

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](#)

Also recommended:

- ECG Library (Jenkins, J & Gerrend, S., 2009)  
<http://www.ecglibrary.com/ecghome.html>
- Hypotension
- PA waveform interpretation, catheter in right ventricle
- Pacing therapy, indications: 3<sup>rd</sup> 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: IV drip rate in drops per minute =**

**Volume to be infused (mL) over 1 hour/ Drop factor constant**

<b>Common drop factors</b>	<b>Drop factor constant</b>
60 gtt/mL - minidrip set	1
10 gtt/mL – regular drip set	6
15 gtt/mL – regular drip set	4

**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