# NURSING PROCEDURE

**TITLE:** INTRAPERITONEAL (IP) PORT USE FOR IP CHEMOTHERAPY ADMINISTRATION (onc24)  
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**PAGES:** 1 of 9

**ISSUED FOR:** Nursing

**RESPONSIBILITY:** Chemotherapy RN who is also competent in vascular implanted port use

**PURPOSE:** To provide guidelines for the intraperitoneal (IP) administration of chemotherapy through an IP port access device.

**OBJECTIVE:** The nurse will administer chemotherapy into the peritoneal space through an IP access device as per procedure, safely, with minimal complications.

**DEFINITIONS:**

1. **Chemotherapy RN:** registered nurse who has completed chemotherapy administration training or who has documented experience in the safe handling and administration of cytotoxic agents.

2. **Vascular Implanted Port Competent RN:** Registered nurse previously educated regarding implanted vascular access device (VAD) port use and has documented competency for initiating access/deaccess of an implanted port may perform the port use outlined in this procedure.

**KNOWLEDGE BASE:**

1. Administration of chemotherapeutic agents requires skilled nursing techniques and a firm knowledge base of administration hazards and side effects of chemotherapy. Chemotherapy will only be given by a chemotherapy RN.

2. SMH Nursing Procedures and Oncology Nursing Society (ONS) guidelines for chemotherapy administration will be maintained.

3. Chemotherapy may be administered through an IP port.

4. Indications for IP chemotherapy include malignant ascites and carcinomas, such as appendiceal, gastrointestinal and ovarian, that seed in the peritoneal surfaces. Drugs administered through the IP route most commonly include cisplatin, paclitaxel and carboplatin.

5. The IP access port is a totally implantable system for intraperitoneal drug delivery. The port can be similar to or
6. The access of the IP system is a sterile procedure and sterile equipment must be used. IP port access must be performed by a VAD use competent RN. Use only non-coring needles to access the intraperitoneal port. (Non-coring needles “slice” versus “core” the device septum.)

7. The IP access port only needs to be flushed with normal saline (NS) before and after chemotherapy administration. No routine flushing is required and no heparinized saline flush is required because the catheter is not in a vascular structure. Catheter patency is determined by ease of flushing with 20 mL of NS (refer to nursing procedure (vad01).

8. Blood return is not expected as catheter is not in a vein. Catheter should be aspirated gently to confirm there is no blood return. If there is blood return, use should be discontinued and provider notified.

9. After access, peritoneal fluid may be drained or allowed to be absorbed per provider order. In patients with gynecologic cancer receiving IP treatment, fluid typically is not drained in order to provide absorption into the systemic circulation.

10. During access, the IP port site should be inspected regularly for needle position, patency, signs and symptoms of infection or infiltration and maintenance of occlusive dressing.

11. Chemotherapeutic agents are administered utilizing a closed system transfer device (CSTD) system.
   a. For administration, the CSTD system consists of a “syringe adaptor” attached to the chemotherapy tubing/syringe that connects with a “Luer-lock adaptor” attached to the IP site access.
   b. In order to maintain the safety of the CSTD system, use CSTD adaptors for administration of chemotherapy and for flushes after chemotherapy administration.

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A. ACCESSING THE IP PORT

EQUIPMENT:
1. 19 or 20 gauge, 1 to 1½ inch non-coring (Huber) needle
2. VAD access kit
3. Sterile Luer-lock needleless connector
4. 20 mL flush syringe with 20 mL NS

PROCEDURE:
1. Check the Progress Notes or the Surgery Record to verify proper catheter placement. If no documentation of catheter placement is available, notify physician to clarify the need for a CT scan or catheter flow study to confirm proper position of catheter. Aspiration of IP fluid is possible for fluid or cytology studies, but is not recommended for routinely determining catheter placement.

2. Explain the procedure to the patient.

3. Encourage the patient to void or insert indwelling urinary catheter if ordered. Once the port is accessed the patient must remain on bed rest until the port is deaccessed.

4. Perform hand hygiene.

5. Palpate the port site to locate septum.

6. Apply topical anesthetic cream if ordered.

7. Prepare sterile port access kit.

8. Open sterile supplies onto the field.

9. Don mask.

10. Don sterile gloves.

11. Prep the skin over the IP port site using chlorhexadine. Follow prep instructions on chlorhexadine packaging. Allow to dry.

12. Attach 90-degree non-coring needle tubing to sterile Luer-lock needleless connector. Attach sterile 20 mL NS flush syringe to connector. Prime tubing and needle with NS and check for patency.

13. Grasp portal within prepped area using the thumb, index...
and middle finger of the non-dominant hand to anchor the device.

14. Insert non-coring needle perpendicular to and directly into the center of the port septum using a quick motion. The needle tip will stop when it reaches the base of the port chamber.

15. Flush port with 20 mL NS to determine patency. Assess for leakage, ease of flow, subcutaneous infiltration and pain. If resistance is encountered or if swelling or pain occurs, discontinue procedure an reaccess with new sterile equipment.

**NOTE:** Aspiration of IP fluid is not recommended for routinely determining catheter placement. A peritoneal specimen should only be aspirated if ordered.

16. Aspirate catheter gently to confirm there is no blood return. If there is blood return, use should be discontinued and provider notified.

17. Maintaining sterile technique, apply occlusive transparent dressing to needle insertion site, making certain that a secure seal around the needle and its tubing is achieved.

18. Tape needle tubing securely to the patient to avoid tension on the needle. The port needle can be easily dislodged and all tubing must be well secured to the patient.

19. Instruct patient on activity restrictions and to report any pain, discomfort, swelling, needle dislodgement or any other concerns.

**B. ADMINISTRATION OF CHEMOTHERAPY THROUGH THE IP PORT**

**NOTE:** Follow hazardous drug safe handling guidelines outlined in nursing procedures “Administration of Chemotherapeutic Agents and Biotherapies-Adults” (onc01), “Handling Excreta from Patient Receiving Chemotherapy” (onc07) and “Disposing of Chemotherapy Tubings, Solution Bags and Syringes” (onc08).

**EQUIPMENT:**

1. Ordered dose of chemotherapy with CSTD syringe adaptor attached
2. ASTM Chemotherapy-approved gloves (2 pairs)
3. Chemotherapy-approved gown
4. 20 mL syringe with 20 mL NS
5. Alcohol wipes
6. CSTD Luer-lock connector

PROCEDURE:

1. Access intraperitoneal system as per section A of this procedure.

2. If ascites is present, see if provider wants fluid drained prior to infusion of chemotherapy to promote comfort and tolerance. A peritoneal drainage bag can be attached for drainage of fluid.

3. Before accessing the IP port connector or CSTD adaptor, scrub the connector or adaptor with an alcohol wipe for 15 seconds and allow to air dry thoroughly.

4. Clean the IP port connector, air dry, and attach CSTD Luer-lock adaptor.

5. Don chemotherapy gloves and gown.

6. Place head of bed at approximately 30 degrees to optimize patient comfort and fluid distribution during infusion.

7. Before infusing chemotherapy, ensure position by infusing a small amount of normal saline and observe for leakage, difficult flow or extravasation.

   NOTE: Drugs considered irritants or vesicants to the venous system behave similarly in the peritoneum causing pain, burning and sclerosing.

8. Clean the IP port CSTD Luer-lock adaptor, air dry, and connect the chemotherapy CSTD syringe adaptor. Open all clamps on the chemotherapy tubing and IP port tubing. Allow all chemotherapy to infuse by gravity into the intraperitoneal space.

   NOTE: Infusion pumps are contraindicated with IP port use because of increased incidence of needle dislodgement resulting from pump pressures.

9. Assess the IP port site and peritoneum frequently during the infusion for signs or symptoms of complications, such as swelling, pain, infiltration and infection.

10. Assess the patient frequently during infusion for cramping, nausea, vomiting and abdominal pain. Assess patient for respiratory distress, pain or other complications.
11. When infusion is complete, clamp chemotherapy tubing above sidearm port of infusion tubing for duration of the dwell time.

12. Assist the patient to turn from side to side every 15-30 minutes to improve distribution throughout the abdomen.

13. If the fluid will not be drained, clean the infusion tubing sidearm port, air dry, and attach flush syringe. Flush with 10-20 mL NS and disconnect.

14. If fluid is to be drained, open the drainage clamp and allow fluid to drain by gravity. If fluid does not drain try repositioning the patient, having the patient perform a Valsalva maneuver, applying manual pressure to the abdomen, and/or irrigating the catheter with normal saline.

15. Disconnect chemotherapy CSTD syringe adaptor from IP port CSTD Luer-lock adaptor.

16. Dispose of gloves, gown and administration equipment per nursing procedure “Disposing of Chemotherapy Tubings, Solution Bags and Syringes” (onc08).

C. DISCONTINUING IP PORT ACCESS

**EQUIPMENT:**

1. 20 mL flush syringe with 20 mL NS
2. Gloves
3. Alcohol wipes
4. 2 x 2 gauze pad
5. Band-aid or tape

**PROCEDURE:**

1. Perform hand hygiene. Don gloves.

2. Clamp and disconnect any infusion tubing in place.

3. Before accessing the IP port connector, scrub the connector with an alcohol wipe for 15 seconds and allow to air dry thoroughly.

4. Attach flush syringe and flush with 20 mL NS.

5. Remove all tape and occlusive dressing to expose needle for removal.
6. Using non-dominant hand, place index and third fingers on either side of the inserted needle.

7. Using dominant hand, grasp the needle and pull straight up until a click is heard, indicating the safety mechanism is activated.

8. Apply 2x2 gauze pad to needle insertion site with pressure until bleeding is controlled.

   **NOTE:** Bleeding should be minimal unless clotting factors are impaired. Remember, this is a subcutaneous port.

9. Assess the site for signs and symptoms of infection, infiltration and for any other complications.

10. Apply a band aid or tape to the 2x2 gauze over the needle puncture site. Instruct patient to leave the band aid in place until the puncture site is sealed.

11. Instruct patient to report any signs or symptoms of concern, including infection, bleeding, swelling, pain.

### D. DECLOTTING THE IP PORT

**EQUIPMENT:**

1. Ordered declotting agent
2. Alcohol wipes

**PROCEDURE:**

1. After accessing the IP port, if port does not flush easily, try repositioning the needle.

2. If still unsuccessful, notify physician for declotting orders.

3. Before accessing the IP port connector, scrub the connector with an alcohol wipe for 15 seconds and allow to air dry thoroughly.

4. Administer de-clotting agent according to manufacturer’s instructions.

5. Notify physician if IP port continues to not flush easily.

### E. POTENTIAL IP PORT COMPLICATIONS

1. Tunnel infections: Notify physician immediately if any infection is suspected.

2. Peritonitis: Signs and symptoms of peritonitis include fever, chills, vomiting, abdominal tenderness to light palpation, rebound tenderness, or cloudy fluid. Notify the physician.
immediately if these symptoms occur. Usually treated successfully with antibiotics.

3. Clotted catheter: Occasionally the catheter may become clotted. Do not irrigate forcefully. Obtain order for de-clotting.

4. Hematoma at catheter site: This should resolve in 3-5 days post-op. Instruct patient to report continued swelling, bruising, pain or any other complications at IP port site.

G. PATIENT/FAMILY EDUCATION

1. Provide patient discharge teaching. Discharge teaching will include signs and symptoms of complications to report, chemotherapy precautions, and care of dressing at IP port site.

2. Encourage the patient to ambulate after discharge. Ambulation promotes absorption of infusate and promotes relief of volume-related side effects.

3. The patient will be instructed to carry an identification card provided by a post-surgical care provider that provides information regarding the date of insertion, size of the IP catheter, name of the surgeon/physician, name of the facility where port was implanted and the patient’s name. This card should be carried by the patient at all times.

4. Patient/family education about incision site care will be provided by the surgeon and nursing staff. Confirm supplies are available for dressing changes prior to discharge.

5. Document patient/family education in Education Record and on Patient Discharge Instruction Form.

DOCUMENTATION:

1. Nursing Reassessment Flowsheet: Document the port access/de-access, nursing care delivered, nursing assessments, patient instructions and any other pertinent data.


4. Oncology Flowsheet: Document administration of chemotherapy agent(s) and the device used.
REFERENCES:


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