

IV CANNULA

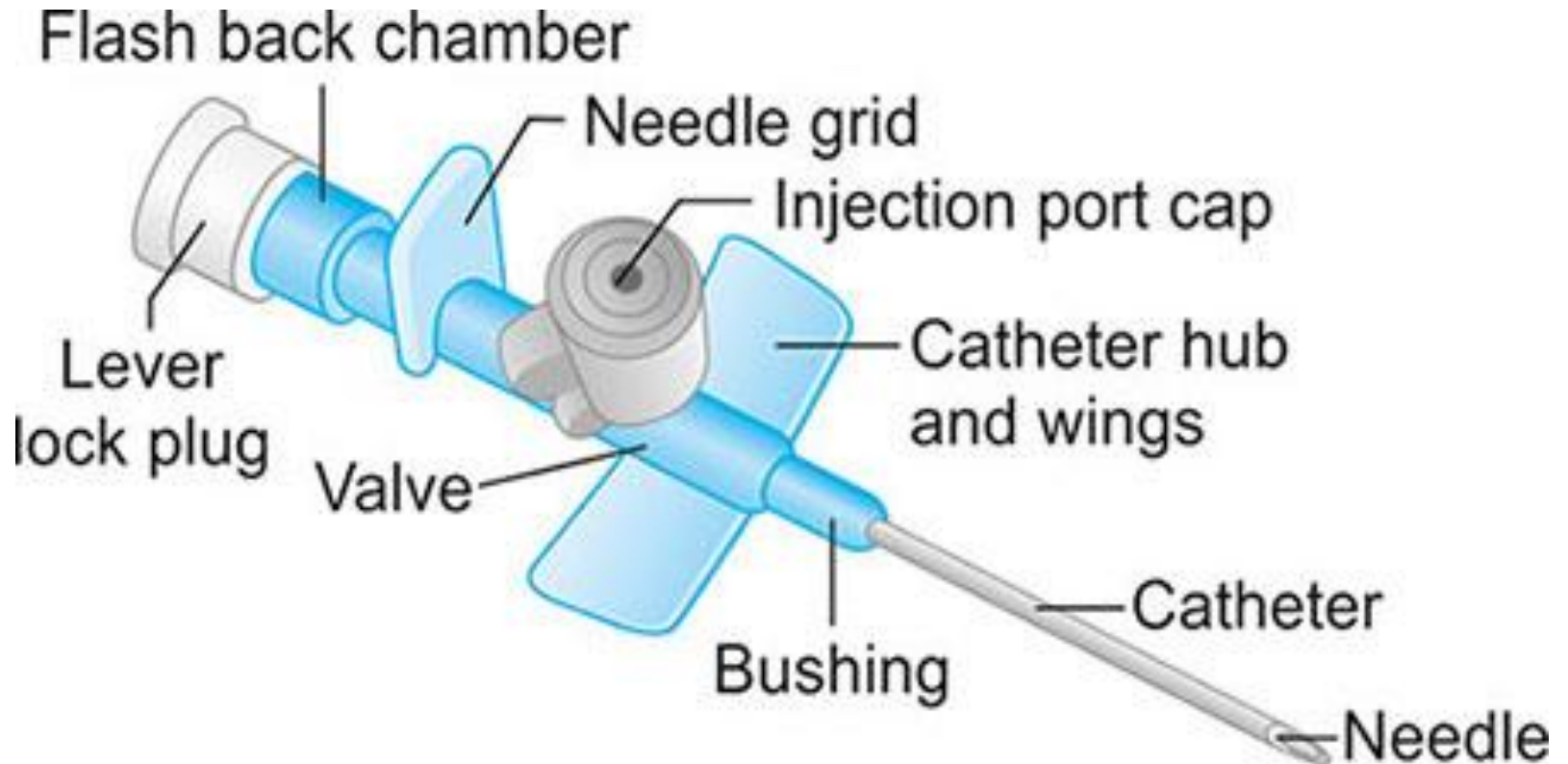
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USE

- IV fluid administration
- drug administration
- needle thoracotomy for tension pneumothorax
- needle cricothyroidotomy
- blood sampling

PARTS OF CANNULA



SIZES

COLOR CODE	GAUGE	EXT. DIA. mm	LENGTH mm	FLOW RATE mL/min
ORANGE 	14G	2.1 mm	45 mm	240 mL/min (1 liter ± 4 menit) 
GREY 	16G	1.8 mm	45 mm	180 mL/min (1 liter ± 5.5 menit) 
GREEN 	18G	1.3 mm	32 / 45 mm	90 mL/min (1 liter ± 11 menit) 
PINK 	20G	1.1 mm	32 mm	60 mL/min (1 liter ± 17 menit) 
BLUE 	22G	0.9 mm	25 mm	36 mL/min (1 liter ± 28 menit) 
YELLOW 	24G	0.7 mm	19 mm	20 mL/min (1 liter ± 50 menit) 
VIOLET 	26G	0.6 mm	19 mm	13 mL/min (1 liter ± 77 menit) 

PREPARATION

Cannulation

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Procedure

- ❑ Wash hands prepare equipment ANTT
- ❑ Remove the cannula from the packaging and check all parts are operational
- ❑ Loosen the white cap and gently replace it
- ❑ Apply tourniquet
- ❑ Identify vein
- ❑ Clean the site over the vein with alcohol wipe, allow to dry



METHOD OF INSERTION

- ☐ superficial veins of the upper limbs are preferred.
- ☐ veins are filled by use of a tourniquet and the vein immobilized by finger traction on the adjacent skin.
- ☐ cannula is **held at ~20°** to the skin and the vein punctured
- ☐ needle is inserted far enough that the tip of the cannula also enters the vein (i.e. **advance 1-2 mm following flashback**)
- ☐ cannula is advanced and the needle pulled back.
- ☐ needle is disposed of in a sharp container once the cannula is advanced to the hub
- ☐ PIVC is secured with adhesive dressing

COMPLICATIONS

- ❖ Failed cannulation
- ❖ Hematomas/damage to underlying structures
- ❖ Extravasation of fluids/drugs
- ❖ **Thrombophlebitis**
- ❖ Insertion site infection
- ❖ **Septicemia**
- ❖ Inadvertent arterial puncture
- ❖ operator needle stick injury

NOTES

- Many centers have a policy of routine replacement of peripheral IV cannula at **72-96h** (with the intention of decreasing complications such as infection)
- Replacement causes additional discomfort to patients and is non-trivial in patients with difficult IV access

Thank
you! 

