4CPS-229 - THE ADDED VALUE OF A NATIONAL ELECTRONIC HEALTH RECORD FOR THE BEST POSSIBLE MEDICATION HISTORY OBTAINED BY A CLINICAL PHARMACIST

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Background and Importance

Obtaining the **Best Possible Medication History (BPMH)** is an essential step in the **medication reconciliation** process, that should ideally be based on the most appropriate sources of information, to which access is often limited. Utilization of a **National Electronic Health Record (NEHR)** system aims at streamlining this process by converging relevant data into a singular database.

Aim and Objectives

This research aimed to assess the **added value of NEHR to BPMH**. In addition, the quality of NEHR-based BPMH was compared to the former physician/nurse-led Standard of Care (SoC), in order to explore the added value of clinical pharmacy services in obtaining BPMHs.

Materials and Methods

- **Study place:** general surgery department of a county hospital.
- **Patient enrollment:**
  - minimum 18 years of age,
  - admitted from their homes,
  - at least one regularly taken prescribed medication,
  - without major communication difficulties.
- Methodology of medication reconciliation process initiated by clinical pharmacists is shown in ***Figure 1.***
- **Primary outcome:** the frequency and types of medication discrepancies derived from the comparison of the aforementioned lists, including the former SoC.

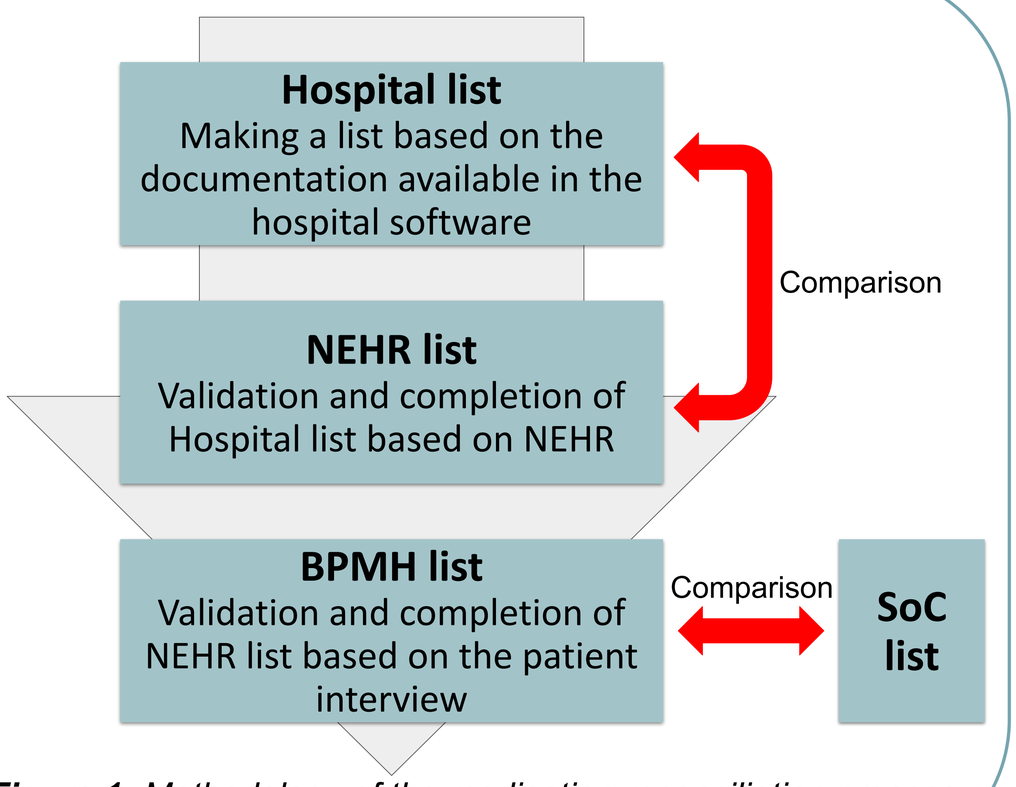

Figure 1: *Methodology of the medication reconciliation process.*

Results

The study included 100 patients (52% female, average age=62 years).

<u>Comparison of NEHR list to Hospital list:</u>

- 231 discrepancies (median=2; IQR=4),
- 64.0% of the patients affected,
- Most common discrepancy: drug omission (64.9%) and incorrect daily dose (26.4%).

<u>Comparison of BPMH list to SoC list:</u>

- 303 discrepancies (median=3; IQR=3),
- 90.0% of the patients affected,
- Distribution of the discrepancy types is shown on ***Figure 2.***

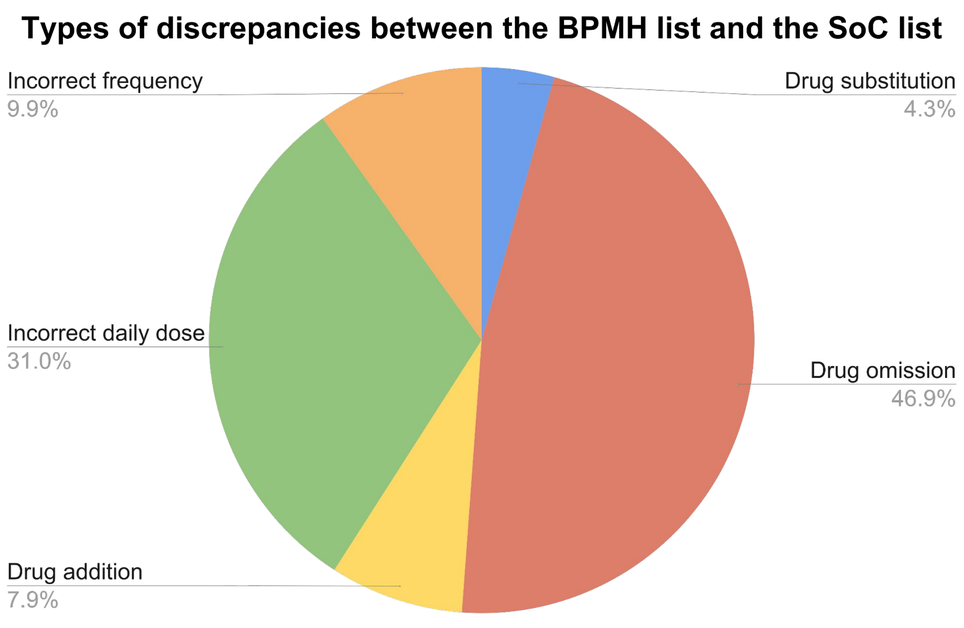

Figure 2: *Distribution of the discrepancy types between the BPMH list and the SoC list (n=303).*

Conclusion and Relevance

Based on these results, the NEHR can contribute to the compilation of a more prudent BPMH due to its more comprehensive data content. This methodology may, in turn, facilitate the prevention of multiple medication-related errors. These outcomes also underline the necessity of pharmacists' access to such national systems.

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