

Initial Evaluation and Treatment of Brooks AFB Altitude Chamber DCS

Obtain detailed exposure history timetable (altitude chamber profile, time into flight when Sx developed, O2 prebreathe time, mechanical problems, etc). Corroborate history with chamber techs and observers. Get history of prior DCS, recent exercise, sports, scuba diving, flights, injuries, physical stress, possible dehydration, mild illness, etc.

Detailed progression of all symptoms - onset, location, duration, severity on 1 to 10 scale. ?Response to descent and 100% O2? Describe any feelings of fatigue, dizziness, loss of concentration, etc. Symptoms at altitude which resolve completely on descent should still receive 2 hours of 100% Surface Level O2 (SLO2).

Nature of current treatment. How long on O2? Severity of current Sx. Do not give Aspirin, but do use oral rehydration (whatever they can drink in 60 seconds with the O2 mask off; repeat every hour).

If joint pain only - absolutely no other Sx - and gets significantly better or completely resolved within 30 – 60 min on SLO2, as long as fully resolved within 2 Hr on O2: continue SLO2 for at least 1 hour after 100% symptom free, with a minimum of 2 hours (maximum 3 hours) of O2. May send home or quarters & observe as outpatient. F/U next day at Flight Surgeons Office to document stable resolution. Instruct no fly or dive, maintain hydration, no sports or exercise or strenuous activity, no alcoholic beverages, ALL for 3 days. May RTFS with local flight surgeon after 72 Hr.

Continuing for altitude hits: if any residual symptoms after 2 hours SLO2 (or no improvement after 30 - 45 min SLO2, sooner at your discretion or if condition recurs or worsens), call hyperbaric Medical Officer of the Week (MOW) at 4-3281 to consider initiation of hyperbaric treatment. Contact the MOW at any time if any questions, or any possibility of DCS more significant than simple joint pain.

For all DCS calls: ensure a complete neurological exam is conducted! Often, vague suspicions regarding clarity of the patients thought process can be easily confirmed if a solid baseline is established prior to treatment. Serial 3's or 7's; spelling 5 letter words forward and backward; Rhomberg, gait, and balance; Rinnes and Webers tests; olfactory sensation (use spices in capped pill-bottles); are quick and simple procedures that may reveal hidden deficits! Neuro exam is doubly important if Pt reports any symptoms related to the CNS such as dizziness, paresthesias, gait disturbances, headache, feeling "fuzzy" or inability to concentrate. You must rule out any neurological deficit before accepting SLO2 as appropriate and definitive treatment. Contact the MOW if any questions. Be sure to fill out the USAF Form 361, as well as your SF-600 documenting the chamber profile, patient symptoms, treatment, and response.

Additional, in depth guidance regarding hyperbaric medicine and DCS may be located on our web site at <http://www.brooks.af.mil/web/hyper/> in the "Downloads" and "Clinical Medicine" sections.

NOTE: If this protocol is used outside Brooks AFB, please note you should always contact our MOW at DSN 240-3281 or after hours 240-3278 to discuss the case, AND complete the AF Form 361 (chamber techs should provide) and mail it to USAFSAM/FEH, 2602 West Gate Road, Brooks AFB, TX 78235-5252.