

Technical Reference Team

Commodity: Injectable Antibiotics

Background

The UN Commission on Life-Saving Commodities for Women and Children (the Commission) was formed in 2012 by the UN Secretary-General as part of the global Every Woman Every Child (EWEC) movement. EWEC challenges the global community to increase access to and appropriate use of essential medicines, medical devices, and health supplies that effectively address the leading preventable causes of death during pregnancy, childbirth, and childhood.

Led by a wide range of high-level leaders from around the world, the Commission developed a framework for action on Reproductive, Maternal, Newborn, and Child Health (RMNCH) products that can be applied nationally and utilized in global RMNCH initiatives. The framework includes a priority list of 13 commodities, key barriers to access and use, and 10 cross-cutting recommendations to rapidly increase both access and use. By increasing access to and use of these 13 commodities, it is estimated that 6 million women and children can be saved by 2017.

Moving forward

To help carry forward the Commission's recommendations at the global and national levels, **Global Technical Reference Teams (TRT)** were established. One group was formed for each of the 13 commodities and 10 recommendations, and an advocacy working group is dedicated to advancing cross-cutting goals. The groups carry out their work through a variety of mechanisms, including guidance documents and tools to support countries in their efforts to implement recommendations and address global and regional bottlenecks. These reference teams are coordinated by a Strategy and Coordination Team hosted by the United Nations Children's Fund (UNICEF).

Spotlight on Injectable Antibiotics

Serious neonatal infections are the direct cause of death for more than 300,000 newborns each year,



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almost all in low- and middle-income countries. In very low-resource settings, where hygiene is poor and treatment options are limited, more than 50 percent of newborn deaths may result from infections. Most of these deaths could be averted with simple preventive measures—such as hygiene, cord care, breastfeeding—and identification of signs of infection and appropriate antibiotics. Newborns, unlike older infants and children, require antibiotics for a broad range of pathogens, and thus, specific injectable antibiotics. Standard treatment, according to the World Health Organization (WHO), is at least seven days of gentamicin and penicillin (or ampicillin), both given as either intramuscular or intravenous injection in facility settings. This requires that all facilities have injectable gentamicin and penicillin in ample stock, clinical protocols for administration and safe disposal of syringes in place and used appropriately, and all necessary medical devices for antibiotic administration in adequate supply. Yet, in low-resource settings, where infection rates may be highest, these lifesaving commodities are commonly not available or used appropriately, resulting in countless preventable newborn deaths. More than any other age group, newborns that become infected often rapidly deteriorate and may die in a matter of hours. The lack of timely antibiotic administration at first-level health

facilities, an unfortunately common occurrence, delays necessary treatment and allows rapid progression of life-threatening infections.

The Injectable Antibiotics TRT aims to understand and address the barriers that prevent the appropriate and timely use of injectable antibiotics to save newborn lives. The TRT is specifically focusing on the two “front-line” antibiotics (gentamicin and penicillin), as well as the major “second-line” antibiotic (ceftriaxone), used when first-line agents are no longer indicated. Identified barriers being addressed by the IAWG include: a lack of clear global and country standards and guidelines for injectable antibiotic administration, including use of essential medical devices; a lack of appropriate neonatal formulation of gentamicin, that is a concentration that does **not** require dilution prior to administration; a lack of supply due to global, regional, and country manufacturing gaps and inadequate markets; regulatory and policy barriers at global and country levels. The TRT has established objectives and implementation plans to address each of these specific barriers. Some of the barriers require global solutions; others require regional or country solutions to address specific contextual factors that limit injectable antibiotic use. Currently, the TRT is focusing on the availability and use of penicillin and gentamicin for newborn infections in facilities, as per current WHO recommendations. New research, soon to be completed, is expected to inform policy dialogue about the appropriate antibiotics for use at the community level (e.g., health posts), when referral to facilities is not possible. As this evidence becomes available and guides policies for community-based treatment, injectable antibiotic need may increase. Thus, there will likely be increasing urgency for sustainable solutions to increase the availability and appropriate use of gentamicin and penicillin at all levels of the health system.

Group membership

The Injectable Antibiotics TRT is led by Save the Children’s Saving Newborn Lives program with participation and contributions from the US Agency for International Development, WHO, the Clinton Health Access Initiative, PATH, Management Sciences for Health, and UNICEF.

Progress to date

- Participation in WHO consultation on medical devices, specifically to develop injectable antibiotic essential medical device specifications.
- Initiation of mapping and landscaping of global and regional manufacturers and suppliers of preferred injectable antibiotics (penicillin, gentamicin, and ceftriaxone), noting comparison to other potential injectable antibiotics that may be inappropriately be used as first- or second-line agents.

Upcoming activities

- The Injectable Antibiotics TRT plans to convene a consultation of global and national level policymakers in October 2013 to develop guidelines for service providers on the selection, administration, and monitoring of first-line injectable antibiotics in the treatment and management of newborn sepsis. The expected outcomes of this consultation are an interagency endorsement of guidelines for injectable antibiotics for newborn infections, reviewing and reaffirming antibiotic selection, and developing a new “toolkit” to ensure appropriate use by providers—to include job aids, training materials, injection safety materials, monitoring tools, and equipment specifications, and quantification.
- Mapping and landscape analysis of manufacturers and suppliers of first-line injectable antibiotics to pathfinder countries.
- Barrier analysis on the availability, administration, and access to appropriate injectable antibiotics in selected pathfinder countries.

Available resources

The TRT plans to develop provider guidelines, manufacturing/supplier landscaping, and country-based tool to identify and overcome use barriers.

Contact us

For more information or to request tools and technical assistance, please contact: Steve Wall, Save the Children (swall@savechildren.org) and Brendan Wackenreuter, Save the Children (bwackenreuter@savechildren.org).