Review assessment, interventions, monitoring, and care for conditions commonly encountered in cath lab nursing, including:

- Ablation, complications and indications
- Allergy to contrast dye: steroids and diphenhydramine (Benadryl®)
- Arterial line complications
- Balloon pump, indications
- Bi-ventricular pacing, indications for
- Cardiac tamponade, signs and symptoms
- Cardioversion
- Contrast allergy
- Dissection, left main coronary artery: prepare for emergent cardiac bypass surgery
- ECG finding, MI: S-T segment elevation
- ECG rhythm strip interpretation:
  - Ventricular tachycardia (V-tach)
  - V-fib: shock at 200 joules if using biphasic defibrillator

A great source for ACLS protocol review is [www.acls.net](http://www.acls.net)

A great source for rhythm review is the RN.com course [Telemetry Interpretation](http://rn.com)

Also recommended:

- ECG Library (Jenkins, J & Gerrend, S., 2009) [http://www.ecglibrary.com/ecghome.html](http://www.ecglibrary.com/ecghome.html)

- Hypotension
- PA waveform interpretation, catheter in right ventricle
- Pacing therapy, indications: 3rd degree heart block during radiofrequency catheter ablation; types of pacing therapy
- RCA occlusion, rhythm disturbance: sinus bradycardia; ST elevation in 2 and 3 and AVF
- Renal insufficiency, lab value monitoring
- Retroperitoneal hemorrhage, symptoms of hypotension, severe flank pain
- Severe systolic dysfunction with left ventricular ejection fraction less than 30%: biventricular sequential pacing
- Ventricular fibrillation during synchronized cardioversion. Turn off synchronizer switch, defibrillate at 200 joules
- Ventricular tachycardia
Review action, preparation, monitoring, and precautions related to medications commonly used in cath lab, such as

- Clopidogrel (Plavix®) tablet calculation
- Dopamine (Intropin®) to treat hypotension; calculate ml/hr given mcg dose and mL bag
- Diphenhydramine (Benadryl®)
- Heparin, calculate mg dose in mL
- IV drops/minute calculation
- IV infusion calculation, administration via large vein or central line
- Nitroglycerin (Tridil®), IC to dilate vessels
- Nitroprusside, monitor for sudden drop in BP
- Norepinephrine, indication: hypotensive, tachycardic, normal CVP
- Procedural sedation medications, fentanyl and midazolam (Versed®), priority assessment; inability of patient to protect airway

Review calculations, including

- IV drip dosage calculations
- IV drip rate, calculating drops per minute

To calculate the infusion rate: \[ \text{IV drip rate in drops per minute} = \frac{\text{Volume to be infused (mL) over 1 hour}}{\text{Drop factor constant}} \]

<table>
<thead>
<tr>
<th>Common drop factors</th>
<th>Drop factor constant</th>
</tr>
</thead>
<tbody>
<tr>
<td>60 gtt/m/L - minidrip set</td>
<td>1</td>
</tr>
<tr>
<td>10 gtt/m/L – regular drip set</td>
<td>6</td>
</tr>
<tr>
<td>15 gtt/mL – regular drip set</td>
<td>4</td>
</tr>
</tbody>
</table>

Common drop factors are also known as the clock method – drop factors are obtained by dividing 60 minutes by the number of gtts per mL that the IV set delivers.

Review treatments and procedures, including

- Arterial catheter and sheath, removal, possible complications; at least 10 minutes direct pressure after removal
- Blood transfusion reaction
- Radial access, benefit: patient does not have to remain flat
- Draping patient, first establish IV access and ECG monitoring
• Defibrillation, synchronized cardioversion/biphasic defibrillator
• Indication for emergent cardiac bypass surgery

Review **Laboratory Results** commonly encountered in cath lab nursing, such as

• BUN/Creatinine, renal insufficiency monitoring

Review principles and practices related to **safety and infection prevention**, including

• Handwashing rather than alcohol-based sanitizer when patient has C. diff; also schedule a patient with C. diff as the last case of the day
• Fall risk, elderly/benzodiazepines
• Informed consent, correcting an error
• Patient identifiers
• Time out procedure: team verifies correct patient, correct procedure and correct site
• Dosimeter badge worn above RN’s waistline

Review principles and practices of **communication with patients and family**, including

• Instruct patient to resume Glucophage (Metformin®) 48 hours post-procedure
• Balloon pump, benefit: increased coronary perfusion, decreased afterload
• Demand pacemaker, action: sensing and pacing when heart rate drops
• Patient satisfaction, importance of communication

Review measures to prevent **CMS Hospital Acquired Conditions**

• Air embolus, risk with arterial catheter
• Blood incompatibility
• Risk for falling