

Abstract

Literature review for National Guidelines on discharge planning and criteria for day surgery

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1. Introduction

The Day Surgery Council of Australia requested the Australian Day Surgery Nurses Association's assistance in formulating National Guidelines for discharge planning and criteria. After discussion at the Australian Day Surgery Nurses Association meeting, it was decided that a working party would undertake a literature review. The results of this review are presented. The literature was sourced from the UK and USA, as there are very few Australian publications available.

Part one of this paper presents published data on clinical criteria for discharge planning. The purpose of the guideline is to choose a tool for safe discharge from second stage recovery. Part two presents a review of the behavioural and educational component of the proposed guideline. In part two, we examine the educational needs necessary to provide knowledge, skills and attitudes for the patient and carer to facilitate favourable post-discharge outcomes.

2. Approach

A model flowchart for developing guidelines is presented in Appendix A.

3. Aim

To review the literature to develop a guideline for patient outcomes that will provide a minimum baseline for each facility to benchmark their practice of discharge planning and criteria for patients undergoing day surgery.

4. The current situation

There is currently no uniformity for measurement of discharge planning practices. This impacts on patient outcomes and results in variability in measures that do not allow for comparison or facilitate the collection of numerical data. Discharge practices vary according to budget and facility preference, i.e.

- stable observations vary from 0 to 3 h;

- measurement of the return to normal function and the ability to eat, drink and void varies;
- there are different measurements for balance, co-ordination and comprehension;
- variance in expected levels of post-operative nausea and vomiting;
- varying perceptions of post-procedural complications;
- varying range in post-discharge information and essential quality of support persons;
- varying distances travelled and suitability of available transport.

5. Part one

5.1. Options for discharge criteria

Marley and Moline state that 'Each facility must establish a written protocol for patient discharge. The process should include specific discharge criteria to determine whether the patient is ready to be discharged, to promote quality care, and to provide a foundation for practice decisions. It is important that these institutional discharge policies be well documented and uniformly employed' [1].

Chung states that 'As patients presenting for ambulatory surgery become more complex and compromised, and their surgical treatment more demanding, it is important to replace, or at least supplement, our existing qualitative, subjective method for evaluating patient discharge with a quantitative, objective technique to provide a simple and consistent method of determining home readiness' [2].

5.2. Option 1. Guidelines for safe discharge after ambulatory surgery [3]

1. Vital signs must have been stable for at least 1 h.
2. The patient must be:
 - oriented to person, place and time;
 - able to retain orally administered fluids;
 - able to void;
 - able to dress;
 - able to walk without assistance.
3. The patient must not have:
 - more than minimal nausea and vomiting;
 - excessive pain;
 - bleeding.
4. The patient must be discharged by both the person who administered anaesthesia and the person who performed the surgery, or

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by their designates. Written instructions for the post-operative period at home, including a contact place and person, need to be reinforced.

5. The patient must have a responsible 'vested' adult escort them home and stay with them at home.

Chung states that 'by documenting patient progress using a scoring system, we can estimate the time of home readiness of individual patients undergoing different surgical procedures and different anaesthetic techniques' [2].

This criterion appears vague and open to individual interpretation. It does not provide the simplicity of a scoring system to facilitate fast and easy documentation.

5.3. Option 2. Essential and desirable discharge criteria [4] (Table 1)

There is no documentation as to specific level of a recovery attained prior to discharge. Again, this option appears vague and open to varying individual interpretations and is not readily quantifiable for statistics. Also, there is not the convenience of a scoring system for straightforward documentation.

5.4. Option 3. Post-anaesthesia discharge scoring system (PADSS)

1. Vital signs:
 - 2 = within 20% of preoperative value;
 - 1 = 20–40% of preoperative value;
 - 0 = >40% of preoperative value.
2. Ambulation and mental status:
 - 2 = oriented \times 3 and has a steady gait;
 - 1 = oriented \times 3 or has a steady gait;
 - 0 = neither.
3. Pain, or nausea/vomiting:
 - 2 = minimal;
 - 1 = moderate;
 - 0 = severe.
4. Surgical bleeding:
 - 2 = minimal;
 - 1 = moderate;
 - 0 = severe.
5. Intake and output:
 - 2 = has had PO fluids and voided;
 - 1 = has had PO fluids or voided;
 - 0 = neither.

The total score is 10. Patients scoring 9 or 10 are considered fit for discharge home [3].

Chung states that 'the ability to tolerate oral fluids remains controversial as a clinical criterion for discharge. The decision to discharge patients should be based on a number of factors such as: age, medical

condition, distance from home, availability of a responsible adult, state of hydration, and anticipation of whether or not the patient is likely to suffer any complications if fluids are not taken on the day of surgery. Schreiner et al. found that paediatric patients required to drink before the hospital discharge had an increased incidence of vomiting and prolonged hospital stay. 6,000 children were discharged after surgery from the children's hospital of Philadelphia without oral intake. Only three patients required admission for vomiting and one readmission from home for intractable vomiting and dehydration. These findings suggest that oral fluid intake may not be a necessary criterion for discharge. A patient cannot be discharged home if actively vomiting, but it is undesirable to continue to administer oral fluids' [2].

5.5. Option 4. Modified PADSS

1. Vital signs:
 - 2 = within 20% of preoperative value;
 - 1 = 20–40% of preoperative value;
 - 0 = >40% of preoperative value.
2. Ambulation:
 - 2 = steady gait, no dizziness;
 - 1 = with assistance;
 - 0 = none, dizziness.
3. Nausea/vomiting:
 - 2 = minimal;
 - 1 = moderate;
 - 0 = severe.
4. Pain:
 - 2 = minimal;
 - 1 = moderate;
 - 0 = severe.
5. Surgical bleeding:
 - 2 = minimal;
 - 1 = moderate;
 - 0 = severe.

The total score is 10. Patients scoring 9 or 10 are considered fit for discharge home [3].

Chung states that 'a study conducted at the Medical College of Virginia found that 86% of patients were discharged sooner using PADSS than Clinical Discharge Criteria ie. Options 1 and 2. In the remaining 14% of patients, Clinical Discharge Criteria were satisfied sooner because failure to void was required by PADSS but optional in the clinical criteria. If voiding is not included among the criteria for discharge, the patient must be fully informed about his or her role, when to call a physician, or when to return to the facility.'

Chung goes on to say 'We found that more patients (approximately 20%) could be discharged home early using the modified scoring system. However, follow-up studies are required to evaluate the short and long term effects on recovery of eliminating these criteria' [2].

Table 1
Essential and desirable discharge criteria

Category	Essential	Desirable
Mental state	Alert and responsive	Feels clear headed
Mobility	Able to mobilize to pre-operative level within constraints of surgery with no dizziness	
Pain	Has been given appropriate prescribed oral analgesics for pain	No/minimal pain
Eating and drinking	Tolerating oral fluids	Tolerated tea and toast, no nausea or vomiting
Elimination		Passed urine
Information	Verbal explanation of pain management, wound care, driving, alcohol intake, the next 24 h, operation specific information as necessary, whom to contact in an emergency	Written material on same
Social factors	Patient ready to be discharged into care of responsible adult	Further support at home

6. Part two

6.1. Discharge planning

For discharge planning to be successful, it must include written protocols for the appropriate support person, patient information and telephone follow-up calls.

Twersky states that 'Each facility must develop policies and procedures regarding discharge criteria and initiate the responsibility for discharging patients at home from the ambulatory surgery unit. This includes evaluation and an examination of the patient by the physician or the application of rigorously accepted discharge criteria if a physician does not perform this evaluation. In addition, the patient must be given written postoperative instructions with information about where to seek emergency medical assistance including phone numbers of the surgeon, ambulatory surgical unit, and the nearest emergency room. Patients should be cautioned about performing functions that require a complete recovery of cognitive ability. Proper adherence to these discharge criteria and documentation protect against premature discharge of patients with the potential for unanticipated hospital admission, return for emergency care, postoperative complications or legal repercussions' [5]

6.2. Support person

Marley and Moline state that 'a responsible adult is considered to be any willing individual who is physically and intellectually capable of caring for the patient. The role of a responsible adult is to 1) assist with activities of daily living as needed, 2) assure compliance with postoperative instructions. and 3) monitor the patient's progress towards recovery' [1].

Rudkin states that 'this term can be interpreted and applied in various ways. Each unit must have its own policies and criteria, together with the direction for staff. Our "responsible" carer is a competent (i.e. not mentally handicapped) person over 16 years of age that is physically able.

Issues to address are as follows.

- Who judges the acceptability of the responsible adult?
- What control does day surgery staff have over patient activities after discharge?
- Should a patient be allowed to leave if staff know that the Guardian will not stay with the patient at home?
- Where do liability and responsibility lie when suspected unacceptable home circumstances exist?' [6]

Individual facilities must consider some of these characteristics when providing written protocols that give direction to staff to follow when discharging clients.

Where appropriate, the following are further considerations individual units must make depending on types of surgery and geographical considerations.

- Rudkin states 'Nearly 40% of ambulatory surgical patients report return to normal activities the day after surgery. Assistance may be necessary for up to 48 hours, especially in elderly patients' [1].
- Marshall et al. also state that 'the current recommendations are that patients who have had an anaesthetic lasting less than 60 minutes should not drive for 24 hours whereas patients who have had longer procedures should be advised against driving for 48 hours' [3].
- Marley and Moline state that 'A review of the ambulatory surgical care encompassing 45,090 patients during a three year period at a rural based referral centre found most major postoperative morbidities (1:1,455) occur within the first 48 hours, whereas no deaths occurred during the first week post surgery' [1].
- Another point Marshall et al. makes is 'Modern general anaesthetic agents allow for rapid recovery and early discharge from the ambulatory units, however recovery may be more rapid if General

anaesthetics are avoided and patients are given a regional block. Following discharge, patients need to be followed up appropriately and given specific written guidelines on referral procedures in the event of complications. Pain is a problem in the post discharge period, and consideration should be given to providing adequate analgesia. Patients should be advised against driving for 24 to 48 hours depending on the duration of the procedure' [3].

- Rudkin states that 'Patients can suffer complications following discharge from day surgery, such as haemorrhage, uncontrollable pain, vomiting and syncope. It is therefore recommended that patients should travel for no longer than one hour. Contact telephone numbers of the surgeon, the facility and the after hours numbers should all be provided' [1].

6.3. Follow-up phone calls

Rudkin states 'There are significant advantages in contacting day surgery patients following their surgery. For the patient this provides an opportunity for continuity of care, and for the staff it is a means of patient feedback of the care provided. Staff should ask appropriate day surgery questions and open-ended questions pertaining to the surgery performed, allowing the patient to provide valuable comments' [6].

Lancaster states that 'Patients should receive a postoperative phone call the next business day to follow up on their physical condition and emotional state. The nurse typically queries the patient about bleeding, pain, effectiveness of medication, nausea and vomiting and fluid intake and output. When problems are detected within the scope of the nurse's practice, the nurse offers advice and support, which is then documented in the patient's medical record. The postoperative phone call is also an excellent opportunity for the patient and family to ask any lingering questions about the initial recovery period at home. Sometimes the patient or family expresses their perceptions of care during the period of contact, both positive and negative. The nurse should be especially receptive to voiced concerns, because trends in care can be detected over short periods of time and can offer opportunities for improvement' [7].

Hawkshaw conducted a survey in 1994, which demonstrated that 'A nurse should carry out the patient follow-up, not least because of his or her inherent knowledge of the procedure the patient has endured and the subsequent pain, symptoms and possible complications. Telephone contact with patients provide immediate information of how the systems that operate in the hospital appeared to conspire against patient satisfaction' [8].

These statements are supported by strong bibliographical evidence and present a strong indication for consideration in individual facilities' work practices.

6.4. Patient information and education

The four articles used in this discussion paper are based on research surveys on patient understanding and satisfaction, which have been conducted over the past 4 years.

Moran states 'at post discharge interview, the benefits of having printed information for support and advice were obvious, with patients and carers reporting frequent referral to the leaflets' [9].

Oberle et al. found that 'Many patients expressed a desire for more written information, both behavioural and sensory to which they could refer when the time arrived. It was important to patients that written material be in layman's language because many patients had difficulty understanding the medical jargon. It is also noteworthy that most patients (54%) did not realise that nurses were responsible for their perioperative teaching in any way. This is particularly interesting insofar as half the role of nurses in our same day surgery unit includes a large teaching component. One explanation may be that when nurses teach, patients do not interpret such information sharing as teaching per se. It may be important for nurses to signal their

intent to teach before providing information; this could alert the patient to listen more closely to the nurse's words, and therefore it could enhance the learning experience. We conclude from this study that the most important information to teach patients is how to cope with pain and fatigue and what to expect during the postoperative course. Patients require guidelines against which they can gauge their progress' [10].

Brumfield et al. found that 'When patients are well informed, they are more likely to experience positive outcomes and increased satisfaction with their care' [11].

The importance of individualised teaching content for each patient includes identifying individual characteristics that influence their educational needs. This is an important nursing concern. Standardised teaching packages may not be effective because they do not address patient's individual needs.

Previous researchers identified five dimensions of pre-operative teaching. These dimensions were psychosocial support (i.e. reassurance geared towards reducing anxiety), skills training (i.e. teaching skills such as deep breathing), situational information (i.e. events and experiences patients would undergo), sensation discomfort information (i.e. descriptions of what the patient would feel), and patient role information (i.e. expected patient behaviour).

Most patients believed that they should be taught about post-operative nursing care before admission, whereas the nurses preferred to wait until patients were admitted to impart this information. Most patients preferred to wait until after admission to learn new skills to prevent complications. Very few nurses and patients preferred to either teach or learn new knowledge at the time surgical procedures were being performed.

One alternative is to improve communication between staff members in surgeons' offices and hospital pre-admission nurses. Another option is to develop structured teaching materials (e.g. video tapes, pamphlets, on site visits by hospital staff members) that are appropriate for ambulatory surgery patients, are specific to the institutions involved, and supplement verbal teaching [11].

7. Conclusion

Part one of this paper examines the clinical outcome with discharge options, which have been presented in articles so that an informed choice of what adapts best to each day surgery situation may be made. The first two options offer only clinical indicators, which are not specific in their parameters. Options 3 and 4 offer a scoring system, which is both convenient for documentation and shows specifically the patient's level of recovery prior to discharge. The distinct difference between Options 3 and 4 is whether your patient is required to have oral intake and void prior to discharge. One article was found to support the theory of not requiring oral intake. Voiding was found only to be necessary post-operatively in genitourinary cases and Option 4 can have this added underneath.

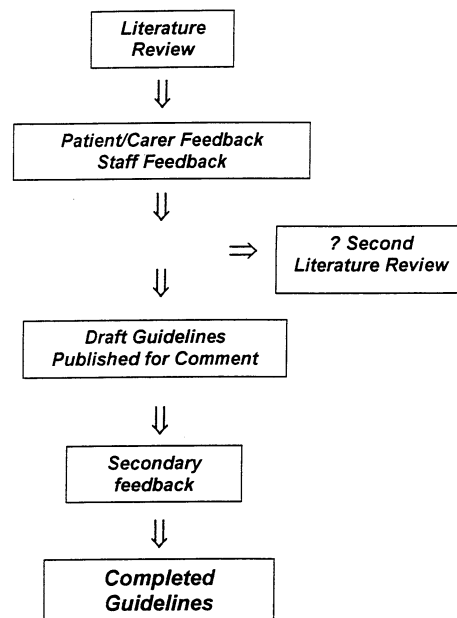
Part two of this paper examines the behavioural and attitudinal outcomes, which impact on discharge planning, support person, follow-up phone calls and patient information and education. The literature suggests each unit have clear protocols and policies on what are the specific acceptable parameters for each of these factors. The Day Surgery Nurse may then apply these as a guideline in her decision-making process of her patient's readiness for discharge and, having followed written guidelines, is covered legally in the event of an incident or query of care given.

From these articles, we must assess what recommendations should be made to establish minimal discharge planning and criteria guidelines that will suit the small private day surgery provider through to the largest hospital based day surgery provider. These guidelines will

provide an indication of standard acceptable care for day surgery patients from which individual units can develop policies and practice guidelines which support their own service.

Appendix A. Flowchart for development of National Guidelines

Flowchart for development of National Guidelines



References

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