CASE SCENARIO – FACILITATOR INFORMATION

The purpose of this activity is for the participant to demonstrate their knowledge of COMPASS principles in a simulated patient case scenario.

LEARNING OUTCOMES:

- Recognise the deteriorating Paediatric patient
- Initiate appropriate and timely interventions
- Demonstrate effective communication (ISBAR)

EXPLANATION OF HOW TO RUN A CASE SCENARIO:

Prior to beginning the scenario explain to the participants that this is a low fidelity simulation/role play. The participants should try as much as possible to simulate (verbally) what they would really do on the ward.

Allocation of roles.

- There is one “Actor” card. This participant will interact with the “players” as directed on the “Actor” card
- There are several “player” cards
- Start by allocating the RN1 player card

You can allocate further roles and hand out appropriate player cards as the scenario progresses:

- Registrar

Try to include all participants in the role play.

The first “player” card has information that the participant should read out to the group at the beginning of the scenario. When each new “player” joins the role play they should read out their “player card”.

The facilitator may prompt and direct the participants as required. Note that all participant contributions are valuable and should be heard within the group.

Other useful materials that can help to guide participants:

- Oxygen delivery chain (recognise deteriorating patient and understand why observations have changed)
- ISBAR chart/forms (for communication during role play)
- PEWS escalation process (appropriate and timely interventions)

Materials required for this scenario:

- Pt chart folder which includes
  - Observation chart
  - Fluid balance chart
  - Medication chart
  - Neurovascular obs chart

The facilitator can hand these materials out to participants as the role play progresses.
SCENARIO:

Scenario overview: facilitator reads out the following (in **bold**) to the group

Trixie Belden is a 13 year old girl admitted to the Adolescent ward from ED. She has a fractured Right mid shaft femur following a horse riding accident this morning.

Trixie had 5kg skin traction applied in the Emergency Department and is going to OT on the morning list tomorrow.

**PMHx-**
- Nil significant
- Normal growth and developmental milestones achieved
- NKA
- Wt 50kg

*Invite Actor and Player One to read out their cards to start the scenario.*

*Explain to the participants that they may ask the “patient parent/guardian” or the facilitator questions to try and work out what is going on*

**During the scenario:**

If Player 1 needs prompting:

1. **What assessments would do on this patient?**
   - Vital Signs *(look at observation chart/what is PEWS score? /what do vital signs indicate?)*
   - General assessment - What does Trixie look like? *(Pale, reluctant to move, dry lips, complaining that she is thirsty)*
   - Neurovascular observations *(increased swelling of thigh, foot cool to touch)*
   - Skin traction – *does not appear to be tight*
   - Pain assessment? *(increasing pain, 9/10, look at medication chart)*
   - Neurological status - *(Alert)*
   - Urine output *(look at fluid balance chart, reduced)*

2. **What questions would you ask this patient/patient’s carer?**
   - How does Trixie seem to you?
   - What other sources of information do you have *(family, progress notes)*
3. **Who would you notify? Why?**
   - PEWS 5 – Orthopaedic RMO to review
   - Team leader or CNC

The Orthopaedic RMO is in OT and will not be available for at least an hour, so you call the Paediatric RMO.

The RN should simulate discussing the case with the Paediatric RMO over the phone. Communication should be clear expressing concerns and what he/she would like the Paediatric RMO to do (use ISBAR)

Paediatric RMO (player 2) enters the role play – read from card

4. **What information do you require from the RN?**
   - Vital Signs
   - Brief history

5. **What assessment would you do? (Prioritise)**
   - ABC
   - Neurovascular assessment
   - Check skin traction and site of fracture
   - Fluid balance

6. **What is your management plan for this patient?**
   - Oxygen
   - IV access + fluid bolus
   - How do you assess Trixie’s hydration? *Cap refill, urine output, BP and heart rate, skin turgor*
   - Contact Orthopaedics/ OT

7. **What would you do if the patient does not respond?**
   - Seek help – Registrar
   - MET
   - Nursing team leader or CNC
   - Contact Consultant

**During the role play the facilitator may ask the participants –**

- How often should observations be done?
  - ½ hourly for 1 hour then hourly for 4 hours if the PEWS improves
  - Minimum of hourly while on O2
What do you think may be going on with this patient?
Explain the observations using the oxygen delivery chain

Group discussion/reflection at the end of the scenario

• What do you think went well?
• What could you do differently next time?

The important things to get across in this case are:

Trixie is a 13 year old girl with a fractured mid shaft femur. She is bleeding from the fracture site and is showing signs of hypovolaemia.

Femoral fractures can result in significant blood loss (an adult can lose 1-2L blood into the thigh with a femoral shaft fracture)

Management should include:

• IV fluid
• OT to reduce fracture

Physiological changes reflected in the vital sign readings:

• Bleeding decreases Stroke Volume, which leads to a decrease in Cardiac Output (CO = SV x HR)
• Heart rate increases to compensate for decreased stroke volume and maintain cardiac output
• When heart rate increase is no longer able to compensate for decreased stroke volume, cardiac output decreases.
• With a drop in cardiac output, there is a drop in oxygen delivery, this leads to a buildup of lactate (anaerobic cell metabolism) which triggers an increased respiratory rate
• As the cardiac output falls, there is an increase in peripheral vascular resistance to maintain BP. In children this compensation is very pronounced as BP often stays normal until they arrest from hypovolaemia. Without a baseline BP a subtle drop in BP may be more difficult to detect.
Information noted from patient charts and results:

- Increased respiratory rate and heart rate
- Increased swelling and pain of fracture
- c/o thirst
- Decreased urine output
Player Card 1 - RN

Please read out the wording in bold when scenario commences.

I am the RN working in the Adolescent Ward. Trixie has just been transferred from the Emergency Department. I have come to do Trixie’s routine observations and admit her and her family to the ward.

What I know about Trixie:

- Trixie is a 13 year old, previously healthy girl
- Trixie has a fractured mid shaft femur following a horse riding accident this morning.
- Trixie has skin traction insitu and is going to OT tomorrow morning

What do you do next?

- Talk to patient/carer
- Perform observations
- Assessment (look at vital signs, do you need any other information? Ask patient/carer)
- Do you need to refer this patient for review?
Actor Card – Trixie Belden

Please read out the wording in **bold** when scenario commences.

I am Trixie. I am in lots of pain since being transferred to the adolescent ward.

*If asked:*

- **How are you feeling?** I am in pain; my leg is feeling really sore. I am also really thirsty

- **What is your pain score?** 9/10, it feels a lot worse than before

- **Where is the pain?** Here (*gestures to mid thigh # site*)

- **What do you look like?** Anxious, dry lips, unable to be distracted from the pain

- **Is the skin traction too tight?** No
I am the Paediatric RMO. I am admitting a child in Paeds High Care when I am called to review this patient.

The RN will try to discuss the case with you using ISBAR.

Allow the RN to finish before responding.

THEN

How do you respond?

What do you do next?

ROLE-PLAY YOUR NEXT ACTIONS.
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Case Study 2 – Paediatrics – Trixie

**Paediatric Early Warning Scores (PEWS)**

0 1 2 3 4

**Effect of Breathing**

(Advanced Paediatric Life Support Criteria for Effect of Breathing)

- Normal: all of the above criteria are maintained
- Bradycardia: 1 of the above criteria
- Tachycardia: 2 of the above criteria
- Arrhythmia: 3 or more of above criteria

**PEWS Calculator Table**

- **PEWS 4/5**: Team Leader, NRM review within 30 minutes. Alert 60 minutes if no review and/or no improvement in 60 minutes. Report to PDR 0-7
- **PEWS 6/7**: Team Leader, NRM review within 30 minutes. Alert 60 minutes if no review and/or no improvement in 60 minutes. Report to PDR 6-7
- **PEWS 2/8**: Team Leader, NRM review immediately. Consider MET if no review and/or no improvement. Report to PDR and Registrar

**Alert to calling criteria**

- Patient meeting NRM criteria
- Patient meeting MET criteria
- Patient improving
- Patient deteriorating

**Vital signs frequency and actions for PEWS 3/4**

- 3 hourly for 1 hour
- 6 hourly fluid balance chart
- 6 hourly BP must be measured with each set of vital signs

**Guide for assessing Level of Consciousness using APSU tool**

- **Alert**: Awake and alert to a call with no clinical indication to initiate for assessment
- **Poise**: Responds to verbal stimuli
- **Pain**: Responds to painful stimuli
- **Unresponsive**: No response to stimuli

**MET Criteria (Dial “9” for MET)**

- Neonatal MET if <10 months or <10 kg
- Paediatric MET if 10 months or >10 kg

- Any alteration in level of consciousness
- Difficulty breathing
- Ineffective or noisy breathing
- Abnormal skin color
- Change in mental status
- Drop in level of consciousness
- Repeated or prolonged pauses
- General or worsening respiratory distress, cyanosis, cyanosis or suprasternal
- Any patient that you are worried about that does not fit this criteria

**Clinical indications for calling MET**

- Any change in level of consciousness
- Difficulty breathing
- Ineffective or noisy breathing
- Abnormal skin color
- Change in mental status
- Drop in level of consciousness
- Repeated or prolonged pauses
- General or worsening respiratory distress, cyanosis, cyanosis or suprasternal
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*ST - Subtotal
Total Input = add all subtotals (ST) 1-4
Total Output = add all subtotals (ST) 1-4

Daily Fluid Balance Chart

Case Study 2 – Paediatrics – Trixie