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**Title:** Safety and efficacy of 7% hypertonic saline in patients with bronchiectasis

Dr. Claire 9792 Hodgekiss [claire.hodgekiss@gmail.com](mailto:claire.hodgekiss@gmail.com) MD <sup>1</sup>, Mrs. Jane 9793 Slough [jane.slough@leedsth.nhs.uk](mailto:jane.slough@leedsth.nhs.uk) <sup>1</sup>, Mr. Toby 9794 Capstick [toby.capstick@leedsth.nhs.uk](mailto:toby.capstick@leedsth.nhs.uk) <sup>1</sup>, Dr. Daniel 9795 Peckham [daniel.peckham@leedsth.nhs.uk](mailto:daniel.peckham@leedsth.nhs.uk) MD <sup>1</sup> and Dr. Ian 9796 Clifton [ian.clifton@leedsth.nhs.uk](mailto:ian.clifton@leedsth.nhs.uk) MD <sup>1</sup>. <sup>1</sup> Respiratory Medicine, St. James's University Hospital, Leeds, Yorkshire, United Kingdom, LS1 4GJ .

**Body:** Introduction: Hypertonic saline (HS) is becoming more established as an aid to physiotherapy in patients with both non-CF and CF related bronchiectasis(1). This study aimed to review our current use of nebulised hypertonic saline. Methods: Patients received a test of nebulised 7% HS (Nebusal). Spirometry measurements were taken pre-nebulisation and 30 minutes post-nebulisation of 7% HS. If the patient's spirometry remained stable they then proceeded onto regular therapy with 7% HS. Longer term outcome data were obtained from reviewing clinic letters. Results: Forty patients received a test dose of 7% HS of whom 32 (80%) had a diagnosis of bronchiectasis. The remaining patients had a diagnosis of asthma (4 (10%)), COPD (1 (2.5%)), recurrent pneumonia (1 (2.5%)) and chronic cough (2 (5%)). Immediately post-HS administration the spirometry values for 32 (80%) of patients were within 10% of baseline. Seven (17.5%) of patients had a greater than 10% improvement in FEV1 immediately post-nebulisation of 7%HS. One (2.5%) patient had a 36% drop in FEV1 post-HS so long term therapy was discontinued. Long-term follow up data were available for 32 patients. Twenty-one (66%) derived long-term symptomatic benefit and continued with therapy. Eleven (34%) patients stopped therapy, 4 (13%) of these due to lack of benefit and 7 (22%) due to worsening symptoms. Conclusions: Nebulised HS would seem to be a safe therapy, but we would advocate that test doses should be administered in controlled environment due to the risk of bronchospasm. The majority of our patients derived symptomatic benefit, but the commonest side-effect resulting in cessation of therapy was wheeze. 1. Kellet and Niven. Respiratory Medicine (2011) 105, 1831-5.