SIMulatED RDH Emergency Department - Author: Beks Day

# Scenario Run Sheet: The Plastic Cigar of Doom

## Learning Objectives

**Target Group: ED Regs and Nurses**

**General:**

**Team communication and information sharing**

**Scenario Specific:**

**Safe intubation of the deteriorating sepsis patient**

**Consideration of ways to prevent the intubation killers of Hypotension/Oxygenation/pH**

## Scenario Overview

**Brief Summary: The junior reg is having a go at looking after the majors floor overnight with some distant supervision from a senior reg in FT. There is a sick patient with meliod pneumonia in resus who has had fluids 4L NaCl, peripheral metaraminol and abx (ceftriaxone 1g and gent 320mg initially then mero/vanc). The eve consultant had been helping the junior reg but has now gone home as the patient had stabilised. They have deteriorated over the past hour whilst awaiting an ICU bed, and now are drowsy and developing a worsening resp/met acidosis. The junior reg has set up for intubation and thinks they are at the point of being ready to intubate. They are keen to get on and do the checklist. There is a Right IJ CVC that has been placed but not checked – the NAd is waiting to go up. The patient is exhausted. There is a VBG that shows a resp and metabolic acidosis, K of 6.0.**

**There are a few things missing/not fully prepared or optomised**

 **- Inadequate pre-oxygenation – on 15L HFNP Sats 90% - add NRB or BVM**

**- K is 6.0 and plan to use Sux (Roc better)**

**- Hypotensive and plan to use propofol**

**- Right IJ CVC inserted CXR not yet checked – and not yet transduced – could use as access and to start NAd**

|  |  |  |  |
| --- | --- | --- | --- |
| Intro Time | Scenario Time | Debrief Time | Soundbite  |
| 10 | **20** | **20** | **10** |

## Observers’ Engagement Task

**Note down the ways that you have seen in the SIM that the team used to prevent Hypotension, Oxygenation problems and pH problems (The HOP Killers)**

## Equipment Checklist

|  |  |
| --- | --- |
| **Mannikin:** | 3G |
| **Monitoring:** | 3G  |
| **Docs and Forms**  | EDNA, Green sheet, Vent sheet, Intubation Checklist |
| **Equipment** | IV Pumps, Syringe Driver, Oxylog, Resus/Intubation Trolley |
| **Consumables** | NAd line not yet connected but ready, Blood pump set and saline, CVC in right IJ |
| **Medications** | Roc, Sux, Propofol, Fentanyl, Midazolam, Ketamine, Metaraminol |

|  |  |
| --- | --- |
| **Sim Prompts** | CXR, 12 lead (sinus tachy),  |
| **Sim Equipment** | Fluid receiver, Task trainer, Other: |
|  |  |

## Participants

**Staff**

**ED Reg x2**

**ICU Reg (J.Zorbas)
Anaesthetic Reg (FACEM)**

**Instructor/Confederate Roles:**

**Junior Reg Confederate – ISBAR handover**

**I** – Junior Reg is known to other Senior Reg

**S** – That guy the Boss helped me with before now is now exhausted, hypotensive despite metaraminol and 4L IVF and looks exhausted. He was due to go to ICU so the boss left, but theres been a delay and he’s crashing

**B** – He’s on dialysis but hasn’t missed any. Had a STEMI and HTN. Not sure usual meds. No allergies

**A** – Obs as you see them. 70/50, P130 AF, Sats 92%. RR 40, Temp 38.1

**R** – He’s deteriorated really quickly, but I think I’ve got everything I need. Can I do the airway and you team lead?? I’ve done an anaesthetic and ICU tearm already. I can use the CMAC. I was gonna give Sux and Propofol – I’m familiar with that from anaesthetics. Is that ok??

## Additional Information/Medical History

**Demographics**

45 Indigenous Male

**HPC**

Recent TOL yesterday from medicine/renal with pneumonia. +ve for meliod. Send from dialysis today as looked unwell. Deteriorated rapidly in ED.

**PMH**

Dialysis patient, HTN, Rheumatic heart disease

**Meds**

Aspirin

Amlodipine

Allopurinol

Simvastatin

Panadol osteo

NKDA

## Proposed Scenario Progression

**Scenario Progression**

Patient already had 4L NaCl and on 10mls/hr metaraminol via peripheral line

Clarify story and current position by taking ISBAR handover from Junior Reg

Recognise that extra help required – call FACEM, and ICU reg will arrive soon after the start of the SIM

Alter the immediately obvious things missing prior to running the checklist

- Start NAd infusion via central line (BP will increase) – can check CXR or transduce to ensure that line is venous

- Preoxygenate properly – BVM with assistance or NRB with 15L. If ask for BiPap it is on another patient

- Change planned Sux and propofol to Ketamine and Roc

RUN CHECKLIST – everything is ready apart from the above changes

INTUBATION PLAN ideally:

- Preox with BVM and assistance or NRB 15L, NP 15L only when he is induced

- NAd running with bolus pressors for anticipated drop

- Ketamine and Roc (note K)

- Gentle bagging through apnoea – pH very low and CO2 build up potentially lethal

- VL – most experienced intubator, size 8 ETT

- Appropriate difficult airway plan – retry with positional change – LMA – cut neck

-

Ensure that all staff are aware of the things that might happen during the intubation and the plan if they eventuate e.g hypoxia, hypotension, failure, arrest

Scenario ends as ETT passes through the cords

(will do another post intubation SIM on same pt at another stage)

## Scenario Preparation/Baseline Parameters

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Stage 1** | Progression TriggerAfter PreOx and Nad | **Stage 2** | Progression TriggerPost intubation | **Stage 3** |
| **RR** | 50 | 50 | Bagged rate |
| **SpO2** | 90% on HFNP | 94 if preox | 81% rising to 94% |
| **HR/Rhythm** | 130 AF | 130 AF | 140 AF |
| **BP** | 70/50 | 100/50 post NAd | 100/60 |
| **T** | 38.9 | 38.9 | 38.9 |
| **Other** | EXHAUSTED |  |  |
|  |  |  |  |

## Debriefing/Guided Reflection Overview

|  |  |
| --- | --- |
| **Opening Gambit*** There were a few challenges in that common scenario that would be tricky for even the most experienced ED physician.
* Put your hand up if that would have scared you in real life – pick someone to ask WHY??
 | **Anticipated themes:**HOP killersRecognising the junior trainee that is out of depth, and guiding them through the intubation. |
| **Exploration with key players*** Did you feel nervous about what might happen when you intubated this patient?
* What specifically did you think might happen?
* What did you do to prepare for those HOP killers?
* What did you think of the junior reg doing the intubation?
 |  |
| **Engaging the general group*** What things did you see the team do in anticipation of deterioration?
* Do you think that everyone in the room knew what the plan was?
* Did everyone in the room know what was on the mind of the team leader?
 |  |
| **Sharing facilitator’s thoughts*** Share a story of a hairy intubation – e.g. nearly dead DKA
 |  |
| **Any other questions or issues to discuss?** |  |
| **Summary** |  |

## The Soundbite

The HOP killers.

Recap of the issues and the measures you can take to prevent Hypoxia/Hypotension/pH problems during a critically unwell intubation

General Feedback Prompts/Examples:

Opening Gambit:

* What did you feel were your specific challenges there?
* Let’s talk.
* Can you describe to me what was happening to the patient during that scenario?
* Can you describe to me what was going on?
* What was important to you in choosing to manage that situation?
* Can you tell me what your plan was and to what extent that went according to plan?
* That seemed to me to go smoothly, what was your impression?
* That looked pretty tough. Shall we see if we can work out together what was going on there so that you can find a way to avoid that situation in the future?

Exploration with key players

* Questions to deepen thinking
* Questions to widen conversation
* Introduce new concepts; challenge perceptions; listen and build
* So what you’re saying is…
* Can you expand on…
* Can you explain what you meant by…
* When you said…
* I noticed that you…

Engaging the general group

* Let’s check with the rest of the group how they reacted to you saying that.
* Did you [scenario participants/observers] feel the same?
* What did you [scenario participants/observers] want from [scenario participant] at that point?
* What ideas or suggestions has anyone else got for how to deal with that situation?

Sharing facilitator’s thoughts

* Use advocacy with inquiry to share your observations and explore their perception
* What does the protocol say on…..
* What do you think was happening ….?
* How do you think … would respond to…. ?
* What about next time…..?
* Do you think there’s anything to be gained from…?

Any other questions or issues to discuss?

Summary