SG011 Managing Risk due to Fatigue

1. Key Recommendations for operational use		
For use by: All ScotSTAR teams. **For Information:** SAS. **Internet:** Yes		
1	Fatigue avoidance	• If working a 24 hour or extended duty period, including overnight on-call, consider pre-emptive rest for 90 minutes in the afternoon where clinical and non-clinical duties allow. • Arrive for other shifts rested: do not schedule other clinical work prior to evening shifts and consider prior pre-emptive rest at home. - pre-emptive rest should ideally allow an opportunity for napping, but beware of working immediately (30-60 minutes) after a nap due to reduced effectiveness. • Do not work more than three consecutive shifts that involve overnight work or the potential for it. Rota administrators will not issue rotas where this is the case. • Consultants should consider the effects of base specialty work external to ScotSTAR. • Consider the effect of personal pressures on the risk of fatigue. • Attempt to maintain good sleep patterns in the days prior to ScotSTAR duties.
2	Recognition of fatigue	• Where working circumstances present an increased risk of fatigue, maintain vigilance of oneself and other team members. • Signs of fatigue include: - yawning and difficulty staying awake. - poor concentration and co-ordination. - head drooping. - eye rubbing or heavy eyelids, long blinks. - general feelings of lethargy, lacking motivation. - error events and lapses in attention. • Be open with other team members if experiencing fatigue. • Consider grading fatigue using the “Samn-Perelli” score; this may be useful for self-assessment and team communication: 1. Fully alert, wide awake. 2. Very lively, responsive, but not at peak. 3. Ok, somewhat fresh. 4. A little tired, less than fresh. 5. Moderately tired, let down. 6. Extremely tired, very difficult to concentrate. 7. Completely exhausted, unable to function effectively.
3	Fatigue mitigation	• If fatigue is unavoidable, the effects can be reduced by: - naps of 20 to 30 minutes, if feasible. - caffeine ingestion. - bright light exposure. - ensuring other members of the team are aware of fatigue state. - maintaining conversation and activity within the team. - enhanced vigilance for effects of fatigue.

4	Declaring offline due to fatigue	• Consider declaring “offline”, at the earliest safe opportunity, for a period of rest if: - working* for 16 hours or more, - working* after midnight during an on-call period and if the next duty period will commence <12 hours subsequently. - experiencing fatigue and performance is at risk of being significantly impaired. - *working may be time spent on base, engaged in clinical work, or handling complex, frequent, or prolonged telephone calls. • Consider seeking corroborative advice on the decision to go offline with another on-call team or colleague; where relevant document this discussion in clinical notes. • Contact SSD to declare offline and advise of an **anticipated** time of resumption of duties. • Immediately advise SSD on resuming duties. • Wherever possible either the team going offline, or SSD, should also inform any second-line team but it is not necessary to disturb a resting team.
5	Offline rest period	• Aim to take a rest period between leaving base and resuming work of sufficient duration to permit time for commuting, taking meals, and to provide adequate opportunity for sleep. - generally no less than 8 hours and no more than 11 hours. • A return to being ‘on call’ may be made earlier within this range than a return to on-base duties (e.g. resuming to an EMRS West B shift, but not going directly to base at 1200hr). • Communicate and discuss plans with SSD and other duty teams as appropriate. • Exercise caution driving home if fatigued: - consider sleeping in the bedrooms on base before driving. - consider public transport or taxi.
6	Managing further retrieval calls when a ScotSTAR team is offline and resting	• SSD should pass ScotSTAR retrieval calls to the next appropriate consultant / clinician according to the standard sequence for the relevant ScotSTAR team. • The consultant / clinician contacted will liaise with the referring site and SSD and make a considered judgment as to how to proceed. Options include: - response from another shift from the same team, e.g. EMRS West A shift overrunning to cover a fatigued B shift. - national cross-cover, e.g. for EMRS North / West cross-cover; for paediatrics suitable cases being supported by EMRS; for neonates using N/W/E team cross-cover. - supporting paramedic led response. - asking for an additional ad-hoc team. - disturbing the fatigued team. - supporting local care +/- delayed transfer. • When considering solutions, any resultant fatigue issues at referring sites, and their impact on local services, should be viewed with equal importance to the impact on ScotSTAR teams.

7	Maintaining primary response when an EMRS team is offline and resting	• For **EMRS W:** shift teams should attempt to cross-cover in order to maintain immediate dispatch availability of a **single** team 0700 - 2300: - solutions could include e.g. the A shift extending their on-base duty period to cover a delayed C shift start, or B shift covering for a fatigued A shift not able to start at 0700. - if tasked to either secondary or primary work, this single team should **not** be routinely backfilled by a request for an additional team (section 8) and the B shift need not remain on base beyond 1800 if the A shift covering for a delayed C shift is tasked. - consider the risk of knock-on fatigue on covering these teams. • For **EMRS W and N:** if a scenario then arises that would meet current out-of-hours tasking criteria (i.e. prolonged entrapment or multi-casualty incident) and there is no immediately available team, the Trauma Desk Clinician or SSD staff should seek the advice of the next available consultant, as per the standard sequence. The consultant contacted will decide on the most appropriate response according to available options (as section 6).
8	Additional team requests	• Additional *ad hoc* team requests should only be in response to an active secondary referral, or a primary tasking that meets out-of-hours criteria, and having considered all other options. • Additional teams should **not** be requested to cover for a fatigued team who are offline.
9	Audit, governance, learning	• **All teams MUST submit an event report through Datix if declaring offline due to fatigue.** - EMRS teams have the option of a SPHERE report. • Shift patterns which are frequently associated with fatigue and its consequences will be reviewed. • Record fatigue in post-mission debriefs, and raise at case review meetings ('D&D') as appropriate. • This guideline will be kept updated in line with the SAS Managing the Risks of Fatigue at Work Framework.

2. References

1. Wigram T, Review of the Risks Associated with Shift Working. Scottish Ambulance Service - Directorate of Human Resources and Organisational Development, 2012.
2. Health and Safety Executive. https://www.hse.gov.uk/humanfactors/topics/fatigue.htm. [Accessed Mar 2021]
3. Fatigue and Anaesthetists. Association of Anaesthetists of Great Britain & Ireland, 2014.
4. Managing the Risks of Fatigue at Work Framework and Policy (DRAFT), Scottish Ambulance Service.

3. Document History			
Reference Number	SG011		
Version	1		
Writing group (Lead author in bold)	**Andrew Cadamy**	**Consultant, Clinical Lead**	**EMRS West**
	Stuart Daly	Head of Service	EMRS
	Michael Gillespie	Consultant, Lead for Risk management.	EMRS West
	Christina Harry	Consultant, Clinical Lead	ScotSTAR Paediatrics
	Allan Jackson	Consultant, Clinical Lead	ScotSTAR Neonatal
	Fay McNicol	National Health & Safety Officer	SAS
	Alastair Ross	Consultant, Clinical Lead	EMRS North
	Karen Shields	Specialist Services Manager	SAS
Associate Medical Director	Andrew Inglis		
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Distribution	BASICS Scotland		X
	Referring centres via service websites		✓
	Rural GPs Association of Scotland		X
	SAS	Air Ambulance	for information
		Specialist Services Desk	✓
	ScotSTAR	EMRS West	✓
		EMRS North	✓
		Paediatric	✓
		Neonatal	✓
	Tayside Trauma team		X

4. Scope and purpose

- Overall objectives:

Fatigue is a subjective feeling of the need to sleep, an increased physiological drive to fall asleep, a state of decreased alertness, or a perceived state of 'weariness' caused by prolonged or intensive exertion. Common scenarios leading to fatigue include insufficient sleep, prolonged wakefulness, and being awake when normally one would be asleep. Fatigue impairs performance and presents a hazard with potential to cause patient harm. Detrimental effects on performance increase as work periods extend beyond 12 hours and when the duration of wakefulness extends beyond 16-18 hours.

ScotSTAR teams work in fatiguing conditions and their work is characterised by complex physical and cognitive tasks, periods of sustained vigilance, and operation in hazardous environments. The particular demands of the service necessitate various ScotsTAR teams undertaking evening and overnight work, on-call duties, and consecutive periods of duty where there is a risk of prolonged hours of continuous working and a significant risk of being affected by fatigue. Fatigue may be a common contributory factor to medical errors, and presents a safety hazard in the aeromedical and transport medicine environments.

Patient safety depends on balancing the risk from impaired team performance against the risk from gaps in service resulting from fatigued teams being taken offline to rest. Team safety and welfare is best protected by a framework that supports appropriate decision making with regard to this balance of risks, and which describes other measures to reduce fatigue and its effects.

This guideline defines work and rest periods for ScotSTAR team members and methods to avoid, recognise, mitigate, and safely manage fatigue in a way that best protects patients. The guidance is consistent with SAS policy.

- 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.