

Accessibility of medicines for children: a systematic review

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Background: The availability of medicines for children is low. In order to formulate policies and undertake necessary interventions to overcome barriers in supplying children's medicines and increase the accessibility to appropriate children's formulations, it is necessary to evaluate the accessibility of children's medicines. However, there is no systematic review of the medicines accessibility for children.

Objective: This systematic review aims to systematically evaluate the current status

of children's medicines accessibility in global and provide evidence for relevant organizations to formulate and improve medicine policies for children.

Methods: Relevant studies were identified through searching Pubmed, Embase, CNKI, Wanfang database, VIP, the official website of the World Health Organization., and reading the references. Two reviewers independently selected studies and extracted the data.

Results: The 18 included studies were multi-center cross-sectional studies, and all from developing countries. 17 studies (17/18, 94.4%) selected medicines to conduct accessibility survey based on the WHO Model List of Essential Medicines for Children (EMLc), and used the WHO/Health Action International (HAI) medicine price methodology to survey the accessibility of children's medicines. In included studies, the availability of originator brands (OBs) in public sectors ranged from 0 % to 52 %, with a median of 15.8 %. The availability of lowest-priced generics (LPGs) ranged from 17.0 % to 72.6 %, with a median of 38.1 %. The availability of originator brands (OBs) in the private sectors ranged from 7.4 % to 80 %, with a median of 11.9 %. The availability of lowest-priced generics (LPGs) ranged from 20.6 % to 72.2 %, with a median of 35.9 %. In most regions, the availability of originator brands (OBs) in the private sectors were higher than in public sectors. Generally, the price of children's medicines, the Median price ratio (MPR) of the originator brands (OBs) in public sectors and private sectors were much higher than the lowest-priced generics (LPGs) and the affordability of the lowest-priced generics (LPGs) in public sectors and private sectors were higher than that of originator brands (OBs).

Conclusions: The availability of children's medicines in public sectors or private sectors in developing countries is low. The MPR of originator brands (OBs) is higher than that of lowest-priced generics (LPGs), and most lowest-priced generics (LPGs) have better affordability.

Keywords: children, medicine, accessibility, availability, price, affordability, systematic review