

Global review reports on administration of children's antibiotics

December 4 2018



Dr Bielicki with a patient. Credit: UKBB

Researchers analyzing the sales of oral antibiotics for children in 70 high- and middle-income countries found that consumption varies widely from country to country with little correlation between countries'

wealth and the types of antibiotics. Of concern is the relatively low-level use of amoxicillin, an antibiotic to treat the most common childhood infections. In addition, the review found the sale of antibiotics which should only be used for specific indications, or 'Watch' antibiotics in a quarter of all countries accounted for 20 percent of total antibiotic consumption. This is of concern since there is a higher risk of bacteria developing resistance to 'Watch' antibiotics.

In 2017, the World Health Organization (WHO) grouped [antibiotics](#) into three categories – Access, Watch and Reserve – with recommendations on when each category should be used to ensure antibiotics are available when needed, and that the right antibiotics are prescribed for the right infections. This categorization is designed to enhance treatment outcomes, reduce the development of drug-resistant bacteria, and preserve the effectiveness of 'last-resort' antibiotics when all others fail.

While the report finds the consumption of 'access' antibiotics made up on average 76 percent of child-appropriate antibiotic formulations across all countries, the use of Amoxicillin in community practice is relatively low (median 31 percent). Categorized by WHO as an 'access' antibiotic, [amoxicillin](#) should be used as first choice for most common antibiotic treatment indications encountered in community practice.

Dr. Julia Bielicki, Senior Lecturer at St George's, University of London, and study lead said: "This is the first attempt at developing simple metrics of global child community antibiotic use based on the WHO's grouping. The data can be used by countries to assess their antibiotic use patterns for young children. Countries with low Access percentages can identify opportunities for greater use of these antibiotics. Unnecessary use of Watch antibiotics is more clearly identifiable."

The research was supported by GARDP, the Global Antibiotic Research and Development Partnership. Dr. Manica Balasegaram, Executive

Director of GARDP, said: "WHO strongly encourages use of 'access' antibiotics to treat the majority of infections for children and adults as they are affordable, generally less toxic and less likely to drive future antibiotic resistance. Providing country policymakers with evidence on what antibiotics are being prescribed in their country is an important first step to help countries tackle inappropriate prescribing of antibiotics. This in turn will help countries deliver their National Action Plan on antimicrobial resistance and ensure antibiotics remain available and effective for generations to come."

More information: Adrian J Brink et al. Be AWaRe: new metrics for paediatric antibiotic stewardship, *The Lancet Infectious Diseases* (2018). DOI: [10.1016/S1473-3099\(18\)30557-7](https://doi.org/10.1016/S1473-3099(18)30557-7)

Yingfen Hsia et al. Consumption of oral antibiotic formulations for young children according to the WHO Access, Watch, Reserve (AWaRe) antibiotic groups: an analysis of sales data from 70 middle-income and high-income countries, *The Lancet Infectious Diseases* (2018). DOI: [10.1016/S1473-3099\(18\)30547-4](https://doi.org/10.1016/S1473-3099(18)30547-4)

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