



Ultrasound guided malignant ascites drainage

A unique multi professional approach

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Background: During 2007 to 2008, malignant ascites accounted for over **28,000 bed days** in hospital in England (HES statistics). However there is no evidence in favour of any specific drainage technique for a condition that can **severely diminish a patients QOL**, at a time when it is especially important that the patient can enjoy a comfortable life, as free as possible from problems and symptoms. (ref 1). There is also a paucity of reliable evidence regarding the **optimum method of managing malignant ascites** either at initial presentation, during treatment or palliation. (ref 2).



Ultrasound of extensive ascites ↑

Pathway

- Oncologists at GWH direct suitable patients to the **self referral pathway**
- When a patient feels they are suffering symptoms of ascites accumulation, they contact the radiology nursing team **directly**.
- Blood tests are reviewed and repeated if necessary, and an appointment offered ideally **within three days**
- On arrival to radiology basic observations are taken and ultrasound performed to assess the extent of ascites
- The needle is sited under ultrasound guidance and fluid drawn off by syringe

Inception:

An outpatient pathway using a multi-professional approach was set up, offering a **self referral** service for outpatients suffering with malignant ascites. **This has resulted in fewer hospital admissions, increased patient satisfaction and a fast, flexible appointment system.** The service has now been running for 10 years.



← The multidisciplinary team

Training: Successful training of both nursing and sonography colleagues eases the pressure on already busy Radiology consultants allowing them to **optimise their time** elsewhere. Once signed off, both nurses and sonographers undertake the procedures autonomously.

Costs: The estimated cost of day patient paracentesis was £954, compared with £1473 for in-patient paracentesis. (Ref 3). The estimated cost to perform ultrasound guided malignant ascites drainage with mechanical aspiration is approximately £805. This results in a **saving of £668 per patient.** The impact on hospital wards or day case units is also reduced. The outpatient service reduces patient time in hospital resulting in a decrease in exposure to healthcare acquired infections.



Fluid being drawn off by syringe ↑

Technique:

The procedure is performed under **sterile conditions** using local anaesthesia. A multi-side hole 6F 7cm (perkuFlow) needle is placed under ultrasound guidance.

Fluid is drawn off by syringe meaning the process is **'dynamic'**. This allows the nursing team to change patient position, or apply gentle abdominal pressure to encourage the ascites to the needle site, and increase drainage. If the patient becomes uncomfortable a change of position before continuing drainage often helps. These measures help **maximise drainage** and may help **increase intervals** between procedures.



↑ A tunnelled drain can be placed if the patient is attending too frequently and home care is preferred.

Patient Experience:

The service offers an **improvement in end of life care** by being flexible, efficient and personable. Often patients see the same Radiology team for each visit and spend at least an hour under their personal care.

An additional advantage has been the impact on patient's carers who often take time out to provide transport and company during hospital stays. The self-referral pathway enables a bookings to be made at their **convenience** and reduces the time spent at hospital.



← Up to 12 litres can be removed

Patient Feedback:

Those accessing the service have expressed great satisfaction over the **fast, efficient and personal** service offered in Radiology. The service improves end of life care by giving the patient **autonomy** over accessing palliative treatment.