



Winnipeg Regional Health Authority    Office régional de la santé de Winnipeg

## **Nursing Procedure for Therapeutic Abdominal Paracentesis in the Home**

### **PURPOSE**

To provide the community palliative care nurse with information regarding therapeutic abdominal paracentesis as performed by the physician on palliative care patients in the home.

### **PREAMBLE**

Paracentesis is a medical procedure performed by physicians. It involves the withdrawal of fluid from the peritoneal cavity using a needle. The accumulation of fluid within the peritoneal cavity is known as ascites. An indwelling catheter can also be utilized for continuous or intermittent drainage of ascites.

Paracentesis can be performed in the home environment with minimal risk to the patient. For the terminally ill patient, the opportunity to receive this treatment at home may be an option.

### **INDICATIONS**

Paracentesis is performed to alleviate distressing symptoms often attributed to ascites. These symptoms may include dyspnea, decreased mobility, gastric reflux, nausea, and abdominal discomfort or pain (McNamara, 2000).

### **PROCEDURE**

#### **Intermittent Paracentesis**

The palliative care physician is responsible for obtaining patient consent for the procedure.

The community palliative care nurse may be asked to assist the physician with the following:

- 1) Preparation of the patient for the procedure by placing them in a supine position, leaning slightly toward the side to be tapped
- 2) Ensuring that the patient does not move during the procedure
- 3) Assisting the physician during the procedure as needed.

The physician will be responsible for obtaining, transporting and disposing of the supplies and equipment needed during the procedure.

### **Indwelling Catheter for Malignant Ascites – Insertion**

The palliative care physician is responsible for obtaining patient consent for the procedure.

The community palliative care nurse may be asked to assist the physician with the following:

- 1) Preparation of the patient for the procedure by placing them in a supine position, leaning slightly toward the side to be tapped
- 2) Ensuring that the patient does not move during the procedure
- 3) Assisting the physician during the procedure as needed
- 4) Assisting in immobilizing catheter once it has been inserted

Teach patient to:

- a) Avoid prolonged leaning against or putting pressure against the exit site from belts, seatbelts, tight clothing
- b) Avoid accidental blunt trauma
- c) Avoid sleeping on the abdomen
- d) Report any allergy or irritation from cleaning solution and/or tape

### **Indwelling Catheter for Malignant Ascites – Emptying Catheter Drainage Bag**

An indwelling catheter will have been inserted with a 3 way stopcock connected to tubing leading to a catheter bag.

- 1) Explain procedure to patient.
- 2) Wash hands for 30 seconds.
- 3) Don gloves
- 4) Turn stopcock so that there is no flow from the peritoneal cavity into the catheter bag.
- 5) Open clamp of catheter bag emptying system
- 6) Empty peritoneal fluid from catheter bag into a container
- 7) Close clamp on catheter bag emptying system
- 8) Turn stopcock so that flow from the peritoneal cavity into the catheter bag resumes
- 9) Measure amount of fluid in container
- 10) Empty peritoneal fluid into toilet
- 11) Remove gloves and wash hands
- 12) Observe patient for any complications
- 13) Document amount and type of fluid emptied from catheter bag

### **Indwelling Catheter for Malignant Ascites – Sterile Dressing Change**

Sterile exit site care must be used in the following situations:

- A) for a period of six weeks post catheter insertion

- B) an unhealed wound
- C) an infected site

Dressing changes are done weekly, as this reduces the likelihood of the introduction of bacteria into the exit site and lowers the chance of exit site trauma. If excessive bleeding or a large amount of drainage is noted, the dressing should be changed. If the site is infected, dressing changes are increased to a minimum of once daily.

Follow WRHA – Home Care Nursing Procedure 6.3.2 Peritoneal Exit Site Care: Sterile Technique when performing sterile dressing changes.

## **NURSING INTERVENTIONS**

- A family member or designate must stay with the patient for at least one hour following the completion of the insertion of an intermittent or indwelling catheter. If a family member or designate is unable to stay with the patient, the visiting nurse must stay for one hour following the completion of the procedure.
- The nurse will also be responsible to telephone the patient 3-6 hours after the intermittent or indwelling catheter procedure to insure that the patient is not experiencing any side effects.
- If the patient experiences any complications following the intermittent or indwelling catheter procedure, the family should contact the patient's Palliative Care Case Coordinator or access the appropriate medical services (see below for possible complications).

## **POSSIBLE COMPLICATIONS**

Following a paracentesis procedure, the patient can be expected to experience some discomfort at the puncture site.

Although the risk for occurrence of serious patient complications is low (Runyon, 1986; Runyon, 1994), the following side effects require immediate medical attention:

### **1) Hypotension**

Due to the removal of fluid from the peritoneal cavity, the patient's blood pressure could decrease. It is important that the patient be observed for signs and symptoms of hypotension, which include: increased dizziness, fainting, decreased or increased heart rate.

## **2) Infection**

The client should be observed for any signs and symptoms of local or systemic infection, which will most likely present about 12-24 hours following the procedure. Potential signs and symptoms of infection include: redness at puncture site, pain or tenderness, swelling, drainage or exudate from the puncture site, elevated temperature, and diaphoresis.

## **3) Abdominal Wall Hematoma**

Bleeding into the abdominal wall may occur following abdominal paracentesis. This bleeding may cause bruising in and around the site of needle insertion. Should the blood loss be substantial, transfusion with blood products may be necessary.

## **5) Intrabdominal Wall Bleeding**

It is possible that intrabdominal bleeding may occur as a result of abdominal paracentesis. Significant blood loss would manifest as hypotension, tachycardia, weakness and light-headedness.

## **5) Bowel Perforation**

Due to the nature of this procedure, perforation of the bowel is a possible, but rare, complication. Potential signs and symptoms of bowel perforation include progressive abdominal pain and tenderness due to peritonitis, as well as fever and rapid general deterioration.

If any complications occur during the insertion of an intermittent catheter or anytime while the indwelling catheter is in place, the physician may need to insert an IV. In rare circumstances, the patient may need to be transported by ambulance to an emergency department. The decision to transport the patient to a medical facility should be discussed with the patient and/or their family at that time.

## **REFERENCES**

- McNamara, P. (2000). Paracentesis – an effective method of symptom control in the palliative care setting? *Palliative Medicine*, 14: 62-64.
- Runyon, B.A. (1994). Care of patients with ascites. *New England Journal of Medicine*, 330: 337-342.
- Runyon, B.A. (1986). Paracentesis of ascitic fluid: A safe procedure. *Archives of Internal Medicine*, 146: 2259-2261.