

DEPARTMENT OF DIAGNOSTIC RADIOLOGY AND NUCLEAR MEDICINE

Patient Information Sheet

Transjugular or Percutaneous Liver Biopsy

General Indications for the Procedure: When patients have liver disease, the best way to evaluate the disease may be to take a piece of liver tissue for special testing, which is called a liver biopsy. This can help determine the type of liver disease. It also can be used to determine whether or not treatment is working, or the disease is getting worse

Description of the Procedure: This information sheet discusses two ways of taking a piece of liver tissue for testing. The first is called transjugular liver biopsy, and the second is called percutaneous liver biopsy.

In transjugular liver biopsy, pictures of the right side of the neck are taken with ultrasound, to make certain that a large right neck vein, called the right jugular vein, is open. If it is open, then the skin of the right side of the neck is carefully cleaned with sterilizing solution, and the patient's neck and part of the face is covered with drapes. The skin is then punctured, and a needle is placed through the puncture into the right jugular vein. A plastic tube (called a catheter) is then passed through the needle into jugular vein and down into one of the large veins of the liver. The pressure inside the liver vein is measured, after which a special needle is passed through the catheter, down into the liver. This needle is then used to take samples of liver tissue from inside the liver. The procedure lasts about 35-40 minutes. After the procedure, patient's go to a recovery area where they are observed for 1-2 hours.

Sometimes, because the right jugular vein is blocked or for other reasons, it is not possible to sample the liver tissue in the way described above. In this case, a biopsy of the liver is performed by passing a needle through the skin of the abdomen into the liver, a procedure called a percutaneous biopsy. In a percutaneous biopsy, ultrasound pictures are taken of the abdomen to determine the best site to perform the biopsy. Once the best site is identified, the skin over the chosen site will be carefully cleaned with antiseptic fluid, and the area around the chosen site is covered with sterile drapes. Medicine to numb the skin (called a local anesthetic) is injected with a tiny needle. This causes a stinging or pinching sensation which lasts a very short time. Once the area is completely numb, a larger needle is passed into the liver, watching the location of the needle with ultrasound, and samples of liver tissue are obtained. When the samples have been taken, the needle is removed and pressure is applied to the site. The procedure lasts about 5-10 minutes. After the procedure is completed, patients go to a recovery where they are observed for 1-2 hours.

Risks of the Procedure: The most common complication is bleeding. The risk of having a major bleeding after liver biopsy is very rare. Most complications appear within the first two hours after biopsy.

Alternatives to the Procedure: Liver biopsies can be performed at surgery. Surgical procedures involving the abdomen generally carry more risk than the procedures described in this document.

Probable Consequences of Refusing the Procedure: If a patient decides not to have a liver biopsy, the patient's doctor may have more difficulty diagnosing the patient's condition, which could lead to improper treatment. The patient's condition could worsen so that urgent care might be needed at a later time.

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 parts of these procedures under supervision. The parts of the procedures residents or fellows will perform will be based on their level of training and competence.