Medication Safety in Radiology Department

Annual Maryland Patient Safety Conference

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Learning Objectives

- Describe steps developed and review the process for administration of contrast media
- Identify improvements made and the monitoring process in medication reconciliation in the Radiology Department
Radiology Departments

- CT Scan
- Diagnostic Imaging
- Ultrasound
- MRI
- Nuclear Medicine
- Interventional Angiography
- Radiology Recovery

Meeting TJC Standards

- Radiologist (LIP), is responsible for ordering Contrast Media using standard protocols.

- Patients are assessed to determine eligibility for Contrast Media using the “Contrast Media Administration History.”

- Information for injection of Contrast Media form signed and witnessed prior to the procedure.
Contrast Administration

- Screen patient for contrast administration
- Protocol for IV contrast administration
- Process for patients who are taking medications containing metformin
- IV contrast reaction
- Process for IV infiltration
- Staff education

Contrast Reaction Quality Indicator

- Radiologist/Nurse/Technologist
- Screening form
- Was patient high risk?
- Was patient pre-treated?
- Multiple reactions/contrast specimen checked
- Patients record labeled
- Follow-up/patient teaching
Contrast Infiltration

- Radiologist/nurse role
- High risk for infiltration
- Review policy/practice
- Institute treatment protocol
- Review process with technologist
- Yearly IV/Contrast competencies with return demonstration

Contrast Indicators

![Bar Chart]

- Infiltrations
- Reactions
- Data for each month from January to December
Gadolinium administration

- Gadolinium administration to patients with a creatinine greater than 4.0 mg/dl if on dialysis protocol
  Patient not on dialysis protocol, the administration will be at the radiologist’s discretion
- Gadolinium will not be administered to patients with a GFR less than 30 ml/min

Pharmacist Roles

- Review of process and protocol
- Routine monitoring of medication storage areas
- Daily Rx check on medication dispensing cabinets
- Assist with development of protocols
- Chart review of patient receiving contrasts
Medication Labeling

- Basin, bowls or cups on sterile field labeled with name of medication, concentration amount and date.
- Labeled syringes are dated and timed if not used within 24 hours
- Medications are verified by 2 individuals

Medication Labeling

- All original containers remain in the area until procedures are completed
- At change of shift/break relief all medications and solutions are reviewed by entering and exiting staff
- All unlabeled medications found in the area are discarded.
Medication Labeling

Retrospective Chart Review

- Random Chart audit of patients who received contrast dye
- Review is performed by a pharmacist
- Report presented to Radiology Department and P&T Committee
Retrospective Chart Review

CT Chart Review 2007

- ADE, 1
- No ADE, 63

Medication Reconciliation

- Review of list of current medications
  - Technologist, nurse and physician review
  - Encourage patients to use medical information card
- Review of medications prior to discharge
- Notification to physician for change in medications
# Medical Information Card

**Suburban Hospital\(^1\)**

301-990-3330

To provide you with the highest quality of medical care, it is important that your healthcare provider know which medications you regularly take, including prescription, herbal or vitamin supplements, patches, or even over-the-counter medications (such as extra pills or aspirin).

**Name:** Jane Doe  
**Phone:** 301-994-3371  
**Birth Date:** 1/3/57

**Address:** 1232 Doe St., Bethesda, MD 20814

**Emergency Contact Name/Phone Number:** John Doe  
**Phone:** 301-994-3151

**Date of Penicillin Allergy:** 10/31/96  
**Date of Last Tetanus Shot:** 10/31/01

**Do you take any medications that contain aspirin or ibuprofen?** Yes

**Doctor’s Name/Phone Number:** Dr. J. Smith  
**Specialty:** Internal Med  
**Name/Phone Number:** Dr. R. Brown  
**Specialty:** Psychiatry

<table>
<thead>
<tr>
<th>I am allergic to these medications/my reaction is</th>
<th>I am allergic to these medications/my reaction is</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. PENICILLIN</td>
<td>RASH</td>
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<tr>
<td>2.</td>
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<td>3.</td>
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### Questions?

![Questions?](image-url)