PEWS TRAINING – CASE STUDY 1

Instructor Summary Card

Asthma

Sinead, aged 10, is admitted with an exacerbation of asthma

- Asthma is a chronic inflammatory disorder of the airways with reversible obstruction. The severity of the symptoms varies from person to person. Asthma can be controlled well in most people most of the time. If childhood symptoms of asthma are moderate to severe, it is more likely that the condition will persist or return later in life. However, asthma does not only start in young people – it candevelop at any age.

- The **cause** of asthma is not fully understood, but it is known that asthma often runs in families. In asthma, the bronchi may be inflamed and more sensitive than normal. When in contact with something that irritates the lungs, known as a trigger, the airways become narrow, the muscles around them tighten and there is an increase in the production of sticky mucus (phlegm). The most common trigger is infection with a respiratory virus. This makes it difficult to breathe and causes wheezing and coughing. Patients may also complain of chest tightness.

  A severe onset of symptoms is known as an asthma attack or an 'acute asthma exacerbation'. Asthma attacks may require hospital treatment and can sometimes be life-threatening, although this is rare. For some people with chronic (long-lasting) asthma, long-term inflammation of the airways may lead to more permanent narrowing. Aside from viruses other **triggers** include house dust mites, animal fur, pollen, tobacco smoke, exercise and cold air.

- **Signs and symptoms** include breathlessness, wheeze, cough, nocturnal cough, tight chest, bilateral wheeze. These tend to be variable, intermittent, worse at night, provoked by triggers including exercise. Presentation may be mild/ moderate, severe or acute/life threatening. Hospitals should have easy access to an algorithm for treatment of childhood asthma.

Aim: Recognise a deteriorating patient and refer appropriately to a senior clinician

Learning Outcomes:

- Obtain adequate history
- Obtain appropriate vital signs at appropriate time intervals
- Refer appropriately
- Communicate effectively

Equipment:

- Instructor summary card
- Instructor prompt card
- Completed medication chart
- PEWS chart (5-11 years)
- ISBAR/escalation poster
- Sepsis 6 poster

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Instructor Prompt Card (1 of 2)

Facilitating the desktop case study:

1. Explain aim/learning outcomes for the practical discussion
2. Divide the class into smaller groups (max 6- you may need additional trainers)
3. Present the initial information and give the candidate group the paperwork
4. Facilitate the candidate(s) to discuss an ABCDE assessment and complete the observation chart
5. The group should identify additional PEWS criteria that may be clinically relevant and include these in the Total PEWS Score
6. Encourage discussion around the clinical requirements of the child and the appropriate escalation pathway
7. When the nurse alerts the senior nurse or doctor, place two players back to back to simulate communication via the phone
8. Allow the scenario to build on itself prompting other players to enter as called for or prompt as necessary
9. Debrief & summarise learning clearly

Present the case history below:

Scenario history
Sinead, aged 10, admitted late yesterday with exacerbation of asthma

Initial candidate briefing
History of asthma, eczema and hayfever.
Admitted via ED for regular salbutamol nebulisers and monitoring of condition. Escalation Suspension last written at 00.30 for review at 08.30.

Not sleeping well overnight, complaining of chest tightness and persistent tight, dry cough.

Charted for 2-hourly nebulisers plus PRN.

Sinead has pressed the call bell. Her last nebuliser was 30mins ago. It is now 6.00am.

'As the nurse, you should carry out your assessment on Sinead now'

PEWS TRAINING – CASE STUDY 1

Instructor Prompt Card (2 of 2)

Part A- Initial assessment, recording observations and calculating PEWS score

- Candidate/ candidate group should complete ABCDE assessment
- Complete Paediatric Observation Chart
- Calculate Total PEWS score
- Refer appropriately using ISBAR to frame the conversation

If the candidate(s) need prompting:

1. **What other signs would you look for in this patient?**

Concern	RR	RE	O_2 T	HR	AVPU	SpO_2	Colour	Total PEWS Score
1	34 (1)	Mod (2)	0	128 (1)	A (0)	96% (0)	Pale	4

   - Vital signs (understand the trends for this patient) note: colour- pale, temp – afebrile
   - Note: this child appears anxious

2. **What is your overall impression of this patient? Does the Escalation Suspension still apply? Who would you notify and why?**

PART B – ISBAR Communication

Facilitator should place candidates back to back to simulate conversation

PART C - Medical candidate briefing

Updated clinical presentation of the child to be given to the candidate

- Doctor should complete ABCDE assessment
- Refer appropriately using ISBAR to frame the conversation

If the doctor needs prompting

1. **What other signs would you look for in this patient?**
   - Vital signs (understand the trends for this patient)
     RR ___ RE ____ O_2T ____ SpO_2 ___% HR ___ CRT___ BP ___/___ AVPU ___ Temp ___Urine output (give relevant information)
   - Blood Glucose level (provide information if requested)

   Note: PEWS ___

   Any additional notes for prompting / discussion here

2. **What is your management plan?**

PART 4 - Summary

- What did the group think went well?
- Are there any suggestions for improvement in their roles?
- Summarise learning for the group

PEWS TRAINING – CASE STUDY 1

Hospital Logo

PAEDIATRICS

Addressograph

Paediatric Observation Chart
5-11 Years

Ward

Consultant

Escalation Guide

PEWS does not replace an emergency call

Score	Minimum Observations	Minimum Alert	Minimum Response
1	4 hourly	Nurse in Charge	Any trigger should prompt increase in observation frequency as clinically appropriate
2	2 - 4 hourly		
3*	1 hourly	Nurse in Charge + Doctor on call	Nurse in Charge review
4-5	30 minutes		Urgent medical review
6	Continuous	Nurse in Charge + Doctor on call + Senior Doctor +/- Consultant	Urgent SENIOR medical review
≥7	Continuous	URGENT PEWS CALL	Immediate local response team

*** Pink score in any parameter merits review**

PEWS does not replace clinical concern

ISBAR Communication Tool → **I**dentify **S**ituation **B**ackground **A**ssessment **R**ecommendation

Medical Escalation Agreement

Date / Time	Maximum Duration	Following clinical assessment, if appropriate, state clinical impression, permitted parameters & calling criteria. *Document clearly in clinical notes.*	Senior Doctor Initials / MCRN / Designation
20·06·16 00·30	8hours	IMPRESSION: *Impression: acute asthma exacerbation* *Not for escalation provided PEWS <5 and RR 20-40· RE Mild· SpO_2 >95%*	*Dr JDOE ######*
		IMPRESSION:	

Paediatric Sepsis 6

Recognition

2 or more of the following

- Core temperature <36°C or >38.5°C
- Inappropriate tachypnoea
- Inappropriate tachycardia
- Reduced peripheral perfusion
- Altered mental status
- Consider co-morbidities

Suspected or proven sepsis

TAKE 3 <60 Mins.
- IV or IO access and take blood samples
- Urine output measurement
- Early SENIOR input

Within 60 minutes

GIVE 3 <60 Mins.
- High flow oxygen
- IV/IO fluids & consider early inotropic support
- Broad spectrum IV/IO antimicrobials

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Assessment of Respiratory Effort			
	Mild	Moderate	Severe
Airway	• Stridor on exertion/crying	• Mild stridor at rest	• Stridor at rest
Behaviour and feeding	• Normal • Talks in sentences	• Some/intermittent irritability • Difficultly talking/crying • Difficultly feeding or eating	• Increased irritability and/or lethargy • Looks exhausted • Unable to talk or cry • Unable to feed or eat
Respiratory rate	• Mildly increased	• Respiratory rate in blue zone	• Respiratory rate in pink zone • Increased or markedly reduced respiratory rate as the child tires
Accessory muscle use	• Mild intercostal and suprasternal recession	• Moderate intercostal and suprasternal recession • Nasal flaring	• Marked intercostal, suprasternal and sternal recession
Oxygen	• No oxygen requirement	• Mild hypoxemia corrected by oxygen • Increasing oxygen requirement	• Hypoxemia may not be corrected by oxygen
Other			• Gasping, grunting • Extreme pallor, cyanosis • Apnoea