treatment. Previous preoperative assessments and anaesthesia records are uploaded at some sites, but this is not

universal practice. This often requires the movement of clinical notes both across sites and between Trusts which may cause delays or misplacement.

The introduction of ENCOMPASS has the potential to reduce duplication, further support virtual preoperative assessment and streamline the POA process regionally. Patient facing portals may be utilised to deliver information and allow patients to input information that will allow them to be directed to the most appropriate type of POA, potentially reducing unnecessary hospital attendances and wasted resources. In addition, outcomes data will be able to be used to improve practice and

Recommendation

The provision of a regional digital preoperative assessment tool as part of the Encompass digital health record is an opportunity to significantly enhance the delivery of POA in Northern Ireland through the avoidance of duplication, improved efficiency through data self-population and the availability of outcome measures.

3. Interaction with primary care

Preoperative assessment often requires interaction with primary care to convey information or request changes in patient medication. There has been significant concern in the past from primary care colleagues as to who is responsible for referral to other services if patients are deemed unfit for surgery at POA or require medication adjustment in the preoperative period.

It is recommended that referrals from primary care to surgical teams and preoperative assessment services should detail significant medical comorbidities and contain an embedded process to enable early optimisation and review. Ideally, this referral system should highlight opportunities for optimisation in patients who may benefit from services to assist in stopping smoking or reducing high alcohol intake.

As part of this review, colleagues from primary care and anaesthesia are working together to establish future collaborative pathways and information to allow patients to be optimised in the time before their surgery. This will include advice on “fitness

for surgery" and common issues that may result in preoperative delays such as diabetes management.

Recommendations

The continued strengthening of regional links with representatives from preoperative assessment and primary care to reduce delays or cancellations and improve the readiness of patients for surgery

4. Expansion of virtual POA service & "drop-in" clinics

Traditionally, most patients underwent POA and surgery in their "home" Trust with some regional services delivered in other Trusts to which patients were referred. It is important that POA is delivered from the site where surgery will take place – this is particularly important when patients are undergoing major procedures with significant risks of co-morbidities or at sites where only certain types of surgery or patients may be safely undertaken (such as a remote day procedure centre).

The use of virtual POA, either via telephone or video link, has expanded significantly due to the COVID-19 pandemic and is useful for patients who are either low risk for surgery, undergoing a minor procedure, or require a repeat POA to check that there has been no change in their health since a previous appointment. It is also helpful for patients who may have to travel significant distances for multiple hospital appointments – although the availability of same day POA "drop in clinics" can be helpful in reducing hospital attendances.

The development of regional day procedure centres to perform high volume, low complexity surgery is essential for the reduction in waiting lists. These sites may be somewhat distant from a patient's home and therefore virtual POA may avoid multiple journeys. The use of regional phlebotomy hubs will allow for patients to avoid travelling for preoperative blood tests and avoid on the day cancellations.

Recommendations

The increased use of virtual POA, “drop-in” clinics and regional phlebotomy hubs should be expanded to help avoid unnecessary hospital visits and day-of-surgery cancellations.

5. Regional availability of prehabilitation

Prehabilitation is the practice of enhancing a patient’s functional capacity before surgery, with the aim of improving postoperative outcomes. It is a multifaceted concept with focus on reducing perioperative complications by improving patients physical, metabolic and mental health before undergoing surgery. It has particular relevance for patients undergoing cancer surgery but should be incorporated into the preoperative period for all patients with smoking cessation and exercise interventions potentially decreasing postoperative complications by up to 50%.

With ever increasing waiting lists In Northern Ireland, the concept of changing patients mindset from passively awaiting their surgical procedure to instead actively being on a “preparation list” where everything they do maintains and improves their function is crucial to avoiding co-morbidities.

This concept has been adopted in many Trusts across England with “Prehab4Cancer” in the Greater Manchester area and “Get Set 4 Surgery” at St Georges in London being two such examples. The Royal college of anaesthetists has a “Fitter, Better, Sooner” resource and has produced guidelines for the development of prehabilitation services in collaboration with Macmillan cancer support[4].

In Northern Ireland there has been some success in setting up pilot schemes in both the South Eastern and Belfast Trusts. These pilot schemes could be developed on a regional level where patients can access easily from primary care or first hospital appointment, rather than waiting for preoperative assessment which may occur too close to surgery to achieve maximum benefit.

Recommendations

The development of pilot prehabilitation services to allow regional, equitable access to all patients and develop the concept patients actively improving their health on a "preparation list" rather than a traditional waiting list.

6. Waiting list management

A recurring theme in discussions with POA staff was the difficulty of managing patients who are booked at short notice. The use of the FSAA clinical Guide to surgical prioritisation in the recovery from the Coronavirus pandemic[5] to prioritise the most urgent patients to have surgery in a timely manner has proved challenging for all POA teams with many patients presenting for POA within a few days of their planned surgery.

Whilst the management of urgent patients undergoing cancer surgery will always require rapid POA turnover, the expansion of services required to address the elective care backlog will require not only additional POA staff, but administrative staff to assist in timely booking and waiting list management.

Recommendations

Waiting list management to be strengthened on a regional basis to allow sufficient time for preoperative assessment and adequate patients to optimally fill operating lists and avoid wasted resource.

Conclusions

At present, high quality preoperative assessment is delivered across all Trusts in Northern Ireland and the service has risen to the challenges of the COVID-19 pandemic with innovative developments including virtual assessments and support of the regional day procedure centres.

The challenges outlined above must be addressed to not only stabilise the service but to expand the delivery of POA in conjunction with the necessary increase in elective care provision required to resolve the significant waiting times across all Trusts.
Significant workforce expansion, enhanced digital infrastructure and collaborative working across specialities will continue to develop the high quality preoperative assessment already delivered across Northern Ireland.

References

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