



### APGAR Scoring

	0	1	2
<b>HR</b>	Absent	<100	>100
<b>Color</b>	blue, pale	pink body, blue extremities	all pink
<b>Respiratory Effort</b>	none	Weak cry; hypoventilation	good cry
<b>Tone</b>	limp	some flexion	active movement
<b>Reflex Irritability</b>	no response	grimace	cry/cough/sneeze

### Special Circumstances Chart

Condition	History/Physical	Recommendations
<b>Blockage of Airway</b>		
<b>Choanal Atresia</b>	<ul style="list-style-type: none"> <li>• Pink when crying, cyanotic when quiet</li> <li>• Inability to pass ng tube one or both sides</li> </ul>	Oral airway, intubation
<b>Meconium/Mucus Blockage</b>	<ul style="list-style-type: none"> <li>• Meconium stained amniotic fluid</li> <li>• Poor aeration</li> </ul>	<ul style="list-style-type: none"> <li>• Deep suction, intubation PRN if persistent poor ventilation despite suctioning</li> </ul>
<b>Pharyngeal Airway Malformation</b>	<ul style="list-style-type: none"> <li>• Persistent retractions</li> <li>• Poor aeration</li> </ul>	<ul style="list-style-type: none"> <li>• Prone positioning</li> <li>• Posterior nasopharyngeal tube</li> </ul>
<b>Impaired Lung Function</b>		
<b>Congenital Diaphragmatic Hernia</b>	<ul style="list-style-type: none"> <li>• Asymmetric lung sounds</li> <li>• Persistent cyanosis/bradycardia</li> <li>• Scaphoid abdomen</li> </ul>	<ul style="list-style-type: none"> <li>• CXR</li> <li>• Intubation. Avoid positive pressure ventilation/CPAP via the mask</li> <li>• Place orogastric tube</li> </ul>
<b>Pleural Effusion/Ascites</b>	<ul style="list-style-type: none"> <li>• Diminished aeration</li> <li>• Poor oxygenation and ventilation</li> </ul>	<ul style="list-style-type: none"> <li>• Immediate intubation</li> <li>• Needle thoracentesis/paracentesis</li> <li>• Chest tube (posterior)</li> <li>• Possible volume expansion</li> <li>• Fluid analysis (cell count, protein, glucose, pH, triglycerides, Gram stain and culture)</li> </ul>

Special Circumstances Chart		
Condition	History/Physical	Recommendations
<b>Impaired Lung Function cont.</b>		
<b>Pneumonia/Sepsis</b>	<ul style="list-style-type: none"> <li>• Poor aeration</li> <li>• Persistent cyanosis/bradycardia</li> </ul>	<ul style="list-style-type: none"> <li>• CXR</li> <li>• Antibiotics</li> <li>• Intubation as needed</li> <li>• Volume resuscitation as needed</li> <li>• Pressors as needed</li> </ul>
<b>Pneumothorax</b>	<ul style="list-style-type: none"> <li>• Asymmetric lung sounds</li> <li>• Persistent cyanosis/bradycardia</li> </ul>	<ul style="list-style-type: none"> <li>• CXR if stable</li> <li>• Transillumination</li> <li>• Needle thoracentesis</li> <li>• Chest tube if recurrent (anterior)</li> </ul>
<b>Impaired Cardiac Function</b>		
<b>Congenital Heart Disease</b>	<ul style="list-style-type: none"> <li>• Persistent cyanosis</li> <li>• "Comfortable" tachypnea</li> <li>• +/- Murmur</li> </ul>	<ul style="list-style-type: none"> <li>• CXR, EKG, 4 ext BP's, pre/post-ductal sats, hyperoxia test</li> <li>• Consider volume and prostaglandins (0.01 to 0.1 mcg/kg/min gtt)</li> <li>• Echocardiogram, cardiology consult</li> </ul>
<b>Fetal/Maternal Hemorrhage</b>	<ul style="list-style-type: none"> <li>• Pallor</li> <li>• Poor response to resuscitation</li> <li>• History of delivery</li> </ul>	<ul style="list-style-type: none"> <li>• Volume resuscitation</li> <li>• Transfusion (STAT O neg. blood)</li> </ul>

Access	
Use NICUTools.org to determine line length based on BW/length	
Umbilical Arterial Catheter (UAC)	Umbilical Venous Catheter (UVC)
<p><b>Indications</b></p> <ul style="list-style-type: none"> <li>• Hypotension</li> <li>• Frequent lab draws (i.e. extreme prematurity, PPHN, sepsis)</li> </ul> <p><b>Length</b></p> <ul style="list-style-type: none"> <li>• High line (T6-T10) <ul style="list-style-type: none"> <li>■ Length / 3</li> <li>■ Umbilicus to shoulder + 2 cm + stump, or</li> <li>■ (BW(kg) X 3) + 9 cm</li> </ul> </li> <li>• Low line (L3-L5) - rare to use</li> </ul> <p><b>Catheter Size:</b> 3.5F or 5.0F single lumen (2.5F available)</p> <p><b>Precautions:</b></p> <ul style="list-style-type: none"> <li>• Monitor feet for discoloration</li> <li>• Monitor for RBC in the urine or HTN</li> <li>• NO dopamine, platelets or blood products</li> </ul> <p><b>Fluids for UAC:</b> Must contain 0.5 Units Heparin/ml</p> <ul style="list-style-type: none"> <li>• Must run at 1 ml/hr minimum (sometimes OK 0.8 ml/hr)</li> <li>• NS, ½ NS, NaAcetate, ½ NaAcetate, ½ NS + ½ NaAcetate (NOT: free water with heparin only)</li> </ul> <p><b>Duration:</b> 7 days (max of 10 days)</p> <p><b>Miscellaneous:</b> Remove when start feeding. May give trophic feeds (max 10ml/kg/d) with UAC in place</p>	<p><b>Indications:</b></p> <ul style="list-style-type: none"> <li>• Hypotension requiring pressors</li> <li>• TPN or fluids requiring high dextrose (&gt;D12.5) or Calcium</li> </ul> <p><b>Length</b></p> <ul style="list-style-type: none"> <li>• High Line (at/just above diaphragm on KUB) <ul style="list-style-type: none"> <li>■ Length / 5</li> <li>■ Umbilicus to diaphragm + cord stump, or</li> <li>■ [(BW(kg) X 3) + 9cm]/2 + (1-2 cm)</li> </ul> </li> <li>• Low Line <ul style="list-style-type: none"> <li>■ Insert to a point of blood return, radiographically should be below the liver edge: 2-5 cm insertion)</li> </ul> </li> <li>• Low Line is NOT for prolonged use</li> </ul> <p><b>Catheter Size:</b> 3.5F or 5.0F double lumen</p> <p><b>Precautions:</b></p> <ul style="list-style-type: none"> <li>• If the line is dislodged, check a babygram to confirm central placement.</li> </ul> <p><b>Fluids for UVC:</b></p> <ul style="list-style-type: none"> <li>• At least one carrier fluid must contain 0.5 Units Heparin/ml</li> <li>• TPN, Dextrose, etc.</li> </ul> <p><b>Duration:</b> 7 days (max of 10 to 14 days)</p> <p><b>Miscellaneous:</b> May feed with UVC in place</p>