5 Day surgery services

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5.1 Optimising your daycase rates

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Why do this quality improvement project?

The first of the 10 high-impact changes recommended by the NHS Modernisation agency recommends 'Treat day case surgery (rather than inpatient) as the norm for elective surgery'.[1] It is recommended that daycase surgery should be considered as the default pathway for most surgical procedures. This quality improvement project may result in:

- improved daycase rates
- achieving better best practice tariffs for relevant procedures
- released inpatient beds
- improved patient experience.

Background

There is an ever-increasing demand for elective and urgent surgical procedures, placing significant pressures on resources.[1] Multiple surgical procedures that do not carry a significant risk of postoperative complications should be completed on a daycase basis.[1,2] Patient suitability for daycase surgery should be based on current functional status and stable, well-optimised medical comorbidities rather than age, American Society of Anesthesiologists classification or body mass index (BMI).[3]

Best practice

- The NHS Modernisation Agency recommended that 85% of all surgical procedures performed in a hospital should be as daycase procedures.[1]
- The British Association of Day Surgery (BADS) directory of procedures contains suggested daycase rates for elective and emergency procedures classified by specialty.[4]
- NHS England reviews and publishes best practice tariffs every year with respect to a selection of daycase procures.[5]
- Getting It Right First Time has a focus on daycase procedures.[6]

Suggested data to collect

- The hospital's overall true daycase rate (admitted for surgery and discharged on the same calendar day).
- Review those patient episodes who are admitted to an inpatient ward and have a zero-day length of stay. Were they planned as a day case? Should they or could they have been on a daycase pathway?
- Identify any recurring themes (eg sent to ward due to high BMI but sent home the same day). Act on the findings (eg revise or discard BMI limits).
- Review patient episodes of patients whose surgery could have been a day case but had a one-night stay. Did the patient actually stay overnight or was it recorded after their discharge (ie an error in administrative recording of discharge time)? What was the reason they needed to stay overnight? Would their care have been different and would an overnight stay add (or detract) from their safety or experience?

Quality improvement methodology

Assess current practice

- Are daycase patients treated according to a dedicated daycase pathway?
- Does your hospital have clear protocols for patient selection for daycase surgery and are they followed? How restrictive are they?

Review all surgical procedures suitable for daycase pathways (seek guidance from resources including the BADS directory of procedures) that were completed on an inpatient basis and consider whether there were clinical grounds for an inpatient stay. Consider the questions: 'Would this patient's risk be increased by treatment on a day case pathway?' and 'In what ways would management have been different if the patient had not been admitted as an inpatient?'

Process mapping

Map out pathways for elective procedures looking for areas or processes that are unreliable or duplicated and that could be made more efficient. Areas to consider include patient booking, preoperative assessment, admission, anaesthetic factors, surgical factors, recovery carers and discharge.

Implement change using the plan-do-study-act framework

Improvements in whole systems occur most commonly through the cumulative effect of successive small changes. Consider what changes could be implemented in the patient pathway, formulate an action plan that includes input from all interested parties and assess the effects of these changes. Run charts will aid in visualising which changes have had an impact and which have not.

Worked example

Review of a selection of maxillofacial patient case notes with a zero-day stay by a maxillofacial surgeon and anaesthetic clinical leads for day surgery to identify common reasons for patients being sent to the ward.

Following this review, day surgery suitability criteria were amended, further education for preoperative assessment of staff around suitability for day case was implemented, with discussion and agreement from anaesthetic staff. Surgeons were requested to default to day surgery if the procedure was suitable as a day case and agreement that preoperative team and anaesthetists would confirm medical suitability and initiate any further clarifications required.

Mapping

ACSA standards: 1.1.1.9, 1.2.4.5, 1.4.3.1, 4.2.2.2, 4.2.3.1
Curriculum competences: Annex G pages G-4, 5, 9, 11, 12, 15, 16, Annex E pages E-9, 10, 26
CPD matrix code: 1I03, 1I05, 3A06
GPAS 2020: 6.3.1, 6.3.8, 6.3.13, 6.3.15, 6.5.7, 6.5.8, 6.5.9, 6.5.10, 6.5.11, 6.5.31, 6.6.1, 6.6.2, 6.6.3

References

1. NHS Modernisation Agency. 10 High Impact Changes for Service Improvement and Delivery: A Guide for NHS Leaders. Leicester: NHS Modernisation Agency; 2004 (http://www.nursingleadership.org.uk/publications/HIC.pdf).
2. Choosing Wisely UK (www.choosingwisely.co.uk).
3. Association of Anaesthetists and British Association of Day Surgery. Guidelines for Day-case Surgery 2019. London: AAGBI; 2019 (https://anaesthetists.org/Home/Resources-publications/Guidelines/Day-case-surgery).
4. British Association of Day Surgery. BADS Directory of Procedures. 6th ed. London: BADS; 2019.
5. NHS England. National tariff for 2017/18 and 2018/19 (https://www.england.nhs.uk/pay-syst/national-tariff/tariff-engagement).
6. Getting It Right First Time. Anaesthesia and perioperative medicine (https://gettingitrightfirsttime.co.uk/medical-specialties/anaesthesia-perioperative-medicine).

5.2 Minimising day surgery cancellations/failure to attend

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Why do this quality improvement project?

Maximising theatre use in the daycase surgery setting will increase throughput with a minimal impact on inpatient beds. Minimising on-the-day cancellations can improve patient satisfaction and organisational efficiency.

Background

Theatre use and cancellations can be used as a surrogate for theatre efficiency. Use of the theatre is the actual use of theatre time compared with the potential theatre time available. It can be defined as appropriate theatre time use with a greater amount of time spent on performing procedures and minimising the time in between.[1–3] Theatre use is addressed elsewhere in this compendium (see section 11.3 Theatre use and efficiency). Optimal theatre use should be standard for daycase surgery, owing to the planned nature of the majority of cases. Theatre time cannot be used effectively if patients are cancelled on the day of surgery or fail to attend.

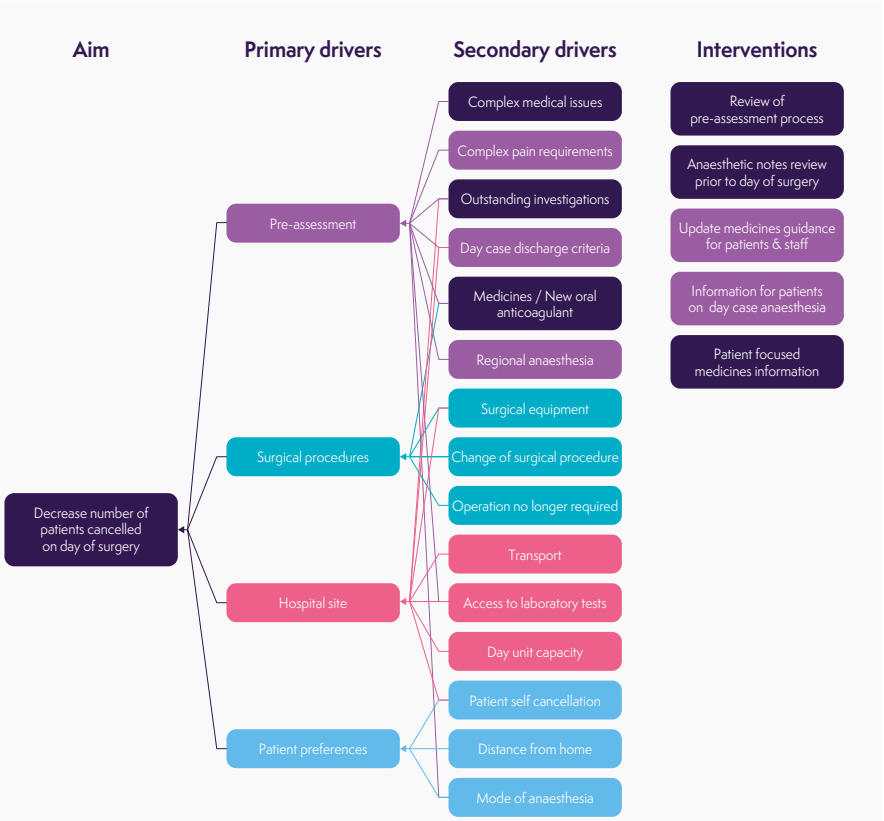

Figure 5.2.1: Driver diagram to improve patient experience and improve cancellation rates in day surgery.

Best practice

Reasons for avoidable cancellation on the day are likely to relate to a component of inadequate preoperative preparation and planning. Best practice should ensure that the following components are delivered satisfactorily:[4,5]

- Educate patients, carers, surgeons and preoperative assessment staff about day surgery facility pathways.
- Identify medical risk factors, optimise the patient's condition and promote health.
- Appropriate and realistic scheduling (patient and surgical factors should be considered).
- Appropriately timed preoperative phone calls to confirm continued suitability in the face of long waiting lists.

Reasons for poor theatre use are often related to scheduling, which is addressed in detail in section 11.3.

Suggested data to collect

- On-the-day daycase cancellations rates and reasons for cancellations.
- Number of inappropriate cases booked for a daycase theatre session (ie cases that do not conform to day-surgery criteria and should not be booked as day surgery).

Quality improvement methodology

Cancelled cases should be reviewed and classified as avoidable or not avoidable. Not avoidable would include, for example, patient illness on the day. Avoidable would include, for example, case or patient not suitable for day surgery. All avoidable cancellations should be reviewed and work plans developed to act on themes (eg patients attending alone with no social support and no one to remain with them overnight). Patient care pathways should be subject to continuous improvement with consideration of all the factors described in Driver Diagram fig 5.2.1.

Mapping

ACSA standards: 1.1.1.9, 1.4.3.1, 4.1.2.1
Curriculum competences: DS_IK_01, DS_IK_02, DS_IK_03, DK_IK_04, DS_AK_02
CPD matrix codes: 1I05, 3A06
GPAS 2020: 6.1.5, 6.2.2, 6.2.3, 6.2.4, 6.2.5, 6.2.9, 6.2.10, 6.4.1, 6.4.5

References

1. Nadig AS, Kamaly-Asl ID. Re-evaluation of three-session theatre efficiency. Bull R Coll Surg Engl 2017;99:274–276.
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3. NHS Improvement. Operating Theatres: Opportunities to Reduce Waiting Lists. London: NHS Improvement; 2019 (https://improvement.nhs.uk/documents/3711/Theatre_productivity_report__Final.pdf).
4. Royal College of Anaesthetists. Guidelines for the Provision of Anaesthetic Services Chapter 6: Guidelines for the Provision of Anaesthesia Services for Day Surgery 2019. London: RCoA; 2019 (https://www.rcoa.ac.uk/document-store/guidelines-the-provision-of-anaesthesia-services-day-surgery-2019).
5. Bailey C R et al. Guidelines for day-case surgery 2019: Guidelines from the Association of Anaesthetists and the British Association of Day Surgery. Anaesthesia 2019;74:778–792.

5.3 Day surgery within the main theatre setting

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Why do this quality improvement project?

This project aims to maximise the number of daycase surgeries irrespective of the organisational set-up. Day cases should only be managed through inpatient wards in rare circumstances, as this greatly increases the chances of an unnecessary overnight stay.[1,2]

Background

Daycase surgery rates within the NHS in England continue to rise and reached 84.3% at the end of 2018 for all elective admissions.[3] Ideally, daycase surgery should be carried out in a dedicated daycase unit (including theatres) on the same site as, but separate from, the main inpatient theatres.[4] A suitable alternative would be a dedicated day surgery ward where patients have surgery undertaken in the main theatre suite.[1] Beds spread across the facility do not provide the same efficiencies or indeed good outcomes from a specific daycase unit.[5]

There may be structural barriers to patient flow through the daycase pathway and to external access for patients if an existing healthcare setting is adapted.[4] The patient needs to be booked as a day case, follow the daycase pathway and be managed by the daycase team during their entire stay and not be confused with a 23-hour or a zero-night stay.[6] This minimises the chance of the patient enduring an unnecessary overnight stay, with unplanned admissions on the inpatient ward being 17% compared with 1% on the dedicated day unit at Torbay.[7] Protocol driven, nurse-led discharges are fundamental for successful daycase surgery.[4] Day cases scheduled after a major operation have an increased chance of cancellation.[8] Scheduling day cases at the beginning of the list maximises the time for recovery and time for potential discharge. Appropriate scheduling should maximise the success rate of day case surgery.

Best practice

The Guidelines for the Provision of Anaesthesia Services state that 'There should be a clear day surgery process for all day surgery patients treated within the hospital whether through dedicated facilities, which is the ideal scenario, or through the inpatient operating theatres, which should only be supported if the development of dedicated facilities is either not a viable option or there is insufficient capacity to accommodate all day surgery activity'.[1]

Suggested data to collect

- Proportion of daycase surgeries undertaken on a combined inpatient and daycase theatre list.
- Proportion of daycase patients admitted to an inpatient ward.
- Proportion of daycase patients failing to attend on the day, due to an acute medical condition, patient decision or organisational reasons.
- Cancellation of the procedure on the day because of a pre-existing medical condition, an acute medical condition or an organisational reason.
- Unplanned overnight admission due to surgical, anaesthetic, social or administrative reasons.
- Identifying missed opportunities (eg zero-night stays, one-night stays and 23-hour discharges).
- Comparison of patients outcomes (eg being operated on in dedicated daycase facilities rather than in the main theatre setting).

Quality improvement methodology

- Identify surgeries currently being undertaken in the main theatre setting where the patients have the potential to be day cases.
- Identify and engage stakeholders – this would improve the likelihood of implementing a day surgery pathway.
- Identify barriers to patient flow – this can be helped by drawing a process map of the patient journey from admission to discharge to help to categorise where problems arise.
- Trial the pathway in a small number of patients and see whether the specific outcomes improve inpatient care (eg length of stay).

Implement the daycase pathway to these patients irrespective of the organisational set-up. Ensure that these patients are coded as day cases and that they are discharged from the hospital on the day of surgery.

Mapping

ACSA standards: 1.1.1.9, 4.1.2.1

Curriculum competences: DS_IK_01, DS_IK_02, DS_IK_03, DK_IK_04, DS_AK_02

CPD matrix codes: 1105, 3A06

GPAS 2020: 6.2.2. 6.2.3. 6.2.4. 6.2.5. 6.2.9, 6.2.10, 6.5.13, 6.5.14, 6.5.15

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5.4 Performing emergency ambulatory surgery

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Why do this quality improvement project?

A significant number of emergency cases are urgent but could be performed as day cases in selected patients. The NHS Long Term Plan states that same-day emergency care should be available for surgical patients for 12 hours a day, seven days a week by 2020.[1] This has the advantage of improving patient experience, saving hospital beds and improving access to emergency theatres for life-threatening conditions.

Background

Many organisations already have pathways in place for the treatment of abscesses on a daycase basis. A few hospitals have achieved a complete emergency ambulatory care unit.[2] Other hospitals could offer urgent but minor or intermediate procedures on a daycase basis by using existing day surgery processes. With careful scheduling, urgent cases can be performed via a semi-elective pathway or via standard emergency lists and discharged using day surgery pathways.

Best practice

The British Association of Day Surgery directory of procedures highlights cases suitable for emergency ambulatory surgery.[3]

Suggested data to collect

Patient selection

Consider all patients presenting for minor or intermediate surgical procedures for surgery on a daycase basis. Suitability should be determined by surgical, patient and social factors.

- Evaluate percentage of emergency patients suitable for day case treatment. If they are not suitable, why not?

Timing and location of surgery

Timing of surgery should be the day of presentation if practical, otherwise return on a booked list as soon as possible.

- Percentage of urgent day cases operated on day of presentation.
- Percentage of urgent day cases operated on within 24–48 hours.
- Percentage of patients discharged home on the same day as their surgery.
- Evaluation of reasons behind any admissions to inform improvement.

Location of surgery

Options include:

- dedicated day surgery 'emergency' list (ideally in a day surgery environment)
- inpatient emergency list with discharge via day surgery environment
- a slot on an elective list (ideally in a day surgery environment; eg cancellations).
  - Percentage of patients operated on in each environment to plan resources.

Patient instructions

- Percentage of patients who received clear written instructions regarding date, location of readmission, care instructions for their surgical condition and emergency contact details in the event of deterioration (should be 100%).

List management

- Mixed specialty lists are possible but careful briefing is required.
  - 100% of cases should have a surgical brief.
  - Percentage of lists considered to be appropriately scheduled (eg complex cases first).

Types of surgery

Types of urgent surgery that may be suitable for emergency ambulatory pathways (recommended percentage of emergencies achievable as day cases are given in brackets where available based on national data and expert opinion):[2]

- general surgery and urology:
  - incision and drainage of skin abscess (100%)
  - laparoscopic cholecystectomy (50%)
  - laparoscopic appendicectomy (15%)
- gynaecology:
  - evacuation of retained products of conception (95%)
  - laparoscopic ectopic pregnancy (55%)
- trauma:
  - manipulation of fractures (100%)
  - tendon repair (95%)
  - open reduction internal fixation of wrist (60%)
  - open reduction internal fixation ankle (25%)
- maxillofacial:
  - repair of fractured zygoma (60%)
  - repair of fractured mandible (20%).

Compare local case load achieved to the national data available.

Quality improvement methodology

An organisation-specific ambulatory emergency pathway should exist to ensure that patients are added to an appropriate emergency theatre slot. This needs to be comprehensive and well disseminated, owing to urgency and complexity of the communication required between all stakeholders (including surgeons, anaesthetists, theatre, ward, recovery and administrative staff).

The key to success is a coordinator dedicated to the pathway and surgical hot clinics to facilitate decision making and smooth processes.

Case example

A patient classified as American Society of Anesthesiologists level 1 was awaiting urgent laparoscopic surgery on their index admission. What did we do?

We mapped the patient pathway to evaluate how this patient could be operated on in our day surgery unit and discharged home from there (see Figure 5.4.1 for a similar pathway).

Impact: by developing a coherent emergency day surgery unit pathway we have achieved urgent surgery via our unit in more than 500 patients over a two-year period, improving patient experience, relieving pressure on emergency operating theatre lists and saving bed days.

Mapping

ACSA standards: 1.1.1.9, 1.4.3.1, 4.2.3.2
Curriculum competences: DSBK01–06, DSBK08–10, DSIK01–03, DSHK01

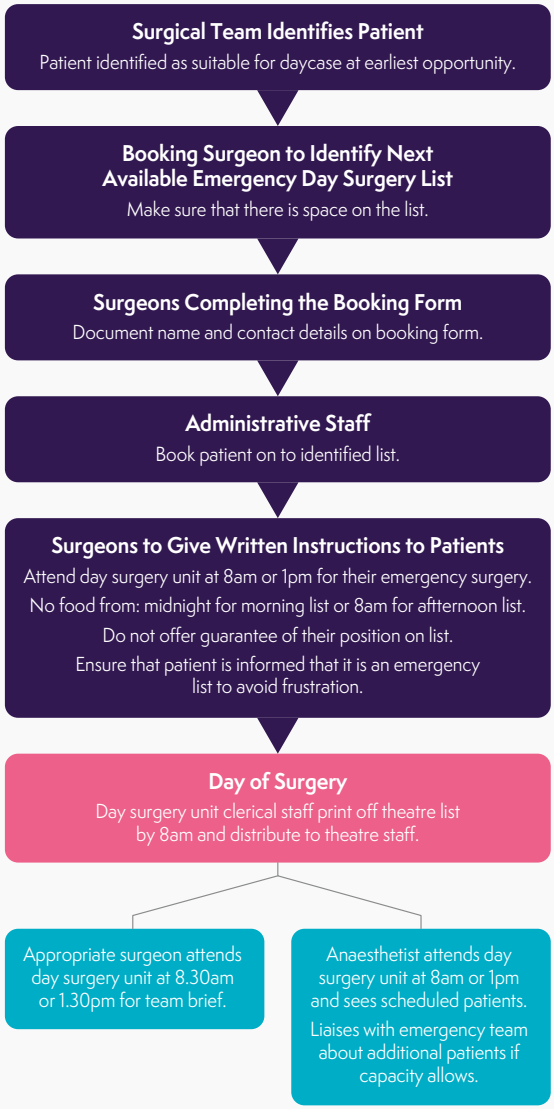

Figure 5.4.1: Emergency day surgery booking process.

CPD matrix codes: 2A07, 3A06
GPAS 2020: 6.3.12, 6.3.13, 6.3.14

References

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5.5 How effective is your daycase spinal service?

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Why do this quality improvement project?

Increasing the number of patients who have a daycase spinal can offer benefits such as:

- increasing your day surgery rates by providing an option for patients who may otherwise require an inpatient bed because of medical comorbidities
- improving patient satisfaction by offering choice, improved immediate postoperative pain control, reduced postoperative nausea and vomiting and reduced cognitive impairment in recovery
- improving theatre efficiency by reducing turnaround times
- reducing time needed in recovery in hospital and may also offer the option of bypassing first-stage recovery in some cases.

Background

Spinal anaesthesia is widely accepted for many inpatient procedures and is now becoming the preferred anaesthetic technique for a number of operations that can also be performed as a day case. In many hospitals, daycase procedures are still performed under general anaesthesia despite their suitability for spinal anaesthesia (eg cystoscopy, hysteroscopy, knee arthroscopy, ankle and foot surgery).

The adoption of spinal anaesthesia for day surgical practice in the UK has been slow. This may be due to misperceptions that it will delay postoperative recovery and discharge because of postoperative pain, slow mobilisation or urinary retention. There may also be a feeling of patient reluctance to be awake during their procedure. Patients are increasingly presenting for surgery with complex comorbidities, often associated with ageing and obesity. Use of spinal anaesthesia in day surgery may provide a better clinical pathway for such patients.

Best practice

- Every patient should be provided with the appropriate information and be offered the choice of spinal anaesthesia if appropriate as recommended by the General Medical Council and the RCoA.[1,2]
- Appropriate drugs and spinal anaesthetic dosing for day cases should be used: low-dose local anaesthetic techniques or shorter-acting local anaesthetics.[3–5]
- Postoperative follow-up should include data on postoperative pain control and complications following procedures completed under spinal anaesthesia.[2]

Suggested data to collect

Operational data

- Total number of daycase procedures performed in your unit.
- Total number of daycase procedures that are potentially suitable be to be performed using spinal anaesthesia (eg lower limb surgery, hysteroscopies, cystoscopies, hernias).
- Types of local anaesthetic agents used in day surgery spinal anaesthesia.

Efficiency data

- Time spent in anaesthetic room.
- Time spent in recovery (could be zero if bypass first stage recovery).
- Time elapsed until first eating and drinking from induction of anaesthesia/insertion of spinal.
- Time elapsed until mobilised from induction of anaesthesia/insertion of spinal.
- Time elapsed until discharge from insertion of spinal.

Note that it would be important to compare these data with baseline data for patients undergoing such daycase procedures under general anaesthesia. Timings would thus be taken from induction of general anaesthesia rather than insertion of spinal anaesthetic.

Quality of spinal anaesthesia

- Patient pain scores (define timing, such as on arrival on day surgery ward or recovery room) for sequential patients.
- Number of patients who require additional pain relief prior to discharge.
- Number of patients who develop complications following spinal anaesthesia for daycase procedures attributed to the spinal anaesthetic;* the nature of the complication (such as failure, headache, urinary retention) and the resultant impact on the patient (delayed discharge, unplanned admission or conversion to general anaesthesia).

  * As the numbers are likely to be small when looking at an individual service or list, you may consider recording the number of spinals completed between complications to generate your data. This can be better for rare events.

Quality improvement methodology

- The reasons for lower rates of daycase spinal anaesthesia than expected can be explored using Pareto analysis. This can be useful in helping an improvement team to identify the vital few reasons for low numbers of daycase spinal anaesthesia that are having the biggest influence such as inadequate information prior to surgery, lack of appropriate drugs or dosing, misperceptions of problems. Change ideas can then be directed against the factors that are having the greatest impact on unplanned admissions.
- Identify a list for improvement and target that issue such engaging the surgeon to offer daycase spinal anaesthesia when the patient is listed for surgery or sharing day surgery spinal 'recipes' to the department.
- Improvement can be identified as an increase in the percentage of daycase spinal anaesthetics for a given procedures.
- It may be useful to scope your project to look at a specific subspecialty or procedure with a high suitability to daycase spinal analgesia (eg knee arthroscopy list) and work with that team to test improvements.

Mapping

ACSA standards: 1.1.1.7, 1.1.1.9, 1.4.3.1, 1.4.5.1, 2.1.1.7
Curriculum competences: DS IK 04, DS IS 01, RA IK03,
CPD matrix codes: 3A06, 2G01, 2G02
GPAS 2020: 6.1.2, 6.1.3, 6.2.17, 6.2.20, 6.2.21, 6.3.15, 6.4.1, 6.5.9, 6.5.12, 6.5.25, 6.6.2, 6.9.5

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3. Association of Anaesthetists of Great Britain and Ireland. Guidelines for Day-case Surgery 2019. London: AAGBI; 2019 (https://anaesthetists.org/Home/Resources-publications/Guidelines/Day-case-surgery).
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5. British Association of Day Surgery. Spinal Anaesthesia for Day Surgery Patients: A Practical Guide. 4th ed. London: BADS; 2019.

5.6 Pain relief after day surgery

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Why do this quality improvement project?

To ensure good-quality pain relief for all day case surgery patients, resulting in better patient satisfaction, earlier mobilisation and reducing the number of unplanned admissions.

Background

Postoperative pain is a common cause for extended hospital stay, unanticipated admission and readmission following day surgery.[1] There have been many papers siting the rate of moderate to severe pain in patients at home following day surgery as high as 30%.[2,3] For day surgery to be successful, pain relief should be controllable by the use of a combination of oral pain relief and local anaesthetic techniques.[4] These techniques must not increase the incidence of adverse events such as nausea and vomiting.

Pain relief after day surgery requires a multifaceted approach, with patient involvement being the key component. Patients therefore need to be informed prior to surgery and reminded postoperatively about their pain management. Many patients may experience pain at home, but 30–50% do not take adequate analgesia because of misunderstandings and insufficient information.[5]

Locally produced guidelines are an important part of achieving good-quality pain relief.[6] This is especially true in procedures which are more complex. This includes prophylactic oral analgesia, adequate intraoperative analgesia (allowing quicker recovery time) and appropriate drugs dispensed on discharge following the procedure.

Best practice

The Association of Anaesthetists and the RCoA recommend:

- patient information leaflets (both specific for a procedure and general) describing pain and its management
- prophylactic long-acting oral analgesia
- good-quality intraoperative analgesia
- multimodal analgesia in locally agreed policies
- verbal and written instructions
- appropriate drugs dispensed on discharge following the procedure.

Suggested data to collect

Outcome measures

- Number of patients who have an unplanned admission due to inadequate pain relief.
- Number of patients reporting effective pain relief following day surgery.
- Number of patients readmitted due to inadequate pain relief.

Process measures

- Number of patients who received a patient information leaflet about pain relief.
- Number of procedures with specific analgesia guidelines in day surgery.
- Number of procedures where regional analgesia used.

Patient reported outcome

- Did you feel satisfied with your pain relief postoperatively?
- Were you given postoperative pain relief instructions? If so, did you follow them? If not, why not?
- Were you given verbal and written postoperative instructions? Were they useful?

Quality improvement methodology: case example

Problem: difficulty in patients consistently receiving prophylactic paracetamol.

What did we do?

After stakeholder analysis and consultation, we developed a patient group direction for the nursing staff to administer paracetamol to all daycase patients preoperatively. This was trialled as a small-scale change over one week to see whether it would result in an improvement.

Impact

All patients received paracetamol preoperatively and staff reduced the incidence of paracetamol given via other routes intraoperatively. As part of the project we assessed patient impact. We found that patients became more aware of their pain management strategies. This project also led to decrease in cost associated with the use of perioperative paracetamol.

Mapping

ACSA standards: 1.1.1.9, 1.2.1.3, 1.2.2.1, 1.4.1.2, 1.4.5.1, 1.4.5.2
CPD matrix codes: 1A02, 1D01, 1D02, 2G01
GPAS 2020: 2.9.1, 2.9.4, 6.5.12, 6.5.21, 6.5.22, 6.9.1, 6.9.5, 10.9.3, 11.3.6, 11.7.1

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5.7 The need for a carer at home after day surgery

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Why do this quality improvement project?

To enable day surgery to be offered to as many people as possible, including those that live alone.

Background

According to the King's Fund, the number of available inpatient beds in the NHS has halved over the past 30 years. For many years it has been stipulated that patients who have day surgery require a carer at home for 24 hours after their procedure. However, the Day Surgery Operational Guide 2002 by the Department of Health states that 'Lack of social backup should seldom be a reason to exclude a patient from day surgery'.[1] The Royal College of Anaesthetists Guidelines for the Provision of Anaesthesia Services has challenged the need for a carer for 24 hours: 'A carer may not be essential if there has been a good recovery after brief or non-invasive procedures and where any postoperative haemorrhage is likely to be obvious and controllable with simple pressure'.[2] This, together with the Association of Anaesthetists/British Association of Day Surgery guideline statement, 'Following most procedures under general anaesthetic a responsible adult should escort the patient home and provide support in the first 24 hours' gives some indication that a blanket rule may not be appropriate for all patients.

Owing to standardised discharge criteria, a default for patients who live alone or do not have a carer overnight is to use an inpatient bed. To ensure effective use of inpatient beds and to enable day surgery to be an option for all, patients should be encouraged to find a carer overnight but if they cannot do so then alternatives should be sought.

Hospitals have resolved this issue in a variety of ways:

- For selected procedures, patients return home with an escort but do not have a carer present with them for the full 24 hours.[3]
- A professional carer stays in a consenting patient's home overnight.[4]
- Patient hotels.[4]

Whatever approach is used, an agreed written policy must be in place to enable nurse-led discharge to take place.

Best practice

The Royal College of Anaesthetists Guidelines for the Provision of Anaesthesia Services (GPAS) and guidelines from Association of Anaesthetists and the British Association of Day Surgery.[2,5]

- All patients who have a daycase procedure should be able to go home if it is safe for them to do so.
- All patients require an escort home if they have had general or regional anaesthesia.

Suggested data to collect

It is assumed that all patients meet surgical and anaesthetic criteria for day surgery discharge before embarking on this project.

Operational data

- Patient age.
- Procedure.
- Number of patients who had any problems in the first 24 hours after surgery that required medical attention.
- Number of patients who had any problems in the first 24 hours after surgery that required assistance from their carer to manage daily living.
- Readmission rates for the patients sent home without a carer.

Patient reported outcomes

- Did you feel that you needed a carer with you postoperatively? If so, why?
- Did you have a responsible adult at home with you for the full 24 hours?
- If not, how long did the responsible adult stay with you?
- How long did it take until activities of daily living were performed independently?
- If you had the same or similar surgery again, would you choose to have a carer, and if so why?

Quality improvement methodology: case example from Norfolk and Norwich University Hospital

Problem: patients who live alone and are unable to get a carer require an inpatient bed.

What did we do?

A questionnaire of patients reviewing whether they lived alone; whether they had a carer for 24 hours; which procedures they had; and whether they felt that they required help.

We reviewed the literature and were guided by GPAS. We introduced a 'self-care' pathway (Figure 5.7.1).

Impact

The number of patients requiring inpatient beds decreased and patient satisfaction as a day case increased.

Mapping

ACSA standards: 1.2.1.1, 1.2.1.3, 1.2.1.4, 1.2.2.1, 1.4.4.3, 1.4.3.1, 1.4.5.2
CPD matrix codes: 1I05, 2A03, 3A06
GPAS 2020: 2.9.1, 2.5.29, 5.9.6, 6.5.8, 6.5.25, 6.5.12, 6.9.1, 6.9.5, 7.5.9, 11.3.6

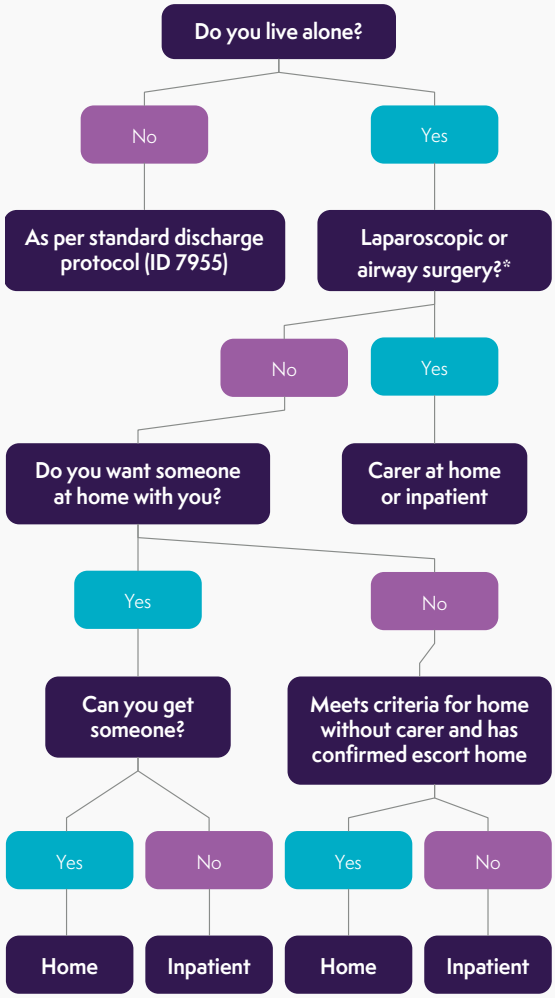

Figure 5.7.1: Flow pathway for self-care following surgery.

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5.8 Unplanned hospital admission after day surgery

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Why do this quality improvement project?

Unplanned admissions following day surgery can have a negative impact on patient experience. They increase pressure on inpatient beds and may increase costs for organisations due to requiring an overnight stay or loss of a best practice tariff payment.

Background

As the complexity of the procedures routinely being managed as day cases increases, it becomes even more important to regularly assess the reasons for unplanned admissions, to continually improve patient services and organisational efficiency.

Review of unplanned admissions may help to identify areas of improvement such as list planning, identification of high-risk patients during preassessment or management of perioperative complications such as pain, nausea and vomiting.

Quality improvement tools can be used to identify areas for improvement in patient care and experience through identifying such reasons for unplanned admissions following day surgery and testing changes as part of quality improvement projects.

Best practice

Both the RCoA Guidelines for the Provision of Anaesthetic Services and Association of Anaesthetists Day and Short stay surgery recommend regular audit of unplanned overnight admission, unplanned return or readmission to day surgery unit or hospital.[1,2]

Suggested data to collect

Rate of unplanned admissions:

Overall rates

A hospital's overall unplanned admission rate will be influenced by case mix, but the best units, which also undertake very challenging procedures as day cases, are achieving an overall unplanned admission rate of 3%, so this is a realistic target.[3] Units only undertaking minor surgery such as cataracts, dental extractions or hysteroscopies should expect to have unplanned admission rates of less than 1%.

Procedure-specific rates

To enable default to day surgery, a higher procedure-specific rate for complex surgery such as hysterectomies/mastectomies and cholecystectomies may need to be accepted.

The British Association of Day Surgery directory of procedures recommends target daycase rates for over 200 procedures[4]. A reasonable expectation is that, for procedures with very high expected day surgery rates, it will be easier to achieve lower unplanned admission rates such that the following guidance could be followed:

- Procedures with expected daycase rates of over 75% should have an unplanned admission rate of less than 2%.
- Procedures with expected daycase rates of 50–75% should have an unplanned admission rate of less than 5%.
- Procedures with expected daycase rates of less than 50% should have an unplanned admission rate of less than 10%.

Quality improvement methodology

The reasons for unplanned admissions can be explored using Pareto analysis. This can be useful in helping an improvement team to identify the vital few reasons for admission that are having the biggest influence on unplanned admissions, such as inadequate preassessment. Change ideas can then be directed against the factors that are having the greatest impact on unplanned admissions.

- Outcome measure: number of patients who have unplanned admission following day surgical procedure.
- Process measures: these will depend on your change ideas.

Identify an area for improvement and target that issue such as list planning. Change ideas might include that more complex day cases are performed first to allow longer recovery time without the need for overnight admission.

Improvement can be identified as a reduction in the number of unplanned admissions for given procedures using run charts.

It may be useful to scope your project to look at a specific subspecialty or procedure with a high frequency of unplanned admissions and to work with that team to test improvements.

Mapping

ACSA standards: 1.1.1.9, 1.2.1.2, 1.2.4.5, 1.4.3.1, 1.4.5.2, 4.2.2.2, 4.2.3.1
Curriculum competences: Annex G pages G-4, 5, 9, 11, 12, 15, 16, Annex E pages E-9, 10, 26
CPD matrix codes: 1D02, 1I03, 1I05, 3A06
GPAS 2020: 2.5.29, 6.5.9, 6.5.16, 6.5.17, 6.5.18, 6.5.30, 6.5.31, 6.7.1, 6.7.3, 10.7.1

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4. British Association of Day Surgery. BADS Directory of Procedures. 6th ed. London: BADS; 2019.

5.9 Evaluating your day surgery pathway

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Why do this quality improvement project?

Evaluating and refining each component of your daycase pathways will help to streamline processes improving efficiency, patient safety, patient experience and patient outcomes and provide clear evidence for staff and resource planning.

Background

Specialist nurse-led preassessment teams supported by anaesthetists are recommended to identify patient risk factors, optimise conditions and promote health.[1,2] Patient optimisation is improved by clear communication with primary care. Patients and carers need to have all questions answered and clear expectations. On the day of surgery, well-established administrative, nursing, anaesthetic and surgical pathways facilitate the ultimate aims of safe same day discharge, with minimal adverse effects, excellent patient experience and outcomes.

Best practice

The Association of Anaesthetists provides detailed recommendations for successful daycase surgery.[1] 75% of surgery should be performed as day surgery.[3]

Suggested data to collect

Organisational agreements

- Local agreement and formalised identification on which surgical procedures should default to day surgery pathways.
- Percentage of patients undergoing these procedures who did not access the day surgery pathway and evaluation of reasons why not.

Preoperative assessment

Patients require timely preoperative assessment by a trained nursing team supported by a consultant anaesthetist to identify patient risk factors, optimise conditions and promote health.[1]

Same day 'one-stop' assessment should be achieved in 60% of patients and within two weeks of listing for surgery for the remainder.

- Percentage of patients requiring referral to consultant anaesthetist for further evaluation.
- Availability of evidence-based guidelines to maximise opportunities for patients with common comorbidities (eg diabetes, morbid obesity and sleep apnoea) to be safely treated via a daycase pathway.[1,2]
- Availability of a system to re-evaluate 'long' waiters to avoid cancellations (eg two-week phone call to detect changes in medical conditions).

Information giving

Condition-specific and day surgery specific information is provided in 100% cases (see also section 1.4).

List management

See sections 5.2 and 5.3.

Starvation times

Avoid excessive starvation times. Allow free clear fluids until time of surgery and milk in hot drinks is acceptable up to two hours preoperatively.[4]

- Percentage of patients with free fluids until surgery.
- Percentage of patients starved for more than six hours preoperatively.

In theatre

Surgical and anaesthetic techniques should ensure minimum stress and maximum comfort. Equipment should be available to facilitate these techniques.[1,2,5,6]

- Procedures benefit from standardised anaesthetic techniques and management protocols.
- Perioperative temperature management should be undertaken.
- Protocols for management of postoperative symptoms and prophylaxis should be in place.

Measures

- Pain and postoperative nausea and vomiting scores, time to mobilisation and time to discharge.
- Less than 5% of patients should report severe pain in first 48 hours following surgery.
- Availability of evidence-based standardised guidelines for complex procedures.
- Percentage of patients with temperature measurement higher than 36.0 degrees C pre- and intraoperatively and in recovery.

Recovery

- Dedicated day surgery secondary recovery areas should be provided to facilitate timely discharge.[1,2]

- Evidence-based, up to date protocols should be available for management of pain, postoperative nausea and vomiting, antibiotics, venous thromboembolism prophylaxis and for care of patients after regional anaesthesia.[7]

Discharge

- Discharge should be nurse-led using agreed protocols.[1,2,8] Patient satisfaction should be evaluated (eg postoperative phone call on day 1).

Measures

- Patients and their responsible carer are provided with clear verbal and written information, including troubleshooting, wound and drain care in 100% of cases.
- Protocols for management and evaluation of unscheduled admissions (unplanned admission rate should be less than 2% with less than 0.5% readmission post discharge).
- A 'take-home' copy of the discharge summary should be provided in 100% cases.

Quality improvement methodology

Refining your processes:

- Draw a process map from the time that the patient is booked for surgery in outpatients until they are discharged.
- Look for any duplications, omissions or unreliable steps.
- Can the patient experience be improved (eg minimise starvation and waiting times on day of surgery)?

Introducing new procedures to day surgery:

- Evaluate all steps of the inpatient pathway using process mapping.
- Involve all stakeholders from the outset (theatre staff, surgeons, anaesthetists, recovery staff, administrative team, specialist services). Initially limit involvement to a few colleagues.
- How can each stage in the process be made suitable for a daycase pathway?
- Can you make use of any integrated care links with the community to evaluate and care for your patients most effectively?

Mapping

ACSA standards: 1.1.1.9, 4.1.2.1, 1.4.3.1, 4.2.3.2, 1.2.2.1, 1.4.1.2, 1.4.5.1, 1.4.5.2

Curriculum competences: DSBK01–06, DSBK08–10, DSIK01–03, DSHK01

CPD matrix codes: 2A07, 3A06

GPAS 2020: 6.1.5, 6.1.6, 6.1.7, 6.1.10, 6.2.1, 6.2.4, 6.2.7, 6.2.19, 6.2.20, 6.2.21, 6.2.24, 6.2.26, 6.5.8, 6.5.9, 6.5.10, 6.5.12, 6.5.15, 6.5.16, 6.5.18, 6.5.19, 6.5.21, 6.5.23, 6.5.29, 6.7.1, 6.7.2, 6.9.1, 6.9.4, 6.9.5

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