Implementing Low Dose Principles with Fluoroscopically Guided Interventional Procedures

3. MEASURE - Education Data

Inpatient: Dose Tracking Committee
- Dose tracking quarterly report
- Dose reduction initiatives
- Standardization of practices
- Quality improvement initiatives

Outpatient: Dose Tracking Committee
- Dose tracking quarterly report
- Dose reduction initiatives
- Standardization of practices
- Quality improvement initiatives

The fluoroscopy process was reviewed in order to identify leaks where dose could be reduced. The image quality, the average dose for the 1,120 angiograms was 1.5 mSv.

5. ADDENDUM - Inpatient Dose Analysis

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Dose (mSv)</th>
<th>Number of Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiology</td>
<td>2.5</td>
<td>100</td>
</tr>
<tr>
<td>Radiology</td>
<td>1.2</td>
<td>200</td>
</tr>
<tr>
<td>Surgery</td>
<td>1.8</td>
<td>50</td>
</tr>
</tbody>
</table>

These graphs reflect consideration: planning, technical intensity that is achievable. Improvements that are on skin dose came in the past year.

8. CHALLENGES - Patients with Multiple Episodes of Fluoroscopy

- Increase in fluoroscopy time
- More complex cases
- Increased patient risk

Patients with Large AP Dimensions
- Large body habitus results in reduced fluoroscopy exposure
- Use of larger field of view
- Reduction in ionizing radiation exposure

About 10% of patients undergoing fluoroscopy have multiple episodes. The goal is to minimize radiation exposure in these patients.

5. TECHNIQUE - Dose Reduction Techniques

- Proper patient positioning
- Use of low kVp technique
- Use of higher mAs
- Minimize fluoroscopy time

Patients with Multiple Episodes of Fluoroscopy
- Use of dedicated fluoroscopy equipment
- Use of electronic dosimetry
- Use of radiation protection measures

About 10% of patients undergoing fluoroscopy have multiple episodes. The goal is to minimize radiation exposure in these patients.