



CSOP 033 – Wide Bore Vascular Access

Version No: 1.0

Effective date: 24/09/2021

APPROVALS

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HISTORY

<u>Effective Date</u>	<u>Version No.</u>	<u>Summary of Amendment</u>
Aug 2021	1.0	Creation of document

REFERENCES

<u>Document Reference Number</u>	<u>Document Title</u>

DEFINITIONS/ACRONYMS:

<u>Abbreviations/Acronym</u>	<u>Definitions</u>
IV	Intravenous
IO	Interosseous
CT	Computerised Tomography
MAC	Multi-lumen Access Catheter



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ANNEX/APPENDIX

Document Reference Number	Document Title
Appendix 1	Local Safety Standards for Invasive Procedure (LocSSIP)

1. Purpose

This SOP defines the use of wide bore central access lines at TAAS. Wide bore central access lines have been added to TAAS equipment to enable clinicians to establish intravenous access rapidly and reliably for the administration of resuscitative fluids at rates in excess of 600ml/minute to adult patients with hypovolaemic shock/cardiac arrest due to trauma. It is not for patients who have difficult IV access alone, as IO access would still be appropriate for standard fluid and drug administration.

Wide bore central access would target a group of patients that currently receive fluid resuscitation via IO access (where flow rates of up to 80ml/minute can be achieved) when peripheral wide-bore access would be time consuming or impossible.

2. Scope

All aspects of the use of wide bore central access covered, including indications, training and governance.

3. Equipment

9 Fr 2 lumen 10cm MAC lines (Image 1) have been chosen to enable both fluid and drug administration and to reduce associated risks of air emboli associated with other devices. It has a brown 9Fr distal lumen capable of flow rates of up to 500ml/min (higher with pressure), and a white 12G proximal lumen, capable of flow rates of 150ml/min.

Further information is available at:

<https://www.teleflex.com/usa/en/product-areas/vascular-access/central-access/multi-lumen-access-catheters/index.html>

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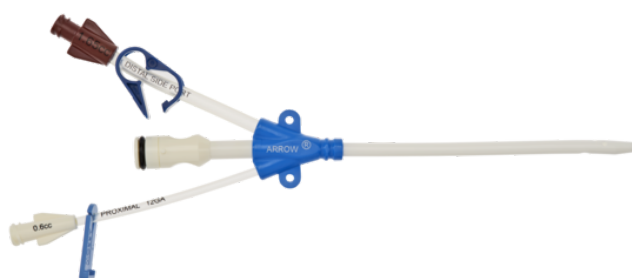


Image 1: MAC™ Two-Lumen Central Venous Access Set With Integral Haemostasis Valve for use with 7 - 8 Fr. Catheters

The MAC line, 20ml saline, 5ml syringe, 2% chloroprep, sterile gloves, scalpel and suture will be stored in the fluid warmer bag as these pieces of equipment complement each other and will minimise carriage of additional weight to the majority of incidents.

4. **Standard Indication for wide bore venous access.**

Fluid resuscitation of trauma patients with hypovolaemic shock or cardiac arrest is established practice within our organisation via wide bore peripheral IV access. It is possible to achieve flow rates of 480ml/minute via a 14G cannula to enable large volumes of fluids to be infused in short time periods to resuscitate patients.

Wide bore central access lines would be indicated in cases when it is difficult or impossible to establish timely wide bore peripheral access.

This procedure would be performed by clinicians trained in landmark subclavian vein access.



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5. Procedure for wide bore access.

A standardised infraclavicular landmark approach using an aseptic Seldinger technique to access the subclavian vein. (See Appendix 1)

All sharps including the guidewire are to be disposed of safely and in accordance to policy.

6. Training.

All TAAS clinicians should be trained in landmark subclavian vein access and Seldinger technique for central line insertion prior to clinical use. Initially this procedure will be used by clinicians who use landmark subclavian access in their regular clinical practice. A second phase will involve 'in-house' training for other interested clinicians across the platform in this technique prior to its use in clinical practice. (See Appendix 2). Training will be delivered by studying a video guide to the technique, supervised practice on a dedicated manikin and completion of a direct observation of practice (DOPS) form.

7. Governance.

All insertion attempts of wide bore central access lines should be documented on taasBase as a surgical procedure. Each insertion will be reviewed and audited (as per surgical procedures) to ensure compliance with the SOP, highlight areas of good practice and ensure any complications are learnt from.

The review process will aim to include a review of line position on initial CT scan.

If there is a significant complication such as arterial line insertion or a pneumothorax requiring drainage then an incident report form should be completed.

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