

## St Joseph's Mercy Hospice

### Guidelines for the Management of Malignant Ascites

In most cases of malignancy-related ascites, the prognosis is poor and treatment of accumulated fluid should be minimally invasive, should not add to the patient's burden, and should be aimed at relieving symptoms

With adequate explanation and reassurance about alternative means of symptom control, some patients may reasonably elect not to have active treatment of ascites

- **Paracentesis offers the prospect of immediate relief of symptoms but poor long-term control**
- **Combination diuretics may offer useful long-term control in some patients**

#### DIURETICS

Patients with liver metastases (and resulting portal hypertension) are most likely to respond to diuretics <sup>1</sup>

Response to diuretics may take some 10 or more days and use should be guarded in patients with a limited prognosis. <sup>2</sup>

Response may be assessed by clinical response, reduced abdominal girth, or weight loss

#### For patients able to tolerate oral medication and with good renal function

- Start Spironolactone 100 mg & Frusemide 40 mg mane
- Increase Spironolactone by 100 mg every three days to maximum of 400 mg & Frusemide to 80 mg
- Patients with peripheral oedema may tolerate doses of Spironolactone 400 mg & Frusemide 160 mg for short periods <sup>1</sup>

Combination diuretics may cause electrolyte disturbances (particularly hyperkalaemia) & hypotension and should be used with caution in patients with renal or hepatic impairment

If there is deterioration in renal function or consensus that diuretics have reduced neither the rate nor volume of fluid re-accumulation, they should be stopped

#### PARACENTESIS

- Removal of ascitic fluid by paracentesis may provide good symptom relief but poor long-term control with re-accumulation of fluid over some days to weeks the norm
- Repeated paracentesis may result in loss of albumin and increased peripheral oedema.
- Paracentesis may be offered to patients with significant & distressing symptoms from their abdominal distension after full discussion and explanation of the risks versus benefits of the procedure. Signed consent should be obtained. (See appendix 2)
- If there are clinical signs of tense ascites it is usually safe to proceed to drainage without diagnostic imaging. Ultrasound scan may be considered in cases of diagnostic uncertainty, difficulty with previous drainage or suspected loculation of ascites
- Most patients with malignancy-related ascites will tolerate the removal of several litres of fluid over several hours without the need for intravenous hydration. Intravenous albumin has no proven role in paracentesis for malignancy-related ascites <sup>3</sup>
- The volume of fluid drained will depend on the patient's clinical condition. Significant symptom relief may be obtained without draining "dry" (ie until fluid stops draining)

<sup>1</sup> Regnard c & Hockley J. Ascites. In A Clinical Decision Guide to Symptom Relief in Palliative Care. www.palliativedrugs.com newsletter October 2003

<sup>2</sup> Draft guidelines for the management of malignant ascites. www.palliativedrugs.com newsletter October 2003

<sup>3</sup> Stephenson J & Gilbert J. The development of clinical guidelines for ascites related to malignancy. Palliative Medicine 2002; 16: 213-218

## Procedure

- Record baseline pulse & BP
- Carry out paracentesis under aseptic conditions (see appendix one)
- Allow free drainage of up to five litres
- Reassess patient's condition & record BP
- If BP is stable & the patient is tolerating the procedure without distress, allow up to a further five litres to drain. It is rare that drainage of more than ten litres would be indicated
- The drain should be left in place for the minimum length of time and would usually be removed within 6 to 12 hours of insertion
- On completion of drainage, remove the drain and apply a gauze pad under a Tegaderm dressing
- If there is continued leakage from the drain site, an ostomy bag may be used until the drainage reduces

Most patients tolerate the procedure well and get immediate relief from the reduced abdominal distension. Relief of symptoms of shortness of breath may not be apparent for up to 72 hours. They may feel "washed out" and weak during and for several hours after the procedure and may require analgesia for discomfort. If discomfort worsens or acute pain develops, medical reassessment is indicated

## **Appendix one Practical Procedure**

### Equipment for abdominal paracentesis

- Dressing pack
- 3 x sterile guards
- 2 x blue incontinence sheets
- 25g 5/8" needle (orange hub)
- 22g 11/2" needle (black)
- 18g filter needle (green)
- 10ml syringe
- No 11 blade
- Xylocaine 1% c adrenaline 1:100,000 - 2 x 5 ml
- Povidone iodine 1 x 10ml
- Tegaderm
- two IV type to secure abdominal drain
- one plain square 10 x 12cm for dressing after removal of drain
- Sterile gloves
- Bonanno suprapubic catheter pack \* or
- 14g angiocath & urostomy connecting tube (ctu14.0-30-st)
- Urinary catheter drainage bag

Check with Dr for glove size and any individual preferences different from above.

Use of Bonanno catheter versus angiocath will depend on individual Dr preference and patient circumstance. The Bonanno catheter with its added length may be preferable in obese patients

\* Bonanno catheter sets & urostomy connecting tubes are stored in the "drinks cupboard"  
Please advise Julia T or BAF when down to last two for re-ordering

### **Technique**

The procedure should be performed by a doctor and nurse in a manner consistent with recognised clinical practice<sup>4 5</sup> using an aseptic "no touch" technique

- The site chosen should avoid
  - Scars
  - Tumour masses
  - Distended bowel or bladder
  - Liver
  - Inferior epigastric artery which runs inferiorly approx 5 cm either side of the midline, or be
  - Guided by ultrasound marking.
- Preferred sites are the iliac fossae (10 cm from midline) or suprapubically (with empty bladder)
- Open dressing pack on trolley with "no-touch" technique
- Wash hands thoroughly, glove and prepare equipment
- Protect patient's clothing and bedding with blue waterproof sheet
- Swab around marked area (3 x separate passes) with antiseptic solution and drape the abdomen and bed to provide a clean working surface
- Draw up 10 ml of 1% Lignocaine with 1:100,000 Adrenaline
- Raise a skin bleb with local anaesthetic using 25 G needle
- Change to 22 G needle and infiltrate local anaesthetic through subcutaneous tissues to peritoneum. (NB Peritoneum is sensitive & there may be brief acute pain as needle is advanced to this level)

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<sup>4</sup> Murphy BS. Paracentesis and abdominal diagnostic tap. In Rakel RE et al. Saunders Manual of Clinical Practice. WB Saunders Co. Philadelphia 1996. Pp367- 368

<sup>5</sup> Murtagh J. Tapping Acsites. In Practice Tips. McGraw-Hill Sydney 1995. Pp 242

- Gently advance needle through peritoneum and withdraw to confirm access to ascitic fluid. (If fluid is not obtained consider whether it is safe to proceed. In obese patients, peritoneum may not be reached with 1½" needle. If there is any concern re safety of proceeding stop and review need and/or obtain ultrasound to confirm presence and site of ascites)
- Allow several minutes for anaesthetic effect
- Advance the chosen cannula until fluid is obtained and flows freely
- Secure the cannula with IV Tegaderm and attach drainage bag
- Allow fluid to drain as per guidelines above
- On completion of drainage apply a gauze pad under a Tegaderm dressing.
- If there is continued leakage from the drain site, an ostomy bag may be used until the drainage reduces



## Appendix 2

### St Joseph's Mercy Hospice Consent form for abdominal paracentesis

I consent to having an abdominal paracentesis (also known as 'abdominal tap').  
The purpose is to relieve my symptoms due to a large collection of fluid (called "ascites") in my abdominal cavity.

I have discussed the procedure with Dr..... and I have had my questions answered.

I am aware there are possible complications. Some happen occasionally and these include :

- ☐ Low blood pressure due to removal of large amounts of fluid (ascites)
- ☐ Kidney failure, sometimes not reversible
- ☐ Infection of the fluid
- ☐ Bleeding
- ☐ Puncture of an organ in the abdomen.

More commonly there can be:

- ☐ A feeling of weakness and tiredness for 1 to 2 days afterwards
- ☐ Some leaking of the fluid after the drain is removed
- ☐ Nausea or less often, vomiting.

Signed (patient)

Signed (witness)

Signed (doctor)

Date:

### Appendix 3



#### AUDIT of patients undergoing paracentesis:

Patient label \_\_\_\_\_

Primary malignancy \_\_\_\_\_ Metastases (where) \_\_\_\_\_

On diuretics? YES / NO

If yes, which, and at what dose \_\_\_\_\_

Ultrasound prior YES / NO

Reason for paracentesis \_\_\_\_\_

Technique Angiocath/drainage tube Bonanno Catheter

Other \_\_\_\_\_

Baseline (pre tap) BP \_\_\_\_\_

How much drained when drain first clamped? \_\_\_\_\_

Time from drain insertion to first clamp (hours) \_\_\_\_\_

Why was drain clamped? \_\_\_\_\_

BP at resumption of drainage (if relevant) \_\_\_\_\_

Total amount drained (litres) \_\_\_\_\_

Time from drain insertion to removal (hours) \_\_\_\_\_

Was patient drained to dryness? YES / NO

Symptoms during or day after drainage

Dizziness \_\_\_\_\_ Action \_\_\_\_\_

Pain \_\_\_\_\_ Action \_\_\_\_\_

N/Vom \_\_\_\_\_ Action \_\_\_\_\_

Other \_\_\_\_\_ Action \_\_\_\_\_

Complications of procedure? YES / NO

If yes, what were the complications? \_\_\_\_\_

Any problem with drain itself? Yes No If yes, what? \_\_\_\_\_

Did these problems extend the hospital stay? YES / NO (describe) \_\_\_\_\_

Total length of ward stay from drain insertion \_\_\_\_\_

Outcome of ward stay Home Hospice Death Other

If death, cause of death (rel to drainage?) \_\_\_\_\_