

DEPARTMENT OF DIAGNOSTIC RADIOLOGY AND NUCLEAR MEDICINE

Patient Information Sheet Ultrasound-guided Paracentesis or Thoracentesis

General Indications for the Procedure: Excess body fluids can accumulate in the chest or abdominal cavities. If these collections are large, they can cause difficulty breathing or abdominal swelling, pain or difficulty eating. Sometimes a small sample of fluid is removed to determine the cause of the fluid collection.

Description of the Procedure: The chest or abdomen is scanned first with ultrasound to find the largest pocket of fluid that can be safely drained. After cleaning the skin with an antiseptic that contains iodine, the skin and deeper tissues are numbed with lidocaine, which is injected with a tiny needle. This injection may cause the patient to feel a pinching and burning sensation for a few seconds. Following the injection, a tiny skin cut is made with a narrow scalpel. A needle covered by a plastic tube is inserted through the skin cut and into the fluid. The needle is subsequently removed, leaving only the tube in the fluid. The inserted tube is then hooked to a long plastic tube that drains the fluid into a vacuum bottle. When the fluid has been removed, the inserted tube is taken out. Only a tiny puncture wound remains, which is covered with a Band-Aid. Finally, a chest x-ray is performed to check for complications after a thoracentesis.

Risks of the Procedure: The most common complication is mild bleeding or bruising at the site. Before the procedure, blood is tested to make certain clotting factors are correct. Serious bleeding is extremely rare, but could occur, requiring a transfusion or even surgery. Even though the procedure is done sterilely, an infection could develop, in which case the patient may need antibiotics or, rarely, a second drainage procedure. In the chest, the lung may accidentally be punctured, causing air to leak outside the lung and into the chest cavity (pneumothorax) and cause pain or shortness of breath. This may require placement of a chest tube.

Alternatives to the Procedure: The only way to remove these pockets of fluid, short of actual surgery, is with a needle or plastic catheter. Sometimes if the fluid has reaccumulated repeatedly, a special plastic tube can be left in place for a longer time. It is rare that medical therapy can treat the fluid to make it disappear.

Probable Consequences of Refusing the Procedure: If the fluid is not drained, then symptoms may become worse. If the fluid pocket becomes infected, the patient may develop fever or pain.

Persons Performing the Procedure: The key portions of the procedure will be performed by an attending physician who is a member of the medical staff of Rush University Medical Center, or a Licensed Physician's Assistant, resident or fellow in Interventional Radiology who will be observed and supervised by a member of the medical staff. Residents are licensed physicians in an approved residency program. Fellows are licensed physicians who have completed a residency in radiology and are in an approved post-residency training program. Physician's Assistants are specially trained practitioners who are licensed by the State of Illinois and who are qualified to perform these procedures under supervision. The parts of the procedures residents or fellows will perform will be based on their level of training and competence.