Background

Intraperitoneal (IP) chemotherapy is given as an alternative method of delivery of chemotherapy administration:

a. to provide a higher concentration of drug directly to the tumor location.
b. to minimize systemic toxicity of chemotherapeutic agents.
c. to attempt to control malignant ascites.

IP chemotherapy is contraindication in the following situations:

a. disease outside the peritoneal cavity (unless IP therapy is combined with IV therapy).
b. disease greater then 1 cm in peritoneal cavity.
c. dense adhesions or fluid loculations within the peritoneal cavity.

Patient Teaching

Provide patient and family teaching to include:

a. rationale for intraperitoneal chemotherapy.
b. overview of the intraperitoneal chemotherapy procedure.
c. possible adverse effects of intraperitoneal chemotherapy.
d. possible adverse effects from agents used.
e. possible prolonged adverse effects of treatment.
f. activity restrictions during IP chemotherapy

Procedure for administration of IP chemotherapy:

1. Have patient void prior to initiation of chemotherapy. A foley catheter may be ordered by physician. If no Foley is ordered, patient may use fracture bedpan for comfort and minimal movement during infusion.

2. Access Port-a-Cath with right angled needle according to manufacturers package insert. A 19-20 gauge right angled needle is preferred for optimal flow.

3. Place patient on complete bedrest in semi-fowler’s position throughout administration of IP chemotherapy. Head of bed must be no higher than 30 degrees to prevent dislocation of right angled needle during infusion. NOTE: A flat position during infusion may increase pressure on diaphragm causing respiratory compromise/GI upset in patients receiving IP infusions. After use of bedpan, nurse must assure proper needle positioning is maintained.
4. Place 1 L. NS 0.9% in warm water bath keeping outer manufacturer wrapping intact for approximately 15 minutes. RATIONALE: Warmed fluid is more comfortable for patient during infusion and decreases the incidence of cramping associated with IP infusions.

5. Prime IV tubing with attached Y port with warmed NS. Attach to right angled needle extension. Infuse 300-500 cc of NS (according to specific patient orders) as rapidly as possible via gravity. RATIONALE: Infusion pumps are never used during IP infusions due to the incidence of needle dislocation from the high pressure of pump.

6. Observe site of right angled needle for swelling, leakage, or redness. Observe entire abdominal surface for unusual local swelling. Observe patient for complaints of pain, SOB, dyspnea, respiratory distress, and cramping. Stop infusion and notify physician or chemotherapy coordinating nurse if any of above conditions occurs. RATIONALE: Migration of catheters or dislodging of right angled needle may occur.

7. If no untoward effects noted after completion of NS infusion, attached primed chemotherapeutic agent to free Y connector. Clamp NS infusion line and infuse chemotherapy as rapidly as possible. NOTE: IP chemotherapy may take as little as 30 minutes or as long as 2-3 hrs to infuse. If infusion takes longer than 3 hours, RN should notify physician or chemotherapy coordinating nurse to troubleshooting.

8. After infusion of chemotherapy complete, clamp chemotherapy tubing and open NS tubing. Infuse additional 300-500 cc NS (according to specific orders) as rapidly as possible. Flush right angled needle with heparinized saline as per institutional guidelines.

9. Remove right angled needle from Port-a-Cath and dispose in sharps container.

10. After removal of right angled needle, reposition patient every 15 minutes from side to side for a total of 1 hour. RATIONALE: Repositioning disperses fluid throughout the peritoneal cavity.

11. Document chemotherapy administration according to institutional policy.
## Quick Reference

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Possible Etiology</th>
<th>Nursing Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nausea, vomiting, diarrhea, anorexia, gastroesophageal reflux</td>
<td>GI disturbance caused by increased fluid/pressure in peritoneal cavity, drug induced, too rapid infusion</td>
<td>Slow infusion to see if symptoms resolve. Administer anti-emetics, antidiarrheals and antacids as ordered. Assess efficacy of anti-emetics. Encourage small frequent meals.</td>
</tr>
<tr>
<td>Severe pain during infusion</td>
<td>Catheter migration during infusion; infection; or bowel perforation</td>
<td>Stop infusion and immediately notify physician</td>
</tr>
<tr>
<td>Abdominal distention, rebound tenderness, decreased or absent bowel sounds, nausea, vomiting, fever, and chills</td>
<td>Peritonitis</td>
<td>Chemotherapy must be held until appropriate treatment of infection is complete.</td>
</tr>
<tr>
<td>Dyspnea, shortness of breath</td>
<td>Respiratory distress caused by increased intra abdominal pressure</td>
<td>Check that position of patient is HOB 30 degrees. Slow down infusion to see if symptoms resolve. Inform physician.</td>
</tr>
<tr>
<td>Changes in mental status, tremors, muscle twitching, weakness, ringing in ears</td>
<td>Electrolyte imbalance</td>
<td>Stop infusion and notify physician.</td>
</tr>
<tr>
<td>Unable to infuse easily through catheter</td>
<td>Huber needle may be misplaced. Catheter may be kinked or fibrin sheath may be present.</td>
<td>Check patency of administration tubing set. Recheck position of huber needle and re-access if necessary. Reposition patient to check for optimal flow. If unable to troubleshoot, contact physician or chemotherapy coordinating nurse for possible imaging studies.</td>
</tr>
</tbody>
</table>

REFERENCES


