Demonstration: Illness Scenario

Key Teaching Objectives

To demonstrate an illness scenario and emphasise the following:

- ABC /primary assessment & key features approach to illness
- Teamwork
- Supportive learning conversation

Environment

The room should be large enough to accommodate the instructors and equipment and ensure that all the candidates have a good view. Place equipment at an angle to facilitate the audience's ability to view the demonstration; with the instructors facing the audience. Plan for use of white board & use of A B C D etc to guide preparation

Personnel required:

5 instructors to carry out the demonstrations in the following roles:
Instructors by 2
Team leader
Assistants

Instructor:

Introduces the format of the demonstration then plays the role of the instructor.
As this demonstration is before the scenarios, in the set, emphasise that the demonstration is what will be expected of candidates during the illness simulations.
"*The illness scenarios provide an opportunity to use the information and skills from the pre course online learning and the provider course in a clinical context. Each candidate will take on the role of "hands-on team leader" which differs to the usual "hands off team leader" familiar to you clinically and in other simulation formats. The "hands on team leader" teaching model is used by APLS to optimize individual learning and to simulate potential practice models in resource challenged areas. We encourage you to take an active role in assessing and managing the patient. A learning conversation will follow where the candidate and the group can reflect on the scenario and implications for clinical practice."*
Allow time for a learning conversation and give the candidates an opportunity to ask questions.

Please see next page for Demonstration Dialogue (laminated copy will be in face to face course kits)

At the end of the scenario:

Lead feedback
Terminate demonstration

Closure

Invite questions
Summarise and close

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Set, Instructor:
Instructor reads the case to the person who is a hands-on team leader
Candidate repeats scenario back to assistants. Whiteboard calculations with support from team and use of medication book.

History *{initial candidate briefing prior to arrival of child}*

You are working in an emergency department. A 7-month-old girl has presented after 12 hours of vomiting and diarrhoea.
Guide weight 6 kg.

Initial impression *{provide information as candidate assesses child and applies monitoring}*

The infant is lying pale and listless. She is breathing fast (RR 46/min) and is persistently drowsy; she opens her eyes to voice and then drifts away again immediately. Peripherally cool.

Clinical Course *{to be given to candidate as they progress}*

Initially: The child is snoring softly, which resolves with chin lift. SpO_2 does not record initially as peripheral pulses are barely palpable; HR, 170. CRT, 4, BP 79/39. Temp is 36.1, BGL 6.1. There is ongoing watery diarrhoea (no blood).

20mL/Kg crystalloid bolus is indicated, and HR improves to 115, CRT 2 sec., and the child is more alert (A on AVPU). SpO2 is 99% after bolus; Deficit and maintenance fluids are required. Na^+ is 132.

1 hour later, just prior to transfer to ward, the child has further profuse vomiting and diarrhoea. She becomes lethargic again, with HR 150/min, CRT 4 sec, BP 83/44. Systematic re-assessment & 2nd bolus 20 ml/kg crystalloid is indicated, after which the child improves again and remains stable.

INSTRUCTORS INFORMATION

Key Treatment Points ☑

Airway & Breathing	Establish airway patency	
	High flow O2 via face mask commenced early Titrate O2 therapy to SpO2 94-98% when stable	
Circulation	IV access Fluid boluses x 2 @ 20 mls/Kg	
Specific Therapy	Calculation of maintenance & deficit fluids Close monitoring of serum Na^+ and electrolytes	

Diagnosis: Gastroenteritis, shock, severe dehydration, mild hyponatraemia

Potential Issues to be Discussed

- Key principles of deficit and maintenance fluid prescription, which is in addition to resuscitation boluses for shock.
- Hyponatraemia is mild and does not require specific intervention, other than close monitoring
- 0.9% Normal saline or balanced crystalloid is an appropriate fluid

Equipment Required

Infant manikin x 1
Manikin for IO access x 1
Monitor-defibrillator with paediatric pads x 1
ALSi Kit
Paediatric emergency medication book

Airway & Breathing
Oropharyngeal airway sizes 50mm, 60mm, 70mm, 80mm.
Endotracheal Tubes 2.5 uncuffed, 3- 6 mm (un)cuffed (in 0.5mm steps)
Laryngoscope: adult curved blade
Laryngoscope: straight paed blades
Paediatric Magill Forceps
Yankauer Sucker
Soft Suction Catheters
Oxygen Masks with reservoir
O_2 tubing
Self inflating bags & reservoir: 500ml; 1,600ml
Face Masks circular 01,1,2; anatomical 2,3,4
SpO_2 probe
Capnometry
Bougies and introducers
Stethoscope

Circulation

Intravenous cannula 14-25g	EZ-IO drills
Syringes 5ml x 2, 20ml & 50ml x 1	Intraosseous infusion needles 14 and 18g
IO manual	IV solution 0.9% Normal Saline
Tape	BP Cuff

Disability

Glucose stick bottle	Pen Torch
Sharps Bin	Blanket