

Background

Patient safety events in nuclear medicine can lead to negative outcomes including patient harm and death. Various methods are used by nuclear medicine facilities to help reduce the amount of patient safety events. The aim of this study is to provide some insight into the policies, procedures, and technologies being used by these facilities and their reported number of patient safety events within the last year.

Objectives

- 1) To determine the number of patient safety events that are occurring in nuclear pharmacies and nuclear medical departments.
- 2) To identify the procedures and systems that have been implemented to help minimize patient safety events.

Methods

This study followed a retrospective, cross-sectional design and data was obtained using a survey. Nineteen locations containing either a nuclear pharmacy or nuclear medicine department were asked to participate in the survey. The survey included multiple choice, select all that apply, fill in the blank, and short written response questions.

Figure 1.1 Patient safety survey

Patient Safety Survey

1. Are you a nuclear medical department (hospital) or nuclear pharmacy?
2. What system(s) does your department have in place currently to help minimize patient safety events as is relates to vial mix-ups during kit compounding and dose drawing?
3. Has your department identified any patient safety events within the last 12 months? (If no skip to the last question) Mark only one oval.
4. How many patient safety events has your department identified in the last 12 months?
5. What kits were involved in each patient safety event?
6. Briefly describe the patient safety event(s).
7. At what point was the safety event identified? (select all that apply)
 - Kit compounding
 - Dose drawing
 - Quality control
 - Product Check-in
 - Patient Administration
 - Post Administration
8. How many patient safety events were identified post administration?
9. What suggestions do you have that could help reduce patient safety events relating to vial mix-ups during kit compounding and dose drawing?

Results

- The response rate for this survey was 42%, as eight pharmacists from different locations completed the survey. The most common methods reported for minimizing patient safety events included bar code technology and a form of labeling system. Of the eight responses, only two facilities reported safety events in the past 12 months.
- Neither of the facilities that identified patient safety events in the past 12 months reported using bar code technology.
- The patient safety events reported did not result in patient harm, as they did not reach the administration step.

Limitations

- Possible limitations exist within the results and responses of the survey. The sample size was limited at eight participants which may not adequately represent the nuclear pharmacy population as a whole.
- There is also the potential for response bias within the survey responses.
- The design of the survey allowed for the participants to skip questions if they reported their site had not experienced any patient safety events within the last year.
- many of the written responses were limited to once sentence or phrase, which limited the amount of information we were able to extract from multiple responses.