Drug dosing for obese children, the duck or the bird

Inappropriate drug dosing can limit therapeutic efficacy using sub-therapeutic dose if drug dosing is based on the Ideal Body Weight (IBW) considering the bird or increase drug-related toxic effects/ADRs if drug dosing is based on the Actually Body Weight (ABW) considering the duck for obese children. Typical drug dosing guidelines based on patient weight may not be adequate for obese children because of altered Pharmacokinetic (PK) and resulting changes in drug distribution. The Pediatric Pharmacy Advocacy Group (PPAG) recommends weight-based dosing for children who weigh <40 kg. For those weighing >40 kg, the dose should never exceed the adult dose. Hydrophilic drugs are generally loaded based on ideal body weight (e.g. Paracetamol). Partially lipophilic drugs are loaded based on an Adjusted Body Weight (AjBW). Lipophilic drugs are loaded based on actual body weight. However, this should be assessed on a case by case basis where the risks of toxicity are considered. Finally, insufficient information exists to guide dosing in obese children. A next step should be prioritized to build a user-friendly protocol. The aim is to bridge the knowledge gaps in obese dosing calculating process, in our clinical practice.

Biography
Dr Royida Al Marastani is a Senior Pharmacist with more than 30 years of experience in the UAE in Abu Dhabi in Primary Health Centers (PHC), Urgent Care Center (UCC) and Ambulatory Health Services (AHS), completed her MSc in Clinical Pharmacy from UK. She is a Lecturer in Ministry of Health (MOH) since 2003, in CPE/ CME Pharmacist’s program from 2011 in SEHA/Ambulatory Healthcare Services (AHS).

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