SIMulatED

Royal Darwin Hospital Emergency Department

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# Scenario Run Sheet: Breaking bad –paeds trauma

## Scenario Overview

**Estimated Scenario Run Time:**  20-25 mins

**Estimated Guided Reflection Time:** 30-40 mins

**Target Group:** ED Registrars and Nurses

**Brief Summary:** 14yo teen sustains multi-trauma in context of driving underage while intoxicated with methamphetamine and alcohol. Parents arrive in significant distress, which is heightened by news of substance use, underage driving and critical condition of a passenger known to them. Team must deliver care to patient while being attentive to issues of parental explanation, consent and support.

## Learning Objectives

**General**

Team approach to multi-trauma in an adolescent

Breaking bad news to parents and obtaining informed consent

**Scenario Specific**

Structured approach to multi-trauma in adolescent with parents present

Explanation, reassurance and informed consent for procedures

## Equipment Checklist

**Equipment**

Ultrasound, chest drain box, aspen collar, oxylog, Donway splint

**Medications and Fluids**

Saline, mannitol, RSI and sedation drugs, TXA

**Documents and Forms**

Trauma admission chart, ED nursing chart, intubation checklist, ventilation checklist

**Diagnostics Results**

VBG, ECG, EFAST + XR images, photography of injuries (head, chest wall, femur), car photo (SJA)

## Scenario Preparation/Later Parameters

**Initial Later**

GCS **12** (E3V4M5) RR 26 P 160 BP 160/90 GCS **3T**  RR vent HR 130 BP 140/70

Sats 100% RA T 36.8 BSL gas Pupils 3mm SaO2 98% O2 T 36.1

**Mannequin Features**

SimMan 3G.

## Participants

**Staff Actors**

ED Registrars x3, SACU reg Mother, father (ED staff), SJA paramedic (handover)

Nurses x2ED, Trauma CNC ED/ICU/SACU Consultants available by phone

**Instructor Roles**

- Provide the team with clinical signs

## Candidate Instructions/Triage Information

It is 0100h. “Trauma call ETA 10 minutes”. SJA en route with 14yo, high speed single vehicle rollover at Howard Springs. Sustained head + chest injuries with suspected femoral fracture. Suspected alcohol on board. Current vitals: GCS 13, RR 26, Sats 95% 8L NRB, HR 160, BP 160/90, T 37.8. Given 5mg IV morphine, 8L O2 NRB. Parents following behind. Heads up: Second victim 15yo unrestrained FSP, friend of the driver; severe injuries, ICP’s just started CPR at the scene as we were leaving, thought unlikely to survive.

## Patient and confederate instructions

No information from mannequin. If live simulated patient then confused/agitated

**SJA at handover:** This is14yo Danny who was driving his mother’s car underage. Friends in the car behind say the vehicle rolled over while taking a corner around 80kph. Left side collided with a tree. They admit to drag racing after drinking alcohol and smoking ice for the first time. Comms has confirmed that the 15yo FSP has been declared dead at the scene. On arrival Danny had a GCS of 13 but LOC of at least 5 minutes reported by the friends. Complaining of severe Right chest and thigh pain, Swelling of the lower right thigh noted – possible # femur. Bruising to the forehead noted. Extricated with spinal precautions. Pupils were 8mm bilaterally, with HR 170 and BP 180/80. Initial Sats 92% RA + RR 26, now 98% on 8L by NRB. He was given penthrane and 5mg morphine en route.

**PH (Parents)** – Fit and healthy, NKDA, just had ADT at school, previous ADHD but off meds for 2 years.

Parents unaware of alcohol or other drug use.

**Social** Lives in Howard Springs with parents and 2 younger siblings, YR 10, recent problems at school. Suspect he has started smoking cigarettes.

## Proposed Scenario Progression

* ICP handover to TL and scribe while team transfers to resus trolley and performs primary survey. TL feeds back prehospital information during primary recap. Spinal board removed in conjunction with log roll. Notes tachycardia and hypertension consistent with methamphetamine intoxication; mid-sized pupils due to opioid admin. Team considers interpretation of trauma primary survey in context of drugs.
* Early analgesia with airway team providing ongoing re-orientation and reassurance
* Performs early 3 view trauma series, EFAST scan, and Right femur. Identifies on XRAYs: Right pneumothorax+ rib fractures, Right distal femur fracture, normal pelvis. EFAST: trace of fluid in RUQ /absent Right lung sliding. Donway splint applied
* Recognises sinus tachycardia on ECG and metabolic acidosis on VBG and poses appropriate differentials with emphasis on haemorrhage masked by amphetamine intoxication.
* Parental arrival requires tactful and dedicated explanation, reassurance and consent – emotions escalate if team leader/staff fail to engage adequately
* Patient becomes increasingly agitated prompting early use of analgesia and preparation for RSI with heavy sedation
* Decompression of Right PTx occurs pre- or immediately post intubation
* Post intubation care
* Prepares for CT scan

## Debriefing/Guided Reflection Overview

**General Opening Questions**

* What happened in the scenario?

**Scenario Specific Questions**

* What were you looking for during your assessment given the prehospital information?
* The patient arrived on a spinal board. How did you address this?
* You gave… treatment… talk us through your rationale for this
* How did the parent’s arrival impact upon the team’s performance?
* The parents were challenged not only by their son’s injuries but also by discovering the circumstances surrounding the crash. How did you navigate this?

**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?