

Australian and New Zealand College of Anaesthetists (ANZCA)

Recommendations for the Perioperative Care of Patients Selected for Day Stay Procedures

Background Paper

1. PURPOSE OF REVIEW

PS15 *Recommendations for the Perioperative Care of Patients Selected for Day Surgery* was last revised in 2006 and republished in 2010. Although the document was due for review, the time frame was influenced by a number of other factors:

- To update the format to align with the other ANZCA professional documents.
- PS15 (2010) references the 2004 Australian Day Surgery Handbook. The Australian Day Surgery Council no longer exists.
- Day Stay Procedures (DSP) are performed in a wide range of health care facilities catering for a spectrum of procedures and circumstances. Consequently it is imperative to ensure that the same safe standards apply to all “Day surgery” patients irrespective of the nature of facilities.
- The range of patients being treated in DSP facilities has increased. This includes age, co-morbidities and more acute/emergency procedures. Patients at the extremes of age (the very young and the very old) require special consideration. The accompanying guidelines should be aligned with PS29 *Statement on Anaesthesia Care of Children in Healthcare Facilities without dedicated Paediatric Facilities*.
- The South Australian Coroner’s report of February 2014 recommended that higher risk patients (in particular obese patients) have procedures performed in facilities that are capable of providing appropriate intra and post-operative care. Although the procedures performed mentioned in the coroner’s report were not “day case”, the implications of poor matching of resources to patient requirements is a salient issue to DSP.
- Fasting guidelines were previously contained within PS15. However, following the recent review of PS07 *Guidelines on Pre-Anaesthesia Consultation and Patient Preparation* (2016) the fasting guidelines were incorporated into PS07 as an appendix but still apply to the DSP setting.

2. BACKGROUND AND DISCUSSION

It should be noted that PS15, PS09 and PS29 are all closely related. In future, revisions of these documents should be co-ordinated to ensure consistency.

The term “Day Stay Procedures” (DSP) includes “Day Surgery”, “Day Stay Surgery” and “Ambulatory Surgery”. Procedures performed on an outpatient basis have the same goal. The aim is to discharge within 24 hours (usually that same day) based on the



principles of Enhanced Recovery after Surgery (ERAS). DSP encompasses these different terms.

2.1 Facilities involved in DSP

The following issues regarding the range of healthcare facilities and services provided were considered:

- Differentiation between DSP and “Day of Surgery Admission”. “Day of Surgery Admission” usually refers to patients admitted to a Health Care Facility on the day of the planned procedure/surgery who may or may not be discharged on the same day. Such patients may have already undergone a pre-anaesthesia consultation.
- The facilities involved with the delivery of DSP may include the following:
 - A Tertiary/Quaternary Hospital (with ICU and other inpatient facilities) where patients planned for surgery may be included on so-called normal operating lists
 - A co-located DSP facility within a tertiary/Quaternary Hospital (with ICU and other inpatient facilities). This may include endoscopy units.
 - DSP may occur in hospitals without Intensive Care/High Dependency Units. Such hospitals may also vary in the availability of an overnight, on-site doctor. The ability to access Intensive Care/High dependency care may vary depending on geography (urban versus rural) as well as availability of retrieval services.
 - A “Stand alone” DSP facility where there are no 24 hour “inpatient” services and the facility generally closes down for part of the 24 hour cycle.
 - Facilities with variations in the duration of care ie so-called “23 hour” facilities also known as Extended Day Only (EDO)
 - “Office-based” facilities providing dental, cosmetic or other procedures. All procedures performed using parenteral sedation should be performed in licensed/regulated facilities and the accompanying professional document should apply. Procedures done using small doses of subcutaneous or mucocutaneous local anaesthesia only in these settings are not included in PS15.
- “Staggered” admissions are more likely to occur with DSP patients for a variety of reasons. Adequate resources must be in place to ensure the principles of PS07 are observed, in particular adequate time and an appropriate environment for preoperative assessment and consultation.
- High volume/high turnover lists (eg. Endoscopy, cataract extractions and lens implants) may require additional recovery room spaces per operating theatre (see section 3.4 of PS04 *Recommendations for the Post-Anaesthesia Recovery Room* which recommends “at least 1.5 spaces ...”). Note the NSW Health document on High Volume Short Stay Surgical (HVSSS) Model (2012) recommends 2.5 to 3 beds per HVSS theatre in PACU.
- A previously considered plan of how patients who fail to achieve satisfactory discharge criteria should be in place, particularly for free-standing DSP facilities.

2.2 Extremes of Age

Day stay procedures have expanded to include an increasingly broad range of ages of patients being cared for as day stay. This introduces a number of concerns specific to those at the extremes of ages.

- Cataract and endoscopy procedures are performed in DSS facilities on elderly patients and some may have significant co-morbidities, that is, more complex ASA 3 and possibly ASA 4. It is therefore, important that such patients with complex, chronic diseases are optimised prior to their procedure.
- Many elderly patients now live alone. Some elderly patients have repeated minor surgery and the issue of ensuring overnight supervision by an adult is significant.
- Many children undergo procedures in day surgery facilities. Such procedures typically include ENT and dental and occur outside the teaching hospital environment. It should be noted that paediatric patients, in particular those having ENT, are more likely to be at risk of Obstructive Sleep Apnoea.

- The age of paediatric patients admitted to a DSS facility will vary depending on:
 - Whether the paediatric patient had a premature birth
 - The geographic location of the DSS facility
 - The paediatric experience of the Anaesthetist and Proceduralist
 - The type of procedure planned (tonsillectomy is controversial)
 - The resources available (staff, equipment, etc) at the DSS facility

Guidance on these issues is provided in PS29 *Statement on Anaesthesia Care of Children in Healthcare Facilities Without Dedicated Paediatric Facilities*.

- There is an absence of dedicated paediatric hospitals in Tasmania, ACT, Northern Territory and the South Island of New Zealand. These regions typically have dedicated paediatric wards and suitably trained paediatric healthcare practitioners. As most paediatric resources are concentrated in urban areas and are less common in rural/remote locations, the Document Development Group (DDG) considered accessibility to DSP facilities in the formulation of the accompanying document.

2.3 South Australian Coroner's recommendations

In February 2014 the South Australian Coroner handed down recommendations after investigating the deaths of two morbidly obese patients in a small private facility).

- Although the recommendations were not specifically about Day Case surgery/anaesthesia, they do highlight some important issues as detailed in the following dot points
- Small private hospitals that have no on-site medical practitioners overnight, and no ICU backup should develop robust pre-admission processes in which higher risk patients are screened to ensure that they are not accepted for overnight admission unless they have been assessed as suitable for that facility by a medical specialist or anaesthetist, well in advance of the planned admission date.
- The process by which higher risk patients are referred for pre-anaesthesia assessment is streamlined and last minute changes to operating lists resulting in a different anaesthetist taking over immediately before surgery should be avoided.
- Awareness should be raised amongst medical practitioners and nurses about the inherent risks of post operative respiratory depression occurring in obese patients in particular, who may or may not have a diagnosis of sleep apnoea and who are receiving, or have received, opioid analgesia
- The AAGBI/BADS 2011 document noted that even though the incidence of complications with procedures is increased with increasing BMI, obese patients do benefit from short duration anaesthesia/procedures and early mobilization.
- There should be adequate resources that allow safe manual handling and transport of obese patients within a DSP facility.
- While a diagnosis of OSA does not in itself exclude DSP, careful consideration is required in assessing suitability. The major risk factors for post-operative respiratory complications in these patients are severity of disease, co-morbid conditions and requirement for postoperative opioid analgesia.
- Allowances for variations in post-operative management may be required, in particular longer periods of observation in PACU.

2.4 Performance of Emergency/Acute Procedures in DSP facilities

DSP usually involves elective or pre-planned procedures. Increasingly, it is noted that emergency procedures may occur in a Day procedure facility. Particular examples would be haematemesis, significant PR bleeding, retinal detachments where specific equipment and expert nursing staff are located at a Day Care facility. Such case may well be unstable ASA 3 or 4. The issue of adequate post-anaesthesia care must be resolved before proceeding with such cases.

2.5 PS07 and Fasting guidelines

PS07 underwent a significant revision in 2016. Revision of PS15 ensured that the two documents aligned. In particular, PS 15 under section 4.5.2 (and subsequent sub-sections) outlined fasting guidelines. This is now replaced by the appendix in PS07.

- Several Fellows expressed concerns regarding the currency of ANZCA fasting guideline. This included concerns that the guidelines referred to “healthy” patients when most often they should also apply to ASA 3 and 4 patients. There was also concern that prolonged fasting may have potentially deleterious effects.
- In 2011 both the American Society of Anesthesiologists (ref) and the European Society of Anaesthesiology (ref) produced updated fasting guidelines based on consensus and literature review. The ESA in particular emphasised the need to avoid prolonged fasting and indeed encourage intake of clear fluids up to two hours prior to anaesthesia.
- Specific mention has been made of “chewing gum”. The risks of allowing gum are related more to the presence of a foreign body rather than increased gastric content. The update from WebAIRS at the AZCA ASM 2015 quoted a number of instances where chewing gum was noted as a cause of an adverse airway event.
- In view of the above, there was some discussion about creating a new policy document specifically on Fasting. It was noted that there are an increasing number of professional documents and as they are not catalogued according to area of relevance. A decision was made to develop fasting guidelines as an appendix to PS07, as the pre-anaesthesia period of care is where instructions on fasting are given to patients. The intention is that this appendix can then be updated/amended as necessary without requiring a revision of the entire document.
- At this stage, consideration may be given to provision of clear carbohydrate rich fluids, specifically developed for peri-operative use, up to two hours before an anaesthetic. Research into the proven benefit of such fluids is not yet conclusive.
- Bariatric surgery as a potential contributor to delayed gastric emptying/oesophageal motility disorder has also been included for specific consideration. There was discussion in particular about anecdotal and some European case reports regarding aspiration in patients with adjustable gastric bands.

2.6 Discharge Criteria

- The time frames of some of the discharge criteria such as vital signs were removed in line with “fast tracking” and ERAS policies. The American ASA have removed mandatory times from their criteria.
- Mobility or activity have been added.
- Guidance on use of opioids for obese patients/OSA has been included.
- More generally, emphasis is given to the need for careful consideration of prescription of opioids on discharge of all patients because of the now well recognised risks of inappropriate opioid use and diversion.
- There is considerable debate regarding the requirement and duration for a responsible person to be present with the patient in the post-operative period. The DDG was aware of variances in practice. There is no evidence to support variation from the current requirement.

3. SUMMARY

PS15 revision was guided by advice from the document development group. The recommendations in the guidelines are based on the application of the general principles in recognition of recent changes in practices and demands, as well as advances in technologies.

These same considerations apply to PS29, which should be reviewed at the earliest possible time.

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ANZCA regional and national committees

SPANZA

Australian Society of Anaesthetists

Faculty of Pain Medicine Board and regional committees

ANZCA Trainee Committee

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**This professional document is being piloted and will be reviewed in November 2017.*

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