Prescribing and medication administration errors are common themes in Paediatrics. We observed an increasing trend of errors in our ward and assessment area. We undertook an audit to quantify errors within our department as per the EQUIP criteria suggested by the General medical council. A zero-tolerance approach was undertaken, and all errors from minor to severe were recorded. An alarming 90% of admissions within the audit period had minor to significant errors recorded in the initial audit. With the zero-tolerance approach, minor errors with no harm to life were also recorded.

Previous research has suggested that good quality care depends upon different professions working together. We created a tripartite alliance involving nursing, pharmacy and medical teams. Our primary aim was to reduce medication prescription and administration errors by at least 10%. The small incremental change target was made in line with the quality improvement principles. We placed education at the heart of the change process, and the programme involved no costs apart from the time invested by the team.

As a result, medication errors have been substantially reduced over the last five years, and education has been at the heart of the change process. The group has achieved change that is sustainable and prudent in design. We aligned staff, method and delivery to minimise avoidable harm and promoted co-production with patient involvement in educating staff about the impact of such errors. Working together as a team involving all three disciplines has helped us understand and modify practices that have led to an overall reduction in medication errors. We would like to share our change model that has influenced consistent and reliable results over several audit cycles.

**Results** 6 papers with 8276 participants were identified in this review. The domains most commonly assessed were the perceived effectiveness of medications (4/6 studies), psychosocial impact (3/6 studies) and the impact on work and school (3/6 studies). Other domains included the ease of use of medicines, side effects from medicines, adherence to medicines, time requirements, costs, using healthcare resources and support from family/friends/organisations.

**Conclusions** Studies assessing the burden of care due to medicines assessed a range of domains related to the impact of medicines on patients and caregivers. The results from this review will be used create a questionnaire for a cohort study that aims to determine the impact of polypharmacy on paediatric patients and their parents.

**Abstracts**

**WHAT DOMAINS RELATED TO MEDICINES WERE MEASURED IN STUDIES OF BURDEN OF CARE FOR PAEDIATRIC PATIENTS? A SYSTEMATIC REVIEW**

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**Introduction** Medicines are becoming increasingly common for all populations and polypharmacy has been shown to have numerous risks. Although primary studies and reviews have explored the impact of medical conditions on patients and caregivers, there are no known reviews on the impact of medicines on paediatric patients. This systematic review therefore aimed to determine the domains commonly assessed in studies assessing treatment burden in different conditions for paediatric patients and their caregivers.

**Methods** Searches were conducted on Medline, CINAHL, EMBASE, Web of Science and Cochrane Database of Systematic Reviews to find relevant papers. Two reviewers independently screened the papers based on the chosen inclusion and exclusion criteria. The quality of the papers was assessed independently by two reviewers using the Newcastle Ottawa Scale. This review was registered with PROSPERO (PROSPERO registration number: CRD42021285097) and conducted according to PRISMA methodology.

**Results** 6 papers with 8276 participants were identified in this review. The domains most commonly assessed were the perceived effectiveness of medications (4/6 studies), psychosocial impact (3/6 studies) and the impact on work and school (3/6 studies). Other domains included the ease of use of medicines, side effects from medicines, adherence to medicines, time requirements, costs, using healthcare resources and support from family/friends/organisations.

**Conclusions** Studies assessing the burden of care due to medicines assessed a range of domains related to the impact of medicines on patients and caregivers. The results from this review will be used create a questionnaire for a cohort study that aims to determine the impact of polypharmacy on paediatric patients and their parents.

**UTILIZATION OF AND BARRIERS TO INDIVIDUAL TREATMENT TRIALS IN MUCOPOLYSACCHARIDOSIS – INTERIM RESULTS OF AN EXPERT SURVEY**

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**Introduction** Mucopolysaccharidoses (MPS), comprise a group of rare chronically debilitating metabolic diseases and associated with reduced life expectancy and a substantial unmet clinical need. Current research directs towards a number of new treatment targets and strategies. Individual treatment trials (ITT) could make these options rapidly available to patients. Based on scientific publication, this is hardly used. We assess the utilization of and relevant barriers to ITT in MPS as well as potential solutions.

**Methods** Phase 1 was done with 5 international top experts. After this interim analysis, the survey will be rolled out to a broader group of experts.

**Results** Five MPS experts from Austria, Brazil, Germany and Italy have been enrolled. In total these clinicians manage about 350 MPS patients. Only three experts ever ran 1–3 numbers of ITT in MPS patients, solely MPS type II (n=2) and VI (n=1), summing up to a total of five ITTs, which is about 1.4% of their patients. The treatments used in ITTs comprise Montelukast, THC, Curcuma and a viral vector with transgene. As barriers for a wider use of ITTs, the im-practic-ability for implementation (n=1) and the insufficient training in ITT (n=1) have been indicated. All experts consider it highly likely that a decision analysis tool increases the use of ITT in MPS.

**Conclusions** ITT are used in about 1% of MPS patients. This seems extremely low, considering the commonness of off label use in children with severe conditions, the high unmet medical need in MPS and the number of research results, which indicate various promising repurposing strategies. This interim analysis already demonstrates several relevant barriers and high potential of the planned decision framework tool to overcome this.