

MOULAGE

Impact of pre-prepared drugs & equipment for pre-hospital RSI. v1

Equipment needed

<input type="checkbox"/> Pre-hospital response bags	<input type="checkbox"/> Ambulance trolley and Scoop	<input type="checkbox"/> Suction unit
<input type="checkbox"/> MRX	<input type="checkbox"/> 1x Sharps Box	<input type="checkbox"/> 2x Oxygen ZD and non -rebreather mask
<input type="checkbox"/> 1x Manikin	<input type="checkbox"/> Trial Paper work	<input type="checkbox"/> 1 Inco pad

Preparation

- Set up filming equipment, Consent forms, Randomisation
- Manikin on trolley and scoop with Inco pad under manikin, and covered with thermal blanket
- O₂ attached to patient and O₂ cylinder, C collar and Pelvic binder in place secured and in place.
- 2 large bore iv cannula secured and in place with 1 bag of fluid 0.9%NaCl up (not running)
- Suction unit near trolley, monitoring equip attached and vitals detailed below
- Pre-brief: Open appropriate drug and equipment bags, **participants can refer to the EMRS SOP and picture of kit dump during this time only.**
- Provide a copy of the participant information sheet and the Scottish Ambulance Service SOP Emergency Anaesthesia version 5.**
- Complete consent and team log.**

Specific

Set 1 (Control Arm)

Drug bag:

- Vials - Alfentanil, Ketamine, Rocuronium, Morphine, Midazolam
- Syringes: 1x2ml, 1x5ml, 2x10ml, 1x20ml and drawing up needles
- Labels: Alfentanil, Ketamine, Rocuronium, Morphine, Midazolam
- Pen/marker:
- Conventional Airway bag** - Stocked per picture.

Set 2 (Experimental Arm)

Drug bag -

- Prefilled - Alfentanil, Ketamine, Rocuronium, Morphine, Midazolam (**Correctly labelled and filled with water**)
- SCRAM bag** - stocked

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- Provide candidate time to familiarize themselves with the equipment and ask questions **NOTE they should be blinded to the outcomes.**
- Drugs and fluids can be administered to the manikin. This simulation requires the same speed and accurately that you demand of yourself in real life in accordance with the SOP.

Background

You are working together on helimed 5 when at 16:00 a HEMS activation to Aberfoyle comes through.

Note: Nearest hospital with neurosurgery to this location is QEUH (by road 45min by air 10min)

Description:

- A pedestrian crossing the road near Aberfoyle struck by a light motor vehicle.
- He was apparently thrown 6ft into the air. The telephone caller described the patient as having a head injury, is very distressed and confused.
- No further information is available yet.
- An ambulance has also been dispatched however they are 10min away
- Your everything you might need for your primary survey and initial stabilization of the patient.

On scene:

The police have stopped traffic on scene, after landing, an ambulance crew gives you a handover: Male age 40yrs struck by a light vehicle there is a dent in the bonnet and a shattered windscreen. He has a head injury, initially confused but now responds to Pain. Due to mechanism, we have bound his pelvis, and have 2x IV access points. He is on O2 and that's as far as we have got.

On assessment:

Injury: Large haematoma to the occiput with blood from ear (note to researcher: this is an isolated head injury)

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80KG Male				4	5 Check List Straight Forward	7	Drugs*	Dose*	
C: No catastrophic haemorrhage Police ask: is this life threatening or life changing						Pre-oxygenation	6	Alfentanil	1mg-2mg
A:	B:	C:	D:					Ketamine 2mg/kg	160mg
Pt is snoring Jaw thrust opens the airway but needs to be maintained	No evidence of chest injury RR 10 (Reg) SaO2 89 (Note: amb crew cannot help) After jaw thrust RR ↑ 20 With O ² ↑SaO2 98% ETCO ₂ : 5	Pulse 52, BP 158/100 (No evidence of haemorrhagic shock) Abdo: soft No evidence pelvic # No long bone fractures	AVPU: P GCS: 8 / 15 E2 - opens eyes to pain V2 - incomprehensible groans M4 - withdraws from pain Pupils: Equal L Size 2 (Response Sluggish) R Size 2 (Response Sluggish)					Rocuronium 1 - 1.2mg/kg	80mg - 96mg
				Pre Intubation HR 60 BP160/95 SaO2 98%	* Within the described dose range of the SOP				
				8 Grade 1 View					
				9 Post Intubation HR 60 BP165/95 SaO2 98% ETCO ₂ : 4.5					
10				MOULAGE ENDS. Once ETT secured and correct placement confirmed WITH ETCO ₂					

After scenario check syringes, note any label errors and dose that was administrated on the team log