

DEPARTMENT OF DIAGNOSTIC RADIOLOGY AND NUCLEAR MEDICINE

Patient Information Sheet **Image-guided Drainage of Fluid Collections** **(Includes Paracentesis, Thoracentesis and Abscess drainage)**

General Indications for the Procedure: Excess body fluids that accumulate in various parts of the body can cause difficulty breathing or abdominal swelling. If these fluid collections are infected, then they may make a patient very sick. Removing all or part of the fluid can improve the patient's condition. Removed fluid can be tested to determine the cause of the collection. If infected, testing can determine the germ that has caused the infection, so that it can be effectively treated.

Description of the Procedure: Pictures of the chest or abdomen are taken with ultrasound or computed tomography (CT) to determine the location of the unwanted fluid and to plan the best location from which it may be removed without injuring vital organs. Once the best location is identified, the area is carefully cleaned with antiseptic solution and covered with sterile sheets. Medicine to numb the skin and deeper tissues (called a local anesthetic) is injected with a tiny needle. This causes a brief stinging or pinching sensation. Once the area is completely numb, a second needle covered by a plastic tube is inserted into the fluid. The needle is removed, leaving the tube in the fluid. The tube may be kept in place for a few days until all the fluid is removed. If the fluid is infected, the patient may have to return to have "tube checks" in order to determine the best time to remove the drainage tube.

Risks of the Procedure: The most common complication is mild bleeding or bruising. Serious bleeding is extremely rare but could occur, requiring a transfusion or even surgery. Even though the procedure is done as cleanly as possible, rarely an infection may develop, in which case the patient might need antibiotics or a second drainage procedure. In the chest, if the lung is accidentally punctured, air can leak out of the lung into the chest cavity (pneumothorax) and cause pain or shortness of breath. This might require placement of a chest tube.

Alternatives to the Procedure: The fluid could be removed with a surgical procedure. This might require general anesthesia, a visit to the operating room and a longer recovery time.

Probable Consequences of Refusing the Procedure: If patients refuse to have fluid drained, their symptoms might become worse. If the fluid pocket were to become infected, they might develop fever or pain.

Persons performing the procedure: The key portions of the procedure will be performed by a licensed Physicians' Assistant who is qualified to do this procedure, an attending physician who is a member of the medical staff of Rush University Medical Center, or a 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. The parts of the procedures residents or fellows will perform will be based on their level of training and competence.