Improving the Quality of Medication History Collection

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While completing my residency with the Regina Qu’Appelle Health Region, I was able to be involved with a pilot project utilizing pharmacy technicians for collection of patient admission best possible medication histories (BPMHs) within the Pasqua Hospital Emergency Department (ED). Until this point, it was the responsibility of the nursing staff/physicians to collect the patient’s admission BPMH. In addition to freeing up more time for other health care practitioners to focus on clinical issues, we believed that the introduction of BPMH technicians in the ED would improve the quality of BPMH collection.

As my residency project, we developed a study to assess the quality of BPMH collection by both the multidisciplinary team (nurses/physicians) and pharmacy technicians. The primary objective of the study was to determine the accuracy of BPMH forms by the multidisciplinary team and pharmacy technicians. Secondary objectives were to determine the accuracy of each component of the medication orders, the number of patients with added or omitted medications, and the rates of omitted medications.

BPMHs collected by the multidisciplinary team or pharmacy technicians were compared to a separate pharmacist-acquired BPMH and discrepancies recorded for analysis. Results from the study showed that the accuracy of BPMH collection by the multidisciplinary team was 11.5% (7/61) and 81.6% (31/38) for the pharmacy technicians. The 61 BPMH forms completed by the multidisciplinary team consisted of a total of 366 medication orders. Accuracy of medication name, dose, route, frequency and time of last dose was 99.7% (n=365), 91.0% (n=333), 93.2% (n=341), 89.6% (n=328), and 77.9% (n=285), respectively. Forty BPMH forms contained a total of 92 omitted medications. The 38 BPMH forms completed by pharmacy technicians contained a total of 477 medication orders. Accuracy of medication name, dose, route, frequency and time of last dose was 100% (n=477), 99.2% (n=473), 99.8% (n=476), 99.4% (n=474), and 98.7% (n=471) respectively. Three BPMH forms contained a total of 4 omitted medications.

This study demonstrated that there is room for significant improvement with the current process of BPMH collection, and based on performance during the pilot project, the utilization of pharmacy technicians would serve to increase the quality of BPMH collection within the ED.

Since completion of this study, our department has been able to secure additional funding for the hiring and training of pharmacy technicians for the purposes of BPMH collection within the Pasqua Hospital ED, as well as expansion to the ED of the Regina General Hospital.