P58 DEVELOPMENT OF JUNIORMED – THE AUSTRIAN PAEDIATRIC PHARMACOPOEIA

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Background Despite the regulatory measures to improve the availability of medicines for new-borns, infants and children, extemporaneous preparations are often necessary to cover the needs of these patients. In Austria the prescription of magistral medicines is more common (approx. 3.4% of all prescriptions) than in the European average (1.9%)¹, yet a paediatric pharmacopoeia which sets standards for the preparation and use of extemporaneous preparations was missing so far.

Methods The project was mutually conducted by the Austrian Chamber of Pharmacists, Austrian Society for Pediatric and Adolescent Medicine and the Austrian Society of General Practice/Family Medicine and funded by the Austrian Federal Ministry of Education, Science and Research (BMWFW-97.160/0001-C1/9/2015). 9,000 community and hospital pharmacists, paediatricians, dermatologists and general practitioners have been invited to submit commonly prescribed paediatric preparations. In a five step approach all submissions were assessed for completeness, pharmaceutical and medical correctness as well as level of evidence by the involved expert board (1 paediatric pharmacologist, 1 paediatrician, 4 pharmacists) and additional 10 external consultants covering 7 organ systems. Only preparations fulfilling the quality criteria for recommendation have been included in the compendium.

Results 1500 preparations have been submitted by 780 pharmacists, 227 general practitioners, 165 paediatricians and 3 dermatologists. 1175 were applicable for further assessment and 177 were recommended and included in the monograph compendium after assessment of correctness and level of evidence. These fell into 7 organ systems, namely 60 medicines for skin, 34 for the gastro intestinal tract, 20 for the respiratory system, 19 for CNS, 18 for ENT, 16 for circulation and kidneys, 10 for eyes.

Conclusion This project is an example of successful inter-professional cooperation with the aim to improve the quality of magistral formulations for children. The high number of excluded preparations underlines the need for quality control and standardisation.

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P59 MONITORING THE RECOVERY TIME OF CHILDREN AFTER ELECTIVE TONSILLECTOMIES USING COMMERCIAL ACTIVITY TRACKERS, AN PROSPECTIVE FEASIBILITY STUDY

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Introduction Wearable activity trackers are increasingly incorporated into daily life and are advancing in their technology in means of accuracy, validity and acceptability,¹⁻⁶ however there is deficient knowledge on using these devices in a paediatric setting. The objective of this pilot study was to assess the feasibility of physical activity tracking in children⁷ before and after a standardized surgical intervention and to assess the recovery time after surgery.

Methods This was a single centre, open-label, prospective feasibility study. We aimed at recruiting 24 children and adolescents 4–16 years of age undergoing elective tonsillectomy. The preoperative period was 10 days before surgery and the postoperative period was 28 days. Activity data were gathered with activity trackers.⁸ Reference activity was defined as the individual mean of daily steps preoperatively. Recovery time was defined as the number of days that the patient needed to reach reference activity postoperatively. The population was stratified according to age (4–7, 8–16 years).

Results Twelve male and twelve female patients participated (mean age 6yr, mean BMI percentile 44.7). The age group 4–7 years had a mean recovery time of 11.2 days (SD 5.0) compared to 8.3 days (SD 1.7) in the age group 8–16. The difference was 2.9 days. The tracker datasets were 58% complete. The rate of technical failures of the trackers was 29.2% for the total study period.

Conclusions Activity trackers are a potential tool viable to assess recovery time after surgery in children. Recovery time after tonsillectomy seems to be age-dependent with older children recovering faster. For future studies, we recommend using trackers as a part of assessing physical activity as a parameter of general wellbeing of child during or after an intervention. Using wearable activity trackers is a more modern and appropriate method to assess physical activity,⁹⁻¹⁴ especially in a paediatric population.

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