

An Analysis of Quality of Drug Prescriptions for Hospitalized Children: Effectiveness of Prescription Indicators

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Objectives:

Children are more vulnerable to adverse consequences of poor quality prescriptions than adults. This prompts the need for effective indicators to measure the quality of paediatric prescriptions. The objective of this study is therefore to examine the effectiveness of standard prescription indicators in analysing quality of drug prescriptions for hospitalized children.

Method:

This cross sectional descriptive study was carried out over a period of two months in 2012 where quality of drug prescriptions for hospitalized children in two Sri Lankan Teaching Hospitals were analysed using standard core and complementary prescription indicators. The indicators used were number of drugs prescribed in generic names, use of abbreviations, completeness of prescriptions, documentation of body weight, documentation of reason for prescribing a drug, prescriptions with an antibiotic, prescriptions with an injection, prescribing outside the National Essential Medicine List, legibility of prescriptions and prescription of supratherapeutic dose of paracetamol. A pre-tested structured data record sheet was used to extract the required data from the prescriptions. Two investigators independently evaluated the data and a consensus decision was made regarding the indicators. Descriptive statistics were used in data analysis.

Results:

334 prescriptions containing 1500 drugs (mean of 4.5 drugs (SD=2.5) per prescription) were analysed. None of the prescriptions were judged as illegible. Of the 1500 drugs, 93% were from the National Essential Medicine list whereas 70% were listed in the WHO model formulary for children. A three fourth (73.6%) of them were prescribed by generic name. About half (56%) of the prescriptions were with an antibiotic and a quarter (26%) with an injection. A very small proportion of children (3%) had been managed without any drugs. Reason for prescribing a particular drug was recorded in the case 91% of drugs prescribed. 10.5% of drugs were written in abbreviations.

Body weight of the child had been recorded in all the Bed Head Tickets which also had the drug chart; 97% of the drugs were prescribed dose appropriate for age and weight. Of the 276 (83%) prescriptions which had paracetamol all except one were within therapeutic dose. Though omission to write the full dosing schedule was observed in 70% of prescriptions, majority were deficient only in dosage form.

Conclusion:

Standard core and complementary prescription indicators are effective in analysing the quality of drug prescriptions for hospitalized children. They can be used in prescription audits, analysis of rational drug use and in studying impact of any intervention programmes to improve quality of prescriptions.

Key Words:

prescription for children, prescription indicators, quality of drug prescription.