Adverse drug events are a serious patient safety problem, affecting 5% to 40% of hospitalized patients (1) and appropriate medication reconciliation is a major intervention done to reduce the burden of medication discrepancies and medication errors during transitions of care. More than half of the patients admitted to the hospital have ≥ 1 unintended medication discrepancy at the time of admission (2). Numerous studies have shown that medication errors impact unplanned use of health care (3,4,5). For example, Coleman et al. reported that patients with medication discrepancies have significantly higher rate of readmission compared to those without such discrepancies (6).

We conducted a cohort study followed by a pre-post analysis of an intervention performed on an academic medicine hospitalist service. Pre-intervention retrospective chart review was done on 218 general medical/surgical patients admitted to the hospitalist service from September to October 2017. The intervention included performing daily audits of all new admissions (average 6-9) Monday through Friday followed by sharing of the reports with the chief resident on a weekly basis to provide feedback to service teams. To keep the project sustainable collecting variables were kept to five without any PHI data. The variables records were:

1: Admission date (month/date/year)
2: Medication reconciliation complete? (Y/N)
3: If not completed, admitting provider name
4: If not completed was a reason documented in H&P (Y/N)
5: Comments, if any

Post-intervention review was performed longitudinally from July to October 2018 on 690 admissions. Weekly reports identified all non-compliant providers and persistent low performers were given weekly feedback by the chief resident. For those admissions where AMR was not done the admits were asked to mention the reason in the H&P to alert the rounding resident in order to prevent patient safety issues.

Among 908 general med/surg. chart review, the admission medication reconciliation compliance rate was 96/218 (forty four percent) in the pre-intervention group as compared to 556/690 (eighty one percent) in the post-intervention group. There was an increase of 37 percentage points in the post-intervention cohort. The relative risk of non-compliance in the post-intervention group was 0.44 (95% CI: 0.35-0.54, p-value: <0.0001). The post-intervention group was 44 times less likely to have an admission med rec. incomplete. The most common barrier identified during the study was either lack of admitting provider recognition of the importance of AMR or lack of knowledge of the process to correctly complete the medication reconciliation. In few cases medications were ordered separately then through the admission med rec. clinical decision tool leading to process non-compliance.

Medication reconciliation has been incorporated in The Joint Commission National Patient Safety Goal #3 since July 2011, “Improving the safety of using medications”. The National Patient Safety Goal requires that organizations "maintain and communicate accurate medication information" and "compare the medication information the patient brought to the hospital with the medications ordered for the patient by the hospital in order to identify and resolve discrepancies." Our project demonstrates a sustainable and successful way to increase compliance of admission medication reconciliation in a relatively short period of time (4 months) on an academic medicine hospitalist service.

REFERENCES


