SIMulatED

Royal Darwin Hospital Emergency Department

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# Scenario Run Sheet: Template

## Scenario Overview

**SIM Time: 20 mins**

**Estimated Guided Reflection Time: 25 mins**

**Target Group: ED Reg’s/ED Nurses**

**Brief Summary:**

A morbidly obese woman presents in respiratory distress due to swine flu with superadded pneumonia. Weight 220kg. Requires IV abx, Tamiflu and intubation with consideration of ramping/short handled largngoscope/measures to prevent atelectasis and hypoxia/appropriate dosing and ventilator settings with consideration of lean body weight dosing for some drugs.

## Learning Objectives

**General**

Comminication and

**Scenario Specific**

- Use of ideal body weight calculations

- Drug doses as per ideal weight vs actual weight – drug dependant

- IV access issues/use of USS

- Limitations of IO in morbidly obese patients

- Intubation of the overweight patient

- Pre-ox on CPAP

- Short handled laryngoscope/125 degree blade

- Ramping with ear to sternal notch

- Positioning for atelectasis prevention – head up/rev trendelenberg

- Increased risk of hypoxia/aspiration

- Ventilation of the morbidly obese

- Vt as per lean body weight

- Add 10cm PEEP

- BP measurement with larger cuffs and inaccuracy assoc with incorrect cuff size

- ECG changes in obesity – low voltage

- Safe working load of a standard ED trolley/CT gantry

- Conditions associated with obesity – HTN/IHD/DM/Hypercholesterolaemia

## Equipment Checklist

**Equipment**

- Intubation equipment

- RAMP

- Short handled laryngoscope

- USS

- IO

- Long IVC’s

- PAT slide

- Bipap for preox

- BVM

- NPO2

**Medications and Fluids**

- Sux/Fent/Ketamine/

- NaCl

- Antibiotics for LRTI

**Documents and Forms**

- Intubation check list

- Obs

**Diagnostics Available**

**-**CXR with sides missing as plate too small

- Low voltage ECG

## Scenario Preparation/Baseline Parameters

**Initial Parameters**

P 130

BP 150/100

Sats 82%

RR 50

Extreme resp distress

Tripodding and distressed

Only able to answer in 1 word answers

**Initial Progress**

Sats no better than 85% with NRB O2

Other obs the same

## Participants

**Staff**

Reg x2

Nurses x2

Actor – Female in a fat suit

Actor – partner who gives Hx as patient so exhausted

## Additional Information/Medical History

**Demographics:** 23 year old librarian, weighs 220kg

**HPC:** Unwell for 3 days with a cough and fever, sore throat, myalgias, increasing SOB (suggestive Hx for flu). Brother been diagnosed with swine flu yesterday –she started Tamiflu today but deteriorating rapidly.

**PMH:** HTN, hyperlipidaemia, DM, PCOS, depression

## Proposed Scenario Progression

- Requires transfer to ED trolley from ambulance stretcher – safe technique for heavy patients

- Speaking in short sentences/partner to give Hx (will get reg for this job)

- Deteriorating sats and RR despite O2 or CPAP

- Requires dose adjusted abx

- BSL high/BP high (use large cuff)

- Difficult access – Long IO needle still too short, only successful if use USS

- Preox on BiPAP ideally/ramping/apnoeic O2

- Intubated – difficult view –measures to make easier – CMAC/short handled/125 degree blade etc

- Aspirates during attempt

- Appropriate vent settings but difficult to bag

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| --- | --- |
| **Total body weight** | **Ideal body weight** |
| Propofol (induction) | Propofol (induction) |
| Thiopentone | Ketamine (+20% of ideal body weight) |
| Suxamethonium | Rocuronium |
| Fentanyl | Vecuronium |
| Etomidate | Benzo-diazepines |
| Midazolam | Morphine |
| Atracurium | Paracetamol |
| Neostigmine |  |