

# **Development of a set of universal post-operative order principles**

*Prepared for the  
Victorian Surgical Consultative Council (VSCC)*

*12<sup>th</sup> April 2006*

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## **1.0 Executive Summary**

Following coronial investigations of several cases of peri-operative mortality, the Victorian State Coroner made strong recommendations for the Victorian Surgical and Anaesthetic Consultative Councils to develop a universal post-operative order to be used by all hospitals in Victoria and potentially nationally.

The Victorian Surgical Consultative Council (VSCC) and the Victorian Consultative Council on Anesthetic Mortality and Morbidity (VCCAMM) accepted this recommendation and its implication for improving patient safety by reducing unnecessary post-operative mortality and morbidity and sought expressions of interest to undertake this work.

Austin Health Departments of Surgery, Anaesthesia and the Clinical Governance Unit prepared a project plan and methodology to develop universal post-operative order principles that was accepted by the Councils. The project draws upon recent work undertaken at Austin Health to develop both a process and a post-operative orders form to improve the outcomes of care. With the Professor of Surgery as the project sponsor, the project draws on expertise from staff who are members of the Victorian Surgical Consultative Council (VSCC), the Victorian Consultative Council on Anaesthetic Mortality and Morbidity (VCCAMM), the Victorian Department of Human Service Clinical Risk Management Reference Group, Victorian Quality Council and an extensive clinical network interested in working collaboratively to develop and implement universal principles of post operative care within a defined timeframe.

In undertaking this work, it is recognised that the principles should be applicable across the state in a wide range of hospital settings, including public and private health services, stand alone and integrated facilities, as well as metropolitan, regional and rural settings.

This report provides the results of literature and practice research together with survey and consultation with clinical groups on current practice. It identifies barriers to the use of post-operative orders and identifies the elements of best practice post-operative orders. The results have been developed into a set of principles that is supported by rationale and evidence. In conjunction with clinical practitioners, these principles have then been developed into a generic tool which can be used as the basis for further development of a post operative orders form, checklist and process. The set of universal post-operative order principles outlined in this report can assist health services in the development or review of their own post-operative order processes and forms.

In undertaking this work, there was considerable enthusiasm and interest from the participants in the outcomes of the process. Many health services provided examples of forms used, and identified problems with the current lack of structure and variability in post-operative orders. In undertaking the survey, Austin Health has developed a comprehensive database of sites undertaking surgical procedures. These include public and private health services, stand alone and integrated facilities, as well as metropolitan, regional and rural facilities.

## **2.0 Background to the Project**

Healthcare is becoming increasingly complex. National and international studies on patient adverse events confirm that about 90% of hospitalised patients receive safe, appropriate care<sup>1</sup>. The remaining 10% experience one or more adverse events during a hospital admission. Of these, 2% are serious, resulting in significant disability or in some cases, death. Almost all patient adverse events result from deficient, complex systems of clinical care or unavoidable clinical reactions to treatment<sup>2</sup>. Adverse events arising from inadequate post-operative orders form a subset of these events.

The term 'clinical governance' was introduced in the UK in 1998 as *a framework through which NHS organisations are accountable for continually improving the quality of their services and safeguarding high standards of care by creating an environment in which excellence in clinical care will flourish*.

Effective clinical governance needs to demonstrate outcomes that improve safety and quality. It requires involving key clinical staff from the beginning. It also requires management and clinicians to work together to implement service improvements and clinical practice changes.

Patients undergoing operative procedures require the provision of ongoing care that can optimise their recovery and prevent complications from the procedure. The orders for care need to be clearly understood so that they can be implemented in a timely way and the opportunities for errors of commission or omission minimised.

A set of universal post-operative order principles that can be used as a common standard in the health industry should encompass post-procedure orders related to:

- Surgical or other procedural staff
- Anaesthetic, resuscitation and pain management instructions
- Nursing and other orders
- Allied Health Staff
- Specific guidelines for post-operative consultation, and
- Particular instructions for specialised procedures

In developing a universal set of post-operative orders, the principles should be:

- Inclusive of all areas of clinical practice, all staff levels and apply to all patients
- Easily understood by all groups of staff and simple to apply to practice
- Supported by clear policies and guidelines
- Able to deliver clear benefits to patients, clinicians and management
- Based on research and supported by evidence
- Supportive of the culture of clinical governance and professional excellence
- Consistent with directions set by the Victorian Surgical Consultative Council (VSCC) and the Victorian Consultative Council on Anaesthetic Mortality and Morbidity (VCCAMM)
- Manageable by the VSCC and VCCAMM and not prohibitive for any stakeholder group in terms of cost or time to participate

### **3.0 Methodology**

The objective of the Post-operative Orders project is to develop a set of principles for a universal post-operative order form on behalf of the Victorian Surgical Consultative Council (VSCC)

The key deliverable is a comprehensive written report to the Victorian Surgical Consultative Council (VSCC) outlining a set of universal post-operative order principles to assist health services in the development or review of their post-operative order form.

The report will also contain practical examples and/or models demonstrating the application of the principles; and potential/actual implementation issues as raised by stakeholders during the project.

The following methodology and six phases were used to achieve the aims of this Project. A copy of the Project Plan is provided in Appendix 1.

- Phase 1** Confirmation of consultancy and context for development
- Phase 2** Review of relevant documentation
- Phase 3** Review of available evidence and identification of best practice
- Phase 4** Interviews and consultations with key stakeholders
- Phase 5** Preparation of draft report
- Phase 6** Project presentation and VSCC review of project and submission of final project report

### **3.1 Project Team**

#### **Project Sponsor:**

Professor Chris Christophi

#### **Project Leaders:**

Dr Andrea Kattula and A.Prof Jenepher Martin,

#### **Project Manager:**

Ms Margaret Way, Director Strategy, Risk and Clinical Governance

#### **Project Officer, Clinical Governance**

Aliçon Bennie

#### **Project Team Members;**

Mr V Muralidharan,	Consultant Surgeon
Mr Ahmad Aly,	Consultant Surgeon
Dr Steve Warrilow	Consultant Intensivist
Dr Michael Yeoh,	Emergency Department Physician

#### **Local Project Reference Group**

A.Prof Larry McNicol	Director of Anaesthesia and current Chair of VCCAMM
Professor Rinaldo Bellomo,	Director of ICU Research and member of VQC
Mr Malcolm Douglas,	Head of Upper GI Surgery
A.Prof Gavin Fabinyi,	Head of Neurosurgery
Ms Sue Liew,	Head of Orthopaedics, Clinical Service Medical Director
Mr Andrew Roberts	Head of Vascular Surgery
Richard McFarland	NUM, Recovery
Kate Ireland	NUM, Surgical Ward

#### **4.0 Context for development**

##### **4.1 Surgical, diagnostic and other invasive procedures**

There are three main stages for clinical intervention and management for patients undergoing surgical, diagnostic and other invasive procedures. Each stage requires accurate assessment and action to ensure the desired procedural outcome is achieved.

##### **Pre-operative Preparation**

- Previous medical history should be reviewed
- An assessment should be made of health status, surgical, and anaesthetic risk
- Potential risks and complications should be identified and assessed
- Plans should be developed for managing existing co-morbidities, and medications
- Patient Consent should be obtained
- Booking procedures should be clear and documented
- Required equipment should be identified
- Staffing should be planned to include the correct skills mix

##### **Intra-operative**

- The pre-operative assessment should be reviewed to confirm the nature of the clinical problem and the appropriateness of the planned procedure
- Final checks for correct patient, procedure and operative site should be undertaken
- Necessary equipment checks should be undertaken for safe use
- All required staff should be available and able to undertake the tasks required of them (correct skills mix)

##### **Post-operative care**

- Standardised structures should exist for post-operative order content and communication; these should be supported by an overarching organisational policy.
- Post-operative management orders should take into account individual patient and anaesthetic factors as well as surgical factors
- All invasive procedures should be covered by "post-operative" orders
- Documentation of care should match the post-operative order requirements and deviation from an expected course should prompt patient review +/- escalation of care

A discharge plan should be included in the post-operative orders for those being discharged or transferred to another facility within 24 hours of surgery.

This project is specifically focused on the post-operative care phase. However, it is clear that each stage is related, so errors of commission or omission can occur at any stage and impact on the post-operative period.

## **5.0 Review of evidence and identification of best practice**

### **5.1 Literature Review**

A literature review was undertaken using both Medline and Internet searches. These searches identified scientific articles as well as tools and practices used in individual healthcare organisations that are not published in the scientific literature. Professional standards relating to peri-operative care that have been produced by various Australian and International anaesthetic and surgical bodies were also identified and reviewed. Known websites for quality in healthcare activities were also searched for reference to post-operative orders and complications. Finally the sections relating to post-operative care and complications in surgical and surgical nursing textbooks in the medical library of a tertiary care teaching hospital were reviewed for any reference to the structure and format of post-operative orders.

The main findings relevant to this project from the relevant text are as follows:

- **Royal College of Anaesthetists – Guidance on Postanaesthetic Care<sup>3</sup>**

This text emphasises the importance of post-operative orders, and the need to provide “full information” but does not provide explicit detail on the ideal content or structure of post-operative orders.

- **Good Surgical Practice. The Royal College of Surgeons of England<sup>4</sup>**

This text describes the recommended content for operative notes, but while noting the need to include “Post-op care instructions”, no detail is provided regarding the necessary content of post-operative orders.

- **Victorian Surgical Consultative Council (VSCC), Inaugural report 2001-2004, VSCC November 2004<sup>5</sup>**

#### Section on the Surgical Patient Safety System

Describes a system developed to improve early identification and action for a deterioration in a patient’s clinical status, as well as to prioritise ward staff attention to the patients with the greatest clinical need. This system categorises patients into 1 of 4 status types: stable, labile, unstable, and ward critical, which are clearly defined by the individual organisation. The status is determined at the beginning and end of each day by the medical staff, with a deterioration in status able to be determined by any member of the clinical care team. Standard observation protocols are developed for each category by the individual medical unit.

A deterioration in status is linked to an escalating medical notification process:

- Any patient moving to a more severe category – RMO notified.
- Any patient who moves to Unstable or Ward Critical Status:
  1. should be reviewed at earliest possible time by Unit or Covering Registrar (<1hr);
  2. surgeon responsible for patient should immediately be contacted;
  3. differential diagnostic list created and contingency planning initiated;
  4. ‘worst case’ scenario identified;
  5. nursing observation plans and reportable levels reviewed;
  6. should be individually and specifically handed over to covering RMO and Registrar before unit management staff leave hospital.

The report notes that the rationale for developing such a system is based on the major causes of adverse patient outcomes include:

1. Failure of communication with other medical and nursing staff;
2. Failure to involve senior staff in timely fashion;

3. Failure to detect signs of further deterioration;
4. Tendency to attribute the abnormal to common, benign events without preparation for the uncommon catastrophic event.

Such a system clearly has a role in the post-operative observation process, and may be incorporated into a post-operative order policy and format.

- **ANZCA Recommendations for the Perioperative Care of Patients Selected for Day Care Surgery.**<sup>6</sup>
- **ANZCA Recommendations for responsibilities of the anaesthetist in the post-operative period – PS20 (2001)**<sup>7</sup>
- **ANZCA Recommendations for the Post-Anaesthesia Recovery Room – PS4 (2000)**<sup>8</sup>

The Australian and New Zealand College of Anaesthetists Professional Standard documents that relate to post-operative care, emphasise the importance of post-operative care plans and discharge criteria. The standard regarding responsibilities of the anaesthetist in the post-operative period<sup>7</sup> states that responsibility is shared with the surgeon or other consultants for advice regarding clinical observations and monitoring, pain relief, management of complications, fluid therapy, respiratory therapy, discharge from the recovery ward and anaesthesia related on-going care. However the standards do not specify how such advice should be documented, although the need for a formal handover of responsibility to Recovery staff, supported by both written and verbal instructions, is emphasised.

- **Conwy & Denbighshire NHS Trust – Handover Policy – Hospital At Night 2005**<sup>9</sup>

This policy describes the formal handover process and policy in an NHS Trust in the UK. It emphasises the need for a structured and standardised approach to improve the reliability of the information being transferred and to reduce the impact of regular changeover of staff. The policy describes the information needed for handover as “sufficient and relevant”. Several features of an effective handover process are identified, including the need for the process to be structured and standardised, with a clear approach to getting the right people together at the right time for handover.

The policy recommends that handover information should be written as well as verbal. This also enables the handover process and outcome to be audited. The process of handover should be robust enough that it does not rely on individuals, and the process works best when policy supports the use of a structured tool. For example the use of signoff before the patient moves to the next point of care.

### **Surgical, Recovery Nursing and Surgical Nursing Textbooks**

In general, both surgical and nursing textbooks addressed in considerable detail the prevention, identification and management of post-operative complications, with full chapters often dedicated to these topics. However, although the need for post-operative orders or instructions was clearly acknowledged, minimal reference was generally made to the form, content or structure of such orders. However, in general most textbooks recognised the importance of a verbal handover from the anaesthetist to the recovery room staff and for the surgical team to provide some form of written post-operative instruction.

**JCAHO Sentinel Event Alert – Operative and Post-operative Complications: Lessons for the future<sup>10</sup>**

In this alert, a review of 64 cases relating to operative and post-operative complications was undertaken. It found that 58% of complications occurred in the post-operative period, and that 90% occurred in non-emergent procedures. This supports the premise that post operative orders are required for all surgical procedures, including those procedures that are considered 'routine'. In two thirds of the cases, incomplete communication was identified as a contributing factor to an adverse event / complication. Post-operative monitoring was also identified as a contributory factor, with emphasis placed on the importance of assessing individual patient need in determining the level of monitoring required post-operatively, rather than ordering "routine" monitoring based on the post-operative location.

**Handoff strategies in settings with high consequences for failure: Lessons for health care operations.<sup>11</sup>**

In this article, handoff strategies in settings with high consequence of failure, including a nuclear power plant, NASA etc, were observed and their potential applicability to healthcare settings considered. While acknowledging that healthcare is different, several features of the strategies observed in these high risk industry settings may be applicable to health, and in particular to post operative settings.

In the context of post-operative orders, the following strategies outlined in the article may be relevant to developing more effective post-operative order practices:

1. Developing a structure and format for the orders that allows an 'at a glance' overview of the current patient status and treatment plan.
2. Using a structure that contains information given in the same order every time. Staff will then potentially come to expect the information in a certain order that may make it easier for staff to identify missing information when the orders are incomplete.
3. The content needs to be unambiguous and responsibilities for ordering and implementing orders clearly defined. This also helps with developing a clear escalation process and identifying who needs to be notified about what and when.
4. Structured handover procedures will also minimise the impact of variable skills mix on the day. This may be particularly important in teaching hospitals where a range of staff with different levels of clinical experience and knowledge are often rostered together in a shift.
5. The concept of 'flags' could be used in the handover process to draw attention to areas of potential concern.
6. A standardised structure for post-operative orders with more complete information may also reduce the risk of individuals drawing their own inferences from limited information, and ascribing their own priorities to care or clinically important events, which may differ from the priorities of the surgeon.
7. A set structure may also ensure that all areas of patient care are covered, with less risk of omitting important aspects of care that would otherwise only be identified only after a detrimental effect.
8. Structured standardised information may also facilitate trouble shooting – with staff more alert to potential areas of risk and therefore more attuned to anticipating problems and complications.

**Policies that drive the nursing practice of postoperative observations.<sup>12</sup>**

This article examined the diversity both within and between organisations in relation to the definitions and understanding of the term post-operative orders. Surgical units were surveyed to assess the impact of different policies on post-operative orders. Great variation was found between organisations in relation to policies, definitions and regimes for post-operative orders.

These findings support the premise that we can't rely on staff who move through the health workforce sharing a common understanding of what constitutes "routine" or "standard" or "usual" post-operative observations or practices. The use of 'routine' post-operative orders is not specific enough and needs to be clearly defined within the individual organisation.

### **Vital Signs of Class 1 Surgical Patients.<sup>13</sup>**

This article demonstrated the variation between hospitals with regard to the frequency of post-operative vital sign monitoring. It is noted that the development of hospital protocols regarding post-operative observations are often based on tradition rather than taking into account the complexity of the specific surgical procedure, the needs of the individual patient in relation to their clinical condition or co-morbidities and the setting in which the observations are to be undertaken. These factors are important considerations in developing parameters for post-operative orders.

### **Reducing Medical Errors Through Better Documentation.<sup>14</sup>**

This article emphasised the need to reduce reliance on staff remembering all relevant clinical information about all of their patients all of the time. Rather, the focus should be on providing the relevant clinical information in a format that provides a rapid overview of the entire management plan at a glance.

### **Insights into creation and use of prescribing documentation in the hospital medical record.<sup>15</sup>**

This article examined the prescribing documentation in medical records from the perspective of a selected group of hospital doctors at one institution. In this article, the tendency of medical staff to make assumptions about what the reader will know and expect was highlighted. The doctors reported assuming that staff would have adequate knowledge and expertise to understand the patient's general clinical course. Therefore the doctors tended to record unexpected changes to the patient's care in the clinical notes, rather than writing a comprehensive description of everything that was happening to the patient. Doctors also expressed concern about the balance between writing too much and writing too little. A major constraint to good medical record documentation was reported as time constraints. It was also noted that doctors tended to write in a narrative style, which may make it difficult to identify critical information, particularly instructions or orders. It is often the case that the clinical importance of omitted information only becomes apparent later. Hence the use of prompts and structured form templates can prompt staff to cover all of the areas required.

### **CEPOD – UK Confidential Enquiry into Post-operative Deaths<sup>16</sup>**

This enquiry emphasised the need for post-operative orders to be clear and unambiguous. It also suggests that guidance is required on when care concerns should be escalated to more senior staff.

## 5.2 State Coroner Victoria Findings

The Coronial records of investigation into four deaths were reviewed (references: Case numbers 1987 / 98,<sup>17</sup> 739 / 02<sup>18</sup>,) where recommendations were made in relation to post-operative care and clinical handover. Communication processes between Surgeons and Anaesthetists and the Resident Medical Officers and nursing staff were identified as needing improvement. The recommendations highlighted the need for clear, consistent, and unambiguous post-operative instructions, which are easily accessible and recorded in a consistent location and standard format. The need for such documents to be readily available and accessible was emphasised. The actual recommendations were as follows:

### 1. Record of Investigation into case No. 1987 / 98:

- Recommendation 5 – “That ..... Hospital incorporates into their “Operation Report” form a provision for specific orders for DVT prophylaxis so that instructions in future cases are unambiguous. (It may be useful for all hospitals to review Operation Report and DVT management protocols in the light of this recommendation).”

### 2. Recommendations from the Record of Investigation into case No. 739 / 02 included:

- “Consideration should be given to improving the standard method and number of patient handovers to prevent any failure, omission or miscommunication of important patient information.”
- “Consideration should be given to improving and extending the level of communication between Surgeons and Anaesthetists and the Resident Medical Officers and nursing staff entrusted with the post-operative care of their patients.”
- “Consideration should be given to improving the way in which Surgeons and Anaesthetists convey their post-operative orders. The College of Surgeons and Anaesthetists should consider producing a uniform, standard “Operation Report” and “Post Anaesthetic Order” sheet for inclusion in all patient files, in all surgical settings, in all hospitals to promote clarity, consistency and ease of access by all.”
- “Consideration should be given to reducing the length of time it takes for a full “Operation Report” to reach a patient file so that important surgical information is immediately available.”
- “Medical and nursing staff should be reminded of the importance of familiarising themselves with the patient file in the care and management of a patient.”

## 5.3 Review of the first 1000 MET calls at Austin Health

Data from the first 1000 MET calls (medical and surgical patients) at Austin Health were reviewed, and the underlying reasons for MET calls in surgical patients were extracted from the data. The most frequent reasons for MET calls (absolute numbers) were:

1. Staff worried about the patient – 613
2. SaO<sub>2</sub> – 431
3. BP – 323
4. Neuro – 261
5. HR – 218
6. RR – 213
7. UO – 45

From the data, it appears that despite MET criteria including specific numerical criteria in relation to vital sign observations, the most common reason for initiating a MET call in surgical patients remains the staff being “worried” about the patient. This highlights the fact that having reportable limits on vital signs alone, does not capture all circumstances where staff feel that escalation of care is indicated. For this reason, including a non-specific criterion which acts as a “permission” to escalate care may also be useful as part of any post-operative order format. This suggests that recognition of abnormal observations and deteriorating clinical condition needs to be part of the post-operative order process to initiate escalation of care to more senior or expert staff.

## **6.0 Interviews and consultations**

### **6.1 Post-Operative Orders Survey**

A post-operative order survey was designed to identify current practice across Victoria in relation to post-operative orders, to obtain opinion on problems encountered with post operative orders and to identify what factors contribute to good practice. Copies of current post-operative order documentation forms were requested from each participating institution. Two surveys were sent to each institution, to the Head of Surgery or Chief Medical Officer/CEO and to the recovery room Nurse Unit Manager. All hospitals in Victoria were sent surveys, including all metropolitan, rural, private and public hospitals, which undertake surgical procedures.

The following issues were addressed in the survey (copy of survey and covering letter are attached in Appendix 2 and 3).

- Requirements for post-operative orders after all surgical procedures
- Location of post-operative orders
- Content of post-operative orders
- Intended duration of use of the post-operative orders
- Responsibility for documentation of the post-operative orders
- Level(s) of medical staff seniority generally document post-operative orders
- Responsibility for reading and act upon the orders
- Incorporation of orders into the medical record
- Signing, dating and timing of post-operative orders
- Communication of post-operative orders between staff
- Assessment of adherence to the post-operative orders
- Barriers to effective post-operative orders
- Successful practices

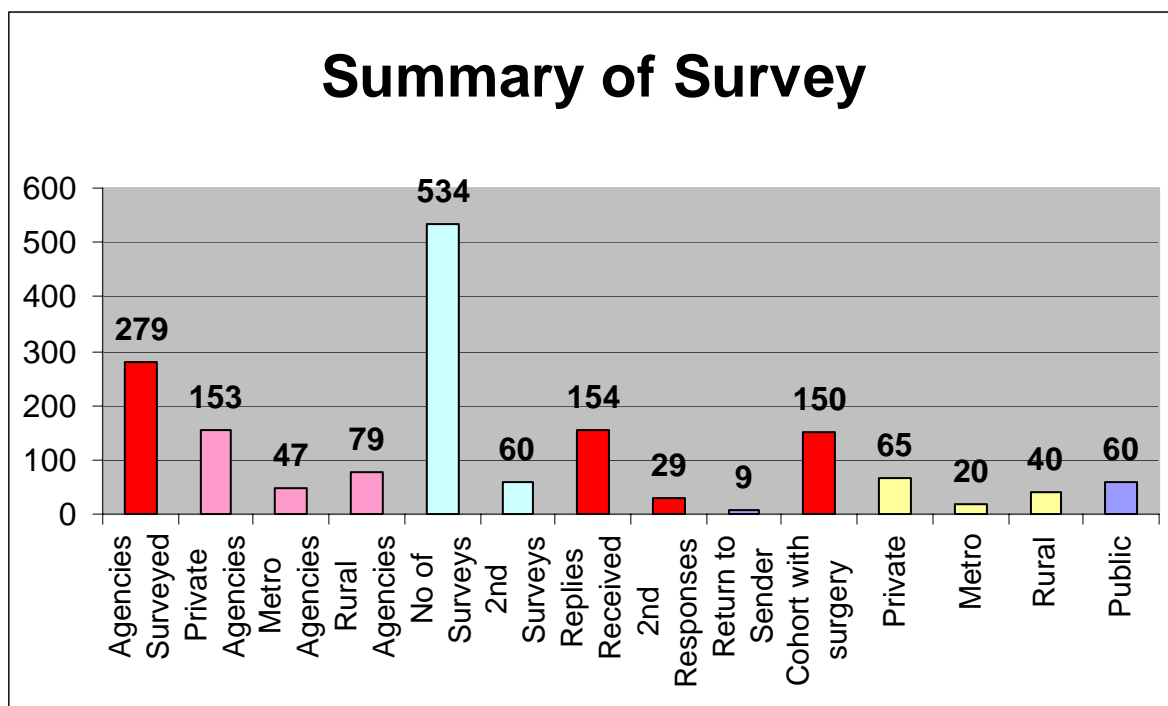
## 6.2 Results

### 6.2.1 Distribution and Response to Survey

A total of 534 surveys were sent to 279 Agencies. Initial letters were sent to both the NUM of Theatre/Recovery and the CEO/DON or surgeon of each Agency. There were 9 'return to sender' responses. A further 60 surveys were sent to Agencies who had not replied but were ascertained to undertake surgery.

154 Agencies responded with one or more replies. There were 29 second responses. From these 125 first responses performed surgery and 25 second responses performed surgery.

The data shown in Graph 1 below constitutes the results from all responses who performed surgery (N=150)

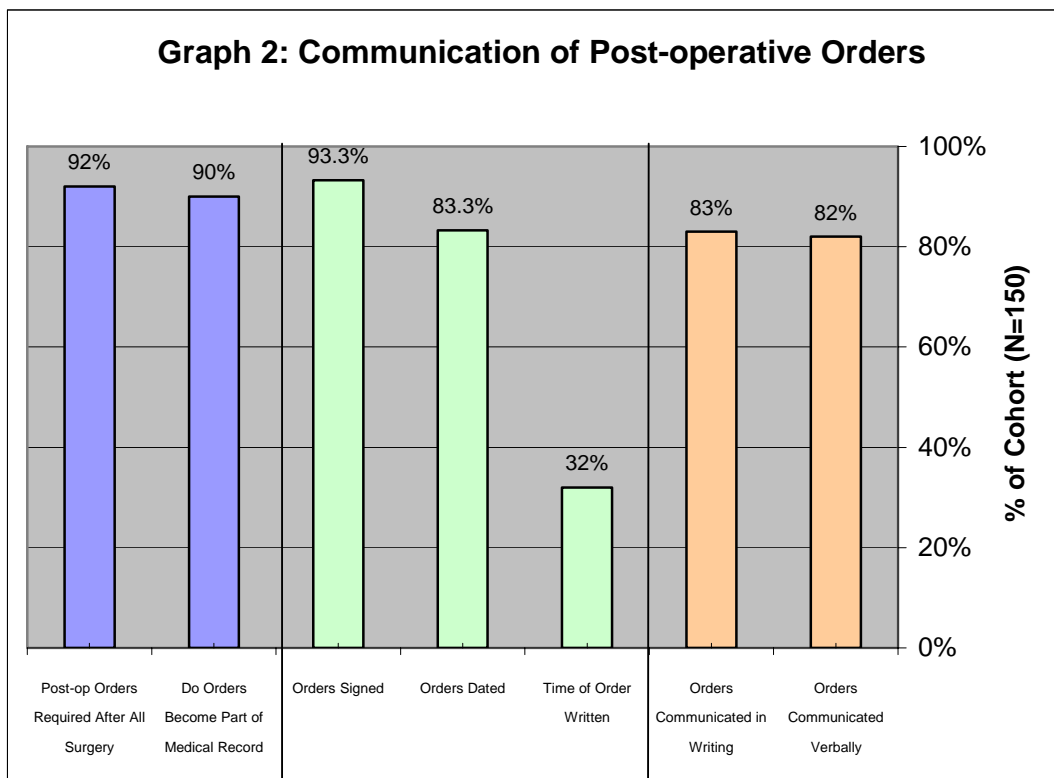


### 6.2.2 Communication of Post-operative Orders

The results confirm that post-operative orders are widely used in surgical settings, but the requirement for post-operative orders is not supported by the same degree of documentation and verbal handover of these orders.

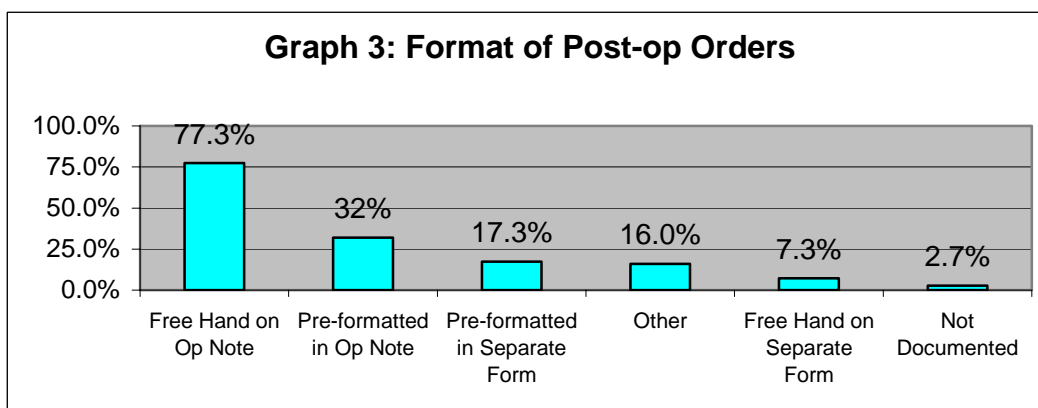
The relevant results charted in Graph 2 show that

- 92% of services surveyed require post-operative orders
- 90% indicated the post-operative orders become part of the medical record.
- 93% were signed
- 83.3% were dated
- 32% had a time the order was written
- 83% communicated the order in writing
- 82% communicated verbally



### 6.2.3 Format of Post-operative Orders

The results charted in Graph 3 indicate that: the majority (77.3%) of documented post-operative orders were written freehand on the operation notes. Many organisations have more than one form of documentation of post-operative orders (total responses greater than 100%). Nearly 50% had developed pre-formatted notes for post-operative orders (either on operation notes or a separate form)

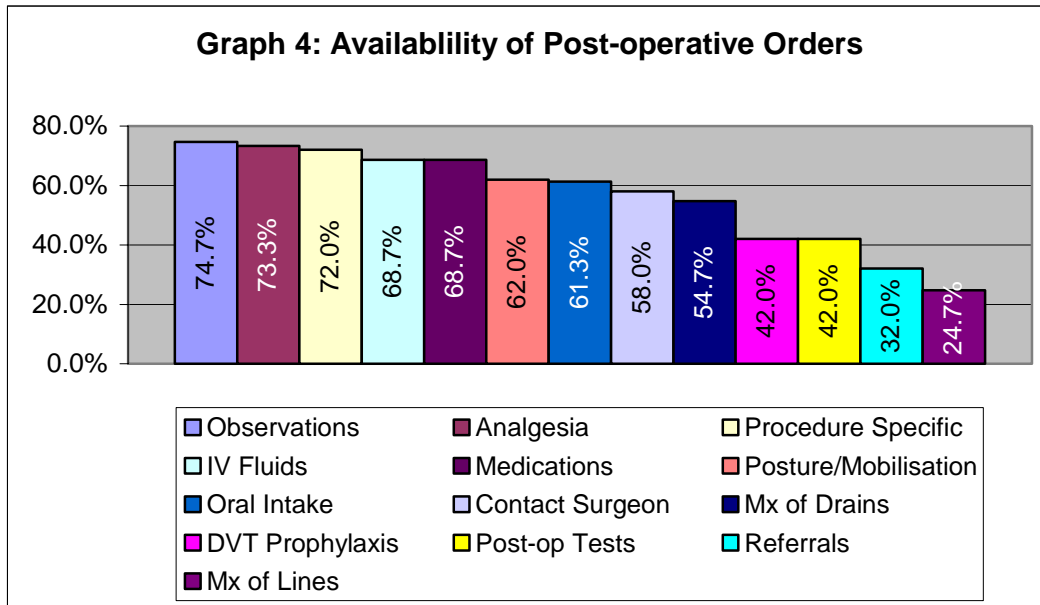


### 6.2.4 Availability of Post-operative Orders

The survey results indicate there are broad ranges of items that are documented in post-operative orders, which are not consistent across the health sector.

The relevant results charted in Graph 4 show:

- Nearly 75% of post-operative orders included observations
- Analgesia, IV fluids and medications also rated quite highly (around 70%)
- Only 58% included how to contact the surgeon
- DVT prophylaxis was only included 42% of the time

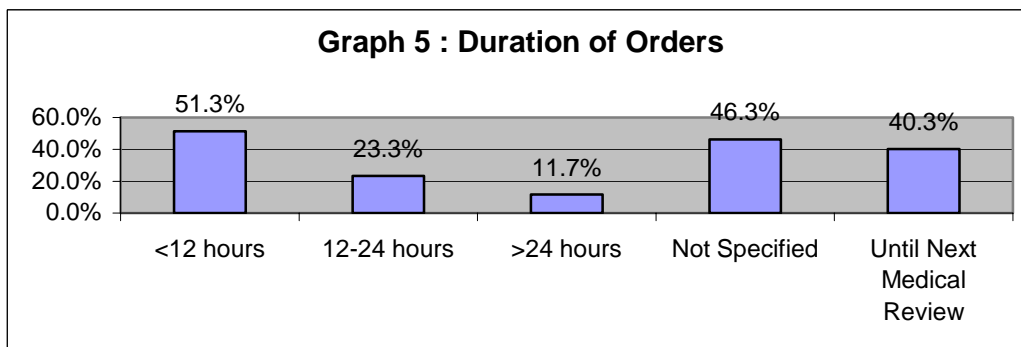


### 6.2.5 Duration of Orders

The results indicate the lack of an accepted norm for the duration of post-operative orders. There is diversity of practice both within and between organisations.

The relevant results charted in Graph 5 are:

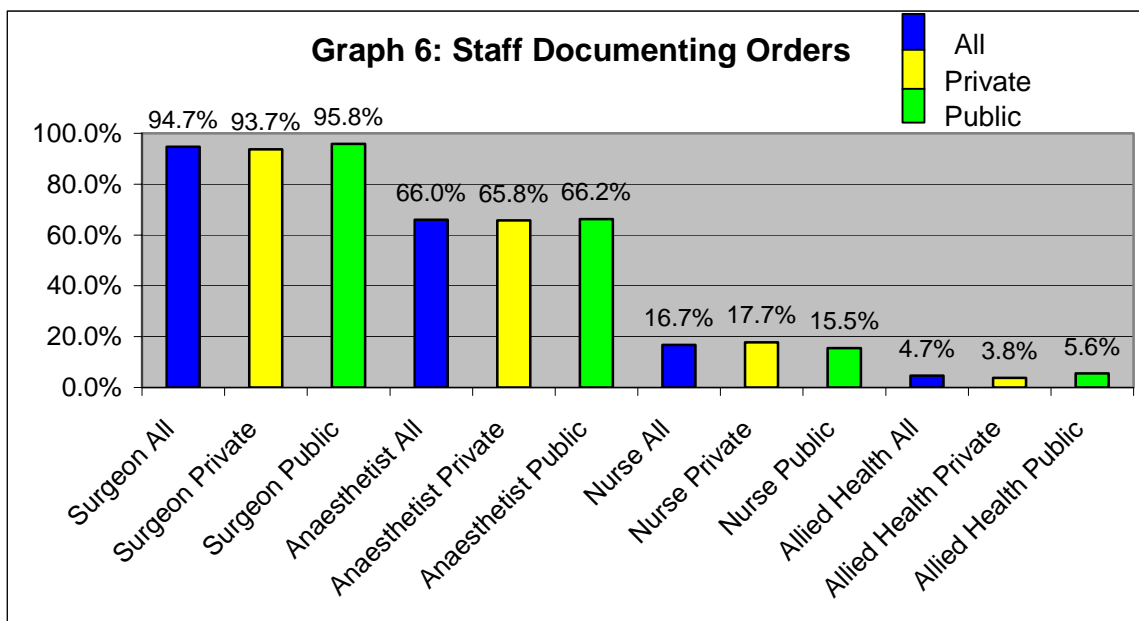
- 51% of orders were deemed to apply for less than 12 hours (there may have been a high representation of day case sites in the survey sample consistent with the trend toward day case procedures)
- Several agencies had more than one duration of post-operative orders
- In nearly 47% the duration of the orders was not specified



### 6.2.6 Staff Documenting Orders

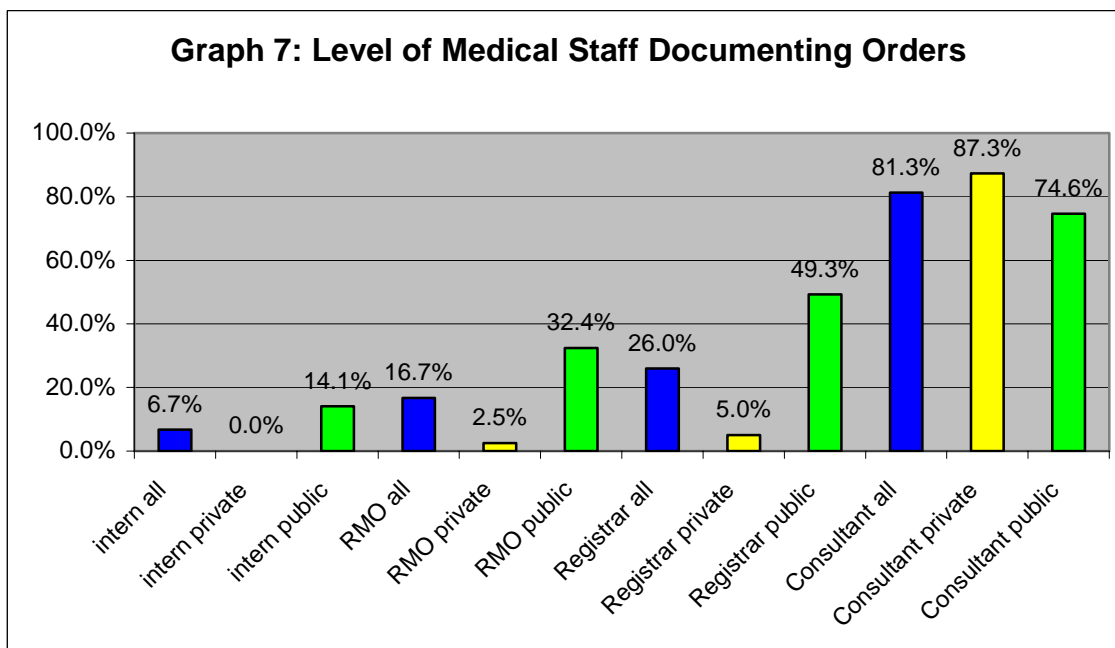
The results charted in Graph 6 show that surgeons and anaesthetists are the primary groups documenting post-operative orders.

- 94.7% of the survey respondents reported that the surgeon documents post-operative orders, which is consistent across private and public sectors.
- 66% of the survey respondents reported that the anaesthetist documents post-operative orders, which is consistent across private and public sectors.



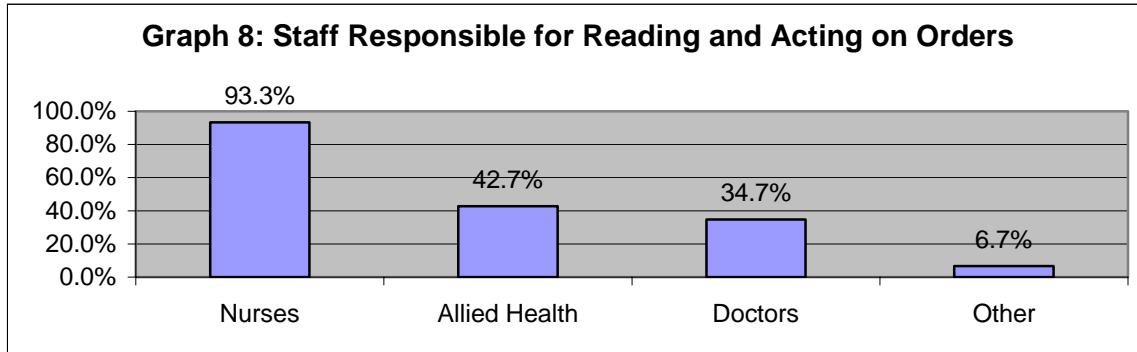
### 6.2.7 Level of Staff Documenting Orders

The results charted in Graph 7 show that the majority of orders are documented by senior medical staff (consultants), but in some public hospitals, registrars and Resident medical officers and interns are documenting the orders.



### 6.2.8 Staff Responsible for Reading and Acting on Orders

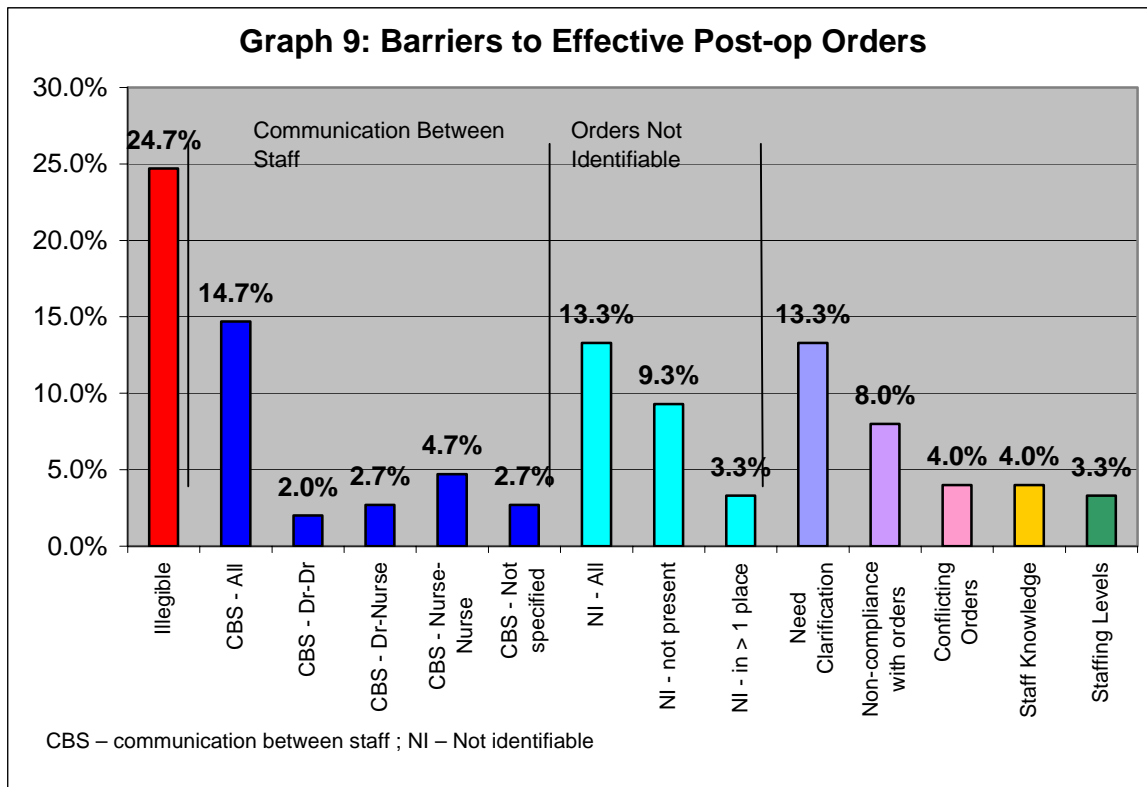
The results charted in Graph 8 show that the primary target group for post-operative orders are reported as nursing staff. However, significant numbers of orders are written for allied health (43%) and other medical staff (35%) and it is unclear to what degree these other staff are aware of the post-operative orders relevant to their work in the care of the patient post-operatively.



### 6.2.9 Barriers to Effective Post-operative Orders

The biggest barrier reported by respondents was the illegibility of post-operative orders. Other issues highlighted and charted in Graph 9 included:

- Communication between staff
- Difficulty in identifying post-operative orders
- Post-operative orders written in more than one location
- Incomplete post-operative orders were it was not clear if the omission was intentional
- Clarification of the detail of the order was required
- The existence of conflicting orders
- Variation in staffing levels, knowledge and experience



Non-compliance includes staff not reading post op orders and nurse initiated activities  
 Conflicting orders are between surgeon and anaesthetist

An issue with non-compliance with orders was also raised. This highlights the need to define and describe staff responsibilities in relation to post-operative orders

### 6.2.10 Practices that have Worked Well in Post-operative Orders

The main themes that were identified by survey respondents were in relation to documentation, communication and the actioning of orders.

#### Documentation

- use of standardised or pre-formatted documents
- legible writing
- decreasing the need for free text by using tick boxes,
- standard orders
- specific post operative forms for procedure,
- use of prompts,
- typed orders,
- adequate detail.
- use of clinical pathways,
- use of stamps
- completion by the surgeon

#### Communication and 'Actioning' Orders,

- use of regular knowledgeable staff
- dedicated handover times
- verbal handover to complement written handover
- ability to clarify orders with the staff making the order
- who to call and how to call
- rapport between medical and nursing staff
- written record of the handover and orders
- orientation for staff
- handover between each shift
- two clear handover points, theatre to recovery and then recovery to ward

- signoff to ensure compliance
- not accepting the patient without handover

Full range of responses is provided in Appendix 5.

96 Agencies included their forms or patient information discharge sheets. Many agencies have a similar pre-formatted Operation Sheet (Appendix 4).

### **6.3 Consultation with stakeholders**

#### **6.3.1 Focus Group:**

A group of representatives from the Austin Health (2 surgeons, Nurse Unit Manager Recovery and Nurse Unit Manager of a general surgical ward) were brought together to explore some of the issues raised from their experience, the literature review and from the survey data in more detail.

The findings from this focus group were as follows:

#### **Observations on Current Problems with Post-operative Orders:**

- Legibility of orders was identified as the major issue, particularly where medication names are handwritten.
- Lack of a specific, dedicated area for documenting post-operative orders.
- Inadequate space – orders are hand written in small enough font to fit into the small area at the bottom of the operative note.
- Ambiguity due to inadequate detail provided or type of wording used.
- Orders often refer to “RPAO” - “routine post-anaesthesia observations” without more specific detail.
- Significant variation in practice between surgeons regarding “usual” post-op care.
- Difficulty identifying whom to contact to clarify orders.
- Difficulty clarifying orders after hours when only covering staff are on duty.
- Incomplete orders – in particular: missing IV fluid orders, analgesia orders and anti-emetic orders.
- Anaesthetic orders tend to be written on the anaesthetic record for recovery staff, but it is not clear where they should be written if instructions also need to be conveyed from the anaesthetist to ward staff.
- Unclear criteria for escalating care e.g.: with respect to drain tube output.

#### **Features Identified as Desirable for Post-operative Orders:**

##### **Structure and Format**

- Specific dedicated form – dedicated location for post-operative orders.
- Pre-printed forms / templates with adequate space for documenting orders.
- Use of tick boxes to decrease need to interpret handwritten orders.
- Set format that incorporates orders required for special procedures or circumstances.
- Reportable limits.
- A baseline minimum acceptable standard for post-operative orders.
- The post-operative order sheet should be used as a checklist for handover to recovery and ward staff, with the form requiring a sign-off by the person writing the orders, the recovery staff receiving the patient, and the ward staff receiving the patient.

##### **Content**

- Content should be comprehensive and address all major aspects of post-operative care.
- The content of the post-operative orders sheet should address the plan for:
  - Vital sign observations – type and frequency
  - Special observations – type and frequency
  - Reportable limits on observations / escalation criteria
  - Location and management of drains / tubes
  - Location of lines with dates inserted
  - Oral intake/nutrition
  - Need for fluid balance chart recordings
  - Position restrictions
  - Mobility

- Analgesia
- Anti-emetics
- Antibiotics
- DVT prophylaxis
- Post-operative tests required and when
- Approximate timeframe for next anticipated medical review (e.g.: next morning ward round, or overnight by covering medical staff if needed).
- Contact details for clarifying the orders and escalating care – in hours and after hours
- Area for free text to document any unique / specific instructions / orders

### **Specific Orders**

- Specific orders in relation to the plan e.g.: Medication orders, IV fluid orders, analgesia orders, DVT prophylaxis orders, may be located in separate areas e.g. on the medication chart, but the post-operative order sheet should flag their existence in the overall plan.

### **Supporting Policy**

- Supporting policy should address responsibility for:
  - Writing post-operative orders
  - Acting on the orders
  - Reviewing the orders
- Supporting policy should specify that patients should not leave the Recovery area without documented complete post-operative orders.

### **Conclusion**

The issues identified by the focus group and the proposed ideas for post-operative order documentation and content generally correlated well with the information obtained from both the literature review and from the survey data.

## **7.0 Principles of Post Operative Orders**

Based on the review of the literature and practice, survey results and consultation with multidisciplinary focus group, the following principles have been identified.

### **Principles**

1. Postoperative orders are required for all invasive procedures.
2. Clear policies and guidelines should exist to support the implementation of post-operative orders.
3. Standard tools should exist to support implementation of the policies and guidelines regarding post-operative orders
4. A standard format and form for post-operative orders is required for all procedures and should provide an at a glance overview of the full management plan until the next medical review.
5. Medical staff writing the orders should have:
  - Knowledge of the procedure, the expected post-operative course and of potential procedural complications
  - Knowledge of the patient's condition in relation to the intra-operative course, the patient's pre-existing co-morbidities, and their risk factors for developing complications.
  - Understanding of the environment (staffing, facilities) in the location where the patient will be managed post-operatively
6. Communication of post-operative orders must be written and verbal, with sign-off by staff making the orders and receiving the orders in theatre, recovery and ward area.
7. Criteria for escalation of care need to be incorporated into the post-operative orders.
8. Staff responsible for acting on post-operative orders are responsible for ensuring they receive written documentation of the orders, a verbal handover and for clarifying instructions before accepting care of the patient and for escalating care when indicated.
9. Post-operative orders need to include both post-anaesthetic and post-surgical orders. While anaesthetic orders specific to the Recovery room may be written on the anaesthetic record, anaesthetic orders or instructions pertinent to the ward need to be recorded as part of the general post-operative orders.

The rationale for each of these principles is detailed in the following table:

Principle	Application to Post-Operative orders	Rationale
<i>Comprehensive Application</i>	<i>Required for all invasive procedures</i>	<p><i>Complications are always possible, but not always predictable – unexpected events</i></p> <p>Staff undertaking the surgical procedure are not usually responsible for ongoing bedside care – that is a handover of care to nursing staff is required</p> <p>Changes in traditional work practices mean that multiple shifts of nursing and medical staff may be involved in the patient’s care post-operatively, all of whom need a clear understanding of the management plan until the next medical review</p> <p>Staff with different levels of clinical training and experience are likely to be involved in the ongoing care of the patient – cannot rely on an assumed level of knowledge and experience about this type of surgical procedure or “usual” post-operative care</p> <p>Staff with responsibility for ongoing care / monitoring / observation of the patient may not have the same level of experience / knowledge regarding the procedure and the patient’s current condition as the surgeon and anaesthetist. Therefore clear instruction is required so critical tasks are undertaken and prioritised, and so that staff are clear when changes in condition need to be escalated</p> <p>If a complication or change in condition occurs, timely escalation to a person with the knowledge and skills to intervene may be critical</p> <p>Provides an “at a glance” overview of the overall treatment plan until the next medical review – relevant information can be viewed with minimal effort</p>
<i>Supporting Policy</i>	<p><i>Clear policies and guidelines should exist to support the implementation of post-operative orders</i></p> <p>Policies and guidelines should be accessible at the point of care for use by staff</p>	<p><i>The organisation’s policies and procedures need to outline and support the above principles and build them into the way care is delivered in the organisation, so that the principles become part of everyday work.</i></p> <p>The principles should be easily understood by and apply to staff of varying skills mix. <i>show minimal complexity in applying them to practice</i></p>
<i>Standard Tools</i>	<i>Standard tools should exist to support implementation of the policies and guidelines regarding post-operative orders</i>	<p><i>The tools should facilitate implementation of the policies and guidelines relating to post-operative orders in individual organisations.</i></p> <p>The use of standard tools within an organisation will facilitate:</p> <ul style="list-style-type: none"> <li>Rapid identification of post-op orders</li> <li>Completeness of orders</li> <li>Legibility</li> <li>Recognition of omitted information / instructions</li> <li>Teaching of junior staff regarding the content of post-op orders</li> </ul>

Principle	Application to Post-Operative orders	Rationale
<p><i>Standard Documentation</i></p>	<p><i>Standard format and form for all procedures</i></p> <p>Standard format and order Use of standard templates with options, reducing the need for free text / handwritten notes The template should include sections on a defined set of items</p> <p>Language used should be unambiguous</p> <p>Avoid undefined use of terms such as "routine", "usual", "standard" in reference to post-op orders At a glance overview of the full management plan until the next medical review</p>	<p><i>Verbal handover practices are fallible due to reliance on memory and interpretation</i></p> <p>Standard order format Reduces chance of inadvertently omitting orders – staff become familiar with the format with headings acting as prompts, and the form ideally improving efficiency Reduces reliance on assuming staff will know what "usual" practice is. Means orders are more likely to be complete – reduces the chance that assumptions / inferences will be made about missing information. Reduces the problems with legibility which is reported as the major concern with current post-operative order documentation Means staff become familiar with the usual format, so missing information will be more readily identified</p> <p>Language is critical – the diversity of practice / experience / knowledge of staff who will read and respond to the orders needs to be taken into account. Terms such as "routine", "usual", and "standard" should only be used in post-op orders if they are accompanied by a definition of what that means in this particular institution. This is important because: Staff may work across organisations and there is known diversity in "standard" practice between organisations. The staff caring for a patient across shifts may have a broad range of clinical training and experience, so assumptions cannot be made about their level of knowledge.</p>
<p><i>Responsibility</i></p>	<p><i>Medical staff writing the orders should have:</i></p> <p>Knowledge of the procedure, the expected post-operative course and of potential procedural complications Knowledge of the patient's condition in relation to the intra-operative course, the patient's pre-existing co-morbidities, and their risk factors for developing complications. Understanding of the environment (staffing, facilities) in the location where the patient will be managed post-operatively</p>	<p><i>Post-operative orders need to be written based on the needs of:</i></p> <p>That particular patient Having that particular procedure In that particular setting If orders are written by staff without that level of knowledge / understanding about the procedure and the patient, risks may include: Clinically important orders being omitted inadvertently. Inappropriate emphasis or priority given to certain observations or instructions. Inappropriate monitoring being ordered for the areas where the patient will be cared for post-operatively, with regard to level of staffing or available facilities. This principle may have particular relevance to teaching hospitals where trainee medical staff are involved in patient care and may be delegated responsibilities of medical record documentation. Clarification of their understanding of procedural, patient and facility factors may be required.</p>

Principle	Application to Post-Operative orders	Rationale
<p><i>Communication</i></p>	<p><i>Written and verbal</i></p> <p>Written                      Standard form and location in medical record                      Recommend sign-off (Name, signature, date and time) on form by                      Medical staff writing orders                      Recovery nursing staff receiving patient                      Ward nursing staff receiving patient</p> <p>Verbal                      Handover processes should include a verbal discussion of the intended management plan until the next medical review.                      Handover should include:                      Medical → nursing                      Nursing → nursing                      Medical → medical                      Nursing → medical                      Medical/nursing → Allied health                      Allied health → medical</p>	<p><i>Written:</i></p> <p>Reduces chance of ambiguity                      Allows opportunity for clarification of instructions if not clear.                      Makes post-op orders clearly identifiable and accessible in a known location.                      Sign-off by medical staff facilitates contact for clarification of content if needed.                      Sign-offs by recovery and ward nursing staff act as forcing functions to ensure that orders have been reviewed before care is transferred between recovery and the ward.                      Clarifications can then be sought from surgical team members or the anaesthetist in a timely manner, when team members are likely to still be present and easily contactable, rather than issues with the orders being identified by the next shift when on call staff may be asked to clarify the content.                      Nursing sign-offs also facilitate a discussion of the orders and checks to ensure that relevant test requests, medication, IV fluid and analgesia orders have been completed to match the post-op orders.                      Written orders allow verbal communication of management plans to be verified at handover between shifts, reducing reliance on staff memory and reducing the risk of error associated with transcribed instructions.                      Written orders facilitate audit, as a record of the treatment plan.</p> <p><i>Verbal:</i></p> <p>Verbal handover of written instructions, allows opportunity for clarification of the content and /or questions to be asked by the receiving carer before care is handed over.                      Increases chance of omitted instructions being identified and clarified.                      Verbal communication should occur between all disciplines caring for the patient post-operatively, and should include feedback of relevant clinical information.</p>

Principle	Application to Post-Operative orders	Rationale
<i>Process for escalation</i>	<p><i>Criteria for escalation of care need to be incorporated into the post-operative orders in relation to:</i></p> <p>Vital signs in general                      Other special observations eg:                      Neuro/vascular observations                      Observations specific to the procedure eg: Chest tube output, stridor                      Observations specific to the patient eg:                      Chest pain or respiratory distress</p> <p>There needs to be a clear process for escalation, addressing who to contact and how:                      In hours                      After hours</p>	<p><i>With the diversity of the clinical experience and training on the wards, particularly in teaching hospitals, assumptions of knowledge regarding post-operative management and when to escalate care cannot be relied on.</i></p> <p>With the change in work practices with multiple shifts, and staff working across different organisations, we can't rely on staff knowing what is 'usual' or "standard" practice in any particular organisation</p> <p>There is not necessarily a common understanding by all staff of what should be considered a priority for intervention in post-operative clinical care.</p> <p>It needs to be recognised that staff may feel anxious about escalating care; particularly to consultant staff, and the documentation of clear criteria for escalation, will facilitate the process by giving staff an informal "permission" to raise concerns.</p> <p>The role of rapid response teams (eg: Medical Emergency Teams) needs to be considered in this context.</p>
<i>Responsibilities of staff caring for the patient post-operatively</i>	<p><i>Staff responsible for acting on post-operative orders are responsible for:</i></p> <p>ensuring they receive written documentation of the orders, a verbal handover, for clarifying instructions before accepting care, and for escalating care when indicated.</p>	<p>Staff responsible for delivering care at the bedside have a responsibility to verify the management plan with the treating health care providers.</p>
<i>Post-anaesthetic orders</i>	<p><i>Post-operative orders need to include both post-anaesthetic and post-surgical orders.</i> While anaesthetic orders specific to the Recovery room may be written on the anaesthetic record, anaesthetic orders pertinent to the ward need to be recorded as part of the general post-operative orders.</p>	<p>Although most post-anaesthetic care relates to the recovery room, the anaesthetist may need to convey orders or instructions to ward staff as part of ongoing care.</p> <p>Traditionally such instructions are often conveyed verbally through the recovery room staff, however, it is important that there is a written record of such instructions, and it needs to be clear that those instructions apply to the ongoing care on the ward.</p> <p>If such orders are only written on the anaesthetic record, there is a risk that ward staff will not notice them or may assume that they were written for recovery room staff only.</p>

## **8.0 A Generic Tool for Post Operative Orders**

A generic tool should provide an **at a glance overview** of the post-operative management plan for the patient from immediately after surgery until the next medical review. It should include prompts so information is less likely to be omitted and therefore the tool acts like a checklist. It should not be a comprehensive list of detailed orders, but should act as a reference point as to where all the relevant documentation and orders are located.

Key features to include in the tool:

### **General Observations** (HR, RR, BP, T, SpO<sub>2</sub>)

- Routine Observation vs. Specified Observations
- Urine Output
- Fluid Balance Chart
- Wound

**Reportable Limits:** (reference could be included to Rapid Response Team criteria)

### **Specific Observations:**

- Neurological
- Vascular
- Stridor
- Other

### **General Care:**

- Position
- Mobility
- Diet
- NG Tube:
- DVT Prophylaxis
- Analgesia
- Antibiotics
- Anti-emetics
- Oxygen
- IV Fluid Orders
- Dressings
- Drains / Special Lines

## **Post-Op Tests Required**

## **Referrals**

## **Signoff Section**

**Anaesthesia Orders for Ward** and signoff. Such a section could be used for instructions or orders from the anaesthetist for the ward. This is assuming that anaesthetic orders specific only to recovery would be documented on the anaesthetic record.

**Handover signoff to recovery nurse and ward nurse** (orders seen and read)

It was identified from the project that further information may be useful to staff completing post-operative orders. The reverse side of the form could provide areas for further documentation on:

- **DVT prophylaxis risk assessment**
- **Vascular observations**

- **Neurological observations**
- **Other information** (hospital specific)

### **9.0 *Translating the Principles and Tool into Practice***

It is recommended that the final draft of this report be sent to all health services that participated in the survey to seek wider endorsement of the principles. The next stage would involve developing the generic principles and generic tool into a practical form or series of forms for use across different organisations. One form may not suit all procedures e.g. day surgery versus major surgery.

Such a project would require consultation with a group of multidisciplinary practitioners with representation from all the areas that order and are responsible for acting on post-operative orders. This would include anaesthetists, surgeons, recovery staff, theatre staff and surgical ward staff.

Upon reaching a consensus, a process for piloting and then implementation of the agreed tool /forms including guidelines for use and handover could be developed.

### **10.0 *Conclusions***

In undertaking this work, there was considerable enthusiasm and interest from the field in the outcomes of the process. Many health services provided examples of forms used, problems with the current lack of structure and variability in post-operative orders. In undertaking the survey, Austin Health has developed a comprehensive database of sites undertaking surgical procedures. These include public and private health services, standalone and integrated facilities, as well as metropolitan, regional and rural facilities.

This report provides the results of literature and practice research together with survey and consultation with clinical groups on current practice. It identifies barriers to the use of post-operative orders and identifies the elements of best practice post-operative orders. This has been developed into a set of principles and a generic tool that is supported by rationale and evidence. It is recommended that, in conjunction with clinical practitioners, these principles be developed into a generic post-operative form and checklist. The Austin Health Project team would be pleased to assist in furthering this important work.

### **11.0 *Appendices***

**Appendix 1 Project plan**

**Appendix 2 Covering letter to health services**

**Appendix 3 Survey form**

**Appendix 4 Commonly used operative note orders**

**Appendix 5 Information from free text comments in the survey regarding barriers to effective post-operative orders**

**Appendix 1 Proposed Project Timetable – Post-Operative Orders**

Phase	Action/s	EVENT	DATE	DETAILS	Outcomes
<b>Phase One</b>  <b>Confirmation of Consultancy</b>  <b>August – September</b>	<ul style="list-style-type: none"> <li>Orientation and initial meeting to confirm project parameters, proposed work plan and funding milestones</li> <li>Communication mechanisms established</li> </ul>	<b>VQC and Austin Health meeting</b>	29 <sup>th</sup> August	Signoff written agreement	<ul style="list-style-type: none"> <li>Confirm administrative processes for payment and reporting.</li> <li>Project stays focused and on target</li> </ul>
		<b>Subcommittee Meeting</b>	13 September 2005 – Completed	Teleconference	
<b>Phase Two</b>  <b>Document Review</b>  <b>August - October</b>	<ul style="list-style-type: none"> <li>Review of relevant material, Including Coronial findings</li> <li>Analysis of the material obtained and summarised.</li> </ul>	<b>Consultative Council Mtgs</b>	14 September 2005 28 September 2005 12 October 2005	CCAMM VSCC CCAMM	<ul style="list-style-type: none"> <li>Project placed in context</li> <li>Timeline revised</li> <li>Summary developed for the final Report</li> </ul>
		<b>Project progress report 1 – Received</b>	17 October 2005	To be included in CC agendas for all Council members to consider	
<b>Phase Three</b>  <b>Review of evidence and identification of best practice</b>  <b>Sept - November</b>	<ul style="list-style-type: none"> <li>Identification of key literature on postoperative care.</li> <li>Identification of work being undertaken in improving postoperative care.</li> <li>Key stakeholders identified</li> </ul>	<b>Subcommittee Meeting</b>	25 October 2005 - Cancelled	Teleconference	<ul style="list-style-type: none"> <li>Elements of best practice identified</li> <li>Components of best practice principles for post operative orders developed</li> </ul>
		<b>Consultative Council Mtgs</b>	26 October 2005 9 November 2005	VSCC CCAMM	
		<b>Project progress report 2 – survey and letter received</b>	14 November 2005	To be included in CC agendas for all Council members to consider	
		<b>Subcommittee Meeting</b>	22 November 2005 - Completed	Teleconference	

<p><b>Phase Four</b></p> <p><b>Interviews and consultation</b></p> <p><b>Nov - February</b></p>	<ul style="list-style-type: none"> <li>• Interview and survey tools developed</li> <li>• Interviews and consultations conducted with identified health services and respective specialist groups</li> <li>• Enablers and barriers to the development of universal principles explored</li> </ul>	<p><b>Project progress report 3</b></p>	18 January 2006	To be included in CC agendas for all Council members to consider	<ul style="list-style-type: none"> <li>• Current post-operative order form practice documented</li> <li>• Identification of key success factors for applying the principles</li> </ul>
		<p><b>Subcommittee Meeting</b></p>	Tues 24 January 2006	Teleconference	<ul style="list-style-type: none"> <li>• Discuss Final Report</li> </ul>
		<p><b>Consultative Council Mtgs</b></p>	1 February 2006 8 February 2006	VSCC CCAMM	
<p><b>Phase Five</b></p> <p><b>Consultation on draft Report</b></p> <p><b>Jan- March</b></p>	<p>Draft report outlining key findings</p> <ul style="list-style-type: none"> <li>• Draft principles reviewed in terms of identified principles (achievable, meaningful etc)</li> <li>• Exploration of options for next steps to progress the implementation of the principles, including any sample forms</li> </ul>	<p><b>Final Draft Report</b></p>	15 February 2006	To be sent to all sub-committee members for comment and included in CCAMM agenda for December meeting & VSCC agenda for January meeting	<ul style="list-style-type: none"> <li>• Findings verified by SCC and any errors of fact or interpretation corrected in the Report</li> <li>• Stakeholders kept informed of progress and findings of the Project.</li> </ul>
		<p><b>Subcommittee Meeting</b></p>	Tues 21 February 2006 <i>and</i> Thurs 6 April 2006	Teleconference or possibly physical meet-up with subcommittee to discuss final draft report and finalise project	
<p><b>Phase Six</b></p> <p><b>Final Report and presentation</b></p> <p><b>March 2006</b></p>	<p>Review Report contents agreed</p> <p>Report modifications made in light of feedback.</p> <p>Final Report prepared and submitted</p> <p>Presentation of Report agreed,</p>	<p><b>Presentation to CCAMM</b></p>	To be announced	Marg and Andrea to present final report to CCAMM	<p>Final Report, which meets all requirements, completed.</p> <p>Report available for further consultations by SCC.</p>
		<p><b>Presentation to VSCC</b></p>	26 April 2006	Marg and Andrea to present final report to VSCC	

**Appendix 2 Covering Letter**



Dear Sir/Madam,

The Victorian Surgical Consultative Council (VSCC) has commissioned the Austin Hospital Department of Surgery and Clinical Governance Unit to develop a set of universal post-operative order principles.

It is important that the principles are applicable across the state in a wide range of hospital settings, so we are surveying multiple hospitals within Victoria for:

- current practice with post-operative orders,
- barriers to the use of post-operative orders,
- any successful models for standardised post-operative orders in Victoria.

We would appreciate it if you could complete the enclosed survey and attach any examples of existing post-operative order forms or templates from your hospital.

Thank you for your valuable assistance,

Professor Chris Christophi  
Chairman Division of Surgery  
Austin Health

Project Director, VSCC Universal Post-operative Orders Principles Project

### Appendix 3 Universal Post-operative Orders Project State-wide Survey

The Surgical Consultative Council of Victoria has commissioned the Austin Hospital Department of Surgery and Clinical Governance Unit to develop a set of universal post-operative order principles.

Please complete the following survey about post-operative orders in your hospital, and return the completed survey along with any copies of post-operative order forms, in the attached envelope to: Dr. Andrea Kattula, Clinical Governance Unit, Level 4, HSB, Austin Hospital, VIC 3084.

Please note, we do **not** require information regarding care pathways for specific procedures.

Hospital Name: .....

#### Current practice:

In your hospital:

1. Are post-operative orders required after all surgical procedures?  YES  NO
2. Where are post-operative orders documented?
  - Free-hand text on the operative note
  - In a pre-formatted section of the operative note
  - Free-hand text on a separate form
  - In a pre-formatted section on a separate form
  - Other (please specify)
  - Not documented

#### Please enclose copies of all relevant forms.

3. Do you have post-operative orders for the following? (Tick all that apply)
  - Observations and their frequency
  - Instructions on when to contact the surgeon
  - Procedure- specific orders
  - Posture / mobilisation
  - Post-operative tests
  - Oral intake
  - Intravenous fluids
  - Medications
  - Analgesia
  - Management of drains and tubes
  - DVT prophylaxis
  - Management of lines
  - Referrals (e.g.: Physio)
4. What is the intended duration of use of the post-operative orders?
  - < 12 hours
  - 12-24 hours
  - > 24 hours
  - Not specified
  - Until next medical review
5. Who documents the post-operative orders? (Tick all that apply)
  - Surgeon
  - Anaesthetist
  - Nurse
  - Allied Health

- 6. What level(s) of medical staff seniority generally document post-operative orders? (Tick all that apply)
  - Intern
  - Resident Medical Officer
  - Registrar
  - Consultant
  
- 7. Who is supposed to read and act upon the orders? (Tick all that apply)
  - Medical staff
  - Nursing staff
  - Allied Health staff
  - Other
  
- 8. Do the orders become part of the medical record?     YES         NO
  
- 9. Are the post-operative orders: (Tick all that apply)
  - Signed
  - Dated
  - Timed
  
- 10. How are the post-operative orders communicated between staff? (Tick all that apply)
  - Written
  - Verbal
  
- 11. How is adherence to the post-operative orders assessed?

Barriers to effective post-operative orders:

- 1. In your hospital, what factors have prevented the post-operative orders from being followed? (please describe and/or attach a separate sheet if insufficient room)

.....  
.....  
.....

**Successful practices:**

- 1. What has worked well in your hospital with regard to:
  - a. Documentation .....
  - b. Communication .....
  - c. Actioning post-operative orders .....

**Please don't forget to enclose copies of any post-operative order forms from your hospital.**

Thank you for your contribution to this project.



**Appendix 5 Information from free text comments in the survey regarding barriers to effective post-operative orders:**

- Absent / insufficient detail / incomplete instructions
- Limited space on medical record forms for documentation of post-op orders
- Lack of specific structure for post-op orders – reliance on verbal handovers
- Difficulty reading handwritten orders
- Junior medical staff unsure of consultant's post-order requirements
- Orders not written by the surgeon
- Procedures covered by care pathways rather than specific post-op orders
- Absence of parameters for reporting changes to medical staff
- Orders documented in multiple locations
- Communication between staff regarding orders
- Contradictory orders between surgeon and anaesthetist eg: regarding analgesia, or oral intake
- Variation in staff knowledge, experience, assessment skills and exposure to procedures
- Surgical patients boarding in medical wards
- Orders too general eg: RPAO
- Staffing levels
- Time constraints
- Orders not accompanying patient – remaining in room where written
- Verbal instructions, but no written orders
- Patients leaving recovery area without written orders
- Casual staff missing what regular staff know
- Staff forgetting to handover information / orders to next shift
- Staff caring for patients who have not read the post-op orders
- Delays in writing post-op orders
- Medical staff forgetting to write post-op orders
- Inadequate verbal handovers
- Inaccurate interpretation of orders
- Varying requirements from different surgeons for similar procedures
- Missing operative notes
- Dictated post-op notes not yet available
- Staff following care plans but not checking against post-op orders
- Difficulty contacting medical staff to obtain / clarify orders
- Reluctance to clarify orders with medical staff
- Orders missed because not written on the correct form
- Missing orders assumed to be not needed
- Orders not in prominent position in medical record

## 12.0 References

- <sup>1</sup> Australian Council for Safety and Quality in Health Care, *First National Report on Patient Safety*, August 2001.
- <sup>2</sup> Australian Council for Safety and Quality in Health Care, *Open Disclosure Project: When things Go Wrong – an Open approach to Adverse Events*. Issues Paper, pp1-20, 2001.
- <sup>3</sup> Royal College of Anaesthetists – *Guidance on Postanaesthetic Care*
- <sup>4</sup> *Good Surgical Practice* Sep 2002. The Royal College of Surgeons of England
- <sup>5</sup> Victorian Surgical Consultative Council (VSCC), *Inaugural report 2001-2004*, VSCC November 2004
- <sup>6</sup> ANZCA *Recommendations for the Perioperative Care of Patients Selected for Day Care Surgery*.
- <sup>7</sup> ANZCA *Recommendations for responsibilities of the anaesthetist in the post-operative period – PS20 (2001)*
- <sup>8</sup> ANZCA *Recommendations for the Post-Anaesthesia Recovery Room – PS4 (2000)*
- <sup>9</sup> Conwy & Denbighshire NHS Trust – *Handover Policy – Hospital At Night 2005*
- <sup>10</sup> JCAHO *Sentinel Event Alert – Operative and Post-operative Complications: Lessons for the future*
- <sup>11</sup> *International Journal for Quality in Health care* 2004; Vol 16, Number 2: pp125-132. *Handoff strategies in settings with high consequences for failure: Lessons for health care operations*. ES Patterson, EM Roth, DD Woods, R Chow, J Orlando Gomes
- <sup>12</sup> *Policies that drive the nursing practice of postoperative observations*. *International Journal of Nursing Studies* 39 (2002) 831-839. K Zeitz, H McCutcheon.
- <sup>13</sup> *Vital Signs of Class 1 Surgical Patients*. *Western Journal of Nursing Research*, 1990, 12(1), 28-41. MJ Davis, LA Nomura.
- <sup>14</sup> *Reducing Medical Errors Through Better Documentation*. *The Health Care Manager* Vol 23, Number 4, pp. 329-333, 2004. Lippincott Williams & Wilkins, Inc. M Edwards, J Moczygemba.
- <sup>15</sup> *Insights into creation and use of prescribing documentation in the hospital medical record*. *Journal of Evaluation in Clinical Practice*, 11, 5, 430-437. MP Tully, JA Cantrill.
- <sup>16</sup> CEPOD – *Confidential Enquiry into Post-operative Deaths (UK)*, 2002
- <sup>17</sup> State Coroner Victoria *Record of Investigation into case No. 1987 / 98*
- <sup>18</sup> State Coroner Victoria *Record of Investigation into case No. 739 / 02*