Problem: Patients hospitalized for radioactive iodine therapy have comorbidities that interfere with the elimination of the radioactive isotope through the kidneys and lungs. The decompensated physical status of these patients places them at higher risk for falls and injuries. This risk is compounded by the standard practice of placing absorbent paper on the floor to prevent contamination from the isotope being excreted through sweat on the patient’s feet. After 24 hours, these papers tear and clump on the floor presenting another fall hazard. Rooms were frequently out-of-service for weeks because the radiation had not decayed to a safe level.

Evidence: Evidence supporting this practice has been generated from industrial guidelines.

Strategy: Obtain an effective barrier for the floor that would not increase a patient’s risk for falling.

Practice Change: Black 3’ by 6’ mats were purchased. The mats have reflective yellow stripes on the edges. The mats were placed on the floor around the bed and in the bathroom under the sink and toilet.

Evaluation: Patients reported that the reflective yellow stripes helped them with their depth perception at night, and that they had more traction when they walked to the bathroom or chair.

Results: During the nine months of this project, none of the radioactive iodine patients have fallen. Rooms that had the mats used were released for patient care in six hours or less compared to several weeks when paper was used.

Recommendations: Using mats as a protective and absorbent barrier on the floor appears to be a safer alternative to absorbent paper, and provides more efficient use of beds.

Lessons Learned: The greatest challenges were with storage and cleaning of the mats. The mats were stored in a lead lined room as they decayed. Once the mats were radiation free, housekeeping cleaned them and then stored them in a clean supply room.

Bibliography: