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## Background

Non adherence to a full course of antibiotic occurs in approximately one-quarter of paediatric patients. The child's refusal to take the drug is the second most common reason for non-adherence. Palatability is the third most important antibiotic feature for parents after effectiveness and safety

## Objective

Review the literature for assessments of the palatability of antibiotic oral suspensions to inform physicians in their daily practice and consequently improve adherence

## Materials & methods

**Research date**  
august 2019

**Database**  
pubMed Database

**Population**  
adults and/or children

**Inclusion criteria**  
study reporting an assessment of palatability of one or more antibiotic suspensions with any assessment scale

**Data extracted**  
study characteristics  
population demographics  
palatability assessments

**Results reporting**  
lowest score = poor palatability  
highest score = excellent palatability  
  
all results are expressed on a 10-point scale for comparison purposes  
  
separate averages were calculated for adults and children

## Results

### Study characteristics

10 studies identified  
only blind studies  
9/10 with healthy volunteers

6



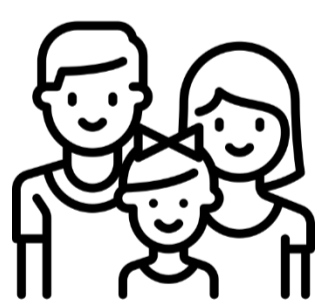
adults only

1



children only

3



adults & children

children between 4 to 12 years old

### Drugs



Adults

24 drugs

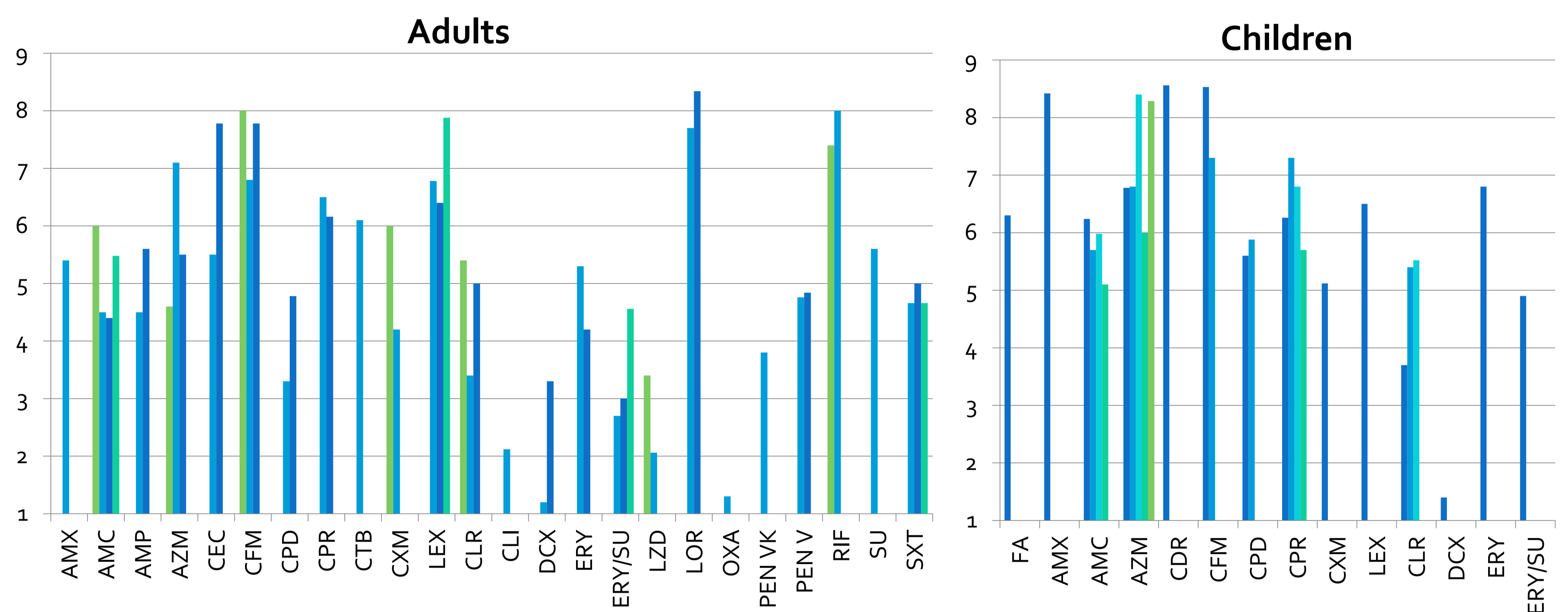


Children

14 drugs

Total : 27 different drugs tested

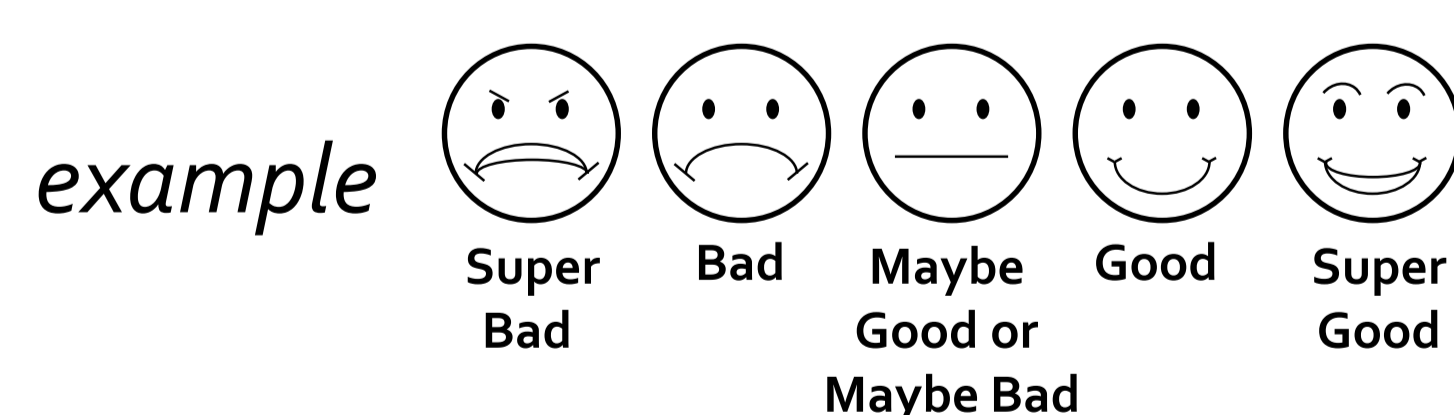
### Palatability of antibiotic oral suspensions in children and adults



For a given antibiotic, each bar represents a study. Abbreviations : FA fusidic acid ; AMX amoxicillin ; AMC amoxicillin-clavulanic acid ; AMP ampicillin ; AZM azithromycin ; CEC cefaclor ; CDR cefdinir ; CFM cefixime ; CPD cefpodoxime ; CPR ceftazidime ; CTB ceftibuten ; CXM cefuroxime ; LEX cephalixin ; CLR clarithromycin ; CLI clindamycin ; DCX dioxolacilin ; ERY erythromycin ; ERY/SU erythromycin-sulfisoxazole ; LZD Linezolid ; LOR loracarbef ; OXA oxacillin ; PEN VK Penicillin VK ; PEN V Phenoxyethylpenicillin ; RIF Rifampicin ; SU Sulfisoxazole ; SXT trimethoprim-sulfamethoxazole

### Assessment tools

4/10 visual analogic scale with 5-point facial hedonic scales



5/10 five-point facial scales

1/10 ten-point analog scale

### Average palatability below 5/10

12/24 drugs



Adults

3/14 drugs



Children

the palatability score is lower in adults than in children 10 times out of 11  
the average difference between the scores of adults and children scores is 1.1 point/10

## Discussion & Conclusion

The majority of the most common antibiotics are covered. Differences in the assessment of palatability sometimes exist for the same molecule. This may be related to the formulation tested (brand name or generic drugs). A single study allows a direct comparison between adults and children. Further investigations are needed to determine the factors affecting the palatability of drugs. However, the available palatability assessments can help the physician to choose between several drugs with the same effectiveness and safety to improve compliance