33 IMPROVING REPORTING OF MEDICATION ERRORS AT AL-WAZARAT PRIMARY HEALTHCARE PHARMACY OF PRINCE SULTAN MILITARY MEDICAL CITY (PSMMC), RIYADH, SAUDI ARABIA

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Background It has been found that around 70% of medication errors (MEs) have been corrected by pharmacists; however, the pharmacists did not report the MEs to the safety reporting system. When we analyzed the existing data, we noticed that the current reporting of MEs by pharmacists was zero, even though the benchmark for the 8-hour shift is estimated to report at least five MEs per day. Thus, we decided to develop an improvement project aiming to increase the number of MEs reported to 64 by November 2018 in Al-Wazarat Primary Healthcare Pharmacy of Prince Sultan Military Medical City (PSMMC).

Methods This quality improvement project was done at Al-Wazarat (Primary Healthcare Pharmacy) at PSMMC. The Quality Team (QT) has been formulated and started analyzing the reporting data available in the pharmacy department. Data showed there is a huge gap between the number of MEs corrected by pharmacists and their reporting behavior. Then the QT conducted several sessions using quality tools, such as process mapping, brainstorming, and cause-effect techniques, to explore the possible factors causing pharmacists to not report MEs. Several PDSA (plan-do-study-act) cycles were used to test ideas for change, including redesigning the ME form to simplify and standardize the reporting process of MEs. The impact of such an intervention had been assessed using the process and outcomes measures. The final results have been analyzed and presented using a run chart.

Results The implementation led to remarkable improvement. In November, 130 MEs had been reported by pharmacists, which exceeded our goal for ME reporting in the Al-Wazarat Primary Healthcare Pharmacy. The number of MEs reported increased from zero in October (before the intervention) to between five and ten MEs reported per day during the month of November after the intervention. Also, the percentage of pharmacists who became active in reporting MEs improved after several PDSA cycles had taken place.

Conclusion Simplification and standardization of the ME form has led to an increase in the reporting of MEs among primary healthcare pharmacists. However, such an intervention might not be sufficient to sustain the pharmacists' new reporting behavior without making such change a part of the pharmacy management safety system. Thus, before spreading these initiatives to another primary healthcare pharmacy, further testing among other pharmacies in a different setting is highly recommended.

34 ACHIEVING AND SUSTAINING ZERO CLABSI EVENTS IN ONCOLOGY PATIENTS BY IMPLEMENTING TARGETED INTERVENTIONS

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Background Central line–associated bloodstream infections (CLABSIs) are one of the potentially life-threatening complications that occur in patients with cancer. Central lines are usually required in these patients for prolonged durations. The purpose of this study was to identify and implement multiple interventions for the prevention of CLABSIs in patients with cancer.

Methods A multidisciplinary taskforce was created to identify and implement evidence-based interventions to achieve a target of zero CLABSI in both adult and pediatric oncology patients. Monitoring of CLABSI and central line bundle also continued as it was being done before creation of the taskforce. These interventions included mandatory educational sessions, use of a dedicated trolley for central line use only, patient and family education on care of central lines, chlorhexidine bath before insertion of central lines, review of staff competency on handling central lines, and improvement in the completion of central line bundle. These interventions were introduced at three levels of line management: pre-insertion, during insertion, and post-insertion of central lines. Data were collected on a daily basis with analysis and reporting on a quarterly basis.

Results In adult patients, the quarterly rate of CLABSI in the four quarters of 2017 was 1.9, 1.9, 1.3, and 2.1 per 1000 central line days, respectively. The overall annual rate in the year 2017 was 1.8 per 1000 central line days with a total of seven CLABSI events and 3875 central line days. For pediatric patients, the quarterly rate of CLABSI in the four quarters of 2017 was 1.3, 1.2, 1.2, and 1.1 per 1000 central line days, respectively. The overall annual rate in the year 2017 was 1.2 per 1000 central line days with a total of eight CLABSI events and 6638 central line days. As a result of the interventions, no CLABSI events were observed in either adult or pediatric patients in the first two quarters of 2018.

Conclusion A collaborative effort by the dedicated multidisciplinary team resulted in achieving zero CLABSI. The targeted interventions resulted in achieving the ultimate goal of zero CLABSI and sustaining it for 6 months in high-risk oncology patients.

35 RISK FACTORS FOR ACQUISITION OF MULTIDRUG-RESISTANT GRAM-NEGATIVE BACTERIA IN A TERTIARY CARE HOSPITAL IN SAUDI ARABIA: A CASE-CONTROL STUDY

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Background The increase in incidence of multidrug-resistant (MDR) organisms, especially gram-negative bacteria, in healthcare facilities is a serious cause of concern worldwide. This study was done at King Abdulaziz Medical City, Jeddah, a tertiary care hospital. The World Health Organization has published a priority pathogens list of antibiotic-resistant bacteria. The priority pathogens have been categorized into three major priorities (i.e., critical, high, and medium). The critical priority pathogens include common gram-negative bacteria (GNB) such as carbapenem-resistant Acinetobacter baumannii, carbapenem-resistant Pseudomonas aeruginosa, and carbapenem-resistant and third-generation cephalosporin-resistant Enterobacteriaceae such as Klebsiella pneumoniae and Escherichia coli. The