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

- Acute infection
- Acute renal failure, lab result
- Bacterial sepsis
- Decreased cardiac output, early sign: tachycardia
- Cardiac surgery, post-operative, pain assessment in infant
- Cervical spine injury, positioning with head and torso immobilized
- Child abuse, signs and symptoms
- Dehydration, urine specific gravity indicator
- Fluid overload, signs and symptoms in acute renal failure
- Head injury
- Hypovolemia from gastric fluid losses
- Ketoacidosis, initiate IV fluids
- Near drowning, signs of worsening condition: decreasing or drifting O₂ saturation levels
- Pulseless arrest, PALS algorithm
- Pressure ulcer, description
- Septic shock, signs and symptoms
- Trauma

Review action, preparation, monitoring, and precautions related to medications commonly used in PICU, such as:

- Acetaminophen (Tylenol®), calculation mg/dose given dose in mg/kg and kg weight
- Amphotericin, monitoring renal function
- Cephalexin (Keflex®), calculation
- Diazepam (Valium®), precaution for possible apnea, prepare for bag-to-mask resuscitation
- Digoxin, toxicity in infants, arrhythmia most reliable sign
- Dopamine (Intropin®), calculation of mL/hr rate, renal perfusion dosage
- Epinephrine, PALS Pulseless Arrest Algorithm
- Furosemide (Lasix®), significance of serum potassium
- Gentamicin (Garamycin®), calculation of mL/dose
- Insulin, sliding scale
- IV drip rate calculation, drops per minute
- Morphine, continuous IV drip, calculation to determine dose within recommended range
- Naloxone (Narcan®), recognize symptoms indicating need for naloxone
• Potassium Chloride
• Total parenteral nutrition (TPN), discontinuing procedure: patent line, monitor serum glucose
• Vancomycin (Vancocyn®), monitoring serum levels, timing of trough level

Review principles the treatments and procedures, including

• Blood administration/transfusion reaction
• Biphasic defibrillation, initial dose
• Feeding tube, reason for importance of checking placement
• Fluid challenge for signs and symptoms of hypovolemia
• Fluid resuscitation, normal (0.9) saline or Lactated Ringer’s solution
• Pain management, recognize signs and symptoms of pain in one-day old post-surgical infant
• Tracheostomy, management: humidification and suction secretions
• Ventilator, low volume alarm

Review cardiac rhythm strip interpretation and PALS algorithm, including

• Unstable supraventricular tachycardia, and treatment: vagal maneuver and adenosine
• Ventricular fibrillation, and treatment: CPR, then defibrillate
• Ventricular tachycardia

Review laboratory results commonly encountered in pediatrics, such as

• Arterial blood gases (ABGs), respiratory acidosis
• Peaks and troughs
• Culture from a closed body space such as blood or CSF, to diagnose bacterial sepsis
• Serum potassium, furosemide (Lasix®), indication of acute renal failure
• Urine specific gravity
• WBCs, neutrophils

Review growth and development as it pertains to delivering nursing care, such as

• Invisible friend, 5-year-old

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

• Catheter-associated bloodstream infection (CLABSI) prevention bundle
• Catheter-associated urinary tract infection (CAUTI) prevention bundle
• Crib sides raised with infants
• Handwashing, C. diff
• Patient identifiers

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

• Patient satisfaction, importance of communication
• Purpose of barbiturate coma, family communication
• Management of patient comfort during mechanical ventilation, family communication

Review **calculations**, including

• mL per dose for oral liquids and parenteral medications
• IV rates, mL/hr
• IV drip rate, calculating drops per minute

\[
\text{Volume to be infused (mL) over 1 hour} = \text{gtts/min}
\]

**Drop factor constant**

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