

Exploring Discrepancy Classification: A Scoping Review of Pharmacy Students' Practices in Obtaining Best Possible Medication Histories

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Background

Upon obtaining the best possible medication history (BPMH), identifying unintentional differences from previous patient documentation is the essence of medication error prevention¹. The process of obtaining BPMH is a systematic process, verifying medication information with more than one source as appropriate¹ as presented in figure 1.

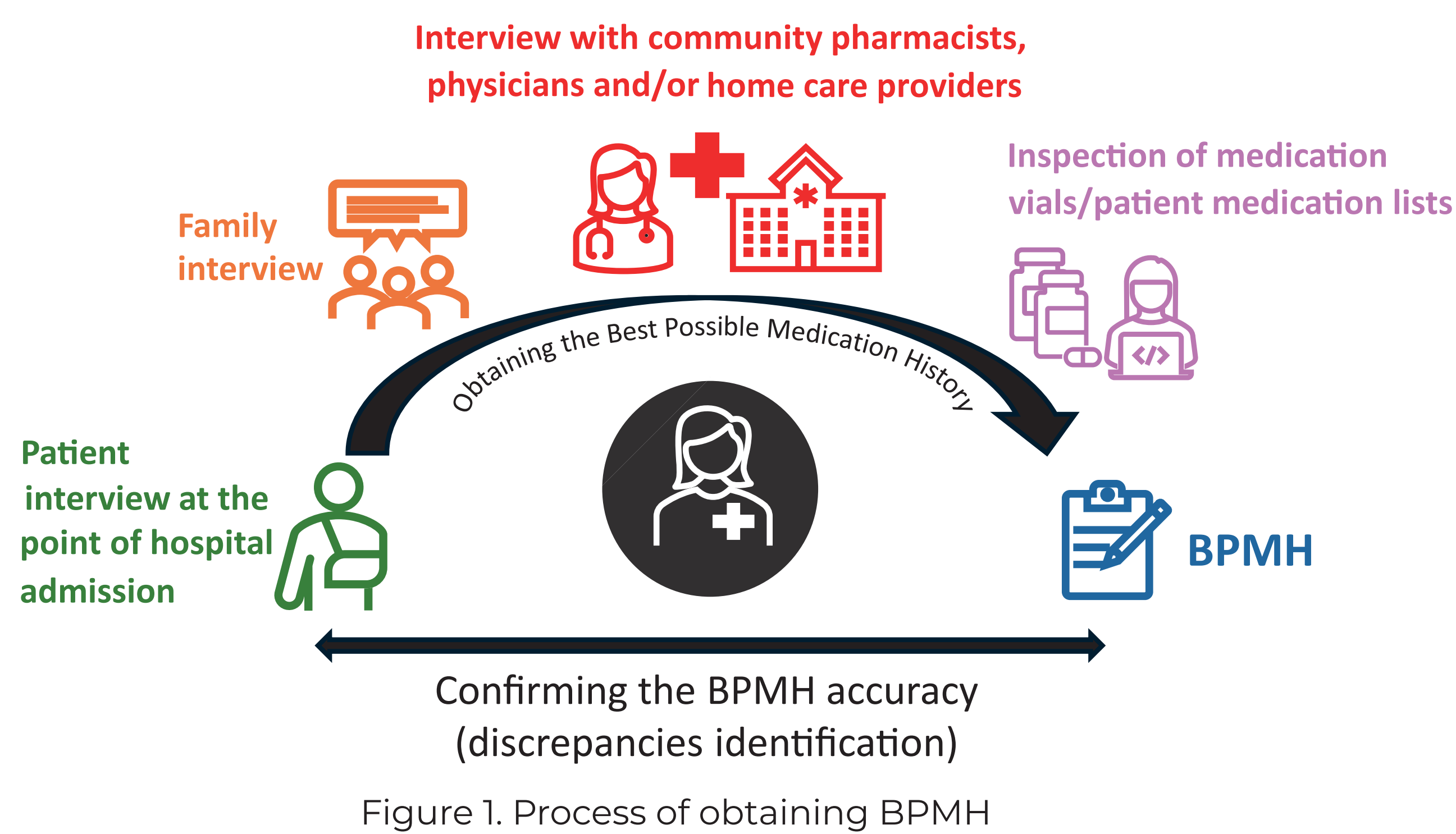


Figure 1. Process of obtaining BPMH

While few validated discrepancy classification systems have been published so far, establishing a consensus on a classification system for medication discrepancies would facilitate comparison of medication reconciliation outcomes to enhance patient safety.

Study aim

This scoping review aimed to explore the different classification systems used for medication discrepancies identified during BPMHs in hospitalized patients.

Methods

A qualitative content analysis was performed for extracted data from a scoping review, which focused on exploring the practices of pharmacy students in obtaining a BPMH. The scoping review was conducted across five databases: Pubmed, PubPharm, LIVIVO, PubMed Central, and Web of Science according to best practice guidance PRISMA-ScR². With assistance from a research librarian, an efficient search string was developed. All studies published up to 2024 that met the inclusion criteria were included. Three standardized taxonomies used for discrepancy classification were: The medication discrepancy taxonomy (MedTax)³, the Medication Discrepancy Tool (MDT)⁴, and the Instrument to Characterize Unintentional Medication Discrepancies (ICUMD)⁵. A descriptive narrative approach was used to synthesize the extracted results and reported in line with the EQUATOR guidelines⁶.

References

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Findings

The initial database search resulted in 240 papers, of which 13 original papers were retained for analysis. Most papers originated from the United States of America (n=9/69.2%), with the remaining from Australia (n=2/15.4%), Iran (n=1/7.7%), and Lebanon (n=1/7.7%). Among all reported discrepancy categories in the papers (total n=22), the majority matched the categories of MedTax taxonomy (n=15/68.2%), followed by ICUMD taxonomy (n=5/22.7%) and MDT taxonomy (n=2/9.1%).

Five discrepancy categories (n=5/22.7%) did not align with any taxonomy, and therefore new unvalidated categories were introduced (Figure 2).

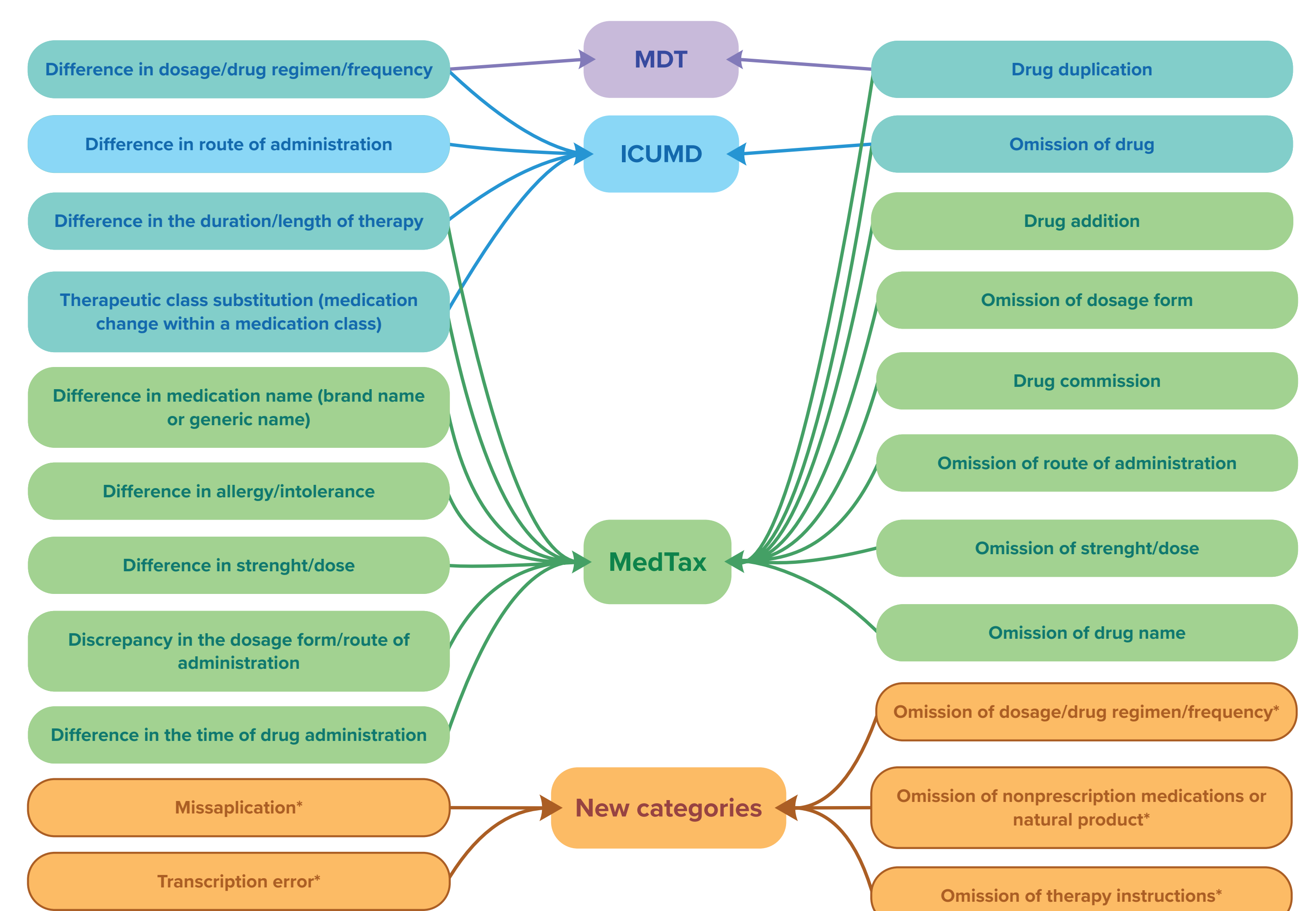


Figure 2. Classification of identified discrepancies (The medication discrepancy taxonomy - MedTax, the Medication Discrepancy Tool - MDT, the Instrument to Characterize Unintentional Medication Discrepancies - ICUMD)

Conclusion

While most discrepancy classes aligned with the MedTax taxonomy, several missing discrepancy categories were identified, with five new unvalidated categories being introduced. Therefore, further analysis of existing taxonomies and consensus on the integration of new categories is needed.