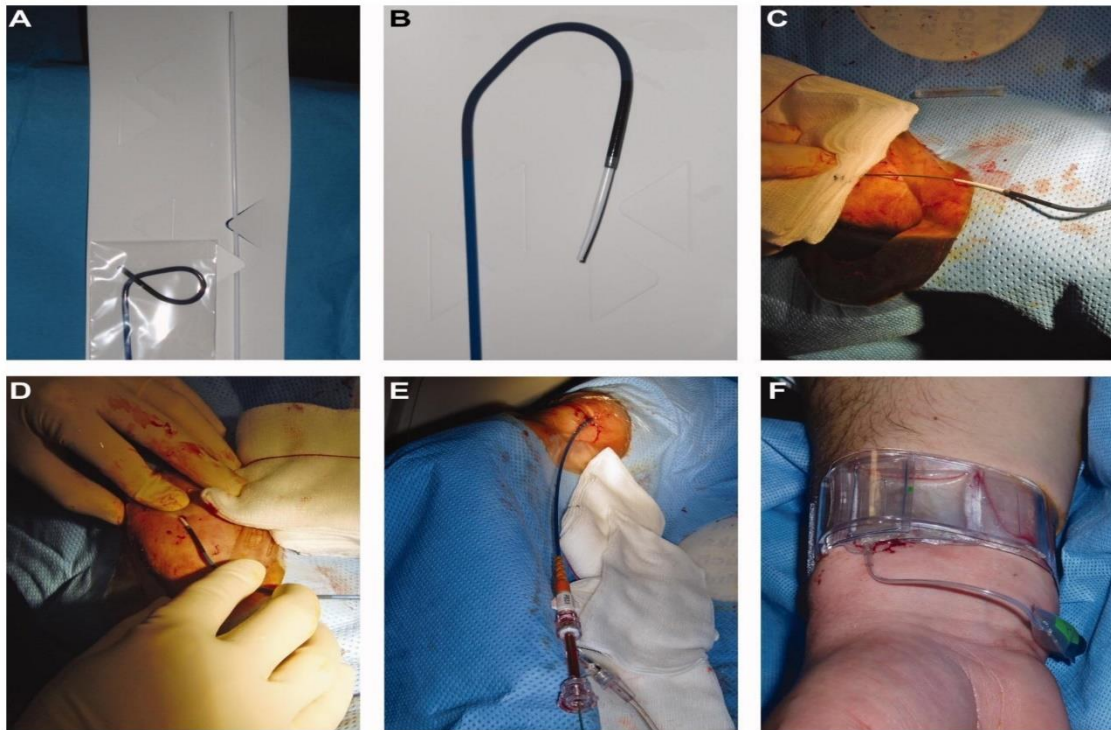


Supplementary Figure 1: Large Bore Radial Sheathless Guide Catheter System.

Caption: (A) Hydrophilic PBU 3.5 guide catheter illustrated with central dilator in packaging. (B) Central dilator inserted into guide catheter. (C) Following cannulation of radial artery, introducer sheath removed and sheathless guide passed over 150-cm guide wire (D) until catheter has reached proximal ascending aorta where central dilator and guide wire removed. (E) After cannulation of coronary artery. (F) Postprocedure with local radial compression device for hemostasis.

Source: Mamas et al. 2008.¹ Reproduced with permission from John Wiley and Sons.



Supplementary figure 2: Comparison of the Outer Diameters of Pertinent Sheath Sizes and Sheathless Systems.

Caption: The outer diameters of a dedicated 6.5F and 7.5F sheathless guide catheters are smaller than a traditional full thickness 5F and 6F sheaths respectively.

Source: Cheaito et al. 2015.² Reproduced with permission from John Wiley and Sons.

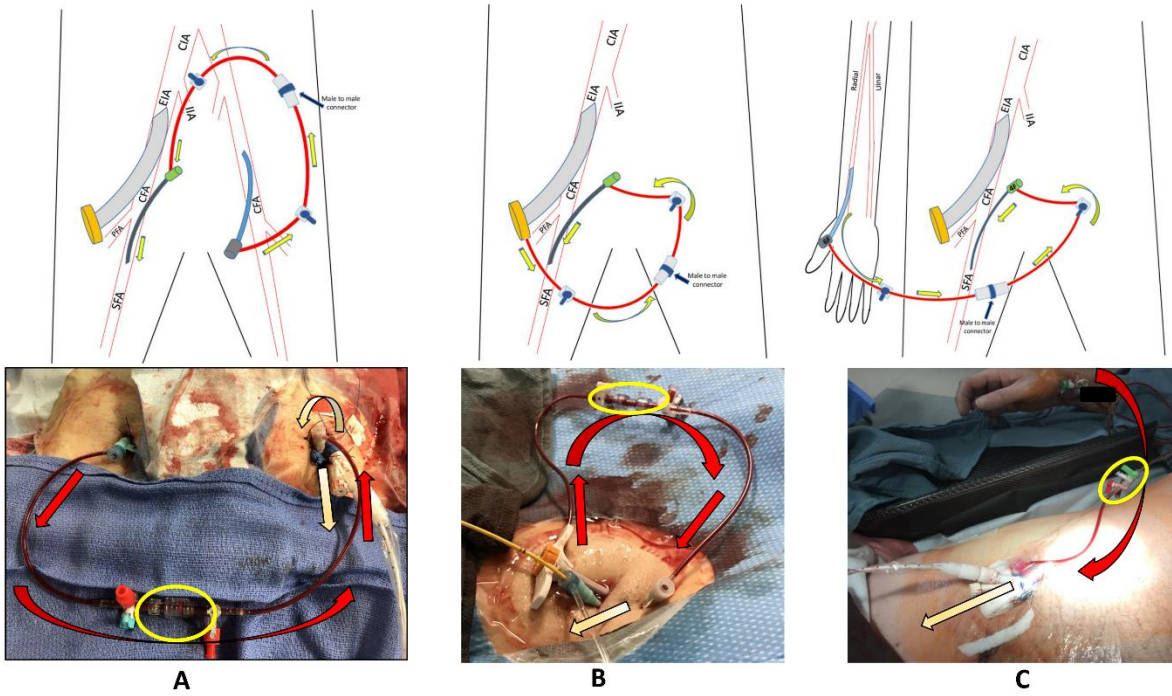


Supplementary Figure 3: External Perfusion Circuits for Maintenance of Limb Perfusion in the Setting of an Indwelling Occlusive Large Bore Femoral Sheath for MCS.

Caption: (A) Contralateral femoro-femoral external bypass. (B) Ipsilateral femoro-femoral external bypass. (C) Radial-to-femoral external bypass or 'Lend a Hand' technique.

Source: Lichaa 2020.³ Reproduced from Wiley under a Creative Commons CC BY-NC 4.0 license.

Legend: (Red arrows) Direction of flow in the external bypass. (Yellow arrows) Direction of outflow in the receiving limb. (Yellow circle) Male-to-male tubing connector.



Supplementary Table 1: Sheath Sizes of Common HRPCI MCS Devices

<u>Device</u>		<u>Sheath Size</u>	
		Arterial	Venous
Impella	2.5	13 Fr	NA
	CP	14 Fr	NA
	5.0/5.5	23 Fr	23 Fr (transcaval)
	RP	NA	23 Fr
ECMO		15–23 Fr	15–29 Fr

ECMO = extracorporeal membrane oxygenation.

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2. Cheaito R, Benamer H, Hovasse T, et al. Feasibility and safety of transradial coronary interventions using a 6.5-F sheathless guiding catheter in patients with small radial arteries. *Catheter Cardiovasc Interv* 2015;86:51–8. <https://doi.org/10.1002/ccd.25508>; PMID: [24740683](https://pubmed.ncbi.nlm.nih.gov/24740683/).
3. Lichaa H. The “lend a hand” external bypass technique: external radial to femoral bypass for antegrade perfusion of an ischemic limb with occlusive large bore sheath - A novel and favorable approach. *Catheter Cardiovasc Interv* 2020;96:E614–20. <https://doi.org/10.1002/ccd.29187>; PMID: [32757357](https://pubmed.ncbi.nlm.nih.gov/32757357/).