Management of Acute Tonsillitis – a pre-test/post-test quasi experimental design preliminary study protocol

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Background

Acute tonsillitis is the infection of the pharyngeal tonsils (figure 1). Patients usually present with sore throat in combination with a range of other symptoms. Tonsillitis one of the highest rates of prevalence of all diseases and is associated with significant morbidity. Peak prevalence is between the age of 5 to 15 years with an increasing incidence. It poses a significant disease burden with 35 million days lost to acute sore throat at a cost of £100m annually. There is no consensus of management of acute tonsillitis in secondary care with discrepancies in threshold for admission. Current evidence is largely anecdotal or low quality.

Aims

Primary Objective

To assess the efficacy of the bundle treatment and discharge at the point of initial assessment for acute tonsillitis.

Secondary Objectives

To establish a standardised management for acute tonsillitis – for determining admission
To establish epidemiological data for number of patients presenting with acute tonsillitis
To form guidelines for the management of non-specialist ENT practitioners (such as emergency medicine doctors, GPs, specialist nurses) to assess and manage acute tonsillitis
To establish a grading system for the severity of tonsillitis

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Methods

A pre-post test quasi experimental design study will be undertaken. Patients will be managed in the emergency department or assessment area with intravenous antibiotics, steroids, analgesia and rehydrated. The primary endpoint will be rate of re-admission.

Study Flow Diagram

*Factors include basic patient demographics such as age and sex, presence of Epstein barr virus. Regression analysis will be used to determine association.

Results

Primary Outcome

This will be rate of representation to the emergency department with acute sore throat within 2 weeks

Secondary Outcomes

Examine the clinical features present and if these clinical features are significant

Demographic data of patients that present with acute tonsillitis

Economic analysis on money saved with such an intervention including time from presentation to discharge before and after the bundle treatment

Discussion

This study aims to assess the use of the bundle treatment as the standardised method for treating acute tonsillitis in secondary care. A non-randomised study has been proposed to initially to assess the efficacy and safety of the bundle treatment and will provide the basis for further recommendations of management of acute tonsillitis. This will include establishing a grading scale for severity of tonsillitis which is not based solely on the size of the tonsils.

Future Steps

If the results are unequivocal in terms of effectiveness of the acute management, this study alone may be sufficient to guide clinicians into the use of bundle management. However, if results are unclear, it will provide the basis for a randomised controlled trial assessing admission vs discharge management options including identifying which subcategory of acute tonsillitis severity will be suitable for bundle treatment. In addition, a Delphi study could be undertaken to establish consensus opinion.

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