

UNIVERSITY OF MARYLAND MEDICAL CENTER, CARDIAC SURGERY INTENSIVE CARE UNIT ECMO – EXTRACORPORAL MEMBRANE OXYGENATION POLICY AND PROCEDURE MANUAL	PAGE: 1 of 2 EFFECTIVE:	POLICY NO: REVISED:
SUBJECT: Weaning of Adult V-A ECMO	DIRECTOR'S SIGNATURE: MEDICAL DIRECTOR'S SIGNATURE:	

I. POLICY

To outline the steps for initiation and management of a trial off ECMO using a “bridgeless” circuit.

II. RESPONSIBILITIES The attending surgeon/physician, ECMO Specialist, bedside nurse, NP, and Echocardiographic team will be present at the time of weaning.

III. PROCEDURE

The patient must have stable vital signs and adequate sedation for a trial off. Paralytics may also be required to reduce oxygen consumption.

The managing physician must be present before beginning the trial off and readily available throughout the trial.

Prior to commencement of the trial off, heparin infusion will be adjusted so that clotting time is appropriate for the anticipated low flow to the ECMO lung. The clotting time is at the discretion of the managing physician.

Flow will be reduced in a manner deemed suitable by the managing physician.

Patient tolerance will be monitored, as evidenced by changes in hemodynamic and respiratory support markers.

If tolerated, the trial off evaluation will run for a period of deemed suitable by the managing.

At the request of the managing physician, the patient can be isolated from extracorporeal support entirely by placing a tubing clamp on the arterial limb of the circuit for a period of time not to exceed 2 minutes. Pump speed should be adjusted to 1000 RPM during this interval. At the end of this interval, remove the tubing clamp and adjust RPM for a flow of 1 liter/minute. If the trial off evaluation demonstrates positive tolerance by the patient, the circuit can be cut away at the discretion of the managing physician.

IV. Equipment and Supplies:

UNIVERSITY OF MARYLAND MEDICAL CENTER, CARDIAC SURGERY INTENSIVE CARE UNIT ECMO – EXTRACORPORAL MEMBRANE OXYGENATION POLICY AND PROCEDURE MANUAL	PAGE: 2 of 2 EFFECTIVE:	POLICY NO: REVISED:
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Tubing clamps

V. Preparation of the Patient:

The patient must be adequately sedated. Paralytics may be used if necessary. Ventilator support is adjusted so that respiratory support is optimized.

VI. Aftercare of the Patient:

If the patient does not tolerate the trial off, return to full ECMO support.
If the patient trials off successfully, and is to be decannulated, refer to the policy entitled “ECMO Decannulation Procedure”.

Clinical Considerations

Trial off V-A ECMO is at the discretion of the managing surgeon/physician. The managing physician will be present for initiation of the trial off session, and readily accessible thereafter for consultation as needed. The patient will be managed so that hemodynamic and respiratory support is evidenced without the benefit of extracorporeal support. The ECMO Specialist will be in attendance for the entire duration of the trial off evaluation

UNIVERSITY OF MARYLAND MEDICAL CENTER, CARDIAC SURGERY INTENSIVE CARE UNIT ECMO – EXTRACORPORAL MEMBRANE OXYGENATION POLICY AND PROCEDURE MANUAL	PAGE: 3 of 2 EFFECTIVE:	POLICY NO: REVISED:
SUBJECT: Weaning of Adult V-A ECMO	DIRECTOR'S SIGNATURE: MEDICAL DIRECTOR'S SIGNATURE:	