Solution: Raising the Bar: Improving Medication Administration Safety Among CMAs in Hospital Owned Physician Practices

Organization: Franklin Square Hospital Center
Type: Hospital Affiliated Ambulatory Sites
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IDENTIFICATION:
Upon review of nursing orientation practices, it was identified that there were inconsistencies in medical administration practices between Registered Nurses (RN) and Certified Medical Assistants (CMA). For example, RNs new to the institution must pass a pharmacology exam prior to the start of work on their unit. This standard did not exist for the CMA. Hospital-owned but physician directed practices had independent control over how medication safety was taught in their departments. Additionally, it was identified that three local Certified Medical Assistant programs included medication administration and medication safety in their program, but this was not a strong focus and was not specifically evaluated in CMA required internships. It was further identified that there were two medication errors within a six-month timeframe involving the CMA, which had potential to jeopardize patient safety.

A literature review reveals little research in the area of ensuring medication administration safety for CMAs, specifically in the area of dosage calculation and verification.

PROCESS:
To resolve the potential problem of inadequate educational preparation and lack of competency it was initially suggested that CMAs take the same pharmacology exam as new RNs. However, review of the exam revealed much of it to be not applicable to CMA scope of practice. For example, questions related to PCA pumps, Insulin Administration, and I&Os were irrelevant in an outpatient setting. The decision was made to maintain a similar format and policy content but to develop an exam that would better capture a CMA’s baseline knowledge.

Collaboration with the Department of Professional Development, the Nurse Educator Council, and Clinical Coordinators from other MedStar Health sites occurred to identify needs, risk and the preferred formatting for a drug dose calculation exam. Informal polling of 13 CMAs in our organization revealed a wide variety of knowledge of safe practices and pharmacology information. Many stated that this information may have been covered in school but since it was not being applied to their practice, they had forgotten much of what they learned in training. In addition, 100% of the staff polled revealed that they had never checked the calculation of a drug dosage in an outpatient setting, and that they simply gave the patient whatever medication and amount the doctor requested. Surveyed CMAs were asked to perform a simple conversion of kilograms to pounds, and to calculate a rudimentary formula using dosage and tablets, and were unsuccessful.
SOLUTION:
It was evident that current and newly hired CMA’s needed more education related to medication safety and medication administration. A team was assembled including educators and clinical coordinators to develop a program for CMA orientation that included four components of Medication Safety in the outpatient setting: 1) Medication Administration: Ins & Outs of Medication Safety (5 Rights); 2) Injection Safety; 3) Medication & Vaccine Storage & Preparation; and 4) Drug Dose Calculation. This program was piloted during hospital orientation over four months to seven new CMAs. A fifth session included a work study group for drug dose calculation, which allowed the CMA to practice calculations with opportunity for questions and remediation. Strong content emphasis was placed on utilizing appropriate resources (such as the Nursing Drug Handbook), confirming all medication orders using the “5 Rights”, and acting as a patient advocate to challenge any order deemed questionable. CMAs were empowered and given the expectation that their role is to protect the safety of the patient by working collaboratively with the physician to ensure each medication order is safe.

A new, outpatient-specific pharmacology exam was developed and reviewed by the Professional Development Department and the Nurse Educator Council for content related to FSHC policies and procedures. Newly hired CMAs were required to take the CMA pharmacology exam prior to reporting for unit-based orientation. To pass, a score of 90% or better was required for the policy & information portion, and a score of 100% was required for the drug dose calculation portion. After completing the five sessions in medication safety and administration described above, all seven CMAs in the pilot passed the exam on their first attempt.

Post-education surveys scored a mean of 3.5 or higher (on a Likert scale of 1-4) for satisfaction related to this program. A score of “Very Confident” was achieved from all orientees on the question: “How confident do you feel in your ability to use these concepts and skills after completion of the presentation?” A score of “Strongly Agree” or “Agree” was achieved from all orientees on the question: “Participation in this orientation will enhance my ability in my role”.

The educational program is now being presented to existing CMAs in all 28 outpatient sites affiliated with our hospital. Passing scores will be required in order for existing CMAs to continue to administer medications in their department. Physicians and nurses are being educated to expect that all CMAs will verify and calculate medication orders and challenge the physicians if necessary. Six months after implementation, CMAs will be re-evaluated for knowledge base and compliance with these expectations. We anticipate this re-evaluation will reveal additional learning deficits requiring intervention. Physicians and nurses will also be surveyed related to their observations of the CMAs knowledge level and participation in expected practices. Additionally, medication errors in the outpatient setting will be monitored.