

## **Quality Improvements Through Direct Patient Pretest Communication**

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**Objectives:** The purpose of this paper is to discuss how to improve the quality of nuclear medicine testing, reduce waste of materials and personnel time, and increase rapport with patients by assuring that test information is provided to them prior to the scheduled examination.

**Methods:** A pilot study was conducted to communicate test information directly to outpatients. Telephone calls were made to outpatients on the days immediately prior to their scheduled tests. This contact was used to verify the appointment time and date, ensure that the patient was aware of the proper dietary instructions and any medication restrictions, and to provide basic test information requested by the patient.

**Results:** Direct outpatient pretest contacts detected many conditions that would have been problems if not corrected before the arrival of the patient in the nuclear medicine department. In a review of 1378 outpatient telephone contacts, a total of 78 problems was identified that would have affected the efficiency and/or the quality of the examination.

**Conclusions:** Using direct patient pretest communication is an effective way to detect problems, improve test quality, establish professional credibility with patients and prevent test postponements and cancelations due to contraindications of diet, medications or physical constraints.

**Key Words:** quality improvement; pretest contact; proactive quality assurance; direct communication

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The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) published a document titled "Quality Assessment and Improvement" as part of its 1993 *Accreditation Manual for Hospitals (I)*. This guideline describes principles and standards that were developed to encourage hospitals to expand their quality assessment and process improvement programs. This continuous quality improvement (CQI) philosophy emphasized improvements to the testing process, testing efficiency and initiation of corrective action and follow-up when a problem was identified.

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As in most complex scientific work, a series of interrelated steps must be completed flawlessly to attain the goal of 100% quality for nuclear medicine patient procedures. Assessments and quality improvement activities in nuclear medicine should be carried out to continually increase the probability that the entire test procedure will be conducted under optimum conditions. Patients desire the best quality and are usually eager to comply with testing protocols when they are made aware of the pretest preparations and any special requirements.

We analyzed the difficulties we experienced with tardy and no show patients, improper patient preparation and drug treatment contraindications. The assessment showed the root cause of most of the problems was insufficient information given to the patients prior to their arrival in the nuclear medicine laboratory. Occasionally, we found that even fundamental instructions had not been communicated to patients.

### **MATERIALS AND METHODS**

The outpatient appointment list was used to obtain patients' home and work telephone numbers. Telephone calls were placed during routine work hours by the nuclear medicine technologists. These outpatient contacts were made one or two days prior to the scheduled test. If the call was taken by an answering device, a brief message was given along with a request that the patient return the call. Business or work phone numbers were used as a secondary attempt to talk with the patient. Records were kept of calls, unusual situations that were discovered, corrective actions and final outcomes. The only extra resource required to implement the project was a small increase in the number of monthly long-distance telephone tolls.

### **RESULTS**

In a review of 1378 outpatient telephone contacts, a total of 78 (5.7%) conditions and problems were identified that would have become errors and decreased the efficiency and quality of the scheduled examination. Some of the problems,

**TABLE 1***Types of Problems Identified*

1. Patient had not discontinued contraindicated drugs.
2. Patient had not been instructed to fast prior to test.
3. Patient had not been informed that the test had been scheduled.
4. Test had been scheduled incorrectly by the scheduling service.
5. Patient was not informed of the interval time between injection and imaging.
6. Appointment time was not satisfactory to the patient.
7. Parent desired heparin lock for her child (the patient); the order had not been given.
8. Patient was deceased but appointment had not been canceled.
9. Prescription for interventional drug had not been given to the patient.
10. Pediatric patient had known difficulty in swallowing capsules and pills.
11. Follow-up appointment with the referring doctor was made for the same time as the delayed imaging.
12. Wrong test was scheduled—iodine uptake instead of therapeutic dose of iodine.
13. Sedative orders were not given.
14. Patient thought test was to be conducted at another hospital.
15. Patient wanted to have test performed at another hospital due to medical insurance stipulations.
16. Patient unaware of need to return the following day.
17. Test was canceled but nuclear medicine department was not informed.

if allowed to progress, would have resulted in test postponement or cancellation after the patient had arrived in the nuclear medicine department. Problems were categorized into 17 classes or types (Table 1). Five of these problems were of a nature that would have resulted in a missed appointment.

Assessment of the data from the pilot program indicated that early detection of problems had increased the quality of outpatient diagnostic procedures. Work efficiency had been improved and a reduction in material waste was achieved. The telephone calls were all made by technologists and the

average amount of time each patient contact required was 3.5 min. This daily time commitment did not interfere with other job duties. The pretest contact provided an opportunity to give the patient other assistance, such as the best travel routes to the medical center and to inform them of special situations that existed due to construction sites on the campus. Positive comments made by many patients at the conclusion of the call clearly showed that they appreciated the opportunity to ask questions. Customer satisfaction survey results have indicated that patients view this activity as a courtesy. The direct communication enhanced the image of the nuclear medicine department and the medical center.

**DISCUSSION**

Since the pilot project favorably increased the quality of outpatient tests and the professional and efficient operation of the department, direct pretest contacts have been continued as a routine activity. A call log form is now used to document identified problems and to provide data that can be analyzed for trends. The ability to demonstrate reductions in waste is usable justification to increase the communication (telephone) budget.

Patients and their referring physicians expect nuclear medicine procedures to be performed punctually, accurately and in a professional manner. A nuclear medicine direct patient pretest communication program is proactive quality improvement because unusual situations and problems are detected and corrected before they cause errors. This activity was performed in conjunction with the Iowa Health System's Quest for Quality program. This is an effective use of resources, partially satisfies accreditation requirements and is a step in reaching complete patient and physician satisfaction.

**REFERENCE**

1. Joint Commission for Accreditation of Healthcare Organizations. Quality assessment and improvement. *Accreditation manual for hospitals*. Oakbrook Terrace, IL: JCAHO; 1993:1S-25S.