

Malignant Hyperpyrexia in the Labour Suite: Improving Safety

R. Steel¹, A Clark²

1. Anaesthetic Nurse 2. Anaesthetic Registrar

Ayrshire Maternity Unit, Crosshouse, Kilmarnock, UK

Malignant Hyperpyrexia (MH) is a rare but potentially life threatening condition in which early recognition and prompt treatment is essential to optimise outcome [1]. Confounding factors likely to impede delivery of timely and optimal care in the labour suite include: MH's rarity; unfamiliarity with the specific treatment; and the often emergent nature of general anaesthesia. We sought a way to overcome these barriers and improve patient care.

Methods: A literature search was performed using google scholar using the search terms malignant hyperpyrexia and malignant hyperthermia. A ten year period was reviewed. The current location of dantrolene and other resources necessary to treat MH was reviewed locally.

Results: Guidelines on the recognition and management of MH from the Association of Anaesthetists of Great Britain and Ireland [2] and the European Malignant Hyperthermia Group [1] were identified in addition to an MH resource kit from Oceania [3]. An adequate amount of Dantrolene was stored adjacent to theatre however, there was inadequate auxiliary equipment (i.e. water for reconstitution) immediately available. An MH resource grab box was developed which included task cards devised to identify the key roles expected of each team member in the event of an MH crisis (see figure 1).

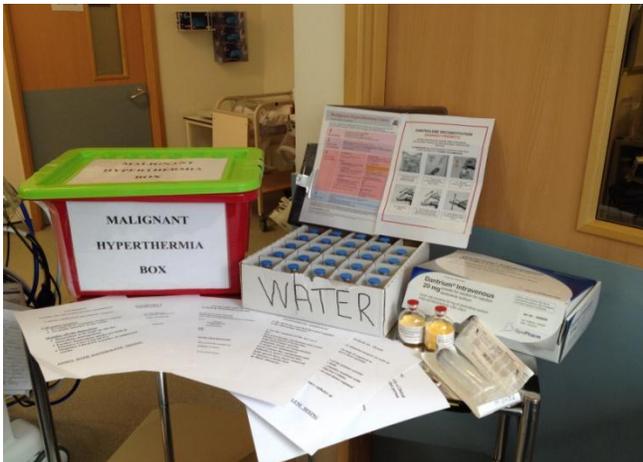


Figure 1: Malignant hyperthermia box and task cards.

Discussion: Managing uncommon and potentially fatal critical incidents such as MH can be impeded by stress, unfamiliarity with specific treatments and poor team working. We suggest that the introduction of the MH grab box will offset this by providing easy access to the required resources and clear role division.

References:

1. Glahn, K. P. E., et al. "Recognizing and managing a malignant hyperthermia crisis: guidelines from the European Malignant Hyperthermia Group." *British journal of anaesthesia* 105.4 (2010): 417-420.
2. Association of Anaesthetists of Great Britain and Ireland. Malignant Hyperthermia Crisis: AAGBI Safety Guideline. Website: http://www.aagbi.org/sites/default/files/mh_guideline_for_website.pdf accessed 13th August 2014
3. Gillies, R *et al.* MH Resource Kit. Malignant Hyperthermia Australia and New Zealand. Website: <http://www.anaesthesia.mh.org.au/mh-resource-kit/w1/i1002692/> accessed 8th August 2014.