

G 155

**ANALYSIS OF ADVERSE EVENTS OCCURRING
IN PATIENTS UNDERGOING ADJUNCTIVE
HYPERBARIC OXYGEN TREATMENT: 2009-2010**

Beard T, Watson B, Barry R, Stewart D, Warriner R
Diversified Clinical Services, Jacksonville, Fla.
rwarriner@diversifiedcs.com

Introduction/Background: There is a widely held misconception among public and reimbursement policy makers that hyperbaric oxygen treatment is particularly hazardous and associated with a significant incidence of serious complications. To address this issue, an analysis of adverse events from a large proprietary concurrently collected database was performed.

Materials and methods: Adverse event reporting data was reviewed from 453,749 monoplace hyperbaric oxygen treatments provided primarily in outpatient settings involving 17,394 patients (average of 26 treatments per patient). Entering of adverse events into pre-defined categories was mandatory for all treatments. Air breaks were provided for all treatments at pressures greater than 2.0 ATA.

Results: The majority of patients received hyperbaric oxygen treatment for diabetic limb salvage or complications associated with prior radiation therapy. In 2009 there were 927 adverse events reported for 201, 150 treatments in 7,756 patients for an overall adverse event rate of 0.46%. In 2010 there were 956 adverse events

reported for 252,599 treatments in 9,638 patients for an overall adverse event rate of 0.38%. In order of decreasing rate of occurrence were ear pain (of any description) confinement anxiety, hypoglycemic events, shortness of breath, seizure (2009 35 events 0.02%, 2010 53 events 0.02%), sinus pain (of any description) and shortness of breath. There was no significant difference in the ranking of adverse events between 2009 and 2010. In this series of treatments, all patients receive a standardized medical evaluation prior to initiating treatment, standardized pre-treatment education and a standardized assessment prior to each treatment.

Summary/Conclusions: This is the largest-reported series of hyperbaric oxygen treatments reporting adverse events. The experience reported here supports the conclusion that hyperbaric oxygen treatment for a wide range of indications in patients with many co-morbidities can be accomplished with an extremely low incidence of adverse effects.