



Supporting innovation
across NHS Scotland

An innovative solution to emergency anaesthesia The Adult SCRAM® Bag



The Adult SCRAM® Bag (Structured CRITICAL Airway Management)

Emergency Airway Bag providing a structured approach to airway management, when getting it right first time really matters.

It forms a system of advanced preparation and organisation of equipment and drugs; promoting the delivery of safe, timely, and well governed emergency anaesthesia.

Features include:

- A structured, reproducible approach to airway management
- Stencilled kit dump standardises layout and allows efficient pre-stocking
- Integrated kit dumps, reduces time to prepare for the intervention, reduces the risk of error and reduces cognitive load
- Weatherproof - portable and easy to use
- Basic Airway and Rescue Adjuncts
- Ability to have drugs for emergency, anaesthesia readily available
- New surgical airway kit dump
- Gross motor indicators and higher contrasting colours reduce cognitive load
- Checklist pouch.



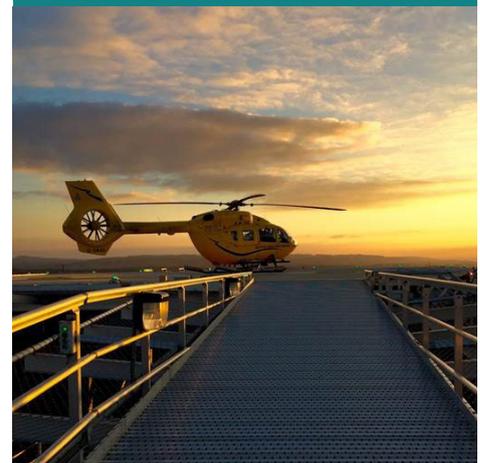
“The effectiveness and speed of potentially lifesaving pre-hospital airway management can significantly impact the outcome of critically ill or injured patients. The SCRAM bag was inspired by my experience working with the air-ambulance service attending accidents and emergencies in the pre-hospital setting.”

Paul Swinton, Air Ambulance paramedic with the Scottish Ambulance Service and co-inventor

For more information and purchase options visit www.shil.co.uk/scram



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Using the SCRAM system resulted in safer performance of Pre-Hospital Emergency Anaesthesia (PHEA) and has the potential to reduce on-scene time by up to a third.

A randomised controlled experiment with a crossover design was conducted at Scotland's National Retrieval Service (ScotSTAR).

Clinicians from the Emergency Medical Retrieval Service and the Scottish Air Ambulance Division were randomly assigned to undertake a standardised pre-hospital clinical simulation using either unprepared (standard practice) or pre-prepared (SCRAM system) prehospital emergency anaesthesia (PHEA) equipment and drugs. The primary outcome was intervention time. Secondary outcomes were safety-related incidents and errors, and degree of cognitive load.



- Time required to perform PHEA using the experimental method was **significantly shorter than with standard practice** (11:45 versus 20:59)¹
- **Significantly reduced procedural errors** from the experimental method²
- **Significantly reduced cognitive load** experienced by the intubator assistant³.

Find out more at www.shil.co.uk/scram

Translating ideas and innovations into viable products to improve patient care



Invented by Paul Swinton and Neil Sinclair
(Scottish Ambulance Service)



Developed alongside
Scottish Health Innovations Ltd



Manufactured by
Openhouse Products Ltd

^{1,2,3} Paul Swinton, Alasdair R. Corfield, Chris Moultrie, David Percival, Jeffrey Proctor, Neil Sinclair and Zane B. Perkins. Impact of drug and equipment preparation on pre-hospital emergency Anaesthesia (PHEA) procedural time, error rate and cognitive load. Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine; 2018; 26:82; <https://doi.org/10.1186/s13049-018-0549-3>