



Heliox In the Future of Respiratory Care

Heliox, a mixture of 21% oxygen and 79% helium, is a medical gas with important physical properties, which make it potentially very useful in the treatment of obstructive respiratory disorders. It is much lighter (less dense) than air, which contains the same proportion, 21% oxygen but 79% nitrogen. Heliox therefore requires less driving pressure and promotes laminar flow at higher rates. It is biologically inert and has an excellent safety record having been used for decades to assist reduction in work of breathing, in deep-sea divers. While there has much published data on the use of heliox in obstructive respiratory disorders the evidence base is weak with few properly conducted randomised controlled trials.

BREATHE project:

Bronchiolitis-RCT: Emergency Assisted Therapy with Heliox- an Evaluation.

Funded by BOC Medical with help from COSMIC, this randomised multi-centre trial is the first of its kind to be conducted to good clinical practice standards. Based at St Mary's Hospital and Imperial College the research will first investigate the efficacy of heliox/oxygen mixture compared to conventional air/oxygen-driven modes of respiratory therapy in bronchiolitis a major cause for admission to PICU during the winter months.