excellent
kind
responsible
respectful

St George's University Hospitals NHS
NHS Foundation Trust

Early Warning Score (EWS) & Observations

For the deteriorating adult

Junior Doctor Induction Program.
August 2018

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On behalf of the Deteriorating Adults Group

Excellence in specialist and community healthcare

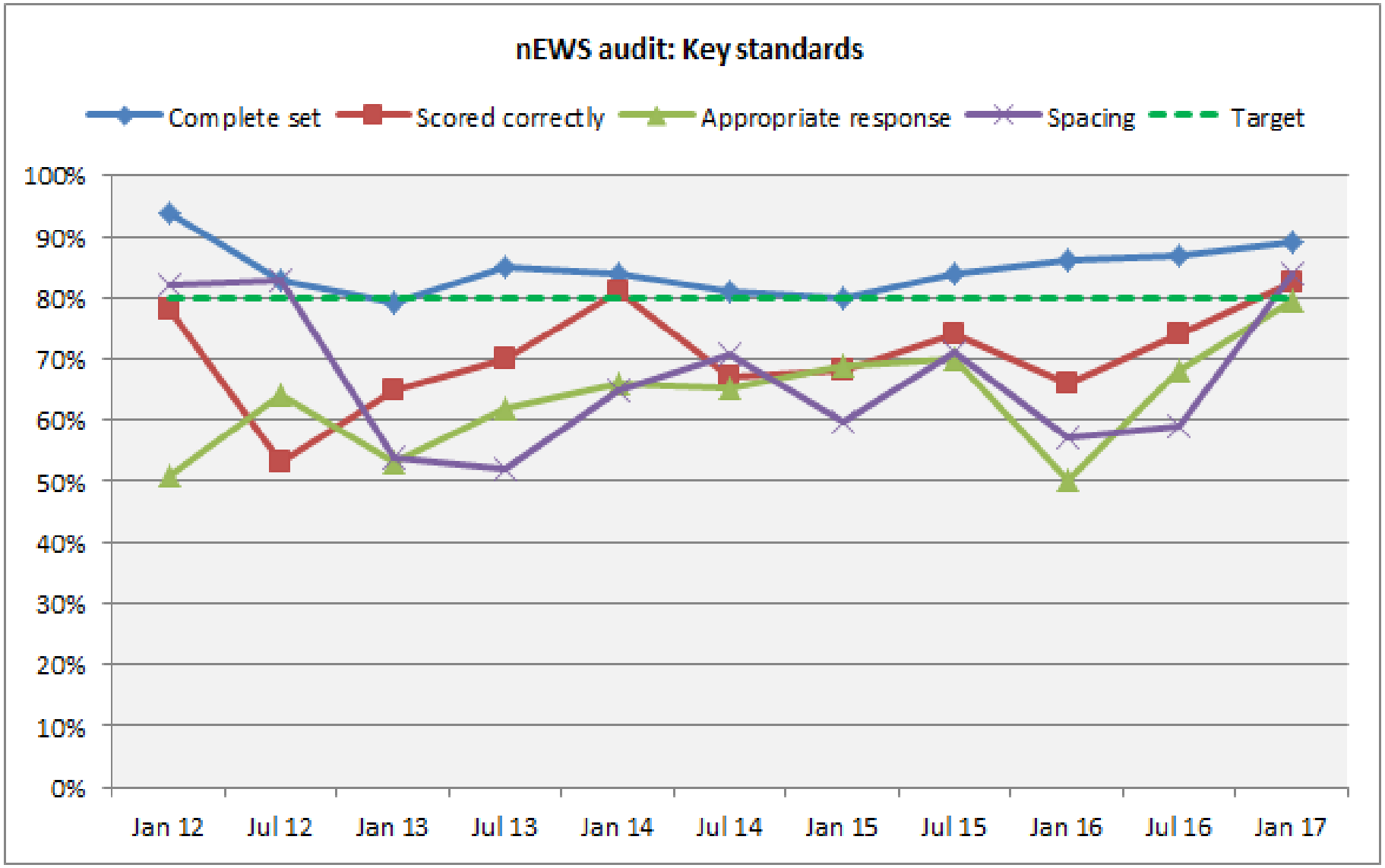
Overview

- What is EWS?
- Why is it important?
- What is the process?
- What observations and how?
- How do I calculate it?
- What do I do with the EWS?

“A physiological point scoring system that efficiently identifies and should trigger an appropriate response to patients who present with or develop acute illness.”

Royal College of Physicians (2012)
National Early Warning Score (NEWS).

Why is it important?



Why is it important?

"Early recognition and response of deterioration improves patient safety and outcomes."

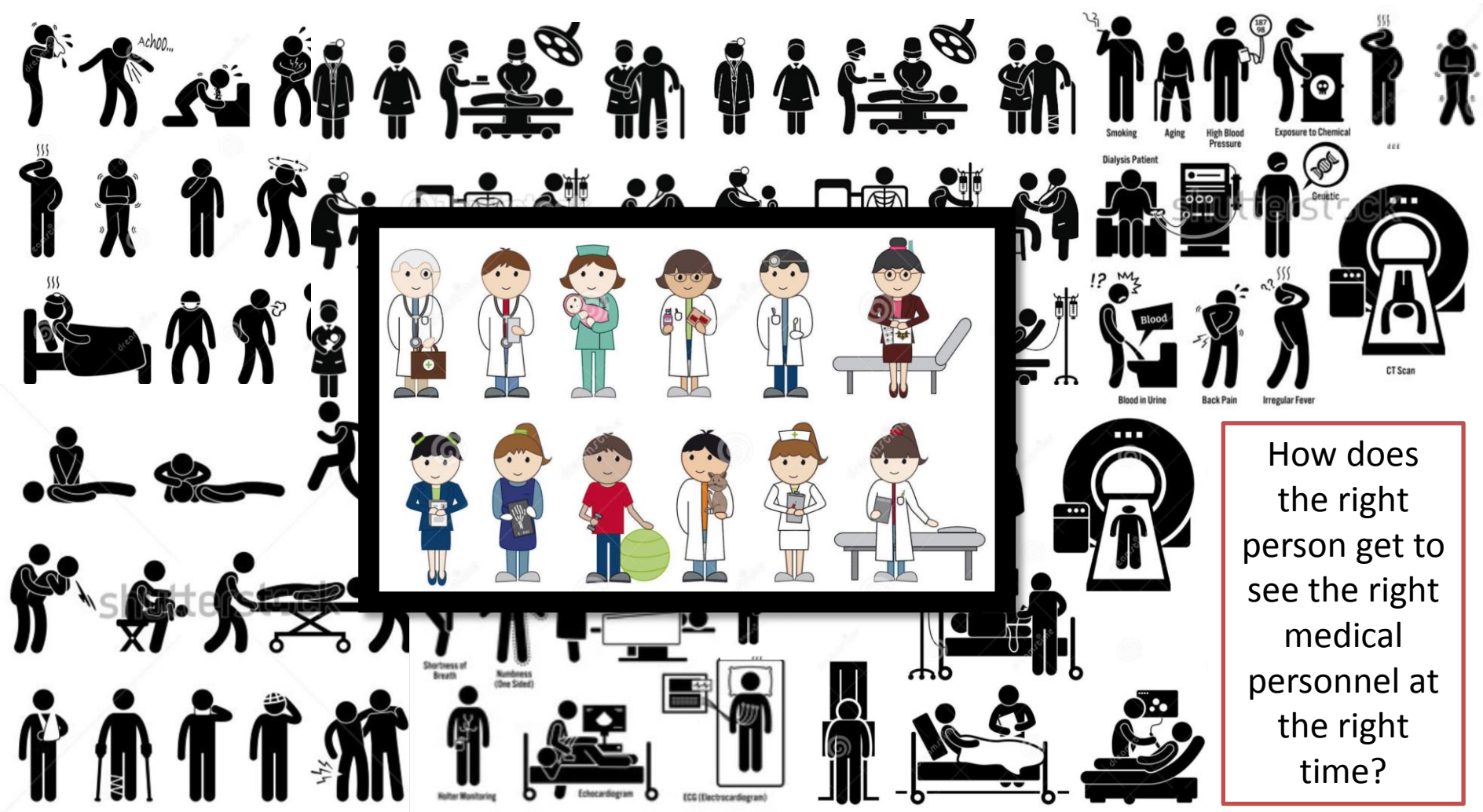
(Resus Council 2015)

There is no formal outreach team for acute admissions!

You are the eyes, ears, hands and advocates for your patients whilst on the ward!

(you will be pleased to know there is a very proactive intensive care team and a cardiac arrest team)

Why is it Important?

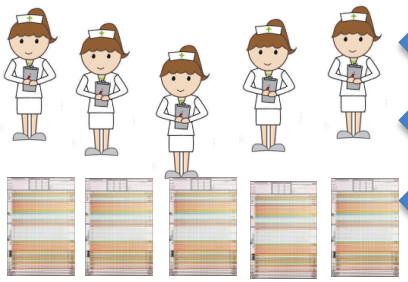


How does the right person get to see the right medical personnel at the right time?

Risk Stratification

- **Risk stratification** is a tool for identifying— and predicting—which patients are at high **risk**—or likely to be at high **risk**—and prioritising the management of their care in order to prevent worse outcomes

Why is it important?



Identification and safety

Appropriate resource allocation: staff and location

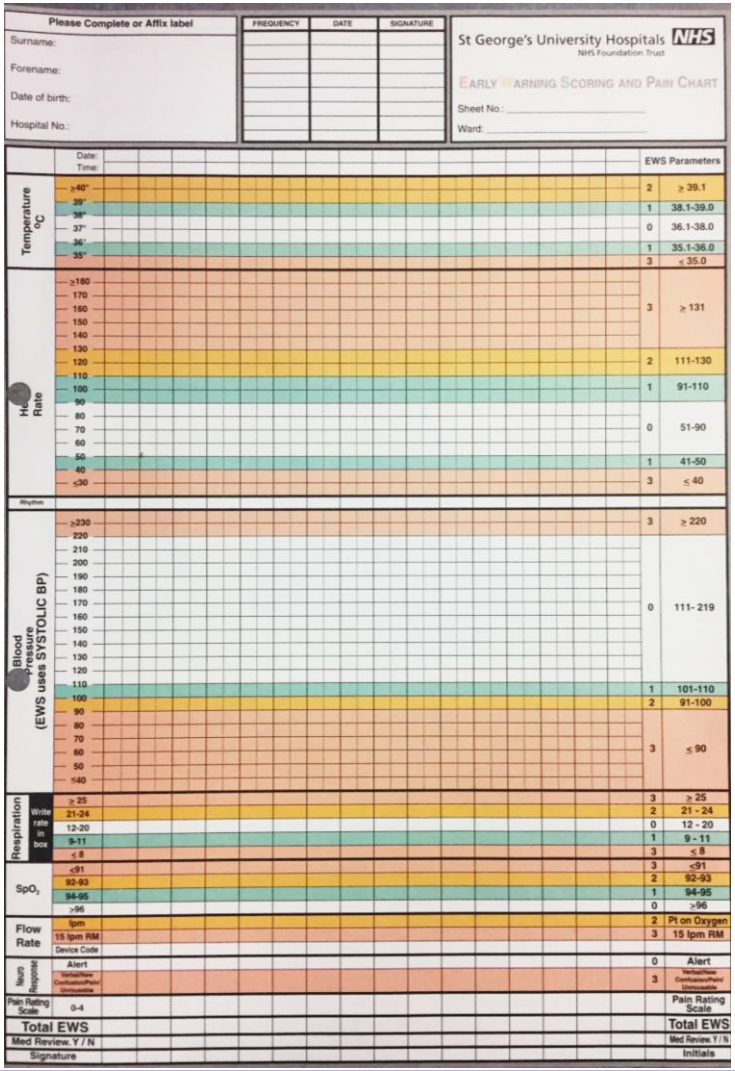
Identification of the acutely unwell patient requiring urgent attention

Appropriate and Timely Treatment by most appropriate member of staff

A monitoring tool

- Is not a treatment!
- It is only as useful as the person/people using it
- Needs to be:
  - Useful (sensitive and specific)
  - Used on the correct population
  - Used correctly (calculated correctly)
  - Interpreted correctly
  - **Acted upon correctly**

The Chart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Surname:
Forename:
Date of birth:
Hospital No.:
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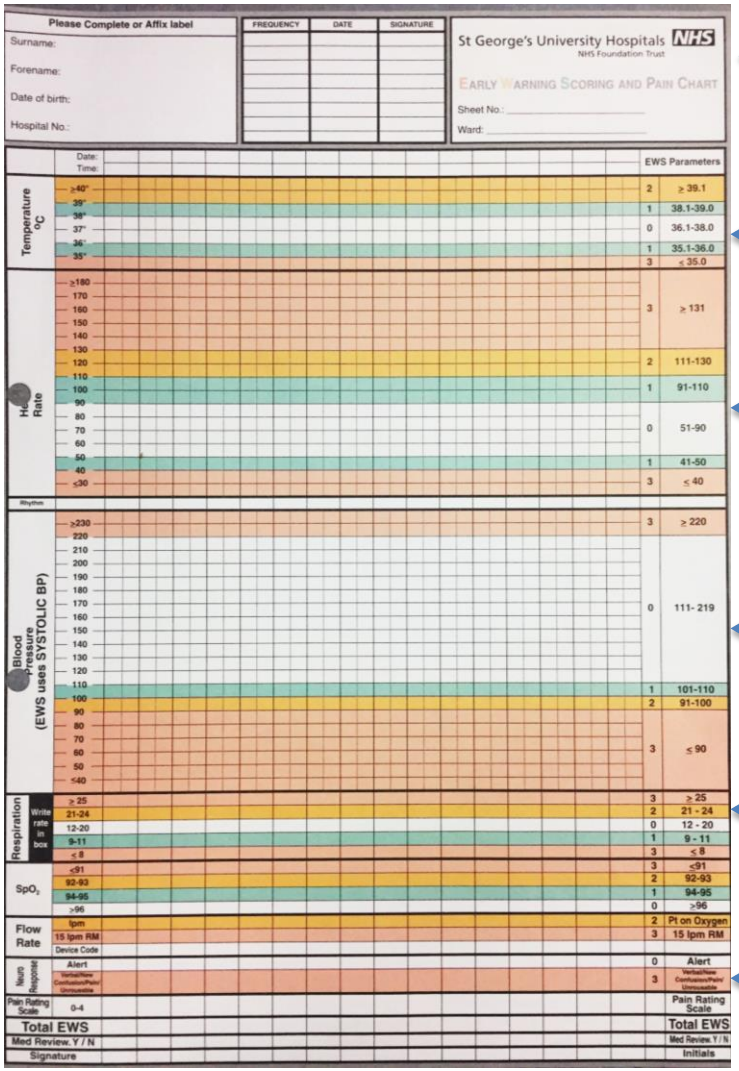
St George's University Hospitals NHS
NHS Foundation Trust
Early Warning Scoring and Pain Chart
Sheet No.:
Ward:
Date:
Time:
EWS Parameters
Temperature °C
Heart Rate
Rhythm
Blood Pressure (EWS uses SYSTOLIC BP)
Respiration
Write rate in box
SpO2
Flow Rate
Device Code
Neuro Response
Alert
Pain Rating Scale
0-4
Total EWS
Med Review. Y / N
Signature
Initials

The Chart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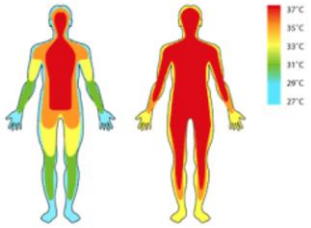

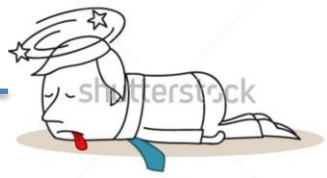
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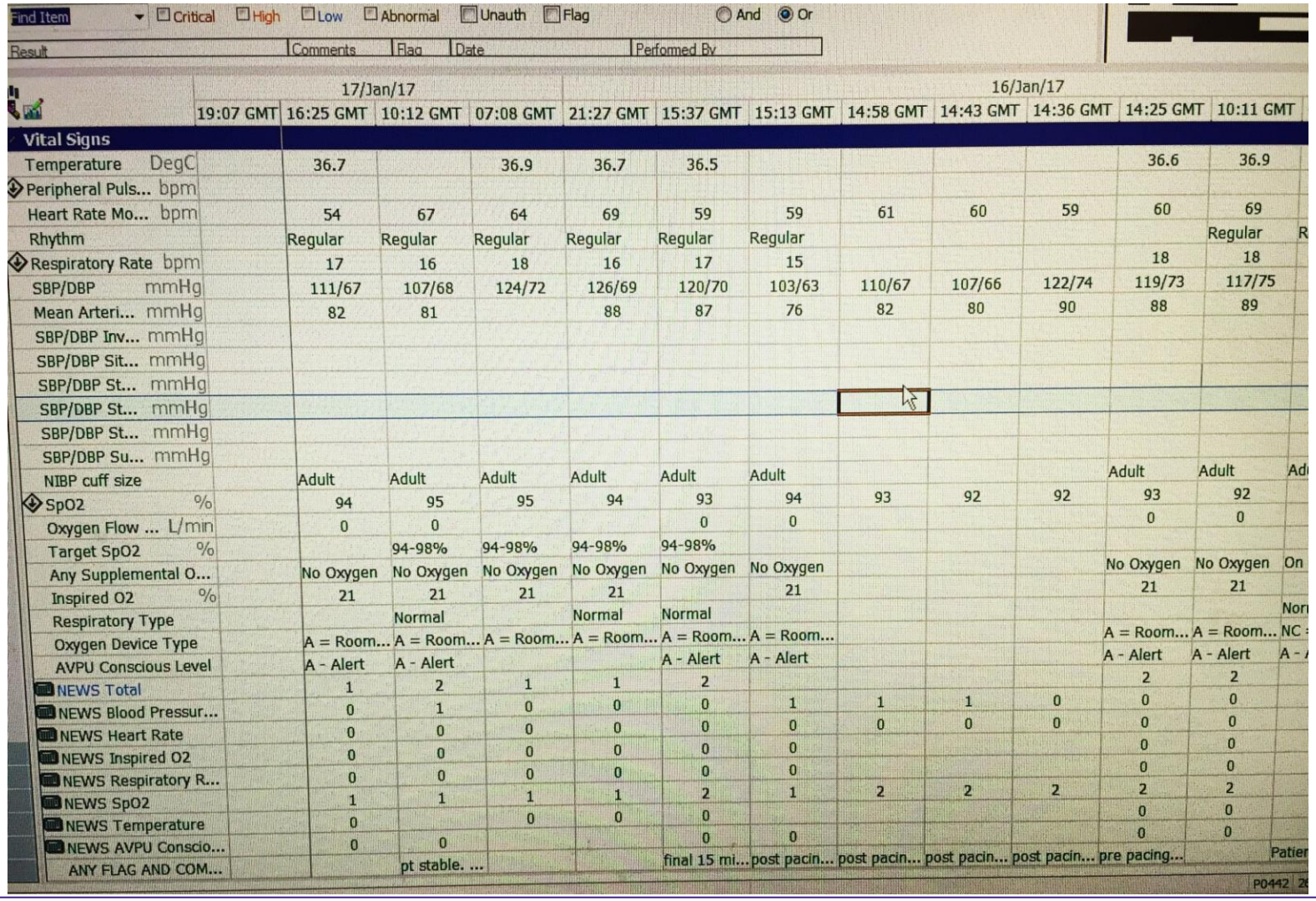
The Chart



Find Item | Critical | High | Low | Abnormal | Unauth | Flag | And | Or

Result | Comments | Flag | Date | Performed By

	17/Jan/17						16/Jan/17				
	19:07 GMT	16:25 GMT	10:12 GMT	07:08 GMT	21:27 GMT	15:37 GMT	15:13 GMT	14:58 GMT	14:43 GMT	14:36 GMT	14:25 GMT	10:11 GMT
Vital Signs												
Temperature DegC		36.7		36.9	36.7	36.5					36.6	36.9
Peripheral Puls... bpm												
Heart Rate Mo... bpm		54	67	64	69	59	59	61	60	59	60	69
Rhythm		Regular	Regular	Regular	Regular	Regular	Regular					Regular
Respiratory Rate bpm		17	16	18	16	17	15				18	18
SBP/DBP mmHg		111/67	107/68	124/72	126/69	120/70	103/63	110/67	107/66	122/74	119/73	117/75
Mean Arteri... mmHg		82	81		88	87	76	82	80	90	88	89
SBP/DBP Inv... mmHg												
SBP/DBP Sit... mmHg												
SBP/DBP St... mmHg												
SBP/DBP St... mmHg												
SBP/DBP St... mmHg												
SBP/DBP Su... mmHg												
NIBP cuff size		Adult	Adult	Adult	Adult	Adult	Adult				Adult	Adult
SpO2 %		94	95	95	94	93	94	93	92	92	93	92
Oxygen Flow ... L/min		0	0			0	0				0	0
Target SpO2 %			94-98%	94-98%	94-98%	94-98%						
Any Supplemental O...		No Oxygen	No Oxygen	No Oxygen	No Oxygen	No Oxygen	No Oxygen				No Oxygen	No Oxygen
Inspired O2 %		21	21	21	21		21				21	21
Respiratory Type			Normal		Normal	Normal						
Oxygen Device Type		A = Room...	A = Room...	A = Room...	A = Room...	A = Room...	A = Room...				A = Room...	A = Room...
AVPU Conscious Level		A - Alert	A - Alert			A - Alert	A - Alert				A - Alert	A - Alert
NEWS Total		1	2	1	1	2					2	2
NEWS Blood Pressur...		0	1	0	0	0	1	1	1	0	0	0
NEWS Heart Rate		0	0	0	0	0	0	0	0	0	0	0
NEWS Inspired O2		0	0	0	0	0	0				0	0
NEWS Respiratory R...		0	0	0	0	0	0				0	0
NEWS SpO2		1	1	1	1	2	1	2	2	2	2	2
NEWS Temperature		0		0	0	0					0	0
NEWS AVPU Conscio...		0	0			0	0				0	0
ANY FLAG AND COM...			pt stable. ...			final 15 mi...	post pacin...	post pacin...	post pacin...	post pacin...	pre pacing...	

Observations

Complete Set!

- Temperature
- Heart Rate
- Blood Pressure (Systolic Scores)
- Respiratory Rate
- Peripheral Oxygen Saturations
- Flow Rate
- AVPU/New Confusion

Calculating the EWS

- Each physiological observation will give you a score from **0 – 3**
- Add them all together to give you a score from **0 – 21**

- Example:

Variable	Value	Score
Temp	37.4	0
HR	97	1
BPS	95	2
RR	24	2
Sats	95	1
FR	RA	0
AVPU	A	0
Total		6

Frequency & Spacing

Frequency	Indication
Continuous/quarter-hourly	nEWS ≥ 7
Hourly	nEWS 5 – 6 (or 3 in one)
4 Hourly	nEWS 1 - 4
12 hourly	nEWS 0
Post - op	¼ hourly for one hour (or until sedation has worn off and the patient is verbally responsive) ½ hourly for one hour 1 hourly for two hours 4 hourly until the patients' observation return to baseline

What next?

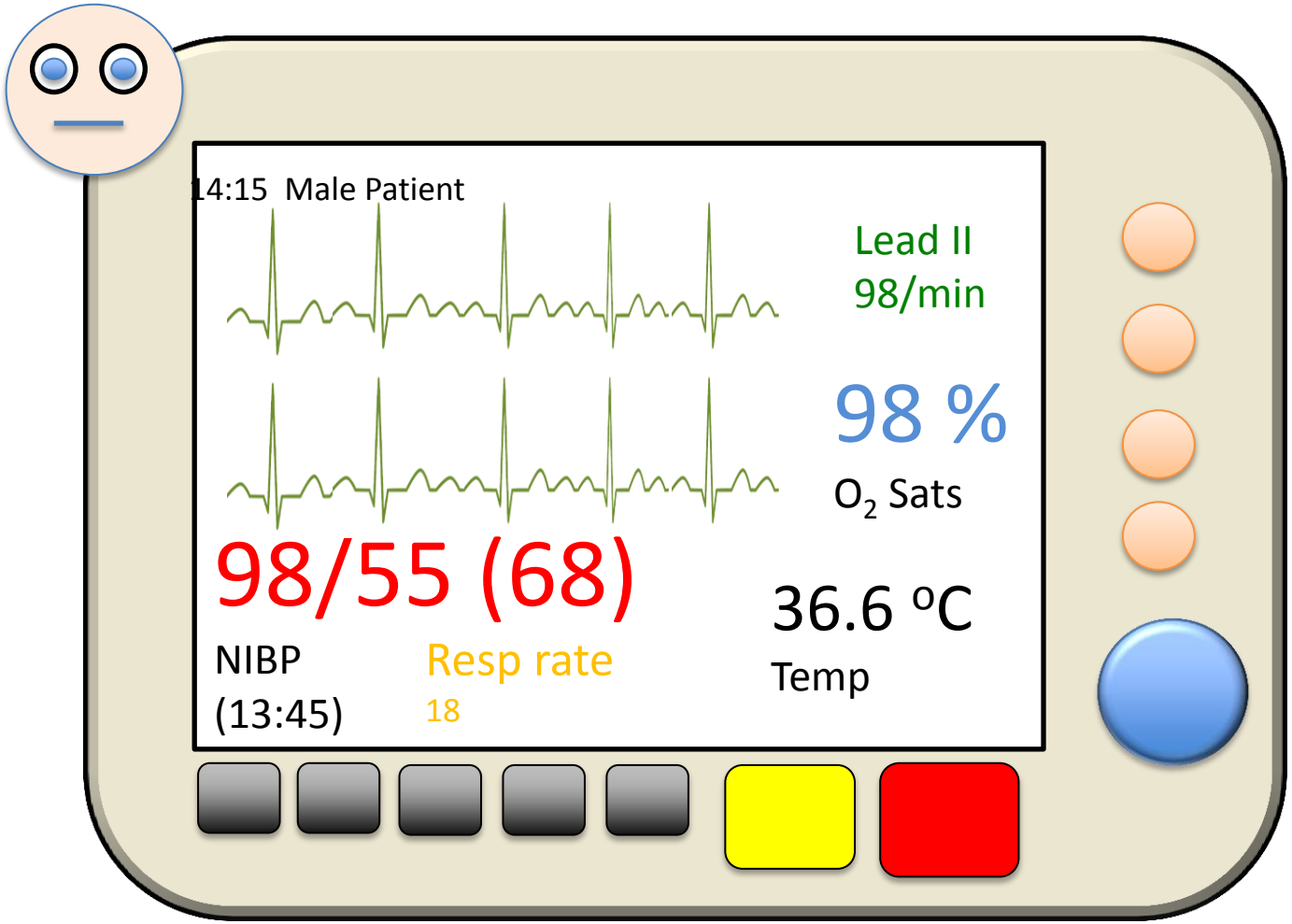
- Record and Report (HCAs)
- Recognise and Escalate (Nurses)
- Attend and treat (Nurses and Doctors)

Escalation Criteria

White	Green	Orange	Red
EWS 0	**CUMULATIVE EWS 1-4**	**CUMULATIVE EWS 5-6** **or 3 in any one parameter**	**nEWS≥7** **or rapid deterioration from any other nEWS score <7**
Frequency of Monitoring Minimum 12 hourly	**Frequency of Monitoring** Minimum 4 hourly	**Frequency of Monitoring** Minimum hourly	**Frequency of Monitoring** 15 minutes/continuous
Clinical Response • Continue routine nEWS monitoring with every set of observations • Inform parent team/H@N of any clinical concern or symptoms that may not be scored on nEWS • Plan of care including TEP documented at daily consultant review	**Clinical Response** • Registered nurse must review patient using ABCDE assessment and discuss with NIC. • Plan of care including TEP documented at daily consultant review • NIC should contact the parent team /H@N if assessment suggests more urgent review is required. Medic REVIEW	**Clinical Response** • Registered nurse must review patient using ABCDE assessment and inform NIC. • NIC to urgently inform the parent/H@N team response time <30minutes: • ST4+ attends and if appropriate escalate to Consultant on call for ward care. • If ST4-does not attend NIC to request Consultant on call for ward to attend <30 min. • If no one attends within 30 min consider actions of nEWS≥7* • Plan of care documented including TEP and reviewed at daily consultant review ST4 + REVIEW	**Clinical Response** • Registered nurse must review patient using ABCDE assessment and inform NIC. • NIC to immediately inform the parent/H@N team response time <15 minutes • The plan including TEP and DNA – CPR if appropriate should be documented once reviewed by a consultant. • Refer to H@N ANP at night or the appropriate ICU [GICU SpRbleep 7980; CTICU SpRbleep 6659; Neuro ICU SpRbleep 7203]. • If the patient is peri-arrest call x2222 ICU REVIEW

Every set of observations requires an EWS.
Act as soon as the EWS score triggers, if the score increases further act immediately on the new score.
Remember that EWS does not replace clinical acumen so if you are concerned about a patient act despite of the score.

Let's take an example…

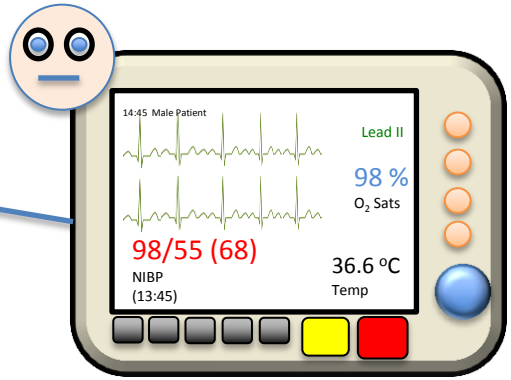


What is the nEWS Score?

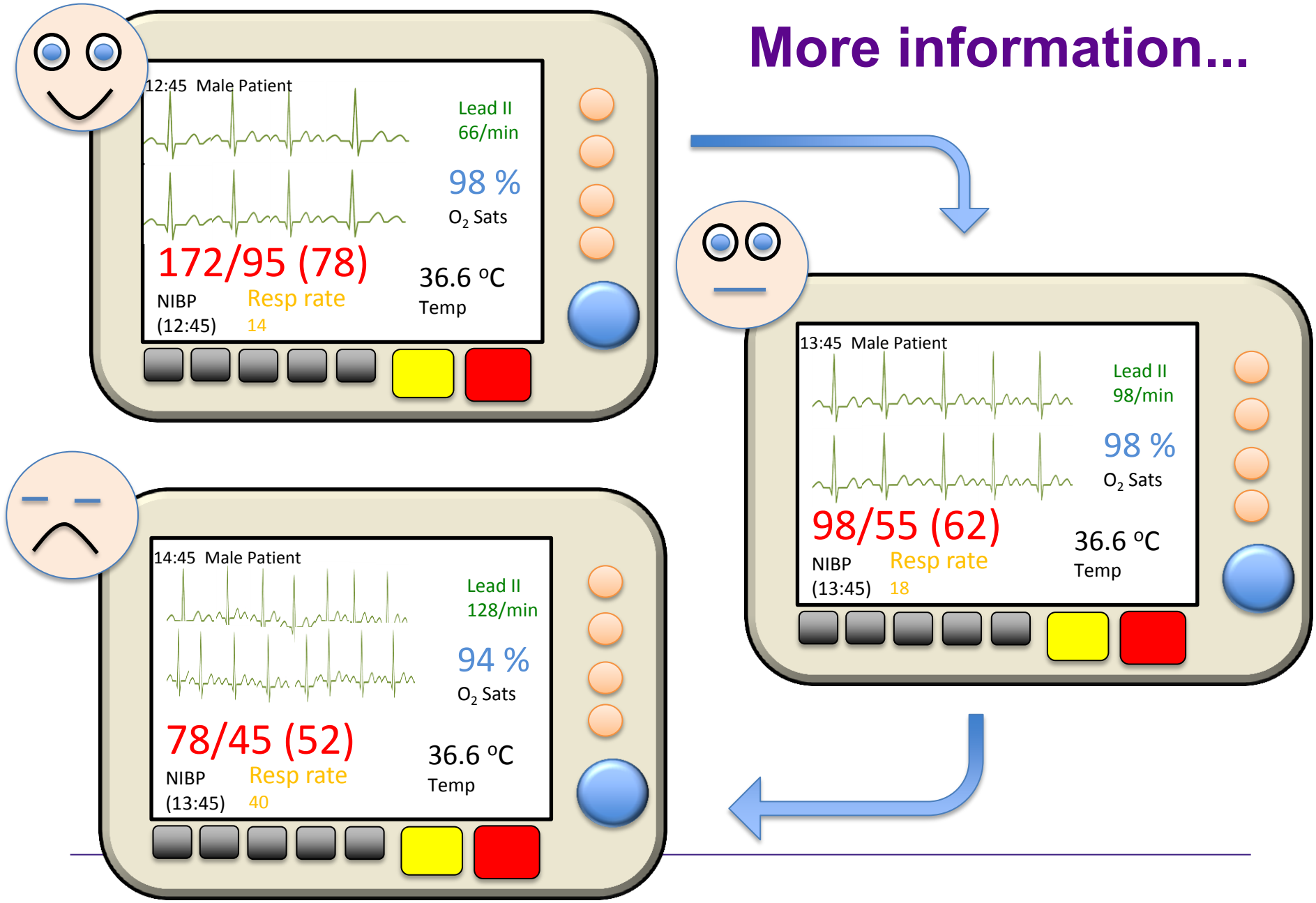
Are you worried?

What information is missing?

- A complete NEWS!
- ABCDE assessment
- Review of observations **trend**
- **History** and notes review
- Comprehensive **examination**
- Review of **investigations**
- **Impression**
- **Plan**
  - **Watch and wait**/further **investigations**
  - **Do something** (and **review** to see if successful)
  - **Escalate**



More information...



How to communicate your findings?

- **SBAR**
  - **S**=Situation (a concise statement of the problem)
  - **B**=Background (pertinent and brief information related to the situation)
  - **A**=Assessment (analysis and considerations of options — what you found/think)
  - **R**=Recommendation (action requested/recommended — what you want)

- **A** is also for **action** appropriate to your skill mix and location!!

- http://www.ihi.org/resources/Pages/Tools/sbartoolkit.aspx

Messages

- nEWS is a vital tool to **identify** patients who are **deteriorating** and **unwell**
- It is an excellent rapid, inter-professional **communication tool**
- Be aware of its **limitations**!
  - It is only **one part** of the story!
  - As the doctor called to review a patient with a high score remember:
    - You are **responsible** and have **ownership** of that individual – go and **review** in person!
    - Remember your **training**: ABCDE, history, examination, interpretation, plan!
    - **Escalate** appropriately and early – everyone is very happy to see patients before they become critically unwell

Any Questions?

Summary

- Record and Report (HCAs)
- Recognise and Escalate (Nurses)
- Review, treat and escalate (Doctors)
- Complete set of data at an appropriate frequency.
- Complete information is required to make good decisions!
- Document your thought processes
- Call for assistance early!

References

- Resuscitation Council (2015) Immediate Life Support. 3rd Ed. London, RCUK.
- Royal College of Physicians (2012) National Early Warning Score (NEWS). London, RCP.
- St George's University NHS Foundation Trust (2017) Adult Observations Policy. Available online: [add link to intranet]
- http://www.ihi.org/resources/Pages/Tools/sbartoolkit.aspx