Overview
The Joint Commission (JC) has identified that ineffective communication has been the root cause for sentinel events compromising safe patient care. To that end, a National Patient Safety Goal (NPSG) requires a “handoff” communication when care is transferred from one clinician to another.

NPSG Requirement
Implement a standardized approach to “handoff” communications, including an opportunity to ask and respond to questions.

Rationale
The primary objective of a “handoff” is to provide accurate information about a patient’s care, treatment, and services, current condition, and any recent or anticipated changes. The information communicated during a handoff must be accurate in order to meet patient safety goals.

In health care there are numerous types of patient handoffs, including but not limited to nursing shift changes; physicians transferring complete responsibility for a patient; physicians transferring on-call responsibility; temporary responsibility for staff leaving the unit for a short time; anesthesiologist’s report to post-anesthesia recovery room nurse; nurse-to-nurse report for patients requiring radiographic or imaging procedures; nursing and physician handoff from the emergency department to inpatient units, different hospitals, nursing homes, and home health care; and critical laboratory and radiology results sent to physician offices (The Joint Commission, 2009).

Target Audience
Imaging/ PACU nurses sending and receiving patients from the imaging department who have undergone general anesthesia.

Content/Strategies
In order for effective hand off communication to occur, a rudimentary understanding of the procedure must be known. Standardized methods of communication are also important to ensure vital information is not overlooked or forgotten. SBAR (Situation, Background, Assessment, and Recommendation) will be the approved format to ensure standardization of communication. The JC also states that the ability to ask and respond to questions is required for effective communication (see Table 1).

The post-procedure SBAR hand off includes but is not limited to the following:

Situation
Name, allergies/alerts, primary physician, diagnosis, pertinent past medical history (e.g., diabetes, pacemaker, hard of hearing, blindness), isolation precautions, and procedure performed

Background
Drains/catheters/ incision/puncture site (groin site); local anesthesia used and amount; any special equipment used (e.g., coils, stents)
Assessment (post procedure)
Current vital signs, medications given—dose, time; neurological status (may include NIH scale), cardiac, respiratory, CSM-including peripheral pulses, and pain status; IV status: site, intake and output, EBL, type, and amount of contrast given

Recommendations
Concerns, treatments/medications due, unit patient is to be transferred to after recovered, discharge status, family notification

Reference

Suggested Reading

Procedure grid. Virginia Mason Hospital, Seattle, WA. Copyright 2008. Reprinted with permission.

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Reviewers: ARIN Board of Directors

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# Imaging Post Procedure Plan of Care (Table 1)

Accompanies ARIN Handoff Communication Concerning Patients Undergoing a Radiological Procedure with General Anesthesia Clinical Practice Guideline

<table>
<thead>
<tr>
<th>Arterial Access Procedures</th>
<th>Drains and Tubes</th>
<th>Biopsies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cerebral / Visceral / Thoracic Diagnostic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intracranial Angioplasty / Stent / Coil / Embolization</td>
<td></td>
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<tr>
<td>Carotid Stent</td>
<td></td>
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<tr>
<td>Visceral / Thoracic Angioplasty / Stent</td>
<td></td>
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<tr>
<td>Aorta with Run-off / Angioplasty / Stent</td>
<td></td>
<td></td>
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<tr>
<td>Visceral / Thoracic / Uterine Embolization</td>
<td></td>
<td></td>
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<tr>
<td>Bland / Chemo Embolization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percutaneous Biliary / Nephrostomy / Abscess or Fluid Collection</td>
<td></td>
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<tr>
<td>Gastrostomy Tube Placement</td>
<td>Lung</td>
<td>Thyroid / Bone / Lymph Node / Parotid</td>
</tr>
</tbody>
</table>

**Length of Recovery**
- 2-6 hours (Variable. Dependent on procedure and MD. 4-6 hours if outpatient; however, patient may be admitted. Review physician orders.)
- 0.5 - 1.0 hours (2 - 4 hours or overnight)
- 1-2 hours (0.5 - 1.0 hours)
- 3 - 4 hours (Bed rest 4 hours after procedure end)

**Activity**
- Bed rest for 4-6 hours after hemostasis achieved following sheath removal. May raise HOB to 30° after 1 hour. Affected leg must be kept straight. If closure device used, may be up after 1-2 hours (see closure device protocol).
- Ad lib when stable.
- Ad lib when stable.

**Potential Complications and Management**

- **Embolic Stroke (for cerebral)**

- **Hemorrhagic Stroke from anticoagulation**
  - Immediate head CT. Immediate transfer to critical care unit. Monitor neuro status.

- **Hypertension, bradycardia**
  - Fluid challenge if appropriate. Monitor VS. Anticipate meds (ephedrine, atropine, Subadrenal)

- **Unresolved Bleeding**
  - Monitor VS. Anticipate repeat procedure for GI bleeds. Administer blood products as needed.

- **Clotting of stent**
  - Be aware of possible orders for Plavix or ASA

- **Bleeding or thrombosis at arterial puncture site.** Pseudo aneurysm. Retroperitoneal bleed.

- **Sepsis**
  - Observe for fever, rigors, hypotension, tachycardia, pain. Anticipate antibiotics if not already given, or inpatient admission.

- **Pseudomonas**
  - Observe for SOB, Chest X-Ray 1 hour post. NPO until chest X-ray cleared by MD. Anticipate chest tube placement.

- **Pulmonary**
  - Do not use tube for 24 hours

- **Bleeding**
  - Rare, observe

- **Internal bleeding from biopsy.** Observe for abd pain, hypovolemia. Treat for shock. Foss. HCT 3 hours post.

- **Pain at puncture site.** Refered pain (shoulder) with liver biopsy.
  - Medicate with analgesic. Right side-lying position may benefit liver biopsies.

**Clotting of stent**
- Be aware of possible orders for Plavix or ASA

**Special Considerations**
- General anesthesia - critical care unit admission required.
- Often critical care unit admission.
- Thrombolytic infusion may be needed - will require critical care unit admission.
- See Chemo Embol Orders
- Do not use 3-way stopcock or aspirate after flushing. Do not flush nephrostomy tubes.
- Recommend non-ASA medications (e.g., Tylenol) for pain X 24-48 hours post-procedure, if necessary.

**Patient Teaching**
- Give angiogram instruction sheet. Drink extra water (double usual amount) for 24 hours.
- Hold Metformin containing medications for 48 hours after procedure.
- Provide drain care instructions and supplies.
- Give Gibe instruction sheet. Fu in 2 ws for suture removal. Nutrition Consult
- Give lung biopsy instruction sheet.
- Give needle biopsy instruction sheet.

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<table>
<thead>
<tr>
<th>Venous Access Procedures</th>
<th>IR Other</th>
<th>GI Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Venogram / NCV Filter / Petrosal or Adrenal Sampling</td>
<td>Foreign Body Retrieval</td>
<td>PICC lines and Central lines</td>
</tr>
<tr>
<td>Length of Recovery</td>
<td>2 hours</td>
<td>2-4 hours</td>
</tr>
<tr>
<td>Activity</td>
<td>Bed rest 2 hours if femoral access. HOB to 30° after 1 hour. Immediate HOB up 45° if jugular access.</td>
<td>Ad Lib when stable.</td>
</tr>
</tbody>
</table>

### Potential Complications and Management

- **Bleeding at puncture site**: Check site and apply pressure adequate to stop bleeding if needed.
- **Pain**: Notify MD for pain meds if needed.
- **Bleeding**: Observe for change in VS. Notify MD.
- **Blisters from grounding pad**: Notify MD.
- **Thrombosis of fistula graft**: Check for bruising and swelling. Notify MD if absent. Anticipate repeat procedure.
- **Burns from grounding pad**: Notify MD.
- **RARE: Leakage of glue from vertebra leading to paralysis**: Check motor and sensory function and notify MD if abnormal.
- **Pancreatitis**: Observe for abd pain, chills, fever. Notify MD.
- **Perforation**: Observe for abd pain, crepitus. Notify MD.
- **Stent or Tube Migration**: Observe for abd pain, chest pain. Notify MD. Check external drain placement for decompressions. Anticipate Barium Swallow for esophageal Stent.
- **Over sedation**: Observe VS and LOC. Treat as needed.

### Special Considerations

- **Access may be femoral or jugular**.
- **Angioplasty may be necessary to open up narrowed vessels**.
- **Sterile dressing per protocol**.
- **Patient may go to dialysis the same day**.
- **May be painful**. Notify MD.

### Patient Teaching

- **Response time highly variable**.
- **NPC post procedure**.
- **Clear liquids to soft diet as ordered**.