FOREWORD

This is one of a series of Public Hospital Procedure Manuals produced as a joint project by the Department of Health New South Wales and the Australian College of Health Service Administrators (NSW Branch).

Whilst the manual reflects the current Departmental policies contained in the Consolidated Circulars that it supersedes, it must be emphasised that it is a ‘live’ document to which amendments will be issued on a regular basis. Amendments should be recorded on the amendment sheet.

Suggestions are invited for amendments and should be submitted through the appropriate channels i.e. hospital administration, Area/District Offices.
## TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CHAPTER 1 - ANAESTHETICS</th>
<th>PD/IB/GL NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principles of Anaesthetic Care</td>
<td></td>
</tr>
<tr>
<td>Pre-Anaesthetic Consultation</td>
<td></td>
</tr>
<tr>
<td>Administration of Drugs Specifically to Produce Coma</td>
<td></td>
</tr>
<tr>
<td>Major Regional Anaesthesia</td>
<td></td>
</tr>
<tr>
<td>Anaesthetic Machines</td>
<td></td>
</tr>
</tbody>
</table>
1. ANAESTHETICS

1.1 PRINCIPLES OF ANAESTHETIC CARE

- Anaesthesia should be administered only by medical practitioners with appropriate training in anaesthesia.

- Every patient presenting for anaesthesia should have a pre-anaesthetic consultation by a medical practitioner.

- Modern practice demands certain basic facilities, equipment and staff for safe administration of anaesthesia.

- An operation involving a general anaesthetic is not to be undertaken unless the services are available of a second medical practitioner to act as anaesthetist.

(Faculty of Anaesthetists, Royal Australasian College of Surgeons Documents Nos. P2, P7, T1, T3, T4, T6.)

PRE-ANAESTHETIC CONSULTATION

- The pre-anaesthetic consultation will ensure that the patient is in the optimal state for anaesthesia and surgery. It should be performed by the anaesthetist who is to administer the anaesthetic.

- The pre-anaesthetic consultation should include:
  
  (a) Identification of the patient
  (b) Confirmation of the nature of the procedures
  (c) A medical history and clinical examination of the patient
  (d) Ordering appropriate pre-medical if necessary
  (e) A written summary, which is part of the medical record

(Faculty of Anaesthetists, Royal Australasian College of Surgeons, Document No. P7.)

ADMINISTRATION OF DRUGS SPECIFICALLY TO PRODUCE COMA

- Every patient who is to be given drugs for the specific purpose of producing coma should have a general medical assessment by a medical practitioner.

- Persons administering drugs which produce coma should have the basic knowledge to be able to:
  
  - understand and deal with the actions of the drug and a drug being administered;
  - defect and manage appropriately any complications arising from these actions;
  - anticipate and manage appropriately the modifications of these actions by any concurrent therapeutic regime or disease process which may be present.

- The administration of drugs for the specific purpose of producing coma should be directly supervised by a practitioner with appropriate postgraduate training in anaesthetics. This person must not assume the additional role of operator.
1. ANAESTHETICS

- Whenever drugs are used to produce coma, certain basic facilities, equipment and staff should be provided.

(Faculty of Anaesthetists, Royal Australasian College of Surgeons, Documents Nos. P5, P4, P8, T1.)

MAJOR REGIONAL ANAESTHESIA

- Major regional anaesthesia should be undertaken only by persons with adequate experience in the technique to be applied, and the ability to recognise and treat any complications arising from the anaesthetic technique, promptly and competently.

- Management of major regional anaesthesia should include appropriate monitoring and therapy by the anaesthetist, who should be present until the block is complete, the condition of the patient is stable, and any surgical procedure has been completed.

- The placement and subsequent management of an epidural cannula, including top-up doses, remains the responsibility of the anaesthetist inserting the cannula, no matter who performs these later procedures.

- Should the anaesthetist delegate the further management including topping up of the epidural cannula to another person it is the responsibility of the anaesthetist to properly hand over the patient’s management to that person and to satisfy himself or herself of the competence of that person to manage the patient and carry out the top-up procedure. Adequate medical records documenting the time, due and subsequent effects must be kept.

- Competence should be established by:
  
  (a) a form of accreditation which certifies that the procedure has been carried out satisfactorily under supervision, and
  
  (b) inquiry of the person to establish familiarity with and knowledge of the procedure and subsequent management, including the management of complications.

- No person may be required to carry out the top-up procedure if he or she is uncertain of his or her competence to do so.

- Certain basic facilities, equipment and staff for the safe administration of anaesthesia should be provided.

- The anaesthetist must ensure that he or she is readily contactable, and suitable arrangements must be made for a competent medical officer to be available to see the patient at any time during major regional anaesthesia should the nursing staff consider this necessary.

(Faculty of Anaesthetists, Royal Australasian College of Surgeons Document Nos. P3, T1.)
ANAESTHETIC MACHINES

The Special Committee investigating deaths under anaesthesia received reports of fatalities attributed to accidental jamming of non re-breathing (Ruben type) valves in the inspiratory position. The patients were subjected to excessive intrapulmonary pressures as gases from the anaesthetic machine entering the system were unable to escape therefrom.

This accident is likely to arise in any non re-breathing valve which, like the Ruben, does not include a built-in pressure limiting safety device. Anaesthetists should be aware that any sudden, possibly unnoticed, variation in gas inflow or patient ventilatory pattern may so jam the valve that a disastrous pressure injury results. Examples of the way in which this may occur are:

(a) Major variations in patient minute volume.
(b) Coughing following a period of breath-holding.
(c) Accident operation of the emergency oxygen flow control.

Medical interference with the function of the valve spindle by drapes, when the operative field includes the head and neck area, is another possible cause.

Since no guarantee can be given that one or more of the above circumstances will not happen in any anaesthetic, the Special Committee considers that no system which includes a non re-breathing valve should be set up which does not contain a pressure-relief device, set to operate at a pressure below that which could cause damage to the patient’s lungs.

It has been suggested that the simplest way of achieving this is to position a straight Heidbrink-type expiratory valve between the gas supply and the reservoir bag of the system. (If the hospital’s machines do not incorporate an appropriate pressure relief device, steps should be taken to see that a Heidbrink-type expiratory valve as recommended is available for the use of anaesthetists.) This valve should be set to ‘blow off’ at pressure which can be achieved comfortably by a forcible expiration. A characteristic hiss of escaping gas will warn the anaesthetist that the non re-breathing valve has jammed, whilst at the same time ensuring that pressure in the system does not build up to dangerous levels.

Following the issue of Commission Notice 70/20 concerning modifications of Emergency Oxygen Valves to prevent inadvertent operation, several hospitals enquired whether this referred to the valve in the circle absorber or the valve on the frame of the machine. The valve for which modification is recommended is the one situated on the circle absorber (Boyle MK.111).

Hospitals are also reminded of the need for machines to be fitted with an oxygen low level alarm.