Frequency of manipulated medicines administered to paediatric in-patients: a Swedish pilot study

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Conclusion

Our results clearly illustrate the need for more child-appropriate medicines and strengths, not only for the youngest children, but also for older children.
Manipulations have to be made in order to give the prescribed dose but there is a lack of knowledge how this procedure influences the dosing accuracy. Compliance of split tablets might be decreased due to sharp edges and unpleasant taste.

Introduction

Since there is a lack of drugs in suitable strengths and child-friendly dosage forms, manipulation is sometimes necessary.
A manipulation is the physical alteration of a drug dosage form and the purpose is to extract and administer the prescribed proportion of a drug dose. This is a sort of off-label practice, but often not included in such studies.

Aim

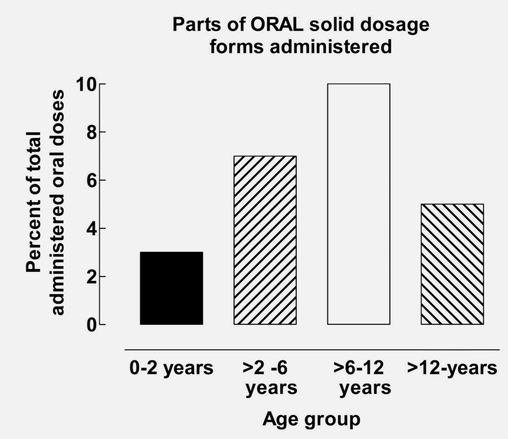
To study the frequency of manipulated solid oral and rectal medicines administered to paediatric in-patients at Karolinska University Hospital, Sweden during one month as a pilot study.

Method

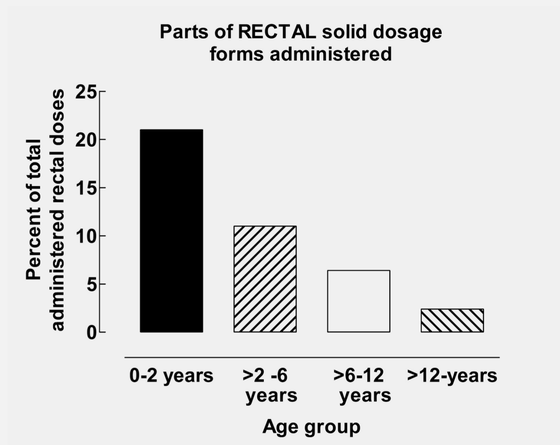
All orally and rectally administered doses (n=15,759) during one month, March 2015, at the paediatric wards at Karolinska University Hospital were collected through a register. All administered doses of solid dosage forms where the number were decimal were calculated as a percentage of the total number of oral and rectal administrations in different age-groups.

Results

In the age-group 6 – 12 years, 10% of all oral administrations were part of a tablet. To younger children oral solutions are more frequent.



For rectal solid administrations given as part of a suppository, the highest percentage, 21% was in the youngest age group, 0 – 2 years.



This pilot study will be followed by a study looking at all oral and rectal administrations during a whole year.

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