COVID-19 (Adults Sim) #1

Pre-brief (instructor to read out)

"Welcome to Simulation. This experience is aimed at providing a safe, non-judgemental learning environment where you have the opportunity to practice clinical skills on a simulated patient (or Sim-Man), before being faced with a real-life scenario. ***This is NOT a test!***

We expect you to only undertake roles that you would perform in the clinical environment, and ask for help/escalate care appropriately.
Thank you to the various specialties who have agreed to take part in this scenario.

The scenario will be run 'real-time', as if it were real-life. (For example, apply monitoring as usual, prescribe and ask for equipment). Any specialist equipment will be provided by the Education Team if requested.

We aim to run the scenario for approximately 30 minutes, followed by a detailed debrief session for another 30 minutes.

We would like: *active participation from all candidates, honest verbal feedback about the team's performance within the Simulation and written feedback about the Education Team running the scenario.*

You will receive: *immediate verbal feedback, assessments including a Mini-CEX, DOPS or log books signed (if requested) and a personalised certificate of attendance."*

Introduction to Sim-Man

High fidelity mannequin, starting from head to toe…

Head: blink, talk, reactive pupils, airway care *(e.g. intubation/surgical airways).*

Chest: heart and breath sounds, chest will rise and fall, can attach defibrillator and use accordingly.

Arms: veins with blood therefore can cannulate, palpable radial pulses so can perform ABG.

Legs: can insert IO.

Feet: palpable peripheral pulses.

Monitoring: use your regular patient monitoring and the virtual monitor will display the observations as it is applied.

Information for the scenario

We will provide you with the relevant information prior to the scenario. Everything after this point you should discover, identify and address in real-time, as if this were a real-life patient.

If you are unsure, please ask the facilitator running the scenario for advice.

Enjoy your Sim!

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Case title	COVID-19			**Sim no.**	COVID-19
Setting	ER	**Patient age**	56	**Patient sex**	M
Diagnosis	Acute Respiratory Failure secondary to COVID-19			**Curriculum code**	
Equipment required	• Sim-Man mannequin (complete kit) • Defibrillator with training leads • Training cannulation set • Emergency intubation drugs • Ventilator, HME filter, airway trolley, PPE trolley				
Staff required	1x Junior doctor, 1x Senior doctor, 1x Junior nurse, 1x Senior nurse, 1x ODP (Operating Department Practitioner), Anaesthetist/ITU team, 1x Radiographer, 2x Buddies				
Learning objectives	***1.*** *To demonstrate effective, structured A-E primary assessment & make a diagnosis of acute respiratory failure (with minimal investigations) with quick and rapid assessment of patient.* ***2.*** *To demonstrate safe donning and doffing procedures.* ***3.*** *Effective and appropriate clinical management of suspected COVID-19.* ***4.*** *Safe and appropriate transfer (with risk assessment) of patient from ER to ITU.*				

INITIAL SETUP

Observations				**Arrival route**	Ambulance Red Call
HR	140	**GCS**	E 4 V 4 M 6 = 14/15	**Carers?**	None
RR	35				
SpO2	80 % on Air, 88% on NRB mask	**Pupils**	Equal		
BP	110/80	**Temp**	38.2°C		
CRT	2 seconds	**Weight**	95 kg		
Glucose	10.5				
Equipment on arrival	NRB mask	**Additional info**	Return from Italy (Veneto region) 3 days ago Hypertension Type 2 Diabetes Mellitus (no insulin)		

Emergency Department: Pre-Hospital Pre-Alert Report Form

CALL SIGN OF THE VEHICLE / TEAM: 4124

Age *(and sex)*	AGE 56		SEX Male	
Time *(of incident / onset of symptoms)*	6 hour history of worsening shortness of breath.			
Mechanism of Incident *(injury / illness)*	Background of Hypertension and Type 2 Diabetes mellitus. Returned from Italy (Veneto region) 3 days ago.			
Injuries / Symptoms *(suspected or present)*	Struggling to speak in sentences.			
Signs *(Observations, Clinical Stability)*	HR	140	GCS	E4 V4 M6 = 14/15
	RR	35	BM	10.5
	BP	110/85	TEMP	38.2°C
	SPO_2	88% on NRB (80% on air)	PEAK FLOW	-
NEWS score total	EMAS TRAUMA TRIAGE TOOL POSITIVE?		YES / (NO)	
Red Flag Sepsis	CLINICAL CONDITION		STABLE / (UNSTABLE)	
Treatment *(Given so far – In brief!)*	Oxygen only Failed IV access			
ETA *(Time of arrival in ED)*	5 minutes			
Requirements *(Circle – specify where required)*	TRAUMA MASSIVE BLOOD LOSS PROTOCOL TRAUMA TEAM ACTIVATION		(MEDICAL) STROKE THROMBOLYSIS CARDIAC SPECIALIST NURSE SEPSIS PATHWAY	

Call taken by;	ED ACP	**Date;**		**Time;**	: HRS
Information passed to;	Dr Kovac	**Date;**		**Time;**	: HRS

Pátient Addressograph Label

(MUST BE ADDED ONCE PATIENT REGISTERED)

TURN FORM OVER AND COMPLETE CHECKLIST ON REAR

PLEASE ATTACH TO PATIENT NOTES – INSIDE FRONT SHEET

ADHESIVE STRIP - HERE

Expected simulation progress for technician

After 5 mins, make these changes: *(trending over the first 5 mins)*

- ✓ If candidate(s) applies high flow oxygen (15 L non re-breathe mask), saturations to remain at 88%
- ✗ If candidate(s) does not apply high flow oxygen, saturations to fall to 80% and RR to increase to 40

After 10 mins, make these changes: *(trending over another 5 mins)*

- ✓ If candidate(s) give medical therapy (e.g. IV fluids and antibiotics) observations to be as follows – saturations 86% on 15L NRB mask, RR 40, HR 145, BP 90/60, temperature 38°C
- ✗ If candidate(s) does not give medical therapy as above or inappropriate therapy (e.g. oxygen and antibiotics only) observations as follows – saturations 86% on 15L NRB mask, RR 45, HR 150, BP 85/60, temperature 38°C

After 15-30 mins, make these changes: *(trending over 15 mins)*

- ✓ If candidate(s) successfully intubate and ventilate the patient, observations as follows: saturations 94% (on FiO2 100%), RR 16 (set on ventilator), capnography trace to be provided *(see page 10),* HR 110, BP 98/60, temperature 38°C
- ✗ If candidate(s) are unable to intubate/ventilate or do not make the decision to do so, patient will go into cardiorespiratory arrest

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Instructions for patient

You are feeling extremely unwell and struggling to speak in sentences. If asked questions, you reply with only *'Yes'* or *'No' answers.*

Your condition will not stabilise so are able to give any history.

Collateral history from paramedic

6-hour history of SOB, unwell overnight and unable to lie flat. No fever. No recent admissions to hospital.

Patient travelled to Italy (Veneto region) two weeks ago, returned 3 days ago.

PMHx – Hypertension, type 2 diabetes mellitus

DHx – Lisinopril, metformin

SHx – Office worker, occasionally drinks alcohol, smoker

Prehospital interventions: IV cannulation has been unsuccessful. You have given Oxygen therapy only (15L NRB mask).

You are unaware of COVID-19 protocols.

Patient has: no NKDA, weight = 95 kg

Instructions for ITU SpR (over the phone)

You would like handover in a SBAR format.

You will come and review the patient in ER.

You request for the Operating Department Practitioner (ODP) to be contacted.

COVID-19

Public Health England

Quick guide

Putting on (donning) personal protective equipment (PPE)

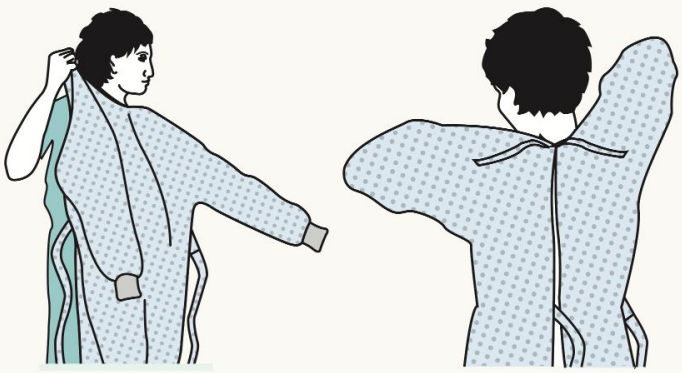
This is undertaken outside the patient's room.

Pre-donning instructions

- ensure healthcare worker hydrated
- tie hair back
- remove jewellery
- check PPE in the correct size is available

Perform hand hygiene before putting on PPE

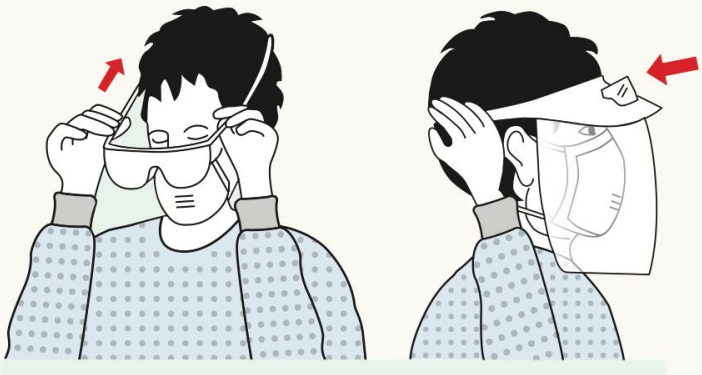
1 **Put on the long-sleeved fluid repellent disposable gown**



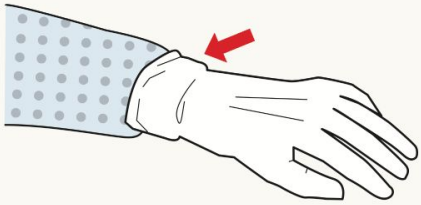
2 **Respirator**

Perform a fit check.

3 **Eye protection**



4 **Gloves**



COVID-19

Public Health England

Quick guide

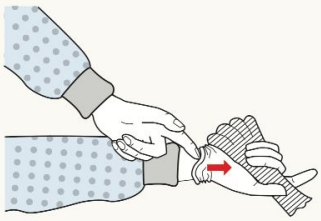
Removal of (doffing) personal protective equipment (PPE)

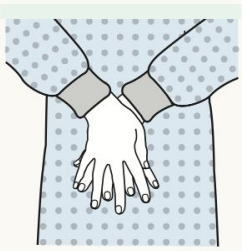
PPE should be removed in an order that minimises the potential for cross contamination.

The order of removal of PPE is as follows:

1

Gloves –
the outsides of the gloves are contaminated





Clean hands with alcohol gel

2

Gown –
the front of the gown and sleeves will be contaminated

3

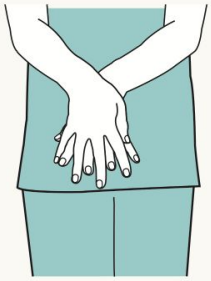
Eye protection -
the outside will be contaminated

4

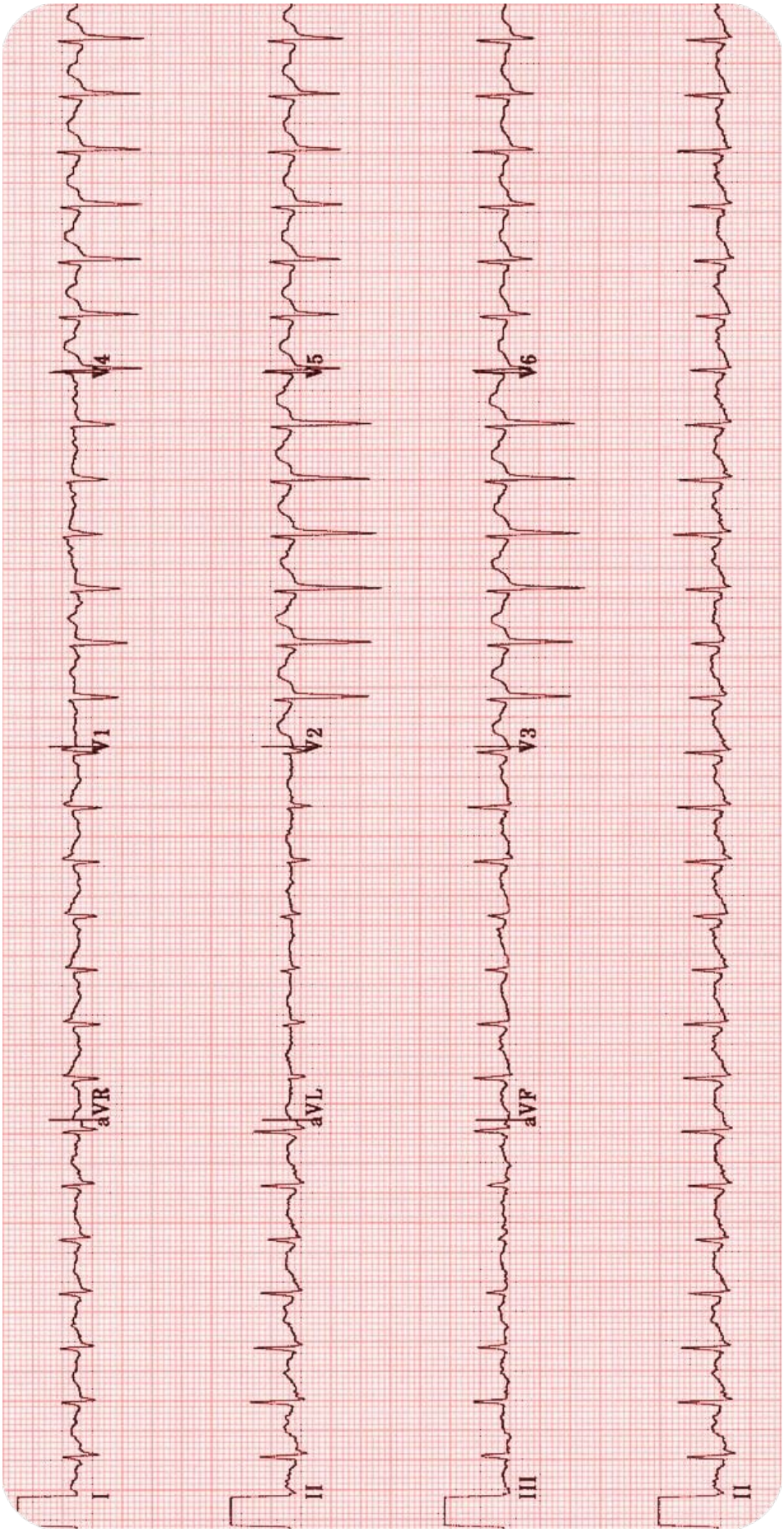
Respirator
Clean hands with alcohol hand rub. Do not touch the front of the respirator as it will be contaminated

5

Wash hands with soap and water



Supporting investigations (ECG)



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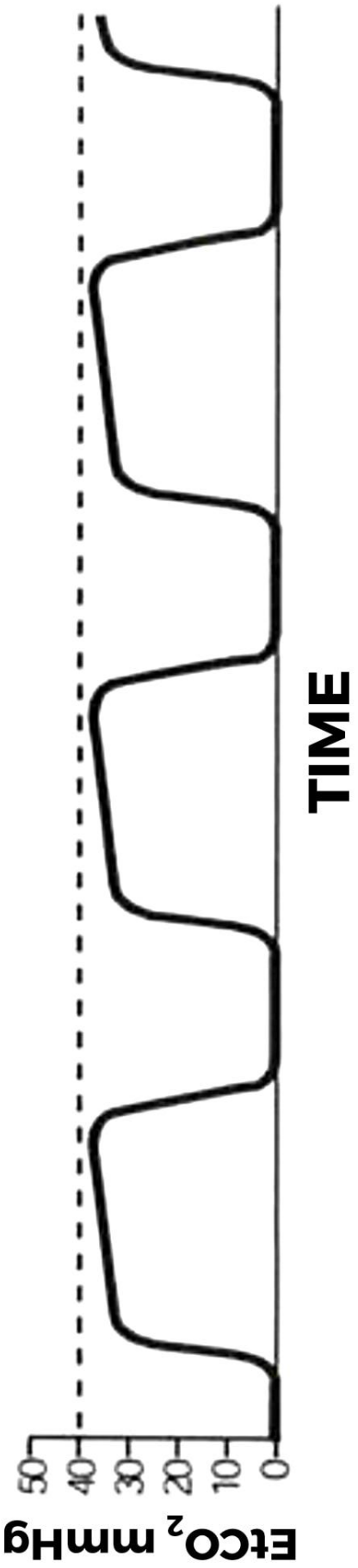
Supporting investigations (Portable CXR – if performed)

Supporting investigations (Capnography Trace)



Generic debrief for scenario

There are lots of feedback models that can be used, but immediate feedback is essential to **aid learning,** to help **analyse the process** and **create solutions.**

For feedback to be effective and to improve patient safety overall, feedback should be:

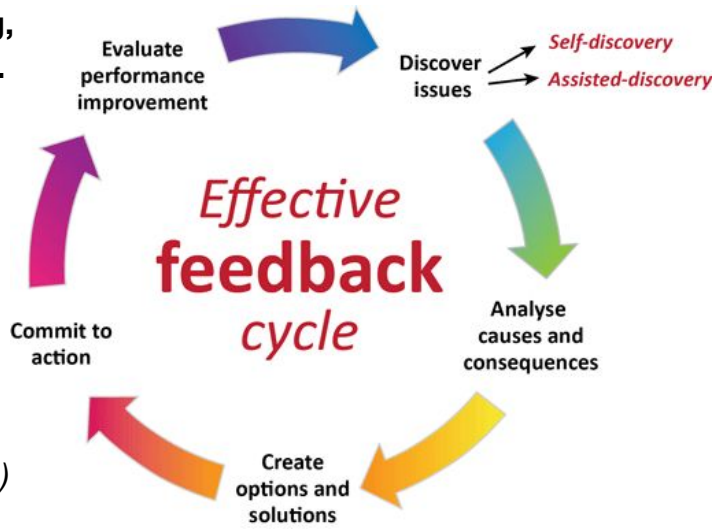
S - Specific

M - Measurable

A - Achievable

R - Realistic

T - Timely



Example of a feedback model: *(Pendleton's Rules)*

1. Clarify any points of information/fact
2. Ask the learner what s/he did well *(ensure that they identify the strengths of the performance and do not stray into weaknesses).*
3. Discuss what went well, adding your own observations *(if there is a group observing the performance, ask the group what went well – focussing on their strengths).*
4. Ask the learner to say *'what went less well'* and *'what they would do differently'* next time.
5. Discuss what went less well, adding your own observations and recommendations *(if there is a group observing the performance, ask the group to add their observations and recommendations)*

Debrief specific for this scenario

Non-Technical Skills:

1. *Was the Team Leader Role well defined?*
2. *Were other roles allocated and followed? (e.g. Were names used? Stickers used?)*
3. *Did the team communicate well? Use of closed-loop communication?*
4. *Did the team leader give clear instructions?*
5. *Did team members prioritise tasks effectively?*

Technical Skills:

1. *Safe and effective A-E assessment of patient, correctly identifying respiratory failure as diagnosis, suspected COVID-19*
2. *Initiating correct medical management (e.g Oxygen, IV fluids, IV antibiotics)*
3. *Correct donning and doffing procedures followed*
4. *Rapidity of decision-making and decision made to intubate (ITU colleagues)*
5. *Safe and appropriate transfer to ITU*