



Evaluation of a telephone-based medication reconciliation process during the COVID-19 pandemic



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Background

California law requires pharmacy team members at hospitals with more than 100 beds to obtain medication lists for each newly admitted high-risk patient. "Gold standard" lists or best possible medication histories (BPMHs) are obtained via a comprehensive and systematic process of interviewing the patient or the patient's family member/caregiver and by additionally reviewing at least one other reliable source of information (e.g. prescription bottles, pharmacy/clinic records). Historically, BPMHs are obtained via face-to-face in-person interview at the patient's bedside. During the COVID-19 pandemic, such interactions with patients were severely restricted and no family members/caretakers were permitted on-site. As such, processes to communicate with patients and family members via telephone were put into place by our hospital pharmacy team at a large teaching hospital. The impact of these processes on the ability of pharmacy team members to obtain BPMHs and perform optimal medication reconciliation is unknown.

Objective

To describe a systematic and comprehensive telephone-based process developed by pharmacy team members at a large teaching hospital to obtain BPMH and perform medication reconciliation during the COVID-19 pandemic and to measure the impact of this on the ability of pharmacy team members to effectively obtain BPMH and perform optimal medication reconciliation.

Outcomes

Primary

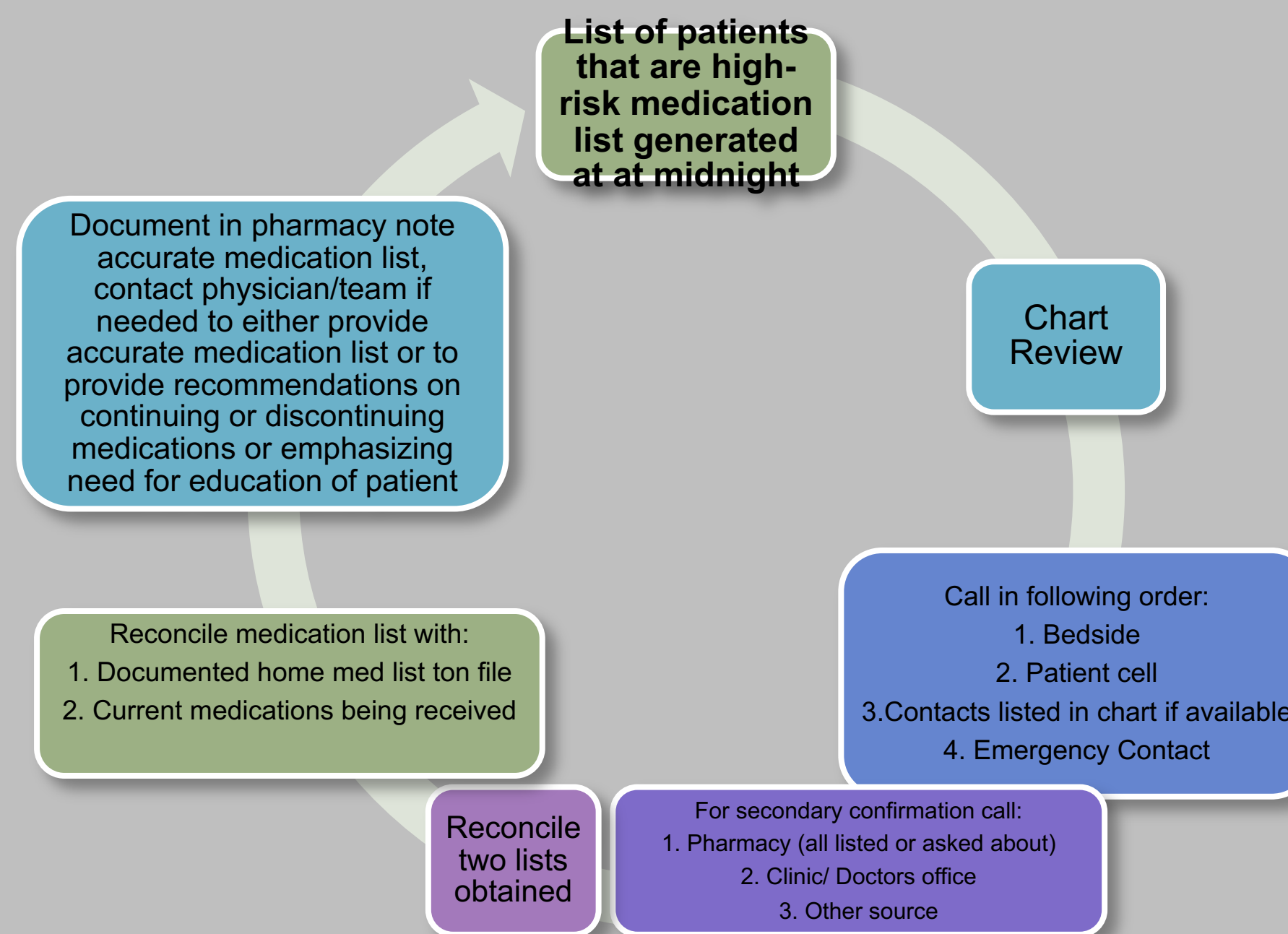
- Proportion of high-risk patients in which a BPMH, defined as a medication list obtained by communication with a patient or family member/caregiver with additional review of at least one other reliable source of information, could be obtained.

Secondary

- Number of communication attempts
- Type of primary and secondary sources
- Number and type of discrepancies identified.

Methodology

A telephone-based process involving repeated and systematic telephone calls to the patient's bedside, mobile phone, family member, emergency contact, pharmacy provider, medical provider, or other provider was utilized to obtain BPMH and to perform medication reconciliation.



The following data were collected during this process if available: type, number, outcome of communication attempts; home med lists obtained; source of initial and secondary med lists; compliance per patient/caretaker report or per refill dates; and number and type of discrepancies with provider-documented home medication lists and provider-ordered inpatient medications at the time of review. Risk proportions were calculated from a four-week period from May 21 to June 19.

Results

A total of 73 high-risk patients were flagged for medication reconciliation by pharmacy during the 4 week period. Over 300 telephone attempts were conducted in order to obtain a BPMH and perform the medication reconciliation process. A BPMH was obtained in approximately 50% of those patients (37/73). A pharmacy team member was able to speak to only 30% (22/73) of patients and 21% (15/73) of family members via telephone. A provider was the primary source for the patients home medication list in 3% (2/73) of cases. The patient's pharmacy was the secondary source of information in all encounters with BPMH (37/37). Of the cases in which a BPMH was obtained, 86% of cases (32/37) had at least one discrepancy in their provider-documented home medication list or provider-ordered inpatient medications at time of review as compared to the BPMH. In these 32 cases, 126 medication discrepancies were identified (46% omitted medication, 29% medication discontinued, 22% incorrect dose).

Conclusions

Accurate medication lists and BPMHs are time-intensive and difficult to obtain via telephone-based processes. Coordinated processes with nurses and providers who are on the floors and able to see the patient face-to-face on a daily basis need to be developed and optimized to increase the ability of pharmacy team members to communicate with the patient or family member via telephone. Nevertheless, when a pharmacy team member is able connect with a patient or a family member and effectively obtain a BPMH, a large number of discrepancies are identified. As such, despite the additional barriers, a pharmacy-driven medication reconciliation process can still significantly reduce medication errors, enhance patient safety, and optimize medication therapy during admission and at discharge.