

OP - 01

Developing and validating indicators to assess rational use of oral dosage forms of medicines in children

Nadeshkumar A¹, Sathiadas D², Pathmeswaran A³, Sri Ranganathan S⁴

¹Department of Allied Health Sciences, Faculty of Medical Sciences, University of Sri Jayewardenepura

²Department of Paediatrics, Faculty of Medicine, University of Jaffna

³Department of Public Health, Faculty of Medicine, University of Kelaniya

⁴Department of Pharmacology, Faculty of Medicine, University of Colombo

OBJECTIVES: Due to lack of validated indicators, researchers are compelled to use non-specific indicators to assess rational use of medicines in children. Consequently, these studies fail to identify paediatric specific issues. This study aims to develop and validate indicators to assess rational use of oral dosage forms of medicines in children

METHOD: Modified RAND/UCLA Appropriateness Method was used. Based on literature search, principal investigator prepared the initial list of (prescribing, dispensing, administering) indicators. Twelve experts rated these indicators using Likert scale in two rounds, first in an online survey for clarity, necessity and scientific-merit and secondly in a face-to-face meeting for necessity, feasibility and predictive value. Overall panel median score of ≥ 7 and agreement within the experts (Not more than 2 experts rating an indicator 3-point away from median) were used in selecting the indicators. Selected indicators were piloted to assess measurability. Open comments from the experts were also considered.

RESULTS: Eight prescribing indicators which included pill burden, weight, appropriate dose, and age appropriate dosage form, 5 dispensing indicators which included dispensing alternatives, adequacy of labelling and irrational manipulation by pharmacists before dispensing and 5 administering indicators which included irrational manipulation by parents before administering, use of oral syringe, and complete dose given were finalized.

CONCLUSIONS: This novel set of validated indicators can be used to identify issues in rational use of oral dosage forms of medicine in children, to measure impact of any intervention by applying them before and after such intervention, and to compare findings from different studies.