

OG028 ScotSTAR referral and activation

Emergency contact through SAS SSD: 03333 990222

1	ScotSTAR teams	<ul style="list-style-type: none"> • ScotSTAR is available to support specific groups of patients requiring specialist medical input to facilitate their retrieval or safe transfer, and to advise the clinical teams referring them. • ScotSTAR is comprised of several teams: <ul style="list-style-type: none"> - Emergency Medical Retrieval Service (EMRS) teams - Paediatric team - Neonatal teams
2	Definitions	<ul style="list-style-type: none"> • 'Retrieval' generally implies an escalation in the level of care provided; 'Transfer' implies no such escalation. • Primary retrieval or transfer is from the scene of accident or illness, e.g. roadside or patient's home; this is commonly termed 'pre-hospital care'. • Secondary retrieval or transfer is from a health care facility of any kind.
3	Pre-hospital care	<ul style="list-style-type: none"> • Primary retrieval (pre-hospital care) of patients of all ages is delivered by EMRS. • EMRS are activated in this role only by the Scottish Ambulance Service: <ul style="list-style-type: none"> - it is not a clinician referral service and will not be considered further in this document.
4	Adult Retrieval	<ul style="list-style-type: none"> • An adult is 16 years of age or older. • Adult secondary retrieval and transfer is delivered by EMRS teams. <ul style="list-style-type: none"> - retrieval is offered to critically ill patients presenting to isolated GPs, community hospitals and rural general hospitals in remote and rural Scotland. - transfer of critically ill patients that are not time-critical is offered to Raigmore Hospital, Inverness (see OG033) and Dr Gray's Hospital, Elgin (see OG030). • EMRS West is based at Glasgow airport: <ul style="list-style-type: none"> - consists of 2 teams available 24 hours a day and who are immediately available to deploy from base between 07:00hr and 23:00hr and on-call outside these hours. • EMRS North is based at Aberdeen airport: <ul style="list-style-type: none"> - consists of 1 team available 24 hours a day who are immediately available to deploy from base between 08:00hr and 18:00hr and on-call outside these hours.
5	Paediatric Retrieval	<ul style="list-style-type: none"> • Paediatric secondary retrieval and transfer is delivered by one paediatric operational team 24 hours a day from Glasgow airport.

OG028 ScotSTAR referral and activation

6	<p>Neonatal Transfer and Retrieval</p>	<ul style="list-style-type: none"> • Neonatal secondary transfer and retrieval is delivered from Glasgow, Edinburgh and Aberdeen. <ul style="list-style-type: none"> - both emergency and elective transfers are supported. - emergency requests are made via SSD. - scheduled transfers are requested using an online request form, supplemented by telephone calls to the team where required. • The neonatal team transfers newborn infants from maternity / neonatal healthcare settings to other maternity / neonatal or paediatric healthcare settings for patients that have not been ordinarily discharged from hospital. <ul style="list-style-type: none"> - babies who have previously been discharged from hospital or are under the care of paediatric services are generally referred to the paediatric team. • There are always at least two operational teams on duty to cover the whole of Scotland. • The West Team (Glasgow) operates 24 hours a day 7 days a week. • The North team (Aberdeen) operates 24 hours Monday and Tuesday; 0800hr-2000hr Wednesday, Thursday and alternate Fridays and alternate weekends (Friday to Sunday). • The South East Team (Edinburgh) operate to provide complimentary cover to the North team, ie Wednesday and Thursday out of hours and alternate weekends.
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OG028 ScotSTAR referral and activation

Referral process		
7	Prior to referral	<ul style="list-style-type: none"> • Referrals from consultant staffed hospitals should ordinarily be made by the consultant responsible for the patient. • Ensure the following information is available: <ul style="list-style-type: none"> - location and appropriate contact telephone number. - patient name, date of birth, CHI number and their location within the hospital. - patient weight. - a current set of observations.
8	Referral procedure	<ul style="list-style-type: none"> • Contact the Specialist Services Desk (SSD) in SAS ambulance control to request advice or retrieval by one of the ScotSTAR teams: Adult (EMRS), Paediatric or Neonatal. <ul style="list-style-type: none"> - 03333 990222 • SSD will initiate a conference call between the referring clinician, relevant ScotSTAR team, the SSD dispatcher and any additional relevant parties. • Please be patient during this process as it important that all details are logged prior to contact with the ScotSTAR clinician. • The call is recorded. • A video call may be initiated utilising GoodSam with the consent of those involved. <ul style="list-style-type: none"> - a this will be coordinated by SSD. • An initial plan of action will be formulated by those on this conference call. <ul style="list-style-type: none"> - all parties on the call will be aware of the outcome of the referral.
9	Outcomes of referral	<ul style="list-style-type: none"> • If ScotSTAR team activation is required: <ul style="list-style-type: none"> - SSD will advise on the availability of transport resources and time scales. - the ScotSTAR clinicians will be able to provide advice and support to the referring team. • If ScotSTAR team activation is not required (advice only call): <ul style="list-style-type: none"> - the retrieval clinicians will be able to provide advice and support to the referring team. - criteria for further advice or referral, and how to obtain it, will be defined. - transport options, if relevant, may be discussed between SSD, referring and retrieval clinician.

OG028 ScotSTAR referral and activation

10	Transport planning	<ul style="list-style-type: none"> • SSD will advise as to the availability of transport resources and time scales, and agree with the ScotSTAR team the most appropriate option. • Transport arrangements will only be changed following discussion between SSD and the ScotSTAR team. • The retrieval clinician, or the SSD, may need to subsequently contact the referring and receiving units to confirm an estimated time of arrival. • In the event of an unexpected transport delay, the retrieval clinician, or the SSD should notify the referring and receiving units. • Transport planning can be logistically complex: <ul style="list-style-type: none"> - options can include, but are not limited to: SAS road ambulances, SAS air ambulance aircraft, Search and Rescue or military aircraft and commercial ferries. - additional considerations include: transport asset availability, weather conditions, shift patterns and duty times of pilots, drivers and the clinical teams. - if there are simultaneous transport requests, these will be prioritised according to clinical need.
11	Destination planning	<ul style="list-style-type: none"> • Adult retrieval (EMRS): <ul style="list-style-type: none"> - the EMRS consultant may be able to advise SSD at time of call as to the likely receiving unit for the patient based around normal triage pathways; this may not be feasible until the patient has been seen and assessed. - securing a destination critical care unit is the responsibility of the EMRS consultant, however, consultants referring from rural general hospitals may be able to assist. - SSD can facilitate conference calling between all parties when required. • Paediatric retrieval: <ul style="list-style-type: none"> - If retrieval is required, the ScotSTAR clinician will advise SSD which Paediatric Intensive Care Unit (PICU) consultant should be contacted. - If there is no bed capacity in the usual receiving PICU, there will be a discussion with the consultant from the alternative PICU to decide which unit will receive the patient; this should be after the referring clinician has left the initial call. The PICU bed should be confirmed to the retrieval clinician as they are leaving the base or shortly after. - If there is no bed capacity in either PICUs, there will be a three-party discussion between both PICU consultants and the retrieval clinician. • PICU Glasgow, referrals from: NHS Highland (except Raigmore and Caithness hospitals), Western Isles, Greater Glasgow, Lanarkshire, Forth Valley (except trauma), Ayrshire, Dumfries and Galloway, and also: <ul style="list-style-type: none"> - tertiary level renal, cardiac and burns referrals and for extracorporeal support. • PICU Edinburgh, referrals from: NHS Borders, Fife, Grampian, Lothian, Orkney, Shetland, Tayside, Raigmore and Caithness hospitals and trauma from Forth Valley. • Neurosurgical pathways may differ from the usual critical care pathways at the discretion of the clinical team after discussion with referring and accepting clinicians (see also OG029).

OG028 ScotSTAR referral and activation

11	Destination planning, cont	<ul style="list-style-type: none"> • Neonatal retrieval: <ul style="list-style-type: none"> - neonatal care is delivered across Scotland in 15 units over 3 tiers: <ul style="list-style-type: none"> ◦ Level 3 NNUs (NICUs) provide the highest levels of Intensive Care. ◦ Level 2 NNUs (LNU) s provide High Dependency care. ◦ Level 1 NNUs (SCBU) provide Special Care or Low Dependency support. - nationally there are three surgical NICUs based in Aberdeen, Edinburgh and Glasgow children’s hospitals, with the Royal Hospital for Children Glasgow the only one offering specialist cardiac, neonatal airway services and extra-corporeal life support. - the referral destination will be determined by National Network Pathways which will direct referrals to the nearest appropriate centre. - where there are local capacity challenges or more than one suitable destination, SSD can support cot location, in emergency situations only, using live neonatal unit capacity data visible on the Clevermed Badgernet system.
12	Advice while retrieval team are on route.	<ul style="list-style-type: none"> • Contact SSD who will initiate a further conference call. • For Adult (EMRS) retrievals this will be another duty EMRS consultant, either from West or North; they may not be familiar with the specific patient. • For Paediatric Retrievals this will be the ScotSTAR Paediatric clinician in the first instance. If the ScotSTAR clinician is unable to take the call (e.g.on another call or in the air), then the appropriate PICU consultant will be contacted. • For Neonatal Retrievals, this will be the duty ScotSTAR consultant. If they are travelling with the clinical team, the receiving NICU consultant will be contracted.

OG028 ScotSTAR referral and activation

13	Additional referrals and team resilience.	<ul style="list-style-type: none"> • Contact SSD who will initiate a further conference call. <hr/> <ul style="list-style-type: none"> • For Adult (EMRS) retrievals this will be another duty EMRS consultant, either from West or North. <ul style="list-style-type: none"> - the EMRS may be able to assemble an additional ad hoc team if other teams are busy; this is not guaranteed and will not be immediate. <hr/> <ul style="list-style-type: none"> • For Paediatric Retrievals this will be the PICU consultant for the usual receiving pathway (section 11, above) if there is no additional ScotSTAR Paediatric clinician available. <ul style="list-style-type: none"> - refer to OG039 Paediatric Team Contingency Plan for further detail. <hr/> <ul style="list-style-type: none"> • For Neonatal Retrievals, this will be another national duty team depending on who is available. <ul style="list-style-type: none"> - SSD will contact the most appropriately placed team who will advise on their availability and can ability to undertake the transfer. - In certain circumstances the Paediatric team may be utilised, especially if the baby is >2kg. The decision is at the discretion of the duty retrieval team and must take into account all clinical requirements and considerations for thermal care etc. <hr/> <ul style="list-style-type: none"> • In some circumstances it may be necessary to utilise the referring unit medical staff to either transfer time-critical patients, or care for the patient locally.
14	Cancellation	<ul style="list-style-type: none"> • The referring clinician may cancel the retrieval should this be deemed appropriate and in the patient's best interests. • Contact SSD who will initiate a conference call. • If this is not possible (due to team already being on route), SSD will contact the retrieval team at the earliest opportunity to discuss the situation.

15	<p style="text-align: center;">Special considerations</p>	<ul style="list-style-type: none"> • Time-critical presentations: <ul style="list-style-type: none"> - some patients may present with conditions that require time-critical, often surgical, intervention; examples include ruptured abdominal aortic aneurysm and penetrating trauma. - these patients need be transferred by the fastest possible means to a centre with an appropriate surgical team and facilities [1]. - on considering clinical and logistical factors, a retrieval team may not deploy if this will cause delay with clear clinical detriment. They will however remotely support the referring team with the ongoing management and transfer of the patient. - transfer of some of these patients may not be appropriate (see below). • Ceilings of care, palliation, and end of life decision making [2]. <ul style="list-style-type: none"> - some patients may benefit from discussion with a retrieval consultant regarding appropriate ceilings and goals of care prior to considering transfer by any means. - diagnostic uncertainty may make decision making difficult. Consensus decision making with the referring clinician, retrieval team, and possibly the receiving centre is recommended and SSD can facilitate any necessary conference calls. - this particularly applies to those patients who are very unstable, and those with significant co-morbidities and/or functional limitation. • Obstetrics <ul style="list-style-type: none"> - proposed obstetric transfers need to consider the resources available at the referral site, progress if the mother is in labour, and the likely duration of any transfer. - For emergencies from Community Midwife Units, SSD will arrange a conference call with the Obstetric consultant at the parent Consultant Led Unit to support immediate care requirements [3]. For the detailed guidance: Access here - ScotSTAR neonatal or EMRS retrieval clinicians, or others can be included as required. - EMRS does not have specialist obstetric skills and is not an “obstetric flying squad”. - EMRS can respond in the case of maternal critical illness in obstetric patients. - a Neonatal team may be able to mobilise prior to delivery for an impending delivery in a remote and rural site.
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References:

1. Royal College of Emergency Medicine 2019. Management and transfer of patients with a diagnosis of ruptured abdominal aortic aneurysm to a specialist vascular centre. [Access here](#)
2. SIGN 139. 2014. Care of deteriorating patients. [Access here](#)
3. Scottish Perinatal Network. Pathway for the Transfer of Women from Community Maternity Units in an Extreme Obstetric Emergency. [Access here](#)

OG028 ScotSTAR referral and activation

2. Document History			
Reference Number	OG028		
Version	2		
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	Medic 1		X
	Referring centres via service websites		✓
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	SAS	Specialist Services Desk	✓
		JRCALC+ app	X
	ScotSTAR	Air Ambulance	✓
		EMRS West	✓
		EMRS North	✓
		Paediatric	✓
		Neonatal	✓
Tayside Trauma Team		X	



3. Scope and purpose

- Overall objectives:

This guideline defines the ScotSTAR referral process for adult, paediatric and neonatal patients who require specialist medical input to facilitate secondary retrieval or safe transfer. It aims to provide referral centres with the necessary information required to organise a referral and highlights the associated factors to be considered.

- 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: sas.cpg@nhs.scot

- Equality Impact Assessment:

Applied to the ScotSTAR Clinical Standards group processes.

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