Department of Health
Government of Western Australia

OPERATIONAL CIRCULAR

Enquiries to: David Lyon - Tel: 9224 2819
Supersedes:
Superseded by:

Number: OP 1942/05
Date: 21 April 2005
File No: 01-06348; 01-02181

Subject: DANTROLENE (DANTRIUM®) SUPPLIES FOR THE TREATMENT OF MALIGNANT HYPERTHERMIA (MH)

The Western Australian Therapeutics Advisory Group (WATAG) in conjunction with the Statewide Anaesthesia Reference Group (SARG) recommends that:-

A minimum supply of 24 vials of dantrolene 20 mg should be stocked and maintained within shelf-life limitations at each hospital where there is potential for a MH emergency resulting from the use of triggering agents.

Medical practitioners providing anaesthesia must ensure that they are familiar with the diagnosis and treatment of MH and with the prescribing information for dantrolene, and a copy of the product information should be held in theatre.

Hospitals and health services must ensure that in addition to dantrolene, sufficient other medications and supplies to treat a case of MH are to hand.

Patients who experience an episode of MH should be transferred to a tertiary facility as soon as possible after the event.

Rationale

Although uncommon, MH is life-threatening and requires urgent clinical intervention. Administration of dantrolene is life-saving. All available data show that early appropriate treatment is associated with improved mortality and morbidity. It is not reasonable to rely on stocks at other hospitals (even within the metropolitan area), as the drug is required urgently to treat an emerging episode, and vials are consumed quickly.

Dantrolene is expensive to stock and has a shelf life of up to 2 years. For most hospitals, it is unlikely that a MH emergency will occur within that time interval. Careful pharmacy stock control is required to ensure that adequate quantities of in-date dantrolene are available at all times. A minimum of 24 vials of dantrolene 20 mg is recommended as it represents 2 doses for a typical adult (at 2.5 mg/kg), and most episodes of MH will respond to 1 or 2 doses. There have been occasional case reports of higher dose requirements. Above the recommended minimum, stock levels should take into account isolation (delay in sourcing stock from another hospital), case load (larger health services should have reserve stock), and other factors (such as a population with a high incidence of MH). Hospitals in remote areas may elect to stock larger quantities. Stock of 12 vials is recommended for Children's Health Service (Princess Margaret Hospital) because of the smaller dose requirement in children.

As an aid, the MH Testing Unit at RPH has produced clinical guidelines which are accessible through the Anaesthesia WA (combined WA branches of the Australian and

New Zealand College of Anaesthetists and the Australian Society of Anaesthetists) web site.

http://ctec.uwa.edu.au/anaesthesiawa/mh.html

MH is genetically inherited and associated with a positive family history. Consequently, checking family history can reduce the risk of an unexpected perioperative event. A genetic test is also available when indicated. In susceptible patients, the risk of MH can also be minimised by avoiding use of triggering agents such as volatile anaesthetics and suxamethonium, and by monitoring core temperature during surgery.

Specialist advice to assist in identifying and treating an episode of MH can also be obtained by contacting the MH Testing Unit, Department of Anaesthesia, RPH (switchboard 08 9224 2244).

Dr Brian Lloyd
CHIEF MEDICAL OFFICER