Implanted Venous Ports or Port-a-cath's

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Consortium of the following stakeholders.

- ✓ Directors
- ✓ Project Managers
- ✓ Academic Simulation Educators
- ✓ Technicians

Aim of the Sim workshop

- What is a IVP (implanted venous port)
- Types of IVP's
- Where are IVP located
- Coring needles used to access
- Accessing & deaccessing IVP's
- Blood sampling
- Intragam P
- Blood Transfusion

What is an Implanted Venous Port (IVP)

- Implanted Venous Ports (IVP) are permanent intravascular devices used for long-term intermittent central venous access
- Most ports are designed for 1000 to 2000 punctures with a 19 to 22 gauge non coring needle
- The IVP consists of either a single or double lumen, self-sealing reservoir hub attached to a radiopaque silicone rubber or polyurethane catheter

Types of IVP's

- **Implanted venous Non-valved Port**

  requires flushing and heparin locking every 4 weeks when not in use

- **Implanted Venous Dual Non-valved Port**

  requires flushing and heparin locking every 4 weeks when not in use. Used in apheresis or haemodialysis

- **Implanted venous power port (open ended & valved varieties)**

  requires flushing and heparin locking every 4 weeks when not in use.

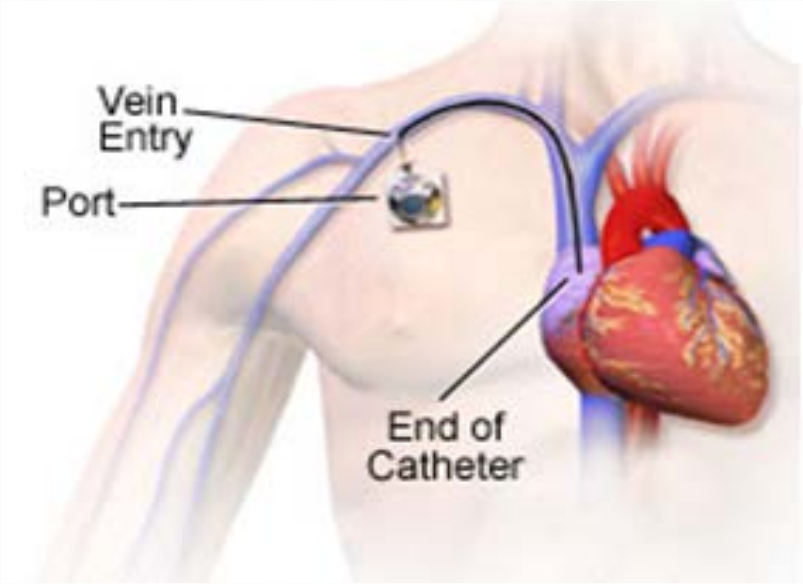
  able to be used in power injected contrast enhanced computed tomography

Where are IVP's located

Ch

arm- placed

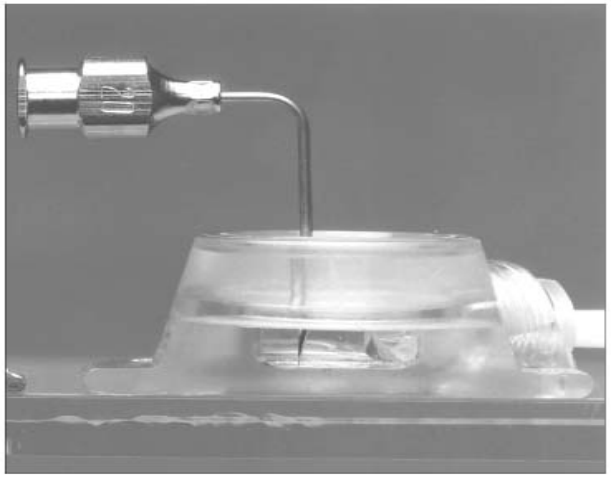
- Under the skin in the anterior chest with access via the subclavian or internal jugular veins
- Upper arm via the basilic or brachial vein



IVP CARE

IVP Care

- Flush and heparin lock after each access, and monthly: 10 to 20mL sodium chloride 0.9% 50 IU in 5 mL heparinised saline
- Non-coring needle change and weekly dressing, when in use: clean with 2% chlorhexidine gluconate v/v 70% isopropyl alcohol
- dress with transparent hyper-permeable polyurethane dressings (op-site 3000)



KEY POINTS

- Monitor for signs of infection, redness, swelling, and or tenderness around port pocket **Note:** in neutropenic patients normal signs of infection such as pus will be absent
- Do not use syringes smaller than 10 mL to flush catheter due to increased pressure and risk of catheter fracture

Non- coring needles used to access GRIPPER Needles

- Cushioned needle for comfort and stabilization
- Luer lock Y-sit for needless devices
- Latex free to prevent potential allergic reaction
- 19 and 22 gauge most common dependent on patient size

Winged infusion sets

- Available in multiple gauges in comparison to the grippers
- Has only one clamp
- More cost effective

Non coring Needles

Accessing and De-accessing

Accessing

- Aseptic non touch technique
- Use smallest gauge non coring access needle, change every 7 days if left insitu
- Always use a 10ml luer lock syringe.
- Positive pressure cap recommended
- Prime before insertion
- Use positive pressure flushing method (push pulse)
- Not be used for the administration of powered injected contrast
- Monitor patient for signs respiratory complications or localised infection

De-accessing

- Flush using 10-20ml of Normal saline
- Use pulsatile action flush
- Heparinised saline used to flush (50 IU recommended)
- 10ml luer lock syringe to be used
- Remove non coring needle slowly applying firm pressure with first finger and thumb either side of port
- Apply small sterile dressing once finished

Blood Sampling

- Follow port access instructions
- Place an absorbent sheet with a plastic back underneath the extension tubing and needleless connection cap.
- Perform hand hygiene, don gloves
- If any intravenous lines are connected these should be disconnected or the lines clamped above the cap.
- Use chlorhexidine gluconate alcohol solution wipe or a piece of sterile gauze to hold the extension tubing with the needless connection cap in the non-dominant hand.
- With dominant hand clean the injection surface of the needleless connection cap with alcohol solution 60 seconds using vigorous friction.
- Allow to dry until completely evaporated.

- Connect the vacutainer system or use a 10 ml luer lock syringe open clamp and withdraw
  - if taking blood cultures these must be taken first. Do not discard the first 5 to 10 mL.
- If unable to get blood return reposition the patient and ask the patient to take a deep breath hold it or to cough.
  - flush port with 10 to 20 mL of sodium chloride 0.9% using a push pull action, attempt to aspirate blood again, check the needle is correctly inserted.

Intragam-P

- INTRAGAM P is a preparation of human immunoglobulin for intravenous use. INTRAGAM P or IVIg is prepared from donor blood.(CSL website)
- INTRAGAM P is used to treat patients who need replacement of antibodies autoimmune disorders, leukaemia, multiple sclerosis and many more (NBAA)

Intragam Administration

- Follow accessing procedure
- Follow blood product protocol checking and preparation procedure
- Administration usually requires 2-6 hours
- Rate of infusion for all doses is the same

  Infuse undiluted or diluted
- Infuse 1ml/min 15 minutes
- Increase gradually to a maximum of 3-4ml/min for a further 15 minutes.

(Australian injectable drugs handbook fifth ed)

Nursing considerations /Observations

- Side effects may include headache, nausea, vomiting, chest tightness, flushing, coughing and chills.
- Will produce abnormal BGL due to presence of maltose
- Follow recommended vital signs monitoring for blood product administration
- Stickers from Intragam bottles to be permanently filed in patient history

Blood Transfusion

- Use the same method for access
- Follow hospital policy regarding blood product administration
- Use the

same method

for deaccess

References

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- Adams, S., Barrett, L., Brooks, S. et al 2007 "Central Venous Access Devices: Principles for Nursing Practice and Education". Cancer Nurses Society of Australia

- Camp-Sorrell, D (eds) 2004. "Access device guidelines: recommendations for nursing practice and education" 2nd ed. Oncology Nursing Society. Pittsburgh.

- Criteria for the clinical use of **intravenous immunoglobulin** in Australia Second Edition July 2012
- http://www.transfusion.com.au/blood_products/fractionated_plasma/IVIg
- St John of god hospital Bendigo policy/procedure (Intragam P Administration of)

- Contact Therese Worme with any question's t.worme@latrobe.edu.au