# CT Guided Pediatric Pericardial Drain

<table>
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<tr>
<th><strong>Pre procedure imaging requirements</strong></th>
<th>• Cross-sectional imaging reviewed and interventional case approved by attending radiologist</th>
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<tr>
<td><strong>Indications</strong></td>
<td>• Complex pericardial effusion following congenital heart surgery. Pericardial effusion causing hemodynamic instability.</td>
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<td><strong>Relative Contraindications</strong></td>
<td>• Coagulopathy</td>
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</table>
| **Potential risks** | • Bleeding  
• Pneumothorax  
• Death  
• Injury to adjacent tissues |
| **Room Requirements** | • CT |
| **Tray Setup** | • Access needle - Angiocath 18 g IV needle  
• Dilators 8 or 10 or up to size of drainage catheter.  
• 8 or 10 French Catheter per Radiologist  
• Rosen .035 curved guidewire  
• Scapel  
• 2-0 braided silk suture  
• 2 Barrier sheets, package of sterile towels, 2 sterile gowns  
• (2) 12 cc syringes, (1) 60 cc syringe  
• 22 g, (1) 18 g, (1) 25 g Needles  
• 2 packages of 4 x 4's  
• Betadine solution for prep  
• Lidocaine 1% without epinepherine  
• Sodium Bicarbonate  
• JP tubing  
• 100 cc JP bulb  
• Covaderm |
| **Patient positioning** | • Supine |
| **Pre-op** | • Contact Anesthesia AOD 494-4990  
• Review imaging  
• Labs (INR and platelets)  
• Coags INR < 1.5, Plts > 50K  
• Review patient allergies  
• Review patient medications (ie coumadin, plavix, heparin)  
• NPO timing depends on patient age  
• Order from referring physician for procedure  
• Order from referring physician for laboratory analysis of fluid  
• Antibiotics to cover appropriate organisms prior to procedure (if applicable) |
| **Sedation** | • General Anesthesia |
| **Consents** | • General-must fill in procedure/risks/benefits |
| **Procedure** | • Patient is placed on CT table. After patient is under anesthesia, CT imaging should be obtained immediately prior to prepping site. Lidocaine is infiltrated down to the pericardium aspirating prior to injecting. Fluid often is aspirated.  
• A small dermatomy is then made, followed by blunt dissection.  
• The angiocath needle is then advanced into the abscess cavity. Fluid should be freely aspirated.  
• The guidewire is then placed through the access needle, ensuring ample wire is
within the pericardial.

- The tract is then serially dilated up to size of drainage catheter being placed.
- The drainage catheter is then placed by advancing the catheter with stiffener in place until sideholes are no longer seen, then the catheter is expressed off.
- After obtaining a sample, the catheter is attached to JP tubing to a 100cc JP bulb.
- A suture is then placed for stabilization and a sterile dressing is applied.

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<tr>
<td>Specimen</td>
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<td>- Fluid should be labeled with patient name, medical record number, source of fluid, and obtained by radiology label. Orders should be placed on chart for appropriate studies and taken to lab with specimen.</td>
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<tr>
<td>Post procedure orders</td>
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<tr>
<td>Image</td>
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