

# Amoxicillin duration and dose for community-acquired pneumonia in children: the CAP-IT factorial non-inferiority RCT

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†In memoriam

**Declared competing interests of authors:** David Dunn reports grants from the National Institute for Health Research during the conduct of the study (RP-PG-1212-20006). Saul N Faust reports personal fees or grants from AstraZeneca plc (Cambridge, UK)/Medimmune (Gaithersburg, MA, USA), Sanofi SA (Paris, France), Pfizer Inc. (New York, NY, USA), Seqirus UK Ltd (Maidenhead, UK), Sandoz (Holzkirchen, Germany), Merck KGAA (Darmstadt, Germany), GlaxoSmithKline plc (Brentford, UK) and Johnson & Johnson

(Brunswick, NJ, USA) outside the submitted work. In addition, Saul N Faust received grants for contract commercial clinical trials, which were paid to Saul N Faust's institution (with no personal payment of any kind). Last, Saul N Faust is a member of the Health Technology Assessment Commissioning Committee (2017–22). Adam Finn reports grants from GlaxoSmithKline plc, Pfizer Inc., Novavax (Gaithersburg, MA, USA), Sanofi Pasteur (Lyon, France), VBI Vaccines Inc. (Cambridge, MA, USA), Janssen Pharmaceuticals (Beerse, Belgium), Valneva SE (Saint-Herblain, France) and JITSUVAX outside the submitted work.

Published November 2021

DOI: 10.3310/hta25600

## Plain English summary

### The CAP-IT RCT

Health Technology Assessment 2021; Vol. 25: No. 60

DOI: 10.3310/hta25600

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## Plain English summary

**P**neumonia (an acute lung infection) is a common diagnosis in young children worldwide. To cure this, some children are given antibiotics, but we do not currently know the best amount (dose) to give and the ideal number of days (duration) of treatment.

Taking antibiotics causes changes in bacteria, making them more resistant to treatment. This may be affected by the dose and duration, and is important because resistant bacteria are harder to treat and could spread to other people.

Amoxicillin is the most common antibiotic treatment for children with pneumonia. CAP-IT (Community-Acquired Pneumonia: a protocol for a randomised controlled Trial) tested if lower doses and shorter durations of amoxicillin are as good as higher doses and longer durations, and whether or not these affect the presence of resistant bacteria.

In total, 824 children in the UK and Ireland with pneumonia participated. They received either high- or low-dose amoxicillin for 3 or 7 days following discharge from hospital. To ensure that neither doctors nor parents were influenced by knowing which group a child was in, we included dummy drugs (placebo).

We measured how often children were given more antibiotics for respiratory infections in the 4 weeks after starting the trial medicine. To check for resistant bacteria, a nose swab was collected before starting treatment and again after 4 weeks.

One in every eight participating children was given additional antibiotics. We found no important difference in this proportion between 3 days and 7 days of amoxicillin treatment, or between lower or higher doses. Although children's coughs took slightly longer to go away when they received only 3 days of antibiotics, rash was reported slightly more often in children taking 7 days of antibiotics. There was no effect of dose of amoxicillin on any of the symptom measurements. No effect of duration of treatment or dose was observed for antibiotic resistance in bacteria living in the nose and throat.



# Health Technology Assessment

ISSN 1366-5278 (Print)

ISSN 2046-4924 (Online)

Impact factor: 4.014

*Health Technology Assessment* is indexed in MEDLINE, CINAHL, EMBASE, the Cochrane Library and Clarivate Analytics Science Citation Index.

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## This report

The research reported in this issue of the journal was funded by the HTA programme as project number 13/88/11. The contractual start date was in March 2016. The draft report began editorial review in October 2020 and was accepted for publication in June 2021. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HTA editors and publisher have tried to ensure the accuracy of the authors' report and would like to thank the reviewers for their constructive comments on the draft document. However, they do not accept liability for damages or losses arising from material published in this report.

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