Audit on Cold, Flu and Gastroenteritis Medications for Paediatric Patients in YCH

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Keywords:
gastroenteritis
cold
flu
paediatric

Introduction
Different prescribers from different non-paediatric specialties have different prescribing practices for symptomatic medications for cold, flu and gastroenteritis in children. Use of some of these symptomatic medications may also have age restrictions, which prescribers may not be aware of. After compiling a paediatric dosage reference chart for cold/flu/gastroenteritis medications for use in non-paediatric specialties in mid-2016, it was endorsed at YCH Drugs and Therapeutics Committee (DTC) in July 2016.

Objectives
This study aims to audit prescribers’ compliance to the reference chart after its endorsement at DTC by comparing dosages prescribed before and after.

Methodology
The study period was two months before endorsement of reference chart (ie. May to June 2016) and two months after (November to December 2016). Clinical Data Analysis and Reporting System (CDARS) was used to retrieve out-patient dispensing records of cold, flu and gastroenteritis medications in children younger than 12 years old. Paediatric specialty was excluded from the audit. Growth charts were used to estimate body weights of certain ages. Doses that fall within the dosage range calculated by using bodyweight of 10th and 90th percentile was considered as compliant to reference chart.

Result
A total number of 4453 and 4306 records were generated for pre- and post-endorsement period respectively and categorized according to specialty. For Accident and Emergency Department, a lower incidence of prescribing higher-than-recommended dosages for Actifed® syrup and Elixir Benadryl®(EB) was observed (reduced from 5.9% to 3.0% and 32.4% to 14.2% respectively). Prescribing of Actifed®, Benadryl Expectorant®(BE), Bisolvon® and Phensedyl® to patients in restricted age groups was also reduced (from 7.8% to 2.0%). For General Practice Clinic (GPC), BE and EB with higher-than-recommended dosages were prescribed
less often (reduced from 13.3% to 4.2%, and 13.3% to 8.9% respectively). Bisolvon® and Cocillana® Compound Syrup were also no longer prescribed in restricted age groups in the post-endorsement period for GPC. Most orders by ENT were compliant to dosage reference chart. There were limited orders by Orthopaedic (ORT), therefore comparison could not be made.

The endorsed reference chart provides guidance to prescribers and pharmacy staff on the prescribing and dispensing of cold, flu and gastroenteritis medications in paediatric patients, leading to a more evidence-based medication use as well as ensuring medication safety in children in YCH.