



Clinical Practice Procedures: Drug administration/ Priming of an Alaris™ blood solution (gravity flow)

Policy code	CPP_DFA_PAB_0120
Date	January, 2020
Purpose	To ensure a consistent procedural approach to the priming of an Alaris™ blood solution (gravity flow) pump set.
Scope	Applies to Queensland Ambulance Service (QAS) clinical staff.
Health care setting	Pre-hospital assessment and treatment.
Population	Applies to all ages unless stated otherwise.
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Author	Clinical Quality & Patient Safety Unit, QAS
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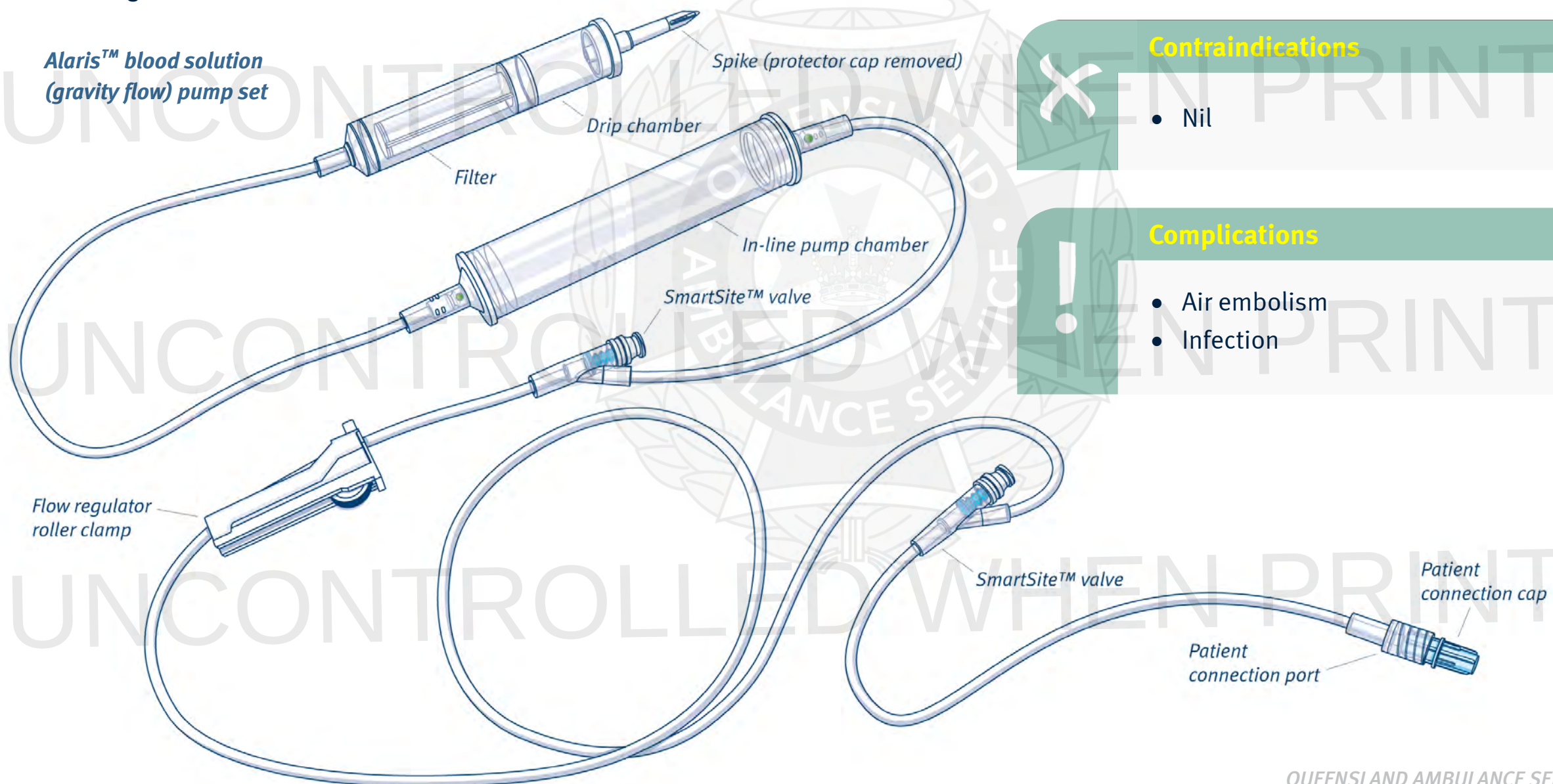
Priming of an Alaris™ blood solution (gravity flow) pump set

January, 2020

The administration of blood provides the patient with essential haemoglobin and improved oxygen carrying capability. The decision to transfuse blood must be based on detailed clinical assessment and risk analysis.

The Alaris™ blood solution (gravity flow) pump set allows for the filtration and rapid administration of packed red blood cells. Meticulous adherence to protocol when priming an infusion line will minimise the likelihood of air entrainment reducing the risk of air embolus.

**Alaris™ blood solution
(gravity flow) pump set**



Indications

- To prepare an Alaris™ blood solution pump set^[1] prior to the administration of blood through an appropriately placed intravenous/intraosseous cannula.

Contraindications

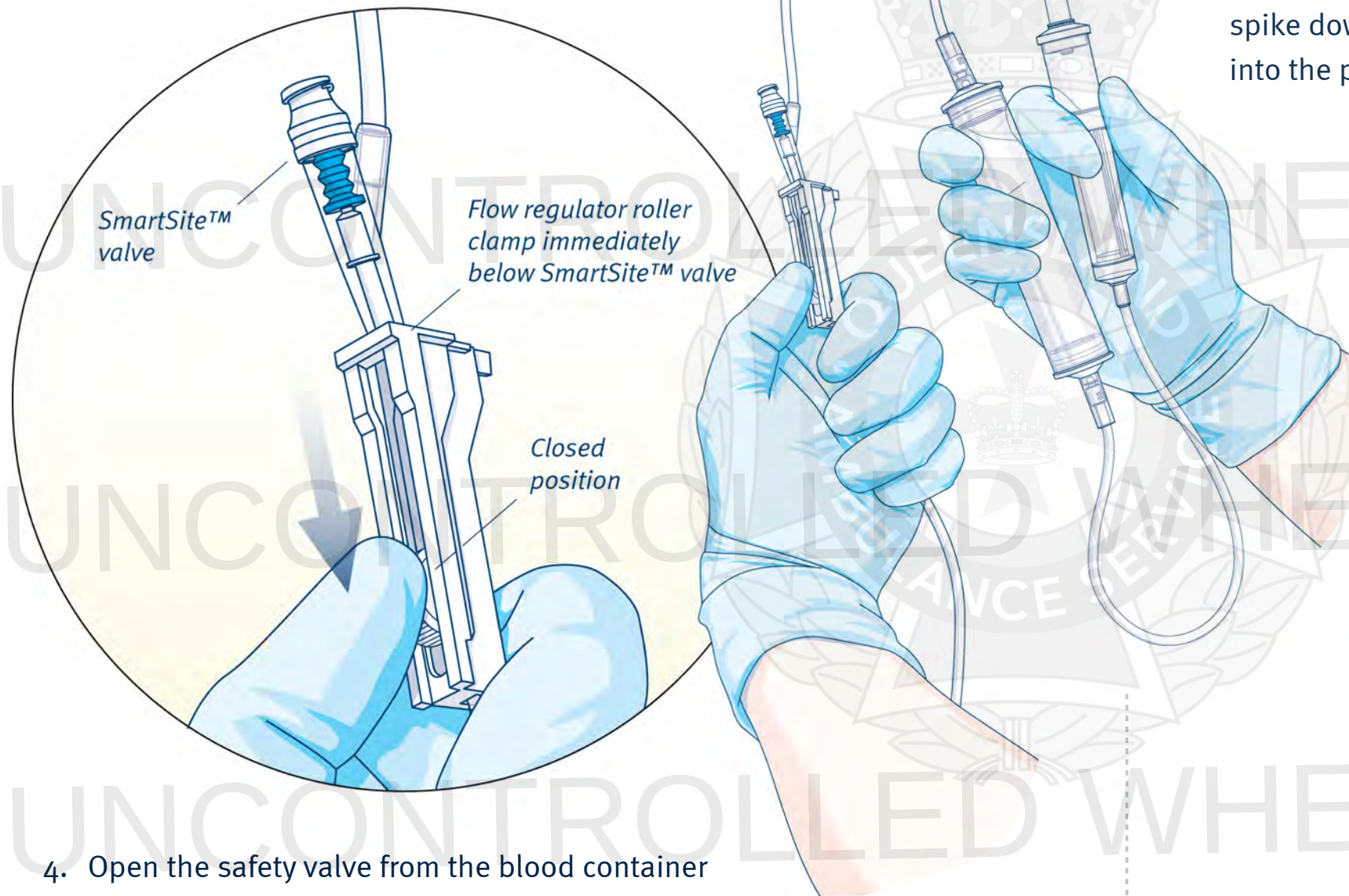
- Nil

Complications

- Air embolism
- Infection

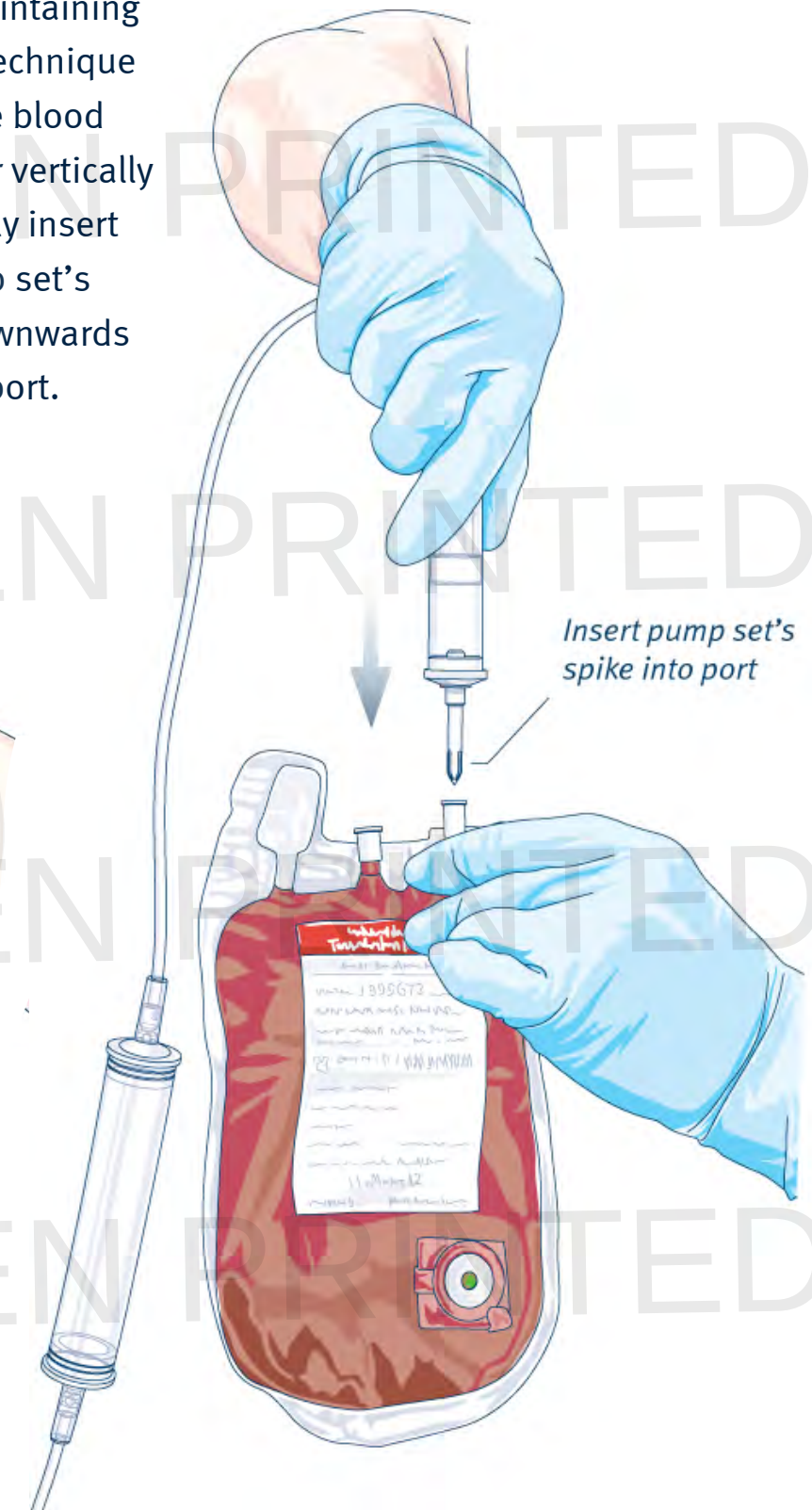
Procedure – Priming of an Alaris™ blood solution (gravity flow) pump set

1. Remove the giving set from the packaging.
2. Reposition the flow regulator roller clamp immediately below the proximal SmartSite™ valve.
3. Close the flow regulator roller clamp.



4. Open the safety valve from the blood container in preparation for spiking.
5. Remove and discard the pump set's spike protector cap.

6. While maintaining aseptic technique invert the blood container vertically and gently insert the pump set's spike downwards into the port.



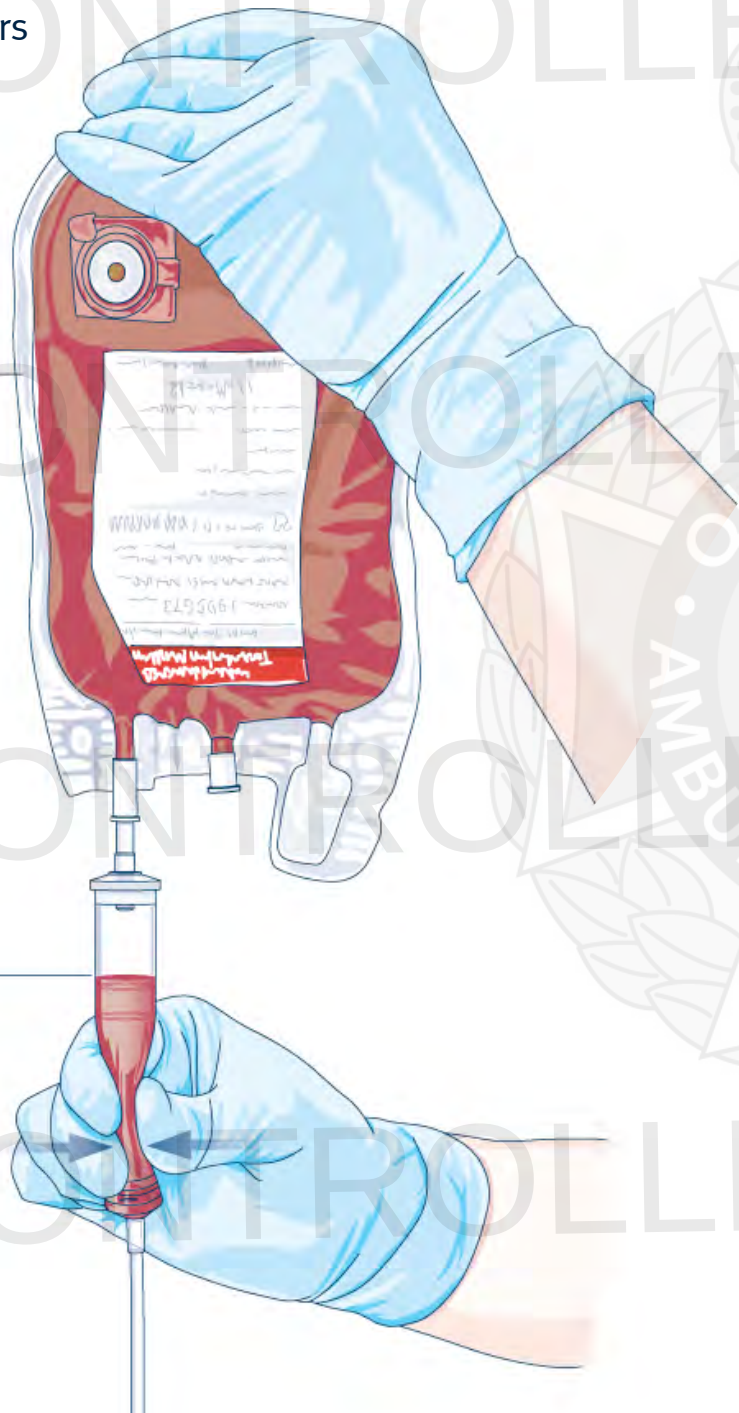
Procedure – Priming of an Alaris™ blood solution (gravity flow) pump set

7. Hang or hold the blood container in an upright position.

8. Gently squeeze and release the drip chamber until it is filled to a level that completely covers the filter.

Hang/hold blood container in upright position

Gently squeeze until filter is completely covered

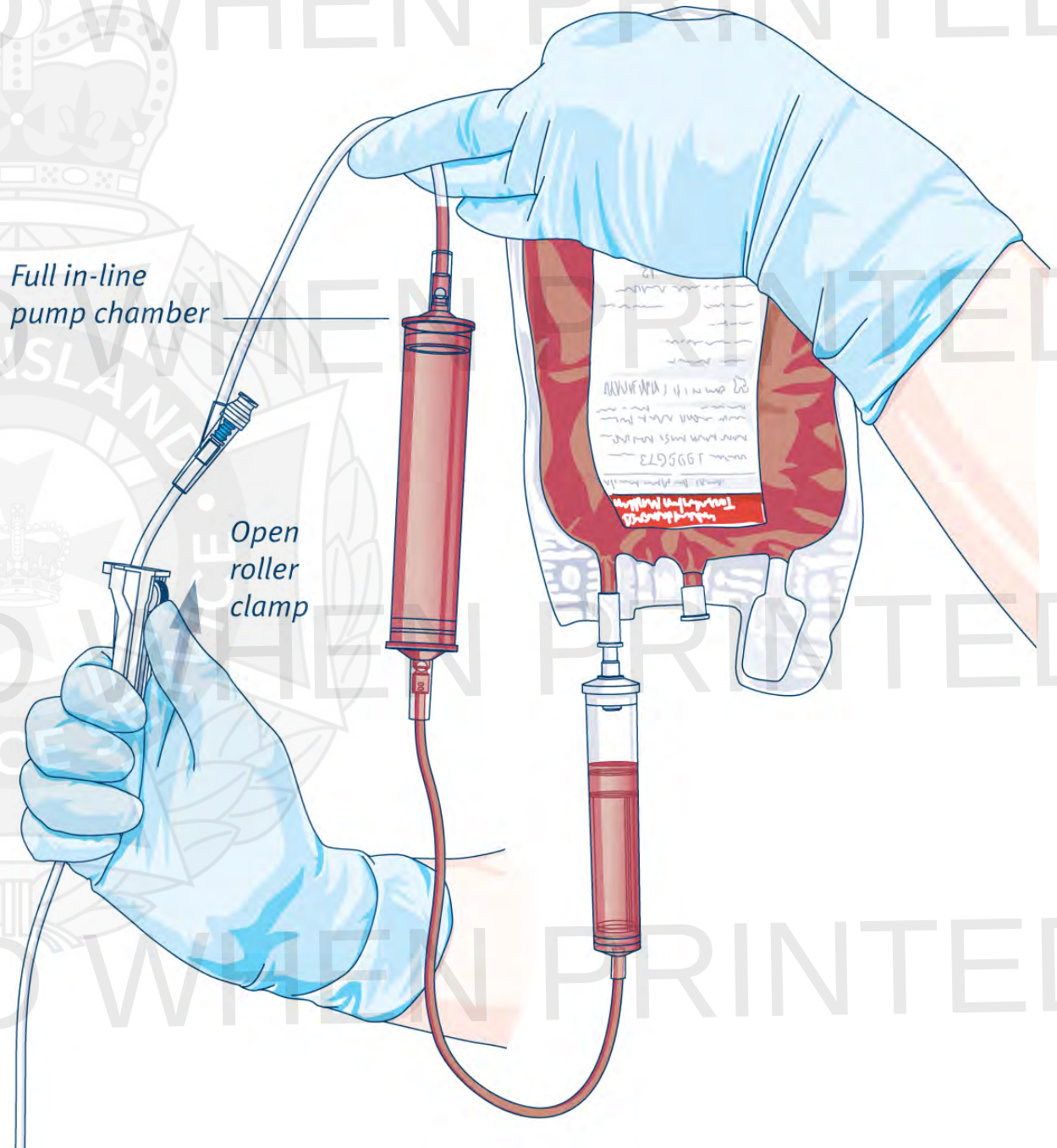


9. Invert the in-line pump chamber.

10. Open the flow regulator roller clamp and slowly fill the in-line pump chamber.

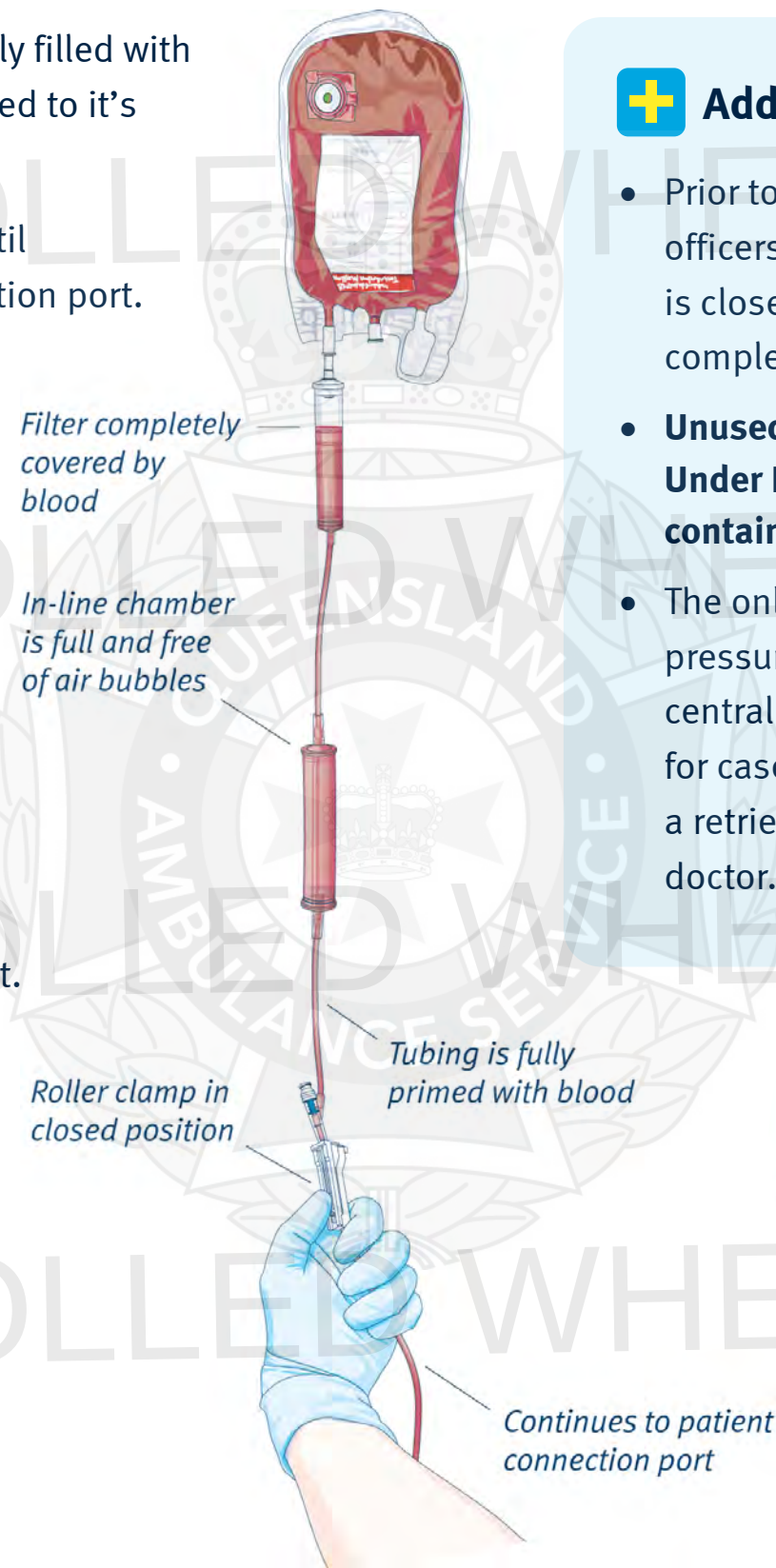
Full in-line pump chamber

Open roller clamp



Procedure – Priming of an Alaris™ blood solution (gravity flow) pump set

11. Once the in-line pump chamber has completely filled with blood and free of air bubbles, it can be returned to its normal orientation.
12. Allow the blood to slowly prime the tubing until blood has accumulated in the patient connection port. Priming slowly helps minimise turbulence that can cause air bubbles to form.
13. Inspect the SmartSite™ valve to ensure no air bubbles are visible. If air bubbles are visible, briskly tap the valve until all air bubbles are dislodged and have been released from the tubing.
14. Close the regulator flow roller clamp.
15. Remove the pump set's patient connection port cap and connect to the patient's cannula or primed enFlow® cartridge and extension set.
16. Open the flow regulator roller clamp and administer blood as required.
17. If increased flow is required, officers may gently squeeze the in-line pump chamber while simultaneously ensuring that the filter within the drip chamber is covered completely by blood.



+ Additional information

- Prior to the spiking of additional blood containers officers must ensure that the flow regulator clamp is closed and the filter within the drip chamber is completely covered by fluid.
- **Unused/new bags of blood only are to be primed. Under NO circumstances are partially full blood containers to be 're-spiked'.**
- The only role for pressure bags is with invasive pressure monitoring lines (e.g. arterial and central venous pressure monitoring) for cases involving a retrieval doctor.

