SIMulatED

Royal Darwin Hospital Emergency Department

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# Scenario Run Sheet: It’s a blast!

## Scenario Overview

**Estimate SIMulation Time: 30mins**

**Estimated Guided Reflection Time: 20-30mins**

**Target Group: ED Reg/ED Nurse/ICU Reg/Anaesthetic Reg/Surg Reg**

**Brief Summary: 16 year old male “accidentally” shot in the chest/leg with shot gun by an acquaintance at 2am on a rural property. Initially GCS 15, screaming in pain. Given ketamine 100mg en route. Reduced GCS to 7. Airway not maintained so LMA inserted en route. Initial BP 110/90. Progressive decline in BP. Tachycardia/pnoea. Sats 90% on LMA. Just prior to arrival patient arrests. CPR ongoing on arrival. Use of ERC traumatic cardiac arrest protocol/RDH ED protocol – de-emphasis on CPR, with early intubation, aggressive blood products/MTP, bilateral thoracostomy, haemorrhage control (femoral artery bleeding). Consideration of ED thoracotomy.**

## Learning Objectives

**General:** Working in a trauma team, communication skills, closed loop communication, the quiet and controlled resus room

**Scenario Specific**

- Trauma Call Preparation

 - MIST handover

 - Role allocation of team, team leader control

 - Equipment readiness

 - Drugs/Fluids/MTP

 - Pre-notification of relevant people

- Traumatic Cardiac Arrest Algorithm (ERC Guideline)

 - De-emphasis of CPR

 - Oxygenation/ETT

 - Bilateral finger thoracostomy

 - MTP/Volume replacement

 - External haemorrhage control (right fem artery)

- Indications for emergency ED thoracotomy

- The use of tranexamic acid in haemodynamically unstable trauma

## Equipment Checklist

**Equipment**

- Intubation equipment

- RICC/canulation

- Rapid Infuser

- USS

- ICC equipment/thoracostomy

-

**Medications and Fluids**

- MTP products/bag

- Tranexamic acid

- Ketamine/Sux/Roc

- NaCl 0.9%

**Documents and Forms**

- Triage form

**-** Nursing documentation

- Trauma assessment sheet

- Path/Xray/

**Diagnostics Available**

- CXR- right HTX/Pelvis & CSpine - NAD

- FAST images (neg)

- VBG (metabolic and resp acidosis)

- BSL

## Scenario Preparation/Baseline Parameters

**Initial Parameters**

-Arrested patient

- Temp 35.3

**ROSC Parameters**

- P130 thready

-BP 60/30

-Sats 90% LMA or ETT

- RR – bagged rate

## Participants

**Staff**

**-**ED Reg x2

- Surg Reg -?

- ICU Reg – Mitch Cameron

- Anaesth Reg - ?

- Nurses x3

- ED consultant

**Instructor Roles**

**-** In room to provide exam information and results

- Ambo – handover of pt

- Nurse – when BP drops to state, “no pulse and stopped breathing”

## Additional Information/Medical History

**Demographics** – 16M, No other Hx

**HPC –** Shot by an acquaintance ??circumstances. No collateral Hx

**PMH –** Unclear, no presentations to RDH previously

## Proposed Scenario Progression

- Call from ambos at 2 am – TRAUMA CALL, consultant from ED calls – advise to come in

- Surgical reg/ICU/Anaesthetics to call respective bosses

- 5 minutes prep time with trauma team (roles, PPE, equipment, drugs, doses, ABC prep, MTP alert, call in consultants)

- Arrival of patient – Arrested just on arrival to ED (approx. 4 mins ago)

- Primary survey by team, handover to team leader and scribe

- Institution of traumatic arrest protocol

 - intubate/bilat thoracostomy/volume/stop bleeding +/- CPR

 - consideration of thoracotomy after the above has been performed

- ROSC AT ANY TIME WHEN ARREST PROTOCOL FOLLOWED CORRECTLY!

- ABCD report to team leader/recaps where necessary

- Recognition of chest injury with potential right sided HTX and right groin femoral artery bleed

- CSpine immobilisation only if doesn’t interfere with more pressing tasks

- Multiple IV acess, RICC and rapid infuser, MTP, tranexamic acid, FAST neg

- Bloods sent inc CM/VBG/Coags/FBC/EUC/LFT/Lipase/

- Right sided chest tube and groin pressure to treat bleeding

- Resus radiology when appropriate – CXR and Pelvis

## Debriefing/Guided Reflection Overview

**General Opening Questions**

* How was the scenario? (each team member reflects)
* What happened in the scenario – i.e. relay the story to a workmate who wasn’t there

**Scenario Specific Questions**

* What was wrong with the patient?
* What medications/investigations may be required?
* Where does the patient need to go?

**General Wrap-Up Questions**

* What did you find most beneficial about this scenario
* What was the most challenging point in this scenario?
* What would you do differently next time?

## Case Considerations

- How is a traumatic arrest different from a medical cause of arrest?

- Should we do CPR in a traumatic arrest?

- What are the indications for ED Thoracotomy?

- What can we do to improve the functioning of our Trauma Team?