

Radiology Department

Ultrasound Guided Paracentesis

Introduction

This booklet aims to give you information about having a procedure known as a Paracentesis (para-sen-tea-sis) and the care you will receive before, during and after the procedure. We hope it will answer some of the questions that you or your relatives have at this time. It is not meant to replace the discussion between you and your hospital doctor or clinical nurse specialist, but should be used to help you to understand more about what is being discussed.

What is a paracentesis?

Inside the abdomen is a membrane called the peritoneum. The peritoneum covers the organs inside your abdomen and produces a fluid which lubricates these organs and helps them to glide smoothly over one another. This fluid is known as ascites (a-sigh-teas). Sometimes too much of this fluid can be produced causing discomfort and the decision is made to drain this fluid away.

Paracentesis is a procedure in which a small tube connected to a collecting bottle or bag is inserted through your abdominal wall under ultrasound guidance to drain excess fluid from inside your abdomen.

What is ultrasound?

Ultrasound uses high frequency sound waves which are transmitted through the skin on your abdomen. This is used to form a picture of the inside of your abdomen on a television screen, similar to a pregnancy ultrasound scan.

Gel will be placed on your skin and a small hand-held scanner moved across your abdomen. This is a painless procedure.



Why is my doctor/clinical nurse specialist recommending that I have a Paracentesis performed?

The procedure may be performed for therapeutic or diagnostic reasons or for both:

- **Therapeutic:** To relieve pressure from within your abdomen from the build up of ascites.
- **Diagnostic:** To send a small sample of the ascitic fluid to the laboratory for analysis. You can expect to have the results within a week.

What causes the excessive fluid in the abdomen?

There are several possible reasons for this build up of fluid:

- If cancer cells have spread to the lining of the abdomen they can cause irritation. This in turn produces a reaction in the body which causes excess fluid to be made and collect in the abdomen.
- If the liver is affected by cancer it can cause a blockage in the blood circulating through it, leading to a build up of fluid in the abdomen.
- Alternatively, liver damage can change the body's fluid balance, causing fluid to build up in the body's tissues, including the abdomen.
- Cancer can also affect the lymphatic system. This is made up of the tissues and organs that produce and store lymph, as well as the network of vessels carrying lymph fluid throughout the body.

The above list is not exhaustive and your doctor/clinical nurse specialist may be able to help you further understand why there is excessive fluid in your abdomen.

What are the symptoms of ascites?

The symptoms of this build up of fluid include:

- Swelling of the abdomen, with associated pain or discomfort
- Difficulty in moving or sitting comfortably
- Breathlessness
- Tiredness
- Nausea and vomiting
- Indigestion
- Reduced appetite
- Altered bowel habit

Patient Information

Will I have any tests before the procedure?

Your abdomen will be examined to ensure that this is a suitable procedure for you at this particular time.

You will be required to have a blood test before the procedure, to ensure that your blood clots normally.

You will need to starve for **four hours** before your procedure is due, but can drink water up until two hours before.

The procedure

You will usually be admitted as a day case to a ward before the procedure; however you will be taken from there to the radiology ultrasound department to have the procedure performed.

You will be asked to put on a hospital gown whilst on the ward. When the ultrasound department is ready to perform your Paracentesis, a hospital porter will take you down to the ultrasound department on your hospital bed. If done as a day case you will attend an assessment room.

Occasionally this procedure is performed under ultrasound guidance on ward 35 by one of the suitably qualified doctors.

Referral and Consent

You will be asked to sign a consent form agreeing the procedure, acknowledging that you have had information about the procedure and that you are aware of the associated possible risks – these are given on page 4.

If you are having the Paracentesis as a planned procedure, then you should have plenty of time to discuss the situation with your consultant or nurse specialist and the radiologist (a specialised X-ray doctor) who will be performing the procedure.

If you need this procedure done as an emergency, there may be less time for discussion, **but you should have had sufficient explanation before you sign the consent form.**

Patient Information

If, after discussion with your hospital doctor or radiologist you do not want the procedure carried out, then you can decide against it.

If the radiologist feels that your condition has changed or that your symptoms no longer mean this procedure is necessary then they will explain this to you. They will communicate with the referring clinician and ask that you return to your referring clinician or ward, for review. At all times the radiologist and referring clinician will be acting in your best interests.

What happens during the procedure?

- Before the procedure begins you will be asked to use the toilet and empty your bladder if necessary.
- A nurse or radiology department assistant will help you onto the examination couch or bed and make sure you are in a comfortable position.
- This is a sterile procedure and the radiologist will wear sterile gloves. Your skin will be cleaned with cold antiseptic liquid and sterile towels will be placed over you.
- The radiologist will first carry out an ultrasound scan of your abdomen to assess the amount of ascites and determine a suitable place to insert the drain.
- The radiologist will give you a local anaesthetic; this is an injection to numb the skin around the area where the tube will be inserted. This may sting a little bit for a short while.
- During the procedure, a tube will be inserted into your abdomen and secured by either stitches or tape.
- The fluid (ascites) will drain through this tube into a drainage bag or bottle.

After your examination

You will return to the ward where you will be able to walk around whilst the fluid is being drained into the bag/bottle.

Depending on what time the drain is inserted, you may be required to stay overnight, so please be prepared and bring an overnight bag with you.

Patient Information

Whilst the fluid is draining, the nursing staff on the ward will check the drainage bag regularly, and empty it as needed. The amount emptied from the bag (and the amount you drink) will be recorded on a chart. The nursing staff will also check your blood pressure, pulse, temperature, and respiratory rate (amount of breaths you take in a minute), at set intervals.

The drainage usually takes place over 6-8 hours. However this length of time can vary from person to person, and is affected by:

- How much fluid is in your abdomen – there may be several litres
- How fit you are
- How well you feel during the procedure

You may experience slight discomfort after the procedure, but it should not be painful. Analgesia (painkillers) can be given if you experience discomfort, please ask the nursing staff if you feel you require analgesia.

When all the fluid has drained, the tube is removed and a dressing is placed over the drainage site. Occasionally when the drain is removed, there is leakage of fluid from the small puncture wound until it heals. If this occurs the wound will need to be dressed with an absorbent dressing which will need changing frequently or a drainage bag may be attached.

What are the benefits of having a Paracentesis?

Having the fluid drained from your abdomen will relieve the feeling of pressure and discomfort in your abdomen.

If the underlying cause of this excessive fluid in your abdomen is unknown, then the sample of the fluid sent to the laboratory may help to determine the cause.

What are the risks associated with having a Paracentesis?

- If a large quantity (several litres) of fluid is removed, there is a slight risk of lowered blood pressure. Your blood pressure will be monitored during your hospital stay. Occasionally intravenous fluids (a drip), may be required to help your blood pressure to return to a 'normal' value.
- The tube draining the fluid can become blocked. If the tube cannot be unblocked, it may have to be removed and another one inserted.

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- The site of the drain can become infected. If this happens you will require antibiotics to treat the infection.
- There is a very small risk that your bowel may be punctured during the procedure. In the unlikely event of this happening, you may require surgery to repair the damaged bowel.
- There is a very small risk of bleeding. Depending on the amount of bleeding this may require iron tablets or a blood transfusion.

Are there any alternatives to Paracentesis?

Some patients may benefit from a diuretic (water tablet), which will make you urinate more frequently than normal. This treatment is not always effective and only suitable for certain patients where it may slow down the build up of fluid in the abdomen.

In some cases a permanent drain may be offered to patients. If this is a suitable option for you, your hospital doctor will discuss this further with you.

What happens after the Paracentesis is removed?

After the drain is removed you will be discharged home with a dressing over the site. You should arrange for someone to collect you or an ambulance can be arranged.

You may feel tired for several days after the fluid has been removed from your abdomen.

You should ensure you have some simple analgesia (painkillers) at home, such as paracetamol. Do not exceed the stated dose on the packet.

Ensure that you drink plenty of fluids after you are discharged. The hospital dietician or your clinical nurse specialist may talk to you about the benefits of eating a high protein diet once at home.

If there is an underlying malignancy, unless treatment is initiated (either surgery or chemotherapy), the fluid is likely to re-accumulate (build back up). The time it takes for the fluid to re-accumulate varies from patient to patient.

Patient Information

What to look out for:

Observe the site where the drain was inserted. If it becomes painful, red, or develops pus, seek medical advice. If you become unwell or have a temperature, you should seek immediate medical advice.

If there is a problem after discharge:

If you have any problems or queries relating to your procedure please contact:

- Acute Oncology team 024 7696 4000 bleep 1641. Advice available 24/7

Alternatively if you are very concerned please attend the hospital's Accident and Emergency Department.

It is important that you make a list of **all** medicines (even over the counter and herbal remedies), and bring it with you to all of your follow-up clinic appointments. If you have any questions at all, please ask your surgeon, oncologist or clinical nurse specialist. It may help to write questions down as you think of them and bring them with you to your next appointment. It may also help to bring someone with you when you attend your outpatient's appointment.

How do I get the results?

If a specimen has been taken for diagnostic purposes, the results will not be given to you immediately. They will be sent to the hospital consultant who referred you to us for this examination.

Other Sources of Information:

For general information about radiology departments visit the Royal College of Radiologists website: www.goingfora.com

Please note that the views expressed in these websites do not necessarily reflect the views of UHCW NHS Trust or the NHS.

The Trust has access to interpreting and translation services. If you need this information in another language or format please contact the telephone number on your appointment letter and we will do our best to meet your needs.

Patient Information

The Trust operates a smoke free policy.

To give feedback on this leaflet please email feedback@uhcw.nhs.uk

Document History	
Department:	Ultrasound
Contact:	25530
Updated:	March 2022
Review:	March 2024
Version:	4.1
Reference:	HIC/LFT/1552/12