

# VASCULAR ACCESS DEVICES: EVIDENCE-BASED CLINICAL PRACTICE GUIDELINES



## Flushing and locking of central venous access devices (CVAD) & peripheral intravenous cannulas (PIVC)

CNSA recommends **flushing** and **locking** with the same solution: **0.9% sodium chloride**

### CVAD

- Solution:** 0.9% sodium chloride
- Volume:** 10-20 mL\* adults, double lumen volume paediatrics
- Syringe:** 10 or 20mL barrel syringe
- Technique:** pulsatile technique, complete with appropriate clamp-disconnection sequence for type of NC, stop before end of syringe or use manufactured prefilled syringe
- Lumens:** every lumen
- Frequency:**
  - Inpatient:** lumens in use: not required, unused lumens: patency assessment each shift including flush / lock with 20 mL sodium chloride
  - Outpatients:** Every visit with patency assessment

### PIVC

- Solution:** 0.9% sodium chloride
- Volume:** 3-5 mL\* adults, volume appropriate for paediatrics
- Syringe:** 10 or 20mL barrel syringe
- Technique:** slow and steady
- #dontrushyourflush**
- Frequency:** once per shift if not infusing.  
**Remove** if not being used within 24 hours



\*Increase volume post medication, blood etc.

### What type of needleless connector do you use?

NEGATIVE			POSITIVE				NEUTRAL					BI-DIRECTIONAL		
BD Q-Syte™	BD SmartSite™	B Braun SafeFlow®	B Braun Ultrasite®	BD MaxPlus™	B Braun Caresite®	BD MaxZero™	ICU Medical Microclave®	Cardinal Health Kendal®	Baxter One-Link®	ICU Medical Nanoclave®	B Braun InVision Plus®	Vygon Bionector TKO®	ICU Medical Neutron®	Nexus TKO-6P®

Clamp the catheter or tubing (TIVAD / PIVC extension tubing) **PRIOR** to finishing the flush then disconnect the syringe

Clamp the catheter or tubing (TIVAD / PIVC extension tubing) **AFTER** finishing the flush and disconnection of the syringe

No specific clamping sequence at the end of flushing or locking is required

### For every PIVC or CVAD. Every time. Every patient.

More detailed information:  
<https://www.cnsa.org.au/implement/vascular-access-devices.html>



Infographic kindly sponsored by unrestricted educational grant from Teleflex Medical Australia & New Zealand.  
Abbreviations: **CVAD:** Central venous access device, **PIVC:** Peripheral intravenous cannula, **NC:** Needleless connector

