

# Safety and Efficacy Characteristics of Pharmacist Recommended Medications for Paediatric Patients



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## INTRODUCTION

There are limitations in the availability of medications for use in paediatric patients. Children differ from adults in many aspects of pharmacotherapy and it is essential that paediatric medicines are formulated to best suit a child's age, size and treatment requirements, hence, different routes of administration, dosage forms and strengths may be required. Many existing formulations are not suitable for children, which often leads to the unlicensed use of adult medicines. <sup>1</sup>

## METHOD

- Scenario analysis of pharmacist-recommended products available on the market for paediatric patients was undertaken
- Scientific evidence of the safety of paediatric products is undertaken through assessment of the side-effect profile, contra-indications and cautions and scientific evidence of the efficacy of paediatric products is undertaken, through evaluation of the pharmacokinetic and pharmacodynamic relationship
- Data is compiled on a documentation sheet using Excel and a statistical model to capture safety and efficacy of these products is developed using SPSS

## CONCLUSION

Availability of medications that may be recommended by pharmacists when responding to minor ailments in paediatric patients were identified. Recommendations on efficacy and safety aspects of the products is evaluated and compared to medicinal products intended for the same use which are currently classified as prescription medicines.

## REFERENCE

- 1) Ivanovska V, Rademaker CMA, van Dijk L, Mantel-Teeuwisse AK. Paediatric Drug Formulations: A Review of Challenges and Progress. *Paediatrics* 2014; 134(2):361-372.

## AIMS

- To identify products available for paediatrics which are pharmacist recommended on the local market
- To assess scientific evidence on safety and efficacy of pharmacist's recommended medications which can be used in paediatric patients

## RESULTS

- There is a total of 157 medicinal products that are pharmacist recommended for paediatric use on the Maltese market which contribute to 189 products when taking into consideration different formulations that are available. The most common formulations available for paediatric use are topical preparations which add up to (47%).
- A total number of 31 products out of the 157 products have no pharmacokinetic or pharmacodynamic data available on the Summary of Product Characteristics (SPC). The most common available data is the absorption data (N=52). In terms of safety data, the most common side-effects occurring from these products are those affecting the Gastro-intestinal system (N=27) (Figure 1). Most of the products (N=95) are contra-indicated when patient has hypersensitivity to the active ingredient or any of the excipients. When taking into consideration the preparations available for paediatrics, the most preparations available are cough and cold preparations (N=21) followed by analgesics (N=16).

Figure 1: Most common side-effects observed from SPCs

