

**Efficacy and safety of azithromycin and amoxicillin/clavulanate for otitis media in****children:** A systematic review and meta-analysis of randomized controlled trials.

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**Background & Objectives:** Both Amoxicillin and Azithromycin are used in treatment of otitis media in children, but beta-lactam antibiotics are becoming less effective due to resistance emergence. **The study compares the efficacy and safety of azithromycin and amoxicillin/clavulanate for the treatment of otitis media in children.**

**Method:** This study was a systematic review and meta-analysis. PubMed, Cochrane library, and Google scholar databases were searched. Comparative randomized clinical trial studies between azithromycin and amoxicillin/ clavulanate to treat otitis media in children published up to 30 September 2019 were included. The risk of bias was assessed, and Data was extracted by the first author and checked by the second author. Meta-analysis was performed by STATA software version 16, and Mantel–Haenszel statistical method with effect measure odds ratio was employed for analysis.

# ACADEMIC P.E.A.R.L.S

**P**ediatric **E**vidence **A**nd **R**esearch **L**earning **S**nippet

**Amoxicillin/clavulanate vs Azithromycin and for otitis media.  
Which is better?**

**Results:**

- 751 records were identified and 14 studies were eligible for analysis.
- In 12 studies azithromycin had equivalent clinical efficacy and 2 had less to amoxicillin/clavulanate.
- No statistically significant difference in efficacy in favour of amoxicillin/clavulanate** after completion of treatment (OR 0.75, 95% CI (0.62–0.91).
- The clinical adverse events are more in the amoxicillin/clavulanate group** than in the azithromycin with a statistical significant difference (OR 0.46 95% CI (0.43–0.56).

**Conclusions:** From the present systematic review and meta-analysis, it can be concluded that the efficacy of azithromycin is comparable to amoxicillin/clavulanate, and it is safer and more tolerable by children.

**Key message:** Azithromycin can be considered as a safe alternative to amoxicillin/clavulanate in the treatment of otitis media on children.

**EXPERT COMMENT**

**“This study confirms the safety and efficacy of Azithromycin in otitis media in children. With Amoxicillin becoming less effective due to resistance and azithromycin demonstrating antibacterial, antiviral, and anti-inflammatory activity and ease of once a day regimen, it can be considered as safe alternative antibiotic of choice.”**

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With warm regards,

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GEN. 2021 - 22**Reference**

Dawit G, Mequanent S and Makonnen S. Efficacy and safety of azithromycin and amoxicillin/clavulanate for otitis media in children: a systematic review and meta-analysis of randomized controlled trials. *Ann Clin Microbiol Antimicrob.* (2021) 20:28  
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