

# USAID MEDICINES, TECHNOLOGIES, AND PHARMACEUTICAL SERVICES (MTaPS) PROGRAM

*Improved Access. Improved Services. Better Health Outcomes.*

## Toolkit for Administration of Amoxicillin for Childhood Pneumonia

### Background

Pneumonia is the leading infectious cause of death for children under age 5 worldwide, accounting for 15% of all deaths for this age group.<sup>1</sup> The current WHO treatment guidelines for pediatric pneumonia recommend oral amoxicillin as the first line treatment.<sup>2</sup> There are several pediatric dosages and formulations of oral amoxicillin available, but WHO and UNICEF recommend amoxicillin dispersible tablets (DT) as the formulation of choice for treatment of pediatric pneumonia. Dispersible tablets present several advantages to other formulations, in terms of cost, transport, and storage considerations, but also for their ease of administration, simplified by the age-based dosing guidance from the WHO.<sup>3</sup> However, DT are an uncommon form of treatment for many caregivers to administer to children. Also, the dosing frequency of twice a day is different to what many providers are used to for other conditions (often three times a day). Barriers to adherence to amoxicillin treatment may exist through inappropriate prescribing and counseling by providers and caregivers not administering the amoxicillin appropriately, which can lead to poor health outcomes for children with pneumonia, as well as to increased antimicrobial resistance.

### Tool Development

In 2015, a set of job aids and dispensing envelopes were developed to increase the adherence to treatment with amoxicillin DT by caregivers of sick children, as well as adherence of health care providers to treatment protocols. These tools, developed by a group of organizations, led by PATH and commissioned by UNICEF under the Diarrhea and Pneumonia working group of the UN Commission of Life Saving Commodities, were validated in several countries in studies commissioned by UNICEF and conducted by partners, including PATH, the USAID SIAPS program (predecessor of USAID MTaPS) implemented by MSH, and Anthrologica. MTaPS has updated these tools for dissemination, based on the recommendations from the country studies and the closing workshop convened by UNICEF in 2016.

### Toolkit Content

The Toolkit for Administration of Amoxicillin for Childhood Pneumonia consists of:

- Dispensing envelopes for different age groups to visually orient caregivers in administration of the tablets, depicting each step for preparation and administration of amoxicillin DT. The envelope design emphasizes the importance of fully completing the treatment course. Envelopes are available for:
  - Use of amoxicillin DT at the community level (two dose age bands: 2–12 months and 12 months–5 years)

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<sup>1</sup> World Health Organization. *Pneumonia – Key Facts*. 2 August 2019. Available at: <https://www.who.int/en/news-room/fact-sheets/detail/pneumonia>

<sup>2</sup> World Health Organization. Revised WHO classification and treatment of childhood pneumonia at health facilities. Geneva: World Health Organization; 2014. p. 6–14.

<sup>3</sup> UNICEF Supply Division. Amoxicillin Dispersible Tablets: Market and Supply Update UNICEF Supply Division May 2018. UNICEF Supply Division. Amoxicillin Dispersible Tablets: Market and Supply Update UNICEF Supply Division May 2018.

- Use of amoxicillin DT at the facility level (three dose age bands: 2–12 months, 12 months–3 years, and 3–5 years)
- Leaflets are available for use with amoxicillin suspension in contexts where that is used (for children 2–12 months, 12 months–3 years, and 3–5 years)
- Job aids for health care providers to help them explain to caregivers about proper treatment administration and adherence to amoxicillin, as well as other key messages. The job aids are available for both amoxicillin DT and oral suspension for use by community health workers and health care providers at health facilities and are available as follows:
  - Use of amoxicillin DT by community health workers (for the two dose age band regimen)
  - Use of amoxicillin DT by health care providers at health facilities (for the three dose age band regimen)
  - Use of amoxicillin oral suspension by health care providers

## How to Use the Tools

- The dispensing envelopes should be printed on a paper envelope large enough to contain the blister(s) of tablets required for the full treatment course. The paper envelope can be placed in a plastic bag at dispensing to protect it from getting wet in the rainy season, or the envelope can be printed directly on plastic. If printed on paper, caregivers can cross off the doses on the envelope as they administer them to help them keep track.
- The job aids should be printed on card stock or thick paper and laminated where possible to protect them and enable them to be used daily.
- A color version of the tools is recommended to easily differentiate between the dose bands and age groups.

**Note:** If adaptations are required to these tools, the editable InDesign files are available in the toolkit.

All of the tools are available in English, French, and Spanish.



The USAID Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program enables low- and middle-income countries to strengthen their pharmaceutical systems, which is pivotal to better health outcomes and higher-performing health systems. The program is implemented by a consortium of global and local partners, led by Management Sciences for Health (MSH), a global health nonprofit.

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