

Duration of symptoms of respiratory tract infections in children: systematic review

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Abstract

Objective To determine the expected duration of symptoms of common respiratory tract infections in children in primary and emergency care.

Design Systematic review of existing literature to determine durations of symptoms of earache, sore throat, cough (including acute cough, bronchiolitis, and croup), and common cold in children.

Data sources PubMed, DARE, and CINAHL (all to July 2012).

Eligibility criteria for selecting studies Randomised controlled trials or observational studies of children with acute respiratory tract infections in primary care or emergency settings in high income countries who received either a control treatment or a placebo or over-the-counter treatment. Study quality was assessed with the Cochrane risk of bias framework for randomised controlled trials, and the critical appraisal skills programme framework for observational studies.

Main outcome measures Individual study data and, when possible, pooled daily mean proportions and 95% confidence intervals for symptom duration. Symptom duration (in days) at which each symptom had resolved in 50% and 90% of children.

Results Of 22 182 identified references, 23 trials and 25 observational studies met inclusion criteria. Study populations varied in age and duration of symptoms before study onset. In 90% of children, earache was resolved by seven to eight days, sore throat between two and seven days, croup by two days, bronchiolitis by 21 days, acute cough by 25 days, common cold by 15 days, and non-specific respiratory tract infections symptoms by 16 days.

Conclusions The durations of earache and common colds are considerably longer than current guidance given to parents in the United Kingdom and the United States; for other symptoms such as sore throat, acute cough, bronchiolitis, and croup the current guidance is consistent with our findings. Updating current guidelines with new evidence will help support parents and clinicians in evidence based decision making for children with respiratory tract infections.

小児呼吸器感染症の症状持続日数：系統的レビュー

目的：通常及び救急において小児の一般的な呼吸器感染の症状の期間を調べる。

デザイン：耳痛、咽頭痛、咳嗽（急性咳嗽、細気管支炎、クループ）、感冒症状について既存文献を系統的にレビューする。

データソース：PubMed、DARE、CINAHL（2012年7月まで全て）

研究基準：高所得国のプライマリケアまたは救急を受診し、対処療法、プラセボ、市販薬の治療を受けた小児急性呼吸器感染を対象とした無作為化対照試験または観察研究。研究の質は、RCTではCochrane biasリスク、観察研究ではCritical appraisal skills programmeにより評価した。

主要評価項目：それぞれの研究のデータ、可能なら95%信頼区間、日毎の有症状率の平均。各症状が50%または90%で消失するまでの期間。

結果：22182論文のうち、RCT23本と観察研究25本が基準を満たした。対象の年齢や試験開始までの症状持続期間は異なっていた。90%で症状が消失するまでの日数は、耳痛が7～8日、咽頭痛が2～7日、クループが2日、細気管支炎が21日、急性咳嗽が25日、感冒症状が15日、非特異的な症状が16日であった。

結論：耳痛と感冒症状の持続期間は、英国と米国とで親に説明されているのより長い。咽頭痛、急性咳嗽、細気管支炎、クループに関しては、従来から説明されているのと同様の長さである。最新のエビデンスを用いて現在のガイドラインを改定すれば、小児呼吸器感染症に対する治療判断等において大いに役立つと思われる。

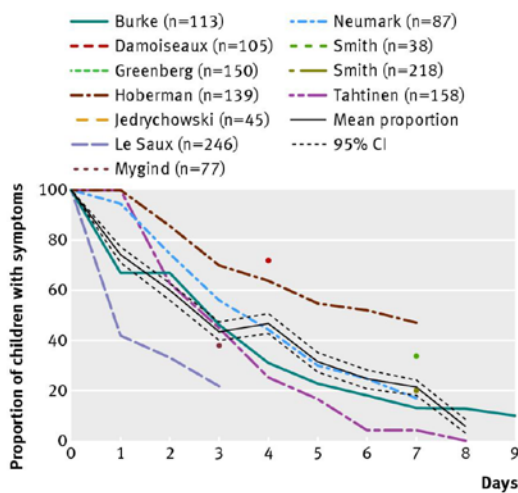


Fig 3 Proportion of children with symptoms of earache.

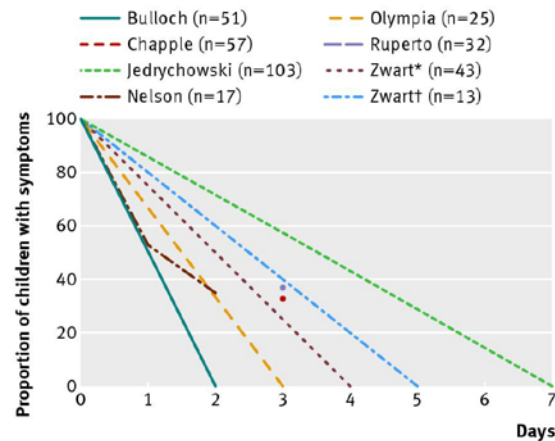


Fig 4 Proportion of children with symptoms of sore throat.

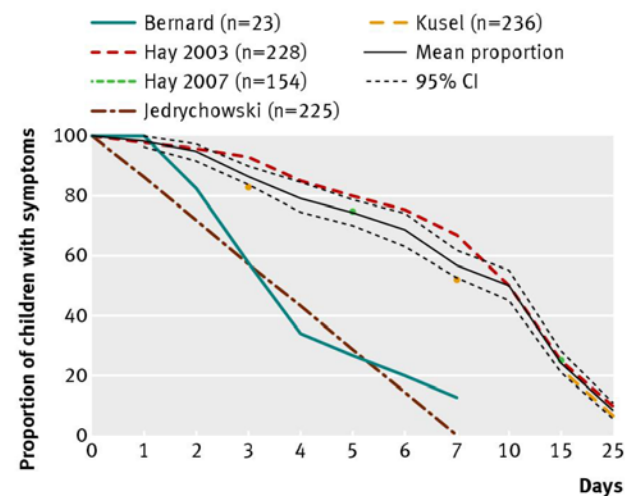


Fig 5 Proportion of children with symptoms of cough.

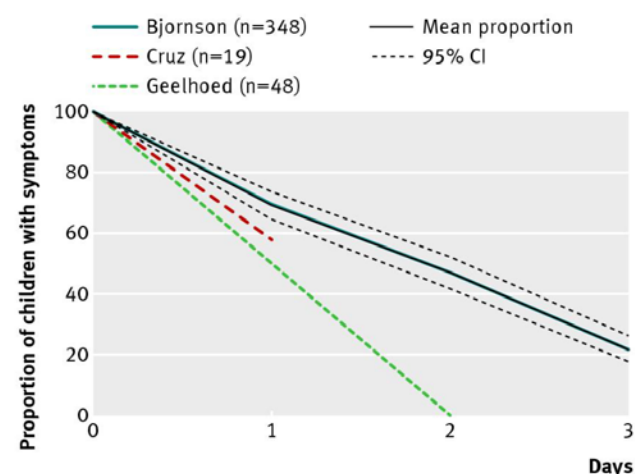


Fig 6 Proportion of children with symptoms of croup.

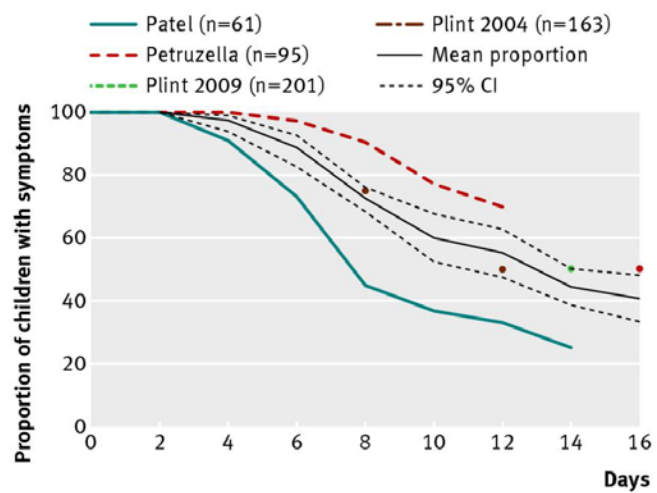


Fig 7 Proportion of children with symptoms of bronchiolitis.

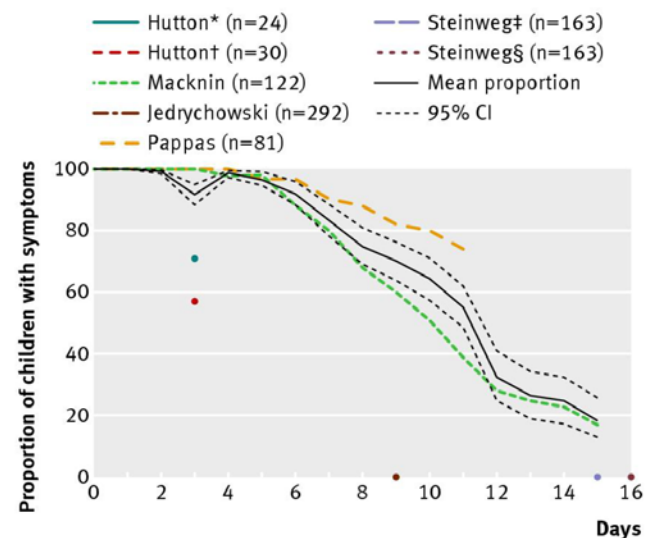


Fig 8 Proportion of children with symptoms of common cold.

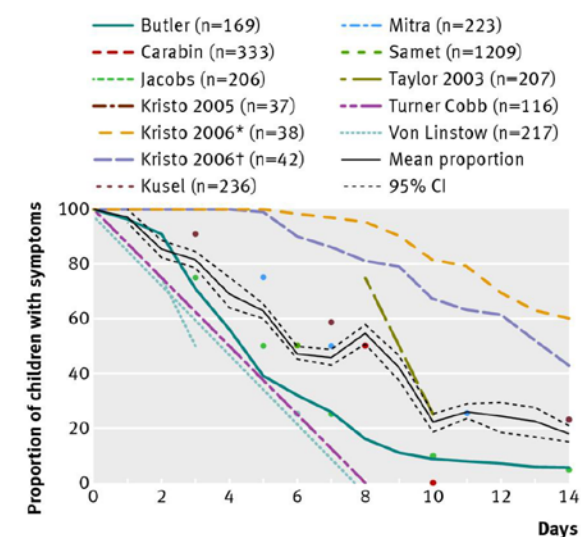


Fig 9 Proportion of children with non-specific respiratory symptoms.