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Improving Patient Safety by Decreasing Specimen Labeling Errors

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Problem and Background

- Quality patient care begins with patient safety and the accuracy of specimen labeling is an essential component.
- In 2012, a significant increase in specimen labeling errors was reported at Sentara Princess Anne Hospital (SPAH).
- Specimen labeling errors were reported on different units, which raised awareness of the need for evaluation of the root cause(s) of the issue.
- Specimen labeling errors were largely related to specimen labeling practices used by nursing staff. Practice variation in three specific areas was noted: (1) following policies and procedures; (2) recognizing potential harm to patients; and (3) attention to detail.
- Specimen labeling errors included the following:
    - Multiple patient labels were placed in the same specimen bag;
    - Patient transmittal forms did not match the patient label on specimen tubes;
    - Labs were drawn without an active physician's order;
    - Patient labels were placed on tubes without two staff signatures;
    - Date and time the labs were drawn was omitted.
- The laboratory department staff was instrumental in identifying the errors before actual harm occurred or results were reported on the wrong patient.

Significance

- Specimen labeling errors are a major focus and challenge for hospitals. Inappropriate therapy or delay in treatment can occur as a result of labeling errors.
- Specimen labeling errors generally occur outside the laboratory, cause significant patient inconvenience or harm, and can be costly. Accurate diagnostic information depends on the correct identification of the specimen at the point of collection.
- Multiple parties are affected by labeling errors including the patient whose treatment is dependent on the results, the patient who may receive the wrong results leading to a misdiagnosis, and the health care workers directly involved in the collection process.

Objectives

- This study explored specimen labeling errors to identify areas for improvement around specimen labeling practices of the nursing staff in the inpatient units. Differences in specimen labeling errors following implementation of an interactive education program were also explored.

Population

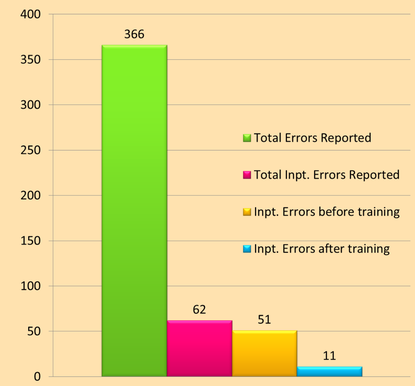
- The sample population included specimen labeling errors that occurred at SPAH between January 2012 and March 2013. January 1, 2012 through November 19, 2012 was designated the pre-implementation period. November 20, 2012 through March 31, 2013 was designated the post-implementation period.

Method

- This was a descriptive study using secondary data analyses of medical records and quality audit records for specimen labeling errors occurring at SPAH (January 2012 through March 2013).
- Interactive education sessions were offered on November 12th, 15th and 19th of 2012 by the Nurse Educators to the licensed nursing staff and nursing care partners working in the inpatient units.
- A total of 210 nursing staff participated in the education. The sessions provided an opportunity for Nurse Educators to evaluate the current practices used by staff to label specimens. Nurse Educators used an informal format for the education which included the following processes:
    - Supplies were made available to simulate actual bedside labeling skills.
    - Immediate feedback was given to the staff in regards to what steps were performed correctly and those that needed improvement.
    - The importance of paying attention to detail was reinforced. The policy and procedure for specimen labeling was also reviewed with the employees.
    - The potential for harm to the patient related to an unnecessary second lab draw was reviewed with the staff.
    - The laboratory participated in the training sessions as well. They were able to provide examples of the misidentified specimens in the laboratory from the units.

Results

- A total of 366 specimen labeling errors were reported between January 2012 and March 2013. Approximately 16.9% (*n*=62) were inpatient unit errors. Almost 80% (*n*=291) were reported prior to the interactive education with 20% reported after the training was completed. Of the 291 errors reported prior to training, 51 (17.5%) were from the inpatient units. Of the 75 errors reported after training, 11 (14.7%) were from the inpatient units.



Conclusions

- Although the time period prior to training was longer than the time period after the training for the study, major improvements have been noted, not only in the number of errors reported, but also in the behavior and attitudes of the staff. They are adhering to the policy and procedures for labeling specimens and holding each other accountable. The goal is to have no specimen labeling errors, but people are human and unfortunately mistakes will happen. The continued reinforcement of doing what is right at all times for the sake of the patient is an ongoing process.

References

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