



OG005.v1 Referral for Paediatric ECMO

1. Key Recommendations for operational use		
1	Referral	<ul style="list-style-type: none"> Clinicians may refer any patient who <i>may</i> require extracorporeal support (ECMO) at <i>any</i> stage of their illness. <ul style="list-style-type: none"> early transfer is preferable even if the patient does not ultimately require ECMO. the referring unit may already be in discussions with ScotSTAR and a local paediatric / neonatal unit in Scotland as the patient will be critically ill. The single point of contact for referrals for ECMO is the SAS Specialist Services Desk: (SSD) 03333 990222. Ask SSD to establish a conference call with the ScotSTAR paediatric or neonatal transport team and relevant Royal Hospital for Children, Glasgow (RHCG) consultant: <ul style="list-style-type: none"> Paediatric Intensive Care Unit at the Royal Hospital for Children, Glasgow (RHCG) Neonatal Intensive Care Unit (NICU) ECMO if the referral is from a NICU / labour ward The RHCG consultant will be able to advise on the suitability of extracorporeal support for the patient during the call conference.¹ RHCG is part of a larger UK ECMO network that is able to offer this type of support.² If a patient potentially requires ECMO and a bed at RHCG is unavailable, the RHCG consultant will contact one of the other five UK ECMO centres to access a bed. <ul style="list-style-type: none"> it is not the responsibility of the referring centre to find an ECMO bed. The referral is for transfer to RHCG for ECMO support. <ul style="list-style-type: none"> the service does not provide cannulation and transfer on ECMO the RHCG consultant will advise on appropriate additional therapies as required
2	Special Considerations	<ul style="list-style-type: none"> Management of these patients can be extremely challenging and their condition should be optimised prior to transfer. This will involve collaboration between the referring centre, the ScotSTAR team and receiving unit. Check the following: <ul style="list-style-type: none"> Patency or previous instrumentation of right internal jugular and subclavian veins should neck cannulation be required. This is not always an issue but should be discussed and instrumentation avoided if possible. Insert femoral arterial line and femoral venous line (or umbilical venous line) if able - to keep neck vessels clear for cannulation. Blood type – at least Group and Save locally Ensure platelet count > 100 Consider local cranial ultrasound (if appropriate) and echocardiogram



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3	Transport considerations	<p>Additional transport equipment should be considered according to the complexity of the transfer. This may include but is not limited to:</p> <ul style="list-style-type: none">- oxygen: requirements are likely to be significant, especially on longer transfers- ensure transport trolley is fully charged prior to leaving- consider additional syringe drivers and spare batteries for equipment- make up and attach infusions of inotropes if patient is haemodynamically unstable- consider nitric oxide (neonates)- consider neonatal team transfer if nitric oxide and high frequency oscillation is likely
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2. Document History			
Reference Number	OG005		
Version	1		
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Distribution	ScotSTAR	EMRS West	X
		EMRS North	X
		Paediatric	✓
		Neonatal	✓
	Referring centres via service websites		✓
	BASICS Scotland		X
	Medic 1		X
	Tayside Trauma Team		X
	Rural GPs Association of Scotland		X
	SAS Air Ambulance Division		for information





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3. Scope and purpose

- Overall objectives:

This guideline summarises the referral pathway for transfer to the Royal Hospital for Children, Glasgow (RHCG) for extracorporeal support. There are six centres in the UK who are commissioned to provide extracorporeal life support (ECLS) for paediatric and neonatal patients. The RHCG is the only centre in Scotland.

- Statement of intent:

This guideline is not intended to be construed or to serve as a standard of care. Adherence to guideline recommendations will not ensure a successful outcome in every case, nor should they be construed as including all proper methods of care or excluding other acceptable methods of care aimed at the same results. The ultimate judgement must be made by the appropriate healthcare professional(s) responsible for clinical decisions regarding a particular clinical procedure or treatment plan. Clinicians using this guideline should work within their skill sets and usual scope of practice.

- Feedback:

Comments on this guideline can be sent to: scotamb.CPG@nhs.net

- Equality Impact Assessment:

Applied to the ScotSTAR Clinical Standards group processes.

- Guideline process endorsed by the Scottish Trauma Network Pre-hospital, Transfer and Retrieval group.



4. References

- [http://www.staffnet.ggc.scot.nhs.uk/Acute/Women%20and%20Childrens%20Services/Paediatrics/Paediatric%20Anaesthesia%20and%20Critical%20Care/Documents/283135%20ECMO%20Manual%20Combined\[1\].pdf](http://www.staffnet.ggc.scot.nhs.uk/Acute/Women%20and%20Childrens%20Services/Paediatrics/Paediatric%20Anaesthesia%20and%20Critical%20Care/Documents/283135%20ECMO%20Manual%20Combined[1].pdf)
- <https://www.elseo.org/>