



Manitoba Health supports reporting and learning from patient safety events. The focus of a patient safety review is to closely look at the health care system that surrounds and interacts with those giving and receiving care. The goal is to identify risks to patient safety and recommend the most effective ways to minimize risk and improve the delivery of healthcare.

Patient Safety Learning Advisory Management of Patient with Decompression Sickness

Summary: A patient was experiencing signs and symptoms of decompression sickness (DCS) i.e.) extreme vertigo, nystagmus, nausea and vomiting after emerging from a deep-water scuba dive. The next of kin (NOK) called 911 and the Divers Alert Network (DAN) of Canada. The DAN recommended the patient be treated with high flow oxygen and transfer emergently to a tertiary care facility.

Upon Emergency Response Services (ERS) arrival the paramedics consulted the Online Medical Support (OLMS/STARS) physician, and were advised to treat the patient with high flow oxygen and transfer the patient to the nearest hospital urgently.

Upon arriving at the nearest hospital the patient's high flow oxygen was removed and the patient was placed on nasal prongs at a lower oxygen level. The patient was assessed and the Emergency Room Physician (ERP) consulted DAN and a tertiary care facility with his/her findings. High flow oxygen was recommended to be re-established and the patient be transferred to the tertiary care facility for further observation.

The patient was then subsequently transferred from the tertiary care facility to an out of province health care facility for hyperbaric treatment of DCS.

Keywords: Decompression Sickness, diving accident.

This review is based on a single event.

Findings of the Review:

Emergency treatment directed by (OLMS/STARS) physician was deemed appropriate.

A patient with DCS also requires further testing i.e.) CT scan of the head to rule out a potential stroke (cerebral vascular accident). The nearest facility that the patient was transported does not have this diagnostic service.

The patient's high flow oxygen was removed for approximately 30 minutes at the nearest hospital and was replaced with a lower flow of oxygen via nasal prongs.

There is currently no guidelines to follow for the treatment of DCS.

System Learning:

Develop a Decompression Sickness (DCS) guideline.

Once above is developed, educate 80% of emergency department health care providers at the site on the DCS guideline.