Day case surgery and recovery

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Introduction

- The definition of **day surgery** in Great Britain and Ireland is clear; the **patient is admitted and discharged on the same day**, with day surgery as the intended management.
- The term „23-h stay“ should be avoided; this is used in the United States healthcare system, but in the UK is counted as inpatient care and should not be confused with day surgery.
- Despite these advances, the overall rates of day surgery remain variable across the UK.
- The target that 75% of elective surgery should be performed as day cases remains in place , but minimally invasive surgery is now well established, allowing more procedures to be performed as day surgery and even greater rates should be possible .

- There was a major effort to promote day surgery at the start of the millennium and recent drives to **reduce length of stay and improve the quality of postoperative recovery** have ensured that day surgery principles are fundamental to modern patient care.
- **Shortened hospital stay and earlier mobilisation also reduces the risk of hospital acquired infections and venous thromboembolism**.

Selection of patients

- Patients may be referred for day surgery from outpatient clinics, emergency departments or primary care.
- Advances in surgical and anaesthetic techniques, as well as published evidence of successful outcomes in patients with multiple comorbidities, have changed the emphasis on day surgery patient selection.
- Patient assessment for day surgery falls into three main categories: **social, medical and surgical**

Social factors

- The patient must understand the planned procedure and postoperative care and give informed consent to day surgery.
- Traditional criteria for day surgery discharge included the presence of a carer for 24 h postoperatively

- This is now being re evaluated and it is recognized that for some minor procedures 24-h care postoperatively may be an excessive requirement, whereas for complex surgery it may be insufficient.
- For example, a patient who has undergone a hysterectomy as a day case is likely to require care to support activities of daily living for longer than someone who has undergone a hysteroscopy.
- It is essential that, following procedures under general or regional anesthesia, a responsible adult should escort the patient home; however, it may not always be essential for a carer to remain for the full 24-h period.

Medical factors

- Fitness for a procedure should relate to the patient's functional status as determined at pre-anaesthetic assessment, and not by ASA physical status, age or body mass index .
- Patients with a stable chronic disease such as diabetes are often better managed as day cases because there **is minimal disruption** to their daily routine.
- The only patients routinely not included in day surgery are those with unstable medical conditions.
- **Obesity itself is** not a contraindication to day surgery, as **morbidly obese patients can be safely managed by experts,** provided appropriate resources are available.
- This includes factoring in additional time for anaesthesia and surgery as well as the presence of skilled assistants and equipment.

Surgical factors

- The procedure should not carry a significant risk of serious postoperative complications requiring immediate medical example, haemorrhage or cardiovascular instability.
- Postoperative symptoms (such as pain and nausea) must be controllable by the use of a combination of oral medication and local anaesthetic techniques.
- attention, for The procedure should not prohibit the patient from resuming oral intake within a few hours of the end of surgery.
- Patients should be able to mobilize before discharge, for example, walking with an arm in plaster, but if full mobilization is not possible, appropriate venous thromboembolism prophylaxis should be instituted and maintained.

Pre-operative preparation

preparation has three essential components:

- To educate patients and carers regarding day surgery pathways
- To impart information regarding planned procedures and postoperative care to help patients make informed decisions; important information should be provided in writing
- To identify medical risk factors, promote health and optimize the patient's condition

❑ Day surgery for urgent procedures

- Patients presenting with **acute conditions requiring urgent surgery can be efficiently and effectively treated as day cases via a semi-elective pathway.**
- After initial assessment, many patients can be discharged home and return for surgery at an appropriate time, either on a day-case list or as a scheduled patient on an operating list, whereas others can be immediately transferred to the day surgery service.
- This reduces the likelihood of repeated postponement of surgery due to prioritization of other cases.
- A robust day surgery process is key to the success of this service.

Table 1. Types of urgent surgery suitable for day case procedures

General surgery	Gynaecology	Trauma	Maxillofacial
Incision and drainage of abscess	Evacuation of retained products of conception	Tendon repair	MUA fractured nose
Laparoscopic cholecystectomy	Laparoscopic ectopic pregnancy	MUA of fracture	Repair of fractured mandible
Laparoscopic appendicectomy		Plating of fractured bone	
Temporal artery biopsy			

MUA, manipulation under anaesthesia.

Anesthetic management

- Day surgery anesthesia should be a consultant-led service. However, as day surgery becomes the norm for elective surgery, this requires appropriate training and provision of senior cover, especially in stand-alone units.
- Staff grade and associate specialist anesthetists who have an interest in day surgery should be encouraged to develop this as a specialist interest and take an important role in the management of the unit.
- National guidelines for patient monitoring and assistance for the anesthetist should be followed.
- Anesthetic techniques should ensure minimum stress and maximum comfort for the patient and should take into consideration the risks and benefits of the individual technique.

- Analgesia is paramount and must be long acting, but, as morbidity such as nausea and vomiting must be minimized, the indiscriminate use of opioids is discouraged (particularly morphine).
- Prophylactic oral analgesia with long-acting nonsteroidal anti inflammatory drugs (NSAIDs) should be given to all patients, unless contraindicated.
- For certain procedures (e.g., laparoscopic cholecystectomy), there is evidence that standardized an aesthetic protocols or techniques improve outcome.
- Anesthetists should adhere to such clinical guidelines where they exist.

- Although **early mobilization is beneficial**, extending the range and complexity of day surgery procedures may increase the risk of venous thromboembolism.
- National guidelines for venous thromboembolism risk assessment and prophylaxis should be followed.
- There should be policies for the management of postoperative nausea and vomiting (PONV) and discharge analgesia.
- Prophylactic anti-emetics are recommended in patients with a history of PONV, motion sickness and those undergoing certain procedures such as laparoscopic sterilization/cholecystectomy or tonsillectomy.
- Routine use of intravenous (i.e.) fluids and maintenance of body temperature can enhance the patient's feeling of well-being and further reduce PONV.

❑ Regional anesthesia

- Local infiltration and nerve blocks can provide excellent anesthesia and pain relief after day surgery.
- Patients may safely be discharged home with residual motor or sensory blockade, provided the limb is protected and appropriate support is available for the patient at home.
- The expected duration of the blockade should be explained and the patient should receive written instructions as to their conduct until normal power and sensation return.
- Infusions of local anesthetics may also have a role.
- The use of ultrasound guidance continues to expand the role of regional anesthesia in day surgery, enabling more accurate local an aesthetic placement, reducing the total dose administered and supporting the development of regional an aesthetic operating list.

- Use of a „block room“ improves efficiency and allows confirmation of adequate nerve blockade before surgery commences.
- Spinal anesthesia has become accepted for use in day surgery.
- Appropriate spinal anaesthetic dosing targeted to surgical site, for example, lateral for a unilateral knee arthroscopy or sitting for perianal procedures, can minimize side-effects such as hypotension and prolonged motor blockade.

❑ Postoperative recovery and discharge

- Recovery from anaesthesia and surgery can be divided into three phases:
- First-stage recovery lasts until the patient is awake,

❑ ***protective airway reflexes have returned and pain is controlled.***

❑ ***This should be undertaken in a recovery area with appropriate facilities and staffing.***

❑ ***Use of modern drugs and techniques may allow early recovery to be complete by the time the patient leaves the operating theatre,***

❑ ***and some patients can bypass the first stage.*** Most patients who undergo surgery with a local or regional anaesthetic block can be fast-tracked in this manner.

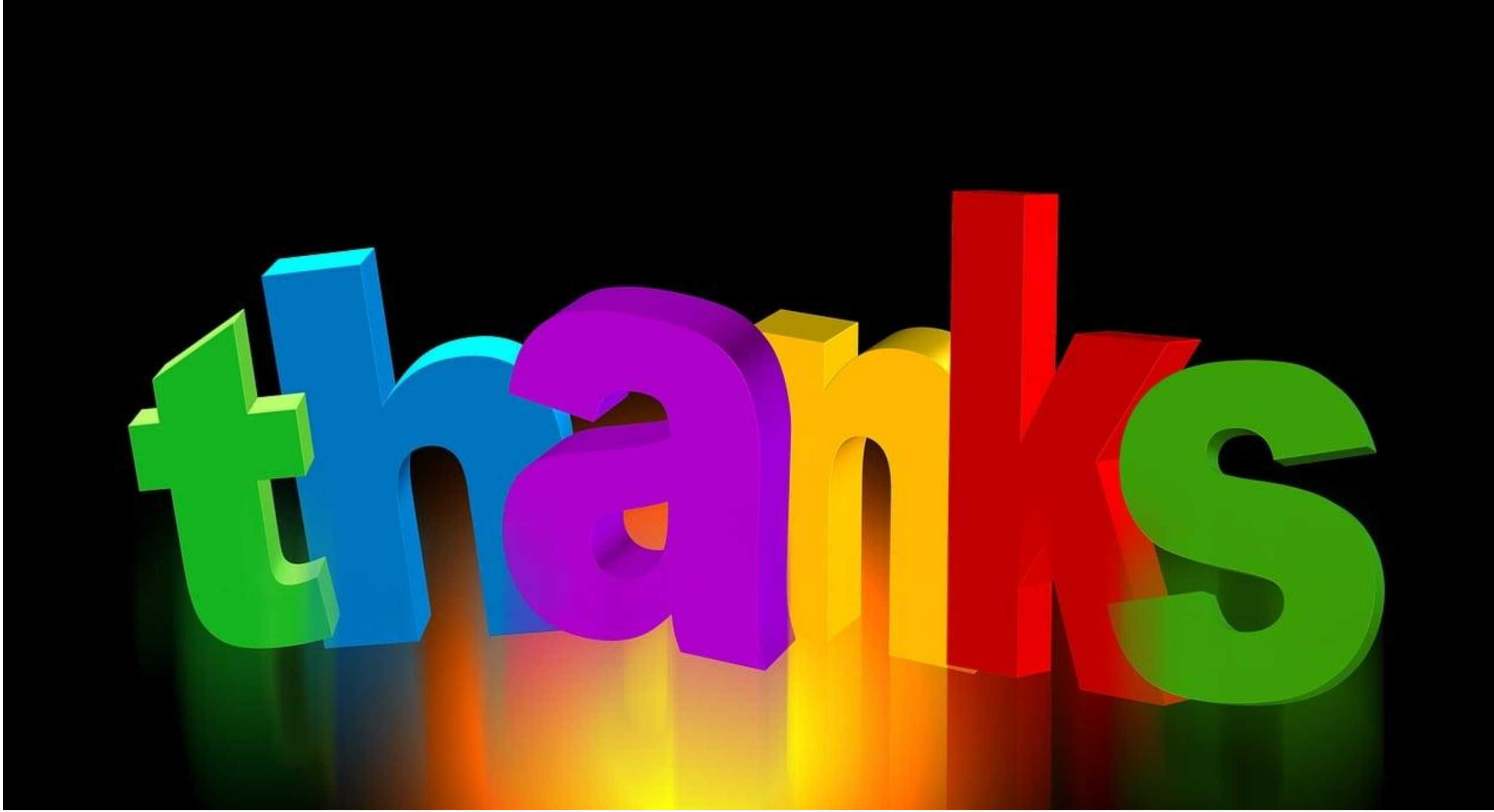
- Second-stage recovery is from when the patient steps off the trolley and ends when the patient is ready for discharge from hospital.

- ❑ This should take place in an ***area adjacent to the day surgery theatre and should be equipped and staffed to deal with common postoperative problems*** (e.g. PONV, pain) as well as emergencies (haemorrhage, cardiovascular events).
- ❑ The anaesthetist and surgeon should be contactable to deal with problems.
- ❑ Patients and their carers should be provided with written information that includes warning signs of possible complications and when to seek help.
- ❑ Protocols should exist for the management of patients who require unscheduled admission, especially in a stand-alone unit.

Late recovery

- **ends when the patient has made a full physiological and psychological recovery from the procedure.**

- This may **take several weeks or months** and is beyond the scope of these guidelines.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