

Paediatric dosage ‘need of hours among family physicians/other speciality physicians’

Dear editor,

We read the article with bated breath by Sil *et al.*^[1] ‘A study of knowledge, attitude and practice regarding administration of paediatric dosage forms and allied health literacy of caregivers for children’. It is an essential topic because it serves as a reminder to prescribers to emphasise the dose pattern to caregivers. They have very nicely concluded that Physicians must be mindful of the limitations of their knowledge as well as the likelihood of incorrect administration practices among childcarers. Medication errors can be reduced by taking corrective action in this area. Paediatricians, for example, are notorious for emphasising and stressing dosage, approach and patterns. Other speciality physicians are forced to manage paediatric cases in low-developed countries such as India, where paediatricians are few in rural settings. In the current pandemic crisis, dextromethorphan is often used to treat dry cough in in-patients or as a prescription for out-patients. Because its dosage is based on age rather than body weight, there is a lot of variation in the amount of medicine given.^[2] The clinical effectiveness of syrup or any other formulation of dextromethorphan for treating acute cough is unknown, and the American Academy of Paediatrics does not recommend it. With this as a backdrop, we tried to focus on current issues that have been highlighted in the media and by India’s drug regulatory authorities. It is with reference to the recent news and official order given by Directorate General of Health Services (DGHS) of India regarding the report of dextromethorphan poisoning admitted at Kalawati Saran Children Hospital in New Delhi.^[3]

There is another crucial factor to consider with respect to the advisory as per the National Formulary of India (NFI) and Current Index of Medical Specialities (CMIS). In NFI, the age for which drug dextromethorphan advised is 2–12 years with dosage mentioned in Table 1. In CIMS India the dosage for 2–12 years is mentioned and provided information that individualized dose for children up to 2 years has to be followed.

In all the drug resources, there is an indication with a clear distinction between giving doses to children and prescribing doses to adults. Even though, depending on the amount or

the components of the exact formulation taken, the medicine dextromethorphan might cause a variety of side effects, the majority of cases with dextromethorphan abuse improve just with supportive care. However, seriously affected patients may need more attention. Because dextromethorphan is typically misused in younger age groups, early detection and treatment of dextromethorphan abuse may be critical in preventing broader substance dependence in these kids.^[4]

In light of the foregoing, we were intrigued to investigate the labelling of a few pharmaceutical items available at a nearby pharmacy. Again, it is surprising to our knowledge that just a small percentage of the preparations still contain children aged 2 and up. This banning of dextromethorphan for children less than 4 years of age is also an alert for all the family Physicians and Paediatricians and provides us a signal to be vigilant before prescribing any paediatric drug and by sticking to the guidelines or drug dosage information in existence from time to time. As a result, it is now required to follow the DGHS’s new instructions on the use of children above the age of four, regardless of the label. It is also an earnest request for all the prescribers to update knowledge over the over the counter drugs.

Ethical approval

Not required

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Conflicts of interest

There are no conflicts of interest.

I would like to submit the letter entitled ‘**PAEDIATRIC DOSAGE ‘NEED OF HOURS AMONG FAMILY PHYSICIANS/OTHER SPECIALITY’**’ to letter to editor, in your esteemed journal. I declare there is no conflict of interest and no completing financial support is required for this work. And also, I confirmed that the manuscript has been read and approved for submission by all the named authors.

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Table 1: Information regarding dextromethorphan for children

Parameters	CIMS INDIA	NFI
Indication	Cough	Dry cough
Dosage	Child: 6-12 yr 5-10 mg every 4 h or 15 mg every 6-8 h; 2-6 yr: 2.5-5 mg every 4 h every 4 h or 7.5 mg every 6-8 h; Up to 2 yr: Individualised dosage. Extended release oral suspension: 6-12 yr: 30 mg bid; 2-6 yr: 15 mg bid. Max: 6-12 yr: 60 mg/day; 2-6 yr: 30 mg/day.	Child: 6-12 years: 5-10 mg every 4 h or 15 mg every 6-8 h. 2-6 yr: 2.5-5 mg every 4 h or 7.5 mg every 6-8 h.
Contraindication	Patients at risk of developing respiratory failure. During an acute attack. Patients receiving MAOI (MAO inhibitors) or for 2 weeks after discontinuing them. Patients with persistent or chronic cough.	Patients at risk of developing respiratory failure. Patients with persistent or chronic cough. Patients receiving monoamine oxidase inhibitors (with or within 2 weeks).
Special Precautions	Dextromethorphan triprolidine HCl 1.2 debilitated patients; patients confined phenylephrine HCl to supine position; history of asthma. Atopic child; child <1 yr, sedated or Moderate to severe renal impairment; liver disease.	Moderate/severe renal impairment, liver disease, atopic children, patients confined to supine position, debilitated patients, asthma, Drug interactions
Adverse Effects	Dizziness and gastrointestinal disturbance.	Dependency, dizziness, restlessness, mental confusion, excitation and gastrointestinal disturbance.
Interaction	Tricyclic antidepressants, antipsychotics, anxiolytics and hypnotics, cimetidine, ciprofloxacin, domperidone, metoclopramide, mexiletine, CYP2D6 inhibitors, ritonavir, alcohol, memantine and moclobemide.	----

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