E-Learning programme for PEWS Training

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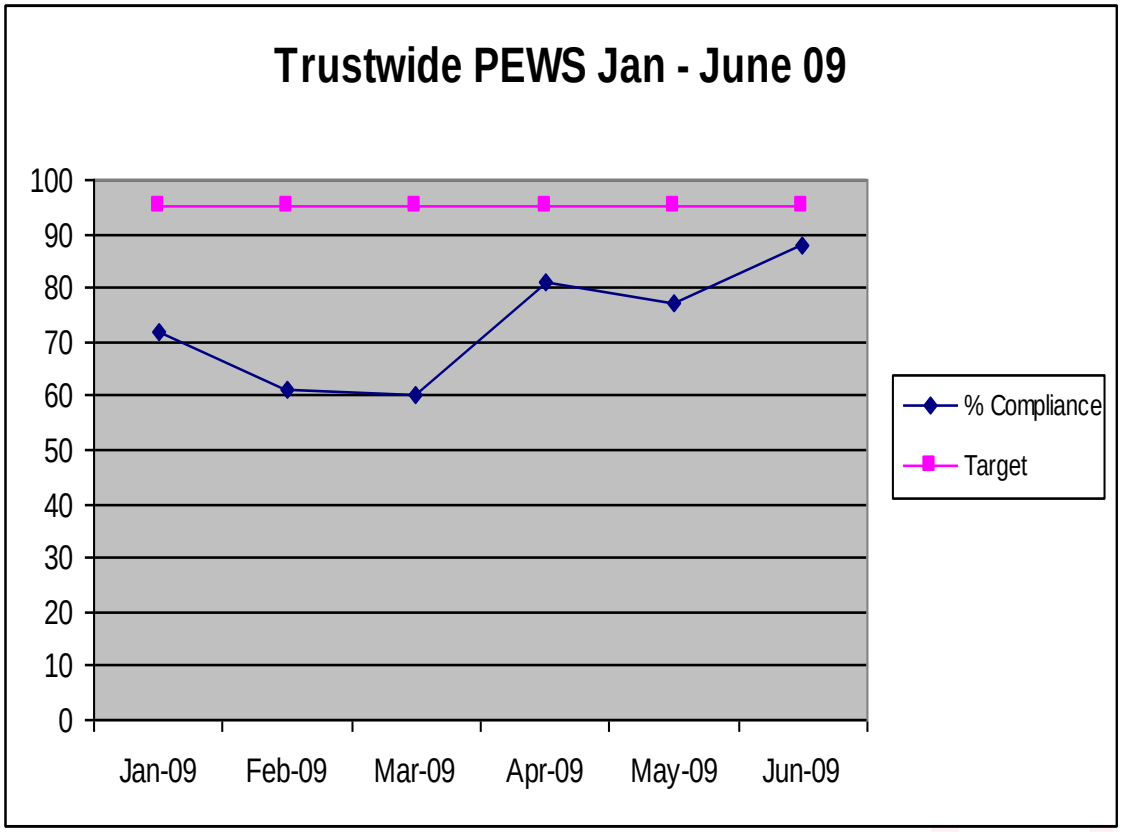
BACKGROUND

- Northern Trust implemented Early Warning Scoring System June 2008.
- Adopted the CREST Guidelines PEWS.
- Developed a Trust Policy.
- Top-down approach to training staff.

AUDIT RESULTS



- All parameters completed
- All scores added correctly
- Evidence of action from score
- Frequently documented
- Vital signs recorded to Frequency

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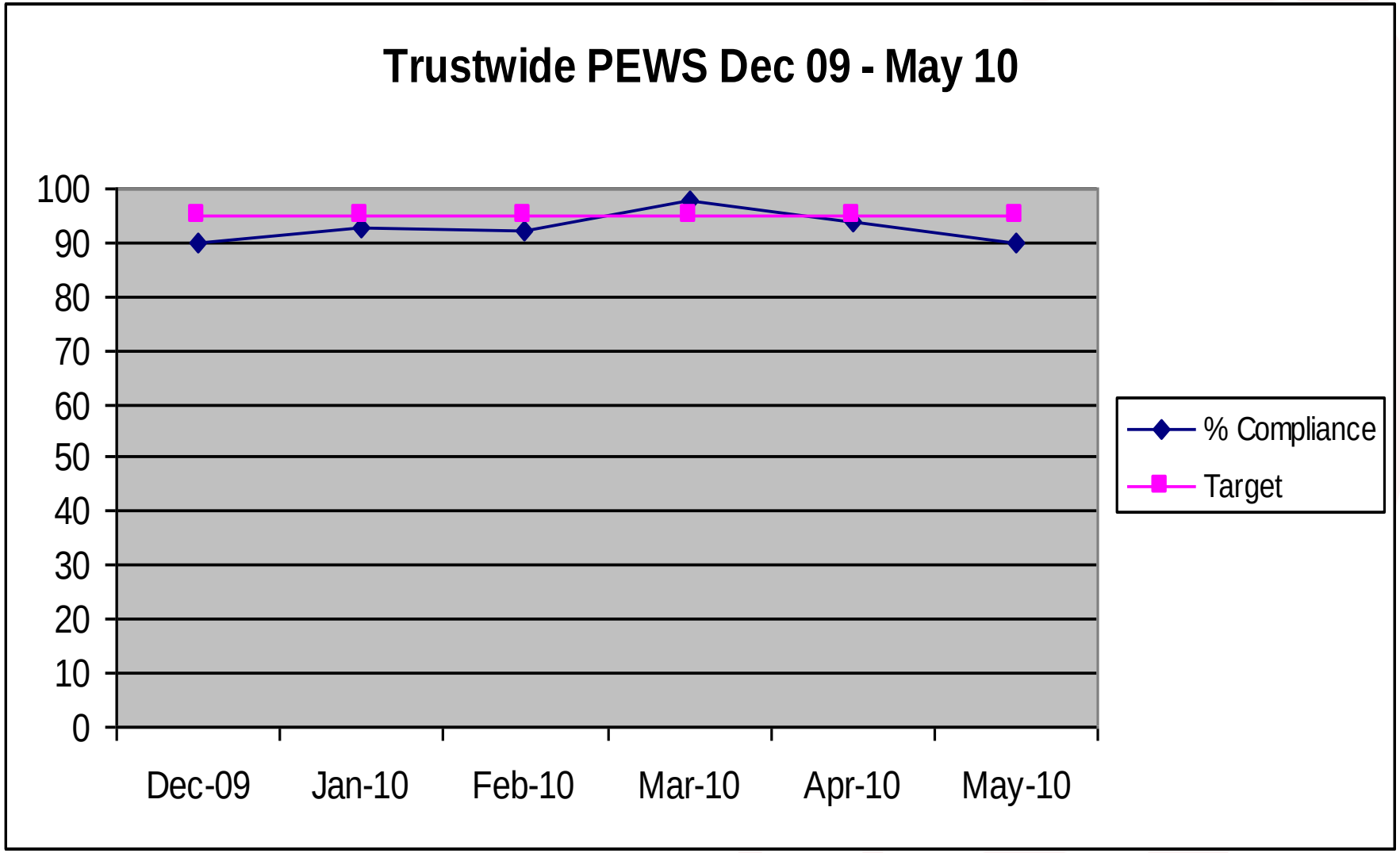
Action Plan

- Review training package, two trainers delivering face to face training.
- Changes made to PEWS chart.
- Policy reviewed.
- Repeat Audits.



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Refresher Training

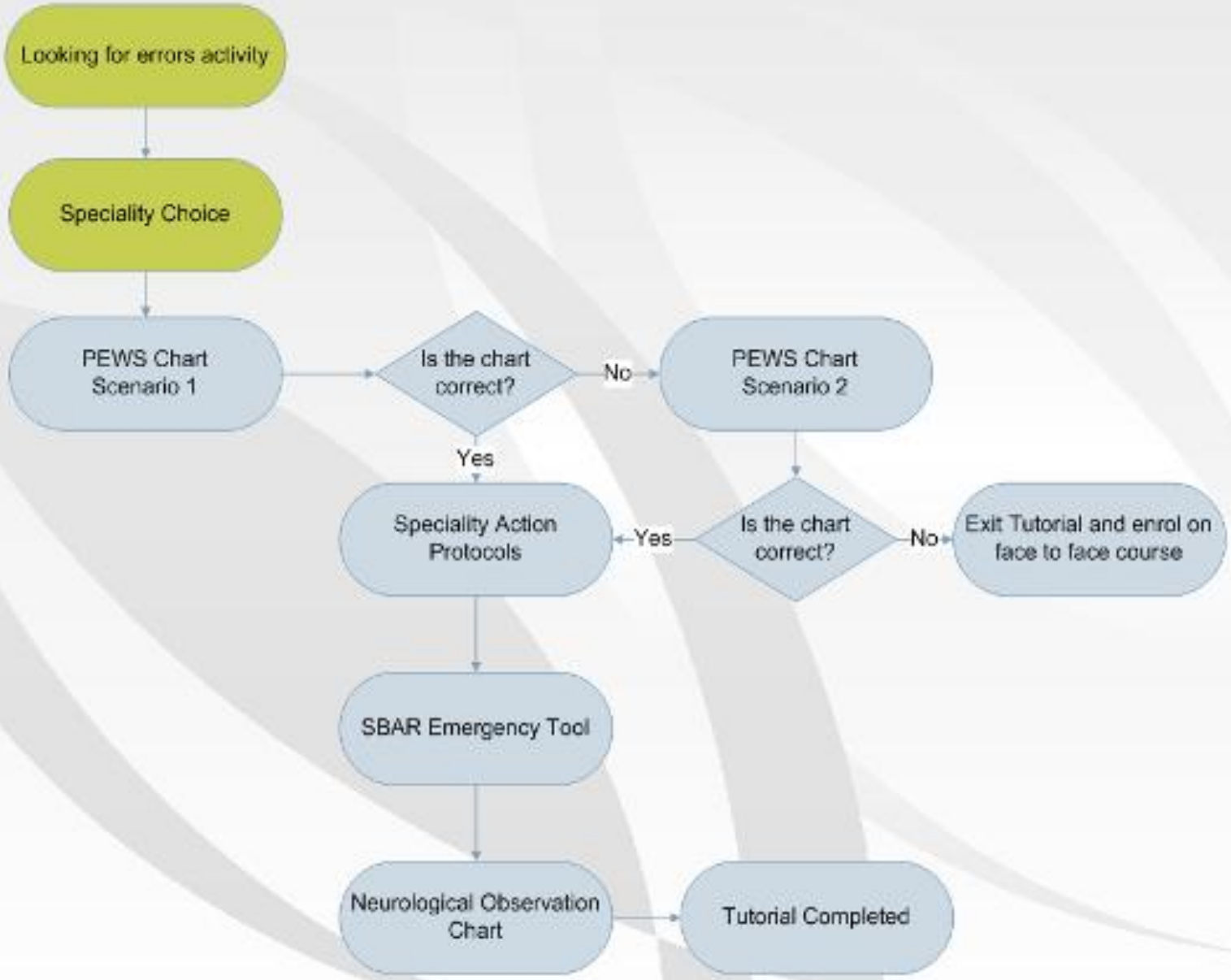
- Face-Face training very labour intensive (Ratio 1 trainer to 6 staff).
- Cost of seconding trainers.
- Removes staff from clinical area.
- Audit results over time started to drop slightly again so the need for refresher training was obvious.

E-Learning programme

- Small working group set up consisting of the Trusts two Resuscitation Officers and a Medical Consultant who was involved in the development of the CREST guidelines.
- Search for other e-learning PEWS programmes found none available.
- IT expertise sought from the Beeches Management Centre.

Development Process

- The programme needed a mix of both assessment and teaching.
- It needs to be user friendly and accessible to staff both at work and home.
- Have the ability to refer staff who were unsuccessful for face-to-face training.
- Needs to be monitored and reports printed if required.
- Most importantly allow successful staff print off a certificate.


Looking for errors activity
Speciality Choice
PEWS Chart Scenario 1
Is the chart correct?
No
PEWS Chart Scenario 2
Yes
Speciality Action Protocols
Yes
Is the chart correct?
No
Exit Tutorial and enrol on face to face course
SBAR Emergency Tool
Neurological Observation Chart
Tutorial Completed

PEWS Assessment

- There will be 6 errors on the PEWS chart to be identified (point and click).
- Failure will lead to second attempt with a different chart.
- Errors are representative of the common mistakes seen in clinical documentation.
- A second failure will result in face-to-face referral. Automatic e-mail to resuscitation officers.

			Date	14/01/10	14/01/10		14/01/10	
			Time (24 hrs)	10.00	14.00	14.30	14.45	
Resp Rate (insert number)	3	30+		3	3	3	3	3
	2	21-30		2	2	2	2	2
	1	15-20		16	19	20	20	1
	0	9-14		0	0	0	0	0
	2	5-8		2	2	2	2	2
	3	0-4		3	3	3	3	3
			RR-Score	1	1	1	1	
SaO2 (insert number)			O2 Code	A	SM	A		
	0	95+		96	95	0	95	0
	1	90-94		1	1	94	1	1
	2	85-89		2	2	2	2	2
	3	0-84		3	3	3	3	3
			S-Score	0	0	1	0	
Pulse/Heart Rate (insert number)	3			3	3	3	3	3
	3	140		3	3	3	3	3
	3			3	3	3	3	3
	2	120		2	2	2	2	2
	2			2	2	2	110	2
	1	100		1	1	106	1	1
	0			0	103	0	0	0
	0	80		88	0	0	0	0
	0			0	0	0	0	0
	0	60		0	0	0	0	0
	0			0	0	0	0	0
	1	40		1	1	1	1	1
	2			2	2	2	2	2
	3			3	3	3	3	3
			PR-Score	0	1	1	2	
Blood Pressure (mmHg) (insert numbers & score as systolic only)	3			3	3	3	3	3
	2	200		2	2	2	2	2
	2			2	2	2	2	2
	1	180		1	1	1	1	1
	1			1	1	1	1	1
	0	160		0	0	0	0	0
	0			0	0	0	0	0
	0	140		146	0	0	0	0
	0			0	135	130	0	0
	0	120		0	0	0	128	0
	0			0	0	0	0	0
	0	100		0	0	0	0	0
	1			1	1	1	1	1
	1	80		1	1	1	1	1
	2			78	72	68	2	2
	3			3	3	3	64	3
			SB-Score	0	0	0	0	
Temperature C (insert number)	3			3	3	3	3	3
	2	39		2	2	2	38.6	2
	1			1	1	38.3	1	1
	0	38		0	0	0	0	0
	0			0	37.4	0	0	0
	0	37		36.6	0	0	0	0
	0			0	0	0	0	0
	1	36		1	1	1	1	1
	1			1	1	1	1	1
	2	35		2	2	2	2	2
	2			2	2	2	2	2
	3	34		3	3	3	3	3
			Temp-Score	0	0	1	2	
Alert	0	A		A	A	A	0	0
Voice	1	V		1	1	1	V	1
Pain	2	P		2	2	2	2	2
Unresponsive	3	U		3	3	3	3	3
			AVPU Score		0	0	1	
			Total Score	1	1	4	6	
Time for next observations				14.00	14.30	14.45	15.00	
Signature/name				PD	PD	PD	RH	E

Examine the chart to the left and identify the six errors by clicking in the boxes beside what you believe are the incorrect entries. Once you think you have located all the errors click on the check button at the bottom to see if you are right.

Check

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Specialty choice

- Clinical scenario devised for each speciality.
- Information from scenario used to complete PEWS chart.
- Failure will lead to a second attempt different scenario.
- A second failure will result in referral for face-to-face training.

	Date						
	Time (24 hrs)						
Resp Rate (insert number)	3	30+	3	3	3	3	3
	2	21-30	2	2	2	2	2
	1	15-20	1	1	1	1	1
	0	9-14	0	0	0	0	0
	2	5-8	2	2	2	2	2
	3	0-4	3	3	3	3	3
RR-Score							
	O2 Code						
SaO2 (insert number)	0	95+	0	0	0	0	0
	1	90-94	1	1	1	1	1
	2	85-89	2	2	2	2	2
	3	0-84	3	3	3	3	3
S-Score							
Pulse/Heart Rate (insert number)	3		3	3	3	3	3
	3		3	3	3	3	3
	3	140	3	3	3	3	3
	2		2	2	2	2	2
	2	120	2	2	2	2	2
	1		1	1	1	1	1
	0	100	0	0	0	0	0
	0		0	0	0	0	0
	0	80	0	0	0	0	0
	0		0	0	0	0	0
	0	60	0	0	0	0	0
	0		0	0	0	0	0
	1	40	1	1	1	1	1
	2		2	2	2	2	2
	3		3	3	3	3	3
PR-Score							
Blood Pressure (mmHg) (insert numbes & score as systolic only)	3		3	3	3	3	3
	2		2	2	2	2	2
	2	200	2	2	2	2	2
	1		1	1	1	1	1
	1	180	1	1	1	1	1
	0		0	0	0	0	0
	0	160	0	0	0	0	0
	0		0	0	0	0	0
	0	140	0	0	0	0	0
	0		0	0	0	0	0
	0	120	0	0	0	0	0
	0		0	0	0	0	0
	0	100	0	0	0	0	0
	1		1	1	1	1	1
	1	80	1	1	1	1	1
	2		2	2	2	2	2
	3		3	3	3	3	3
SB-Score							

Using the information in the scenario below, complete the chart to the left. When you have completed it click the check button at the bottom to verify your entries and move to the next page.

Codes for recording oxygen delivery device and flow rate
A - Air (not requiring oxygen, weaning or on 'RPN' oxygen)
N - Nasal Cannula
SM - Simple Mask

When entering the time please enter two digits before the dots and two after

Scenario 1
Date: 14th January 2010
Time: 1.15pm

Clinical Setting and History
You are called to see a 26 year old woman just admitted with exacerbation of asthma. She has suddenly developed a severe wheeze, appears distressed and cyanosed.

Additional information
The patient has a long history of admission with asthma and several of these have been to ICU.

Clinical Course
Initial observations: RR=36, SaO2=88% on Air, HR=140bpm, BP=90/60, CRT=4, T=37.5, AVPU=V
The patients wheeze is in extremis and she is starting to tire
High flow oxygenation increases SaO2 to 90%
Nebulised salbutamol does not offer much relief

SPECIALITY ACTION PROTOCOL

* Codes for recording oxygen delivery device and flow rate on PEWS Observation Chart	
A Air (not requiring oxygen, or weaning or on 'RPN' oxygen	**H28** Humidified oxygen at 28% (also H35, H40, H60 for humidified oxygen at 35%, 40% and 60%)
N Nasal cannula	**RM** Reservoir mask
SM Simple mask	**TM** Tracheostomy mask
V24 Venturi 24% **V28** Venturi 28% **V35** Venturi 35%	**CP** Patient on CPAP system
V40 Venturi 40% **V60** Venturi 60%	**NIV** Patient on NIV system
	OTH Other device (please specify): _____
Flow Rate (FRI) - Always record flow rate in L/min (e.g. 4 = 4L/min or 2 = 2L/min)	

EMERGENCY ACTIONS RELATING TO SPECIALITY ACTION PROTOCOL (SAP)					
Date	Time	PEWS	Actions Taken	Print Name	Signature

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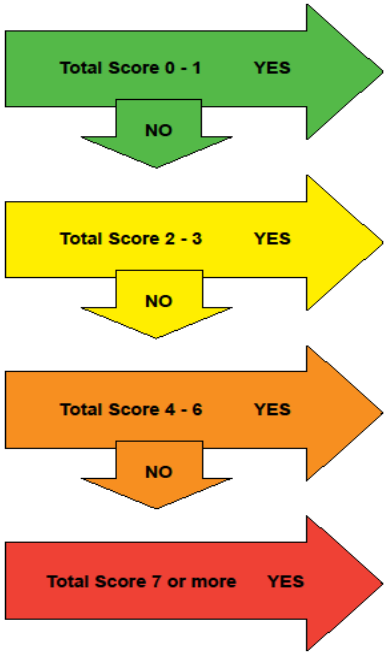
Medicine and Unscheduled Care

SPECIALTY ACTION PROTOCOL (SAP) FOR PHYSIOLOGICAL EARLY WARNING SYSTEM (PEWS)

The Scoring System and Action Protocol are designed to help identify patient deterioration and ensure appropriate early intervention.

Staff should use their clinical judgement, and seek advice if they have concerns about any patient, regardless of the score. All new admissions should have a minimum of 4-hourly observations carried out within the first 24 hours and more frequently if required.



Continue observations as before.

Inform nurse in charge.
Compare PEWS with baseline admission PEWS.
Carry out ½ hourly observations if different from admission PEWS.
If unchanged after 2 hours, or if score increases, inform Doctor using the SBAR emergency tool.
If stable after 2 hours, return to normal observations.

Inform F1/F2 Grade Doctor using SBAR emergency tool.
Medical staff to assess patient within 30 minutes.
F1/F2 Doctor to initiate a management plan.
Carry out ¼ hourly observations, nursing staff to remain at bedside until assessed and stabilised.

Initiate SBAR emergency tool <u>immediately</u>!
(Contact any available Doctor).
Doctor to assess patient within 10 minutes.
Stay with patient and continue to carry out ¼ hourly observations.
If patient deteriorating, consider referral to ICU/HDU.
(ICU numbers - Antrim ext. 2662
Causeway ext. 5512)

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Specialty Action Protocol

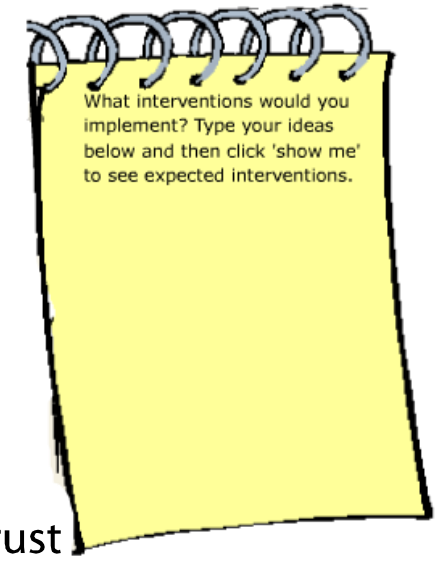
Using the SAP information you read on the previous page and your own **clinical judgement**, decide what interventions (if any) you would initiate for the chart you completed earlier. Make a note of the interventions in the notebook below. A summary of the scenario is provided below. Once you have made a note of your interventions, click on the show me button to see a list of the expected interventions.

Scenario 2
Date: 17th August 2009
Time: 11.40am

Clinical Setting and History
You are called to see a 62 yr old woman admitted 3 days previously with chest infection. She has developed central crushing chest pain. The pain is severe and is radiating into her left arm.

Additional information
The patient has had symptoms of chest pain for 40 minutes but has not alerted staff until now as pain is now unbearable. She has no known ischemic heart disease.

Clinical Course
Initial observations: RR=18, SaO2=98% on Air, HR=98bpm, BP=140/80, CRT=2, T=36.8, AVPU=A
The patient has complained that the pain has rapidly worsened over the last five minutes and cannot bear it any longer
High flow oxygenation increases SaO2 to 100%
Simple analgesia or GTN spray will not relieve the pain
12lead ECG confirms myocardial infarction



SHOW ME

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SBAR

There are many methods of communication in relation to the deteriorating or sick patient. SBAR is one of the more commonly used communication tools used to communicate the need of more urgent medical attention to a deteriorating patient. It focuses on careful logical thought processes and avoids unnecessary information and panic. Move your mouse over hotspot on the SBAR below to get more detail on each section.

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CERTIFICATE of ACHIEVEMENT
This is to certify that
Admin User
has completed the course
Physiological Early Warning System (PEWS)
December 2, 2010
Medicine and Unscheduled Care
3h655WzEnT

ANY QUESTIONS?