Intravenous Injection

Introduction
- Wash hands, Introduce self, Patients name & DOB & wrist band, Explain procedure and get consent
- Cannula check: check when inserted, signs of phlebitis and any pain
- Allergy check: check if any allergies with patient and drug chart
- Prescription check: check the prescription drug and dose, and confirm the name and DOB is correct (check with them and their wristband)
- Look up drug in “Injectable Medicines” book to determine volume of fluid required to reconstitute vial (if drug is in powder form) and injection rate

Preparation part
- Wash hands
- Clean tray
- Gather equipment around tray (think through what you need in order)
  - Gloves (+ extra pair and apron if need to draw up drug/flush)
  - Drug (CHECK DATE & DOSE & PRESCRIPTION & ALLERGIES)
    - + if drug is in liquid vial: green 21G needle and syringe for drawing-up
    - + if drug is in powder vial: green 21G needle, syringe and sterile water for injection (CHECK DATE) for reconstituting drug and drawing-up
  - Alcohol 70%/chlorhexidine 2% device disinfection wipe
    - + if cannula does not have cannula IV extension set: cotton gauze swabs and replacement bung
  - 2x pre-prepared flushes (or 2x: 10ml 0.9% saline + 10ml syringe + green 21G needle) (CHECK DATE)
- Wash hands
- Open packets and place equipment neatly in tray in plastic parts of packets (without touching the instruments themselves)
  - If flushes are not pre-prepared:
    - Wash hands, apply apron and put on an extra pair of gloves
    - Snap top off 0.9% saline
    - Put green needle on syringe, hold saline upside-down and draw up 10ml saline
    - Dispose of needle in sharps bin
    - Expel air from syringe and place back into syringe packet in tray
    - Remove gloves, apron and bin waste (if not drawing up drug)
  - If the drug is in powder vial:
    - Wash hands, apply apron and put on an extra pair of gloves (or leave on previous ones if had to prepare flush)
    - Snap top off sterile water for injection
    - Put drawing-up needle on syringe, hold sterile water upside-down and draw up required amount for reconstitution (plus a bit extra)
    - Expel air and some water from syringe to leave the exact amount needed for reconstitution.
    - Flick top off drug vial
    - Inert needle then inject water and twist vial on end of needle until drug powder is fully dissolved
    - Draw up drug solution up while drug vial is upside-down
    - Dispose of drawing up needle in sharps bin
    - Expel air from syringe and place back into syringe packet in tray
    - Remove gloves, apron and bin waste
  - If the drug is in liquid vial:
    - Wash hands, apply apron and put on an extra pair of gloves (or leave on previous ones if had to prepare flush)
    - Put drawing-up needle on syringe and fill with approximately the same volume of air as in the drug vial
    - Flick top off drug vial
    - Insert the needle and inject the air into the airspace in the vial (stops a vacuum forming)
    - Draw drug solution up while drug vial is upside-down
    - Dispose of drawing up needle in sharps bin
    - Expel air from syringe and place back into syringe packet in tray
    - Remove gloves, apron and bin waste
- Walk to patient

Patient part
- Wash hands
- Put on gloves
- If no cannula IV extension set on cannula:
  - Place a cotton wool gauze under back of cannula
  - Open back port of cannula while occluding the vein proximally
  - Clean cannula back port
• If cannula IV extension set on cannula:
  o Holding the proximal part of the administration port of the cannula IV extension set, clean the port with the device disinfection wipe
  o Unlock port
• Slowly flush 5-10mls flush 0.9% saline through the cannula back port/ cannula IV extension set slowly (in a pulsating manner)
• Administer drug at rate as per “Injectable Medicines” book
• Administer 2nd 5-10ml flush through the cannula back port/ cannula IV extension set slowly (in a pulsating manner)
• If no cannula IV extension set, place new cannula back port cap; if using cannula IV extension set, lock line

To complete
• Thank patient and cover them
• Bin waste and gloves, clean tray, wash hands
• Sign on the drug chart that the drug has been administered
**Intramuscular Injection**

**Introduction**
- Wash hands, Introduce self, Patients name & DOB & wrist band, Explain procedure and get consent
- Allergy check: check if any allergies with patient and drug chart
- Prescription check: check the prescription drug and dose, and confirm the name and DOB is correct (check with them and their wristband)
- Look up drug in “Injectable Medicines” book to determine volume of fluid required to reconstitute vial (if drug is in powder form)

**Preparation part**
- Wash hands
- Clean tray
- Gather equipment around tray (think through what you need in order)
  - Gloves (+ extra pair and apron if need to draw up drug)
  - Drug (CHECK DATE & DOSE & PRESCRIPTION & ALLERGIES)
    - + if drug is in liquid vial: green 21G needle and syringe for drawing-up
    - + if drug is in powder vial: green 21G needle, syringe and sterile water for injection (CHECK DATE)
  - Alcohol 70%/chlorhexidine 2% skin cleansing wipe
  - Blue 25mm 23G needle for injection (or orange 25mm 25G for babies/infants)
  - Cotton wool swabs
  - Tape
- Wash hands
- Open packets and place equipment neatly in tray in plastic parts of packets (without touching the instruments themselves)
- If the drug is in powder vial:
  - Wash hands, apply apron and put on an extra pair of gloves
  - Snap top off sterile water for injection
  - Put drawing-up needle on syringe, hold saline upside-down and draw up required amount for reconstitution (plus a bit extra)
  - Expel air and some water to leave the exact amount needed for reconstitution
  - Flick top off drug vial
  - Inert needle then inject water and twist vial on end of needle until drug powder is fully dissolved
  - Draw solution up while drug vial is upside-down
  - Dispose of drawing up needle in sharps bin and replace with injection needle (leave sheath on)
  - Expel air from syringe and place back into syringe packet in tray
  - Remove gloves, apron and bin waste
- If the drug is in liquid vial:
  - Wash hands, apply apron and put on an extra pair of gloves
  - Put drawing-up needle on syringe and fill with approximately the same volume of air as in the drug vial
  - Flick top off drug vial
  - Insert the needle and inject the air into the airspace in the vial (stops a vacuum forming)
  - Draw drug solution up while drug vial is upside-down
  - Dispose of drawing up needle in sharps bin and replace with injection needle (leave sheath on)
  - Expel air from syringe and place back into syringe packet in tray
  - Remove gloves, apron and bin waste
- Wash hands
- Walk to patient (with tray and sharps bin)

**Patient part**

**Exposure**
- Expose injection region:
  - **Deltoid muscle**: inject (from laterally) into middle third of the deltoid region
  - **Vastus lateralis**: inject into anterolateral aspect of middle third of thigh
  - **Gluteus maximus muscle**: inject into upper outer quadrant to avoid sciatic nerve. To identify exact site, palpate the greater trochanter of the femur and the posterior superior iliac spine, and imagine a line between. The injection site is superior and lateral to the centre of this line.

**In children**: use deltoid if >12 months; use vastus lateralis if <12 months; do not use gluteus maximus in infants as sciatic nerve not fixed. Ask parent to hold child securely in cuddle position (child sideways on knee) or straddle position (child facing towards parent straddled on their lap).

**Procedure**
- Wash hands
• Put on gloves
• Sterilise area – wipe in spiral motion working outwards and wait 30 seconds for it to dry
• With non-dominant hand, stretch the skin laterally at the injection site
• With dominant hand holding the syringe between the thumb and the first and middle fingers, quickly insert the needle at a right angle to the skin
• Using the dominant hand to securely hold the needle in place, use the non-dominant hand to...
  o Pull back on the top of the syringe (to confirm you are not in a blood vessel)
  o Slowly, inject the drug
• Gently but briskly remove the needle and immediately dispose of it (with syringe) into the sharps bin
• Wipe the injection site and press over it firmly with cotton wool swabs and then tape one on

**To complete**

• Thank patient and cover them
• Bin waste and gloves, clean tray and wash hands
• Sign on the drug chart that the drug has been administered
**Subcutaneous Injection**

**Introduction**
- Wash hands, Introduce self, Patients name & DOB & wrist band, Explain procedure and get consent
- Allergy check: check if any allergies with patient and drug chart
- Prescription check: check the prescription drug and dose, and confirm the name and DOB is correct (check with them and their wristband)
- Look up drug in “Injectable Medicines” book to determine volume of fluid required to reconstitute vial (if drug is in powder form)

**Preparation part**
- Wash hands
- Clean tray
- Gather equipment around tray (think through what you need in order)
  - Gloves (+ extra pair and apron if need to draw up drug)
  - Drug (CHECK DATE & DOSE & PRESCRIPTION & ALLERGIES)
    - + if drug is in liquid vial: green 21G needle and syringe for drawing-up
    - + if drug is in powder vial: green 21G needle, syringe and sterile water for injection (CHECK DATE) for reconstituting drug and drawing-up
  - Alcohol 70%/chlorhexidine 2% skin cleansing wipe
  - Orange 16mm 25G needle for injection
  - Cotton wool swabs
  - Tape
- Wash hands
- Open packets and place equipment neatly in tray in plastic parts of packets (without touching the instruments themselves)
  - If the drug is in powder vial:
    - Wash hands, apply apron and put on an extra pair of gloves
    - Snap top off sterile water for injection
    - Put drawing-up needle on syringe, hold saline upside-down and draw up required amount for reconstitution (plus a bit extra).
    - Expel air and some water to leave the exact amount needed for reconstitution
    - Flick top off drug vial
    - Inert needle then inject water and twist vial on end of needle until drug powder is fully dissolved
    - Draw solution up while drug vial is upside-down
    - Dispose of drawing up needle in sharps bin and replace with injection needle (leave sheath on)
    - Expel air from syringe and place back into syringe packet in tray
    - Remove gloves, apron and bin waste
  - If the drug is in liquid vial:
    - Wash hands, apply apron and put on an extra pair of gloves
    - Put drawing-up needle on syringe and fill with approximately the same volume of air as in the drug vial
    - Flick top off drug vial
    - Insert the needle and inject the air into the airspace in the vial (stops a vacuum forming)
    - Draw drug solution up while drug vial is upside-down
    - Dispose of drawing up needle in sharps bin and replace with injection needle (leave sheath on)
    - Expel air from syringe and place back into syringe packet in tray
    - Remove gloves, apron and bin waste
- Walk to patient (with tray and sharps bin)

**Patient part**

**Exposure**
- Expose injection region (upper arms, thighs or central abdomen)
- Support the limb with pillows if necessary

**Procedure**
- Wash hands
- Put on gloves
- Sterilise area – wipe in spiral motion working outwards and wait 30 seconds for it to dry
- With non-dominant hand, pinch the skin at the injection site
- With dominant hand holding the syringe between the thumb and the first and middle fingers, insert the needle into the subcutaneous tissue at an 45°
- Using the dominant hand to securely hold the needle in place, use the non-dominant hand to...
  - Pull back on the top of the syringe (to confirm you are not in a blood vessel)
  - Slowly, inject the drug
- Gently but briskly remove the needle and immediately dispose of it (with syringe) into the sharps bin
- Wipe the injection site and press over it firmly with cotton wool swabs and then tape one on

To complete

- Thank patient and cover them
- Bin waste and gloves
- Clean tray, wash hands
- Sign on the drug chart that the drug has been administered
**Intradermal Injection**

**Introduction**
- Wash hands, Introduce self, Patients name & DOB & wrist band, Explain procedure and get consent
- Allergy check: check if any allergies with patient and drug chart
- Prescription check: check the prescription drug and dose, and confirm the name and DOB is correct (check with them and their wristband)
- Look up drug in “Injectable Medicines” book to determine volume of fluid required to reconstitute vial (if drug is in powder form)

**Preparation part**
- Wash hands
- Clean tray
- Gather equipment around tray (think through what you need in order)
  - Gloves (+ extra pair and apron if need to draw up drug)
  - Drug (CHECK DATE & DOSE & PRESCRIPTION & ALLERGIES)
    - + if drug is in liquid vial: green 21G needle and syringe for drawing-up
    - + if drug is in powder vial: green 21G needle, syringe and sterile water for injection (CHECK DATE) for reconstituting drug and drawing-up
  - Alcohol 70%/chlorhexidine 2% skin cleansing wipe
  - Orange 16mm 25G needle or brown 26G needle for injection
  - Cotton wool swabs
  - Tape
- Wash hands
- Open packets and place equipment neatly in tray in plastic parts of packets (without touching the instruments themselves)
  - If the drug is in powder vial:
    - Wash hands, apply apron and put on an extra pair of gloves
    - Snap top off sterile water for injection
    - Put drawing-up needle on syringe, hold saline upside-down and draw up required amount for reconstitution (plus a bit extra)
    - Expel air and some water to leave the exact amount needed for reconstitution
    - Flick top off drug vial
    - Inert needle then inject water and twist vial on end of needle until drug powder is fully dissolved
    - Draw solution up while drug vial is upside-down
    - Dispose of drawing up needle in sharps bin and replace with injection needle (leave sheath on)
    - Expel air from syringe and place back into syringe packet in tray
    - Remove gloves, apron and bin waste
  - If the drug is in liquid vial:
    - Wash hands, apply apron and put on an extra pair of gloves
    - Put drawing-up needle on syringe and fill with approximately the same volume of air as in the drug vial
    - Flick top off drug vial
    - Insert the needle and inject the air into the airspace in the vial (stops a vacuum forming)
    - Draw drug solution up while drug vial is upside-down
    - Dispose of drawing up needle in sharps bin and replace with injection needle (leave sheath on)
    - Expel air from syringe and place back into syringe packet in tray
    - Remove gloves, apron and bin waste
- Walk to patient (with tray and sharps bin)

**Patient part**

**Exposure**
- Expose injection region (upper arms, thighs or central abdomen)
- Support the limb with pillows if necessary

**Procedure**
- Wash hands
- Put on gloves
- Sterilise area – wipe in spiral motion working outwards and wait 30 seconds for it to dry
- With non-dominant hand, stretch the skin at the injection site
- With dominant hand holding the syringe between the thumb and the first and middle fingers, insert the needle into the dermis at an acute angle
- Using the dominant hand to securely hold the needle in place, use the non-dominant hand to...
  - Pull back on the top of the syringe (to confirm you are not in a blood vessel)
  - Slowly, inject the drug watching a wheal form
• Gently but briskly remove the needle and immediately dispose of it (with syringe) into the sharps bin
• Wipe the injection site and press over it firmly with cotton wool swabs and then tape one on

To complete
• Thank patient and cover them
• Bin waste and gloves
• Clean tray, wash hands
• Sign on the drug chart that the drug has been administered