

WOW! Have you heard the News?

Presentation by Laura Mumby and Georgina Fletcher



What and Why?

- **Aim:** to develop a system which was accurate, quick and had patient safety built into the system to reduce error, both in calculation and escalation
- **Objective:** to demonstrate that Electronic Nursing Observations are an accurate aid to early recognition of deteriorating patient and safety.



PCS Build

		Sun 23 Sep 14:50 by LMM
Interventions		
Observations 4H	<input type="checkbox"/>	✓
Assessments		
Observations - Previous		✓
Previous Observation Scores		
MEWS		
Temperature		
Blood Pressure		
Pulse		
O2 Sats		
RR		
UOP		
Blood Sugar		
Conscious Level		
Nausea		
Pain Score		
Time last recorded		
Observations		
Pregnant	<input type="checkbox"/>	✓
Is patient pregnant (>12 weeks)? <input type="radio"/> Yes <input type="radio"/> No Comment:		
Temperature		
*Temp (36 C-38.3 C)		
Temp MEWS		
Blood Pressure		
*BP (101/45-189/130 mm Hg)		
BP Systolic MEWS		
Heart Rate		
*HR (51-100 beats/min)		
HR MEWS		



PCS Build

- Oxygen	
*Sats (94-100 %)	
Sats MEWS	
*O2	<input type="radio"/> On Air <input type="radio"/> Venturi Mask <input type="radio"/> Non Rebreath <input type="radio"/> BiPAP (NIV) <input type="radio"/> Tracheostomy Mask <input type="radio"/> Nasal Cannula <input type="radio"/> Simple Face Mask <input type="radio"/> High Flow <input type="radio"/> CPAP <input type="radio"/> Ventilator
O2 Percentage	
O2 Venturi	<input type="radio"/> 24% <input type="radio"/> 28% <input type="radio"/> 31% <input type="radio"/> 35% <input type="radio"/> 40% <input type="radio"/> 60%
O2 Litres (L/min)	
O2 % MEWS	
- Respiratory Rate	
*RR (9-18 breaths/min)	
RR MEWS	
- Urine Output	
Patient on fluid balance chart?	<input type="radio"/> Yes <input type="radio"/> No
Urinated in last 6 hours?	<input type="radio"/> Yes <input type="radio"/> No
*UOP (mls/hr) (60-200 mls/...)	<input type="radio"/> <20 <input type="radio"/> <30 <input type="radio"/> <60 <input type="radio"/> 60-200 <input type="radio"/> >200 <input type="radio"/> Not collected
Urine Output - Obstetrics	<input type="radio"/> Anuric <input type="radio"/> <20 <input type="radio"/> <30 <input type="radio"/> >30 <input type="radio"/> Not collected
UOP MEWS	
- Blood Sugar	
Blood Sugar (4-7mmol/L)	
- Conscious Level	
*Conscious Level	<input type="radio"/> Alert <input type="radio"/> New Confusion <input type="radio"/> Voice <input type="radio"/> New Agitation <input type="radio"/> Pain <input type="radio"/> Unresponsive
Conscious Level MEWS	
- Nausea	
Nausea & Vomiting	<input type="radio"/> None <input type="radio"/> Mild Nausea <input type="radio"/> Severe Nausea <input type="radio"/> Nausea & Vomiting
- Pain	
Pain Score (on movement)	<input type="radio"/> None (0) <input type="radio"/> Mild (1) <input type="radio"/> Moderate (2) <input type="radio"/> Severe (3)
Sedation Score	<input type="radio"/> Awake <input type="radio"/> Dozing Intermittently <input type="radio"/> Mostly Sleeping <input type="radio"/> Difficult to Wake



PCS Build

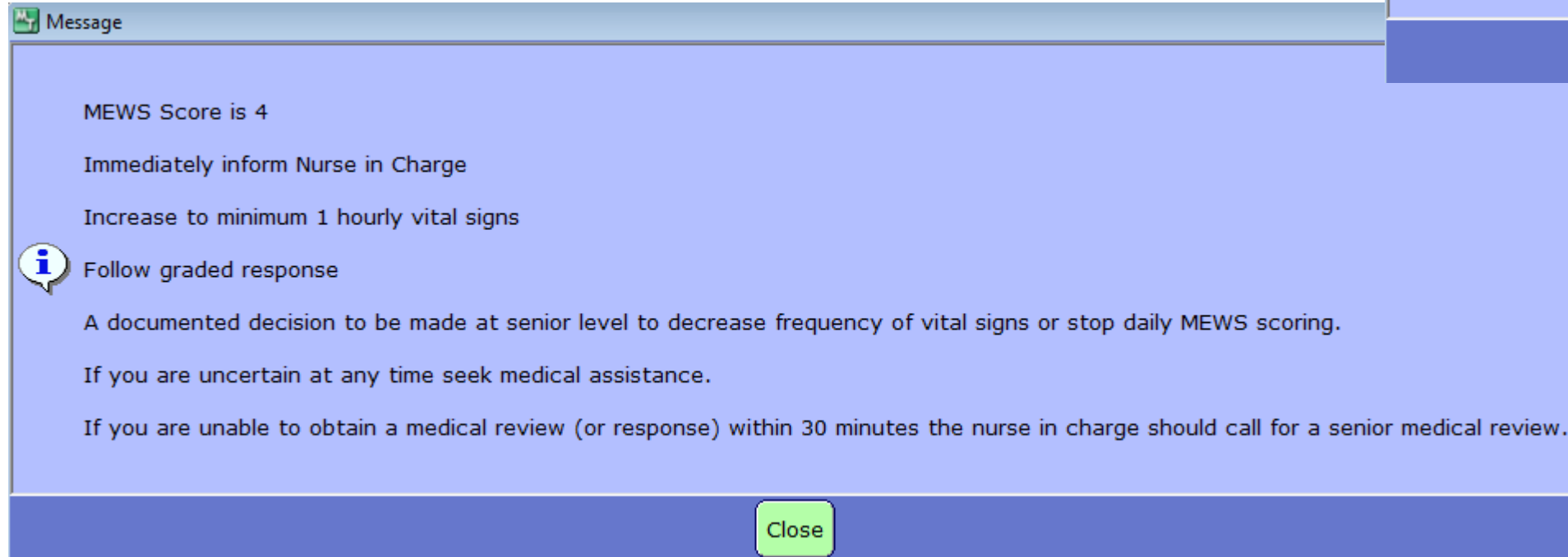
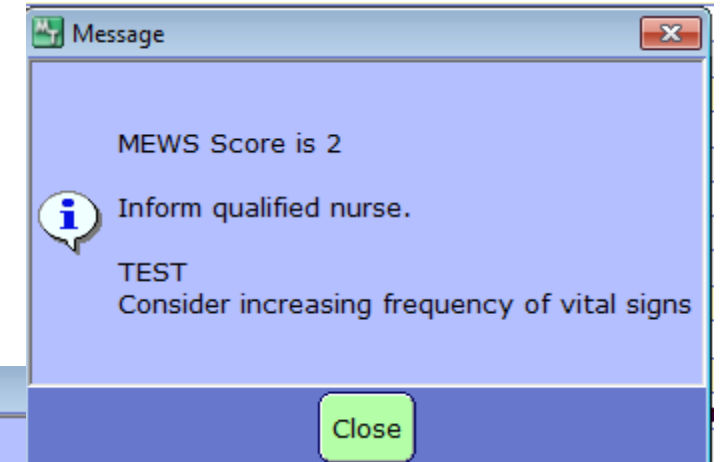
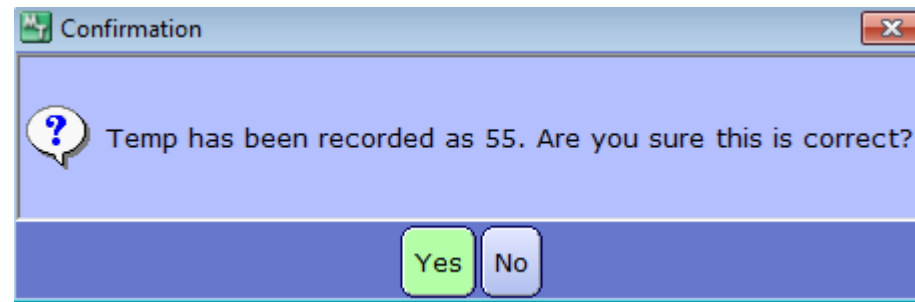
General

Comments		
High risk for sepsis		
MEWS		
MEWS Label		
Trigger ≥ 3	<input type="radio"/> Yes <input type="radio"/> No	
Inform Nurse in Charge	<input type="radio"/> Informed Nurse in Charge	
Nurse in Charge		
Suggested obs freq.	<input type="radio"/> 30 Mins <input type="radio"/> 1 Hourly <input type="radio"/> 2 Hourly <input type="radio"/> 4 Hourly <input type="radio"/> 6 Hourly <input type="radio"/> 8 Hourly <input type="radio"/> 12 Hourly <input type="radio"/> Other:	

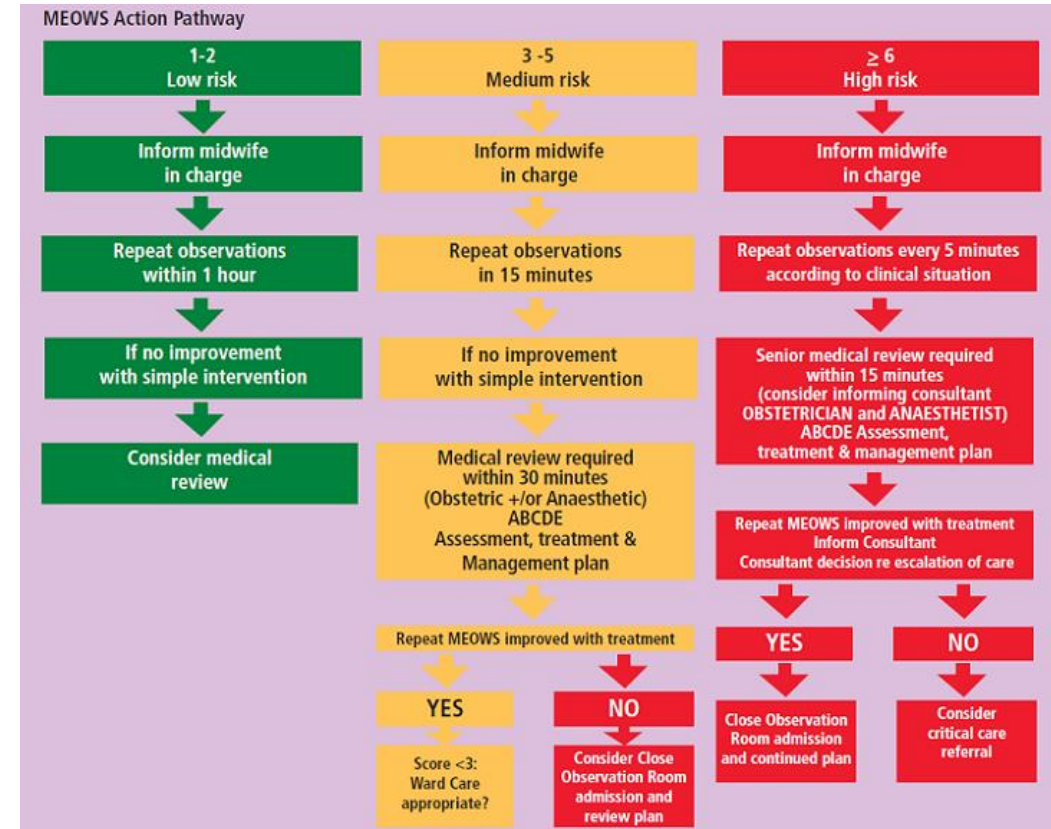
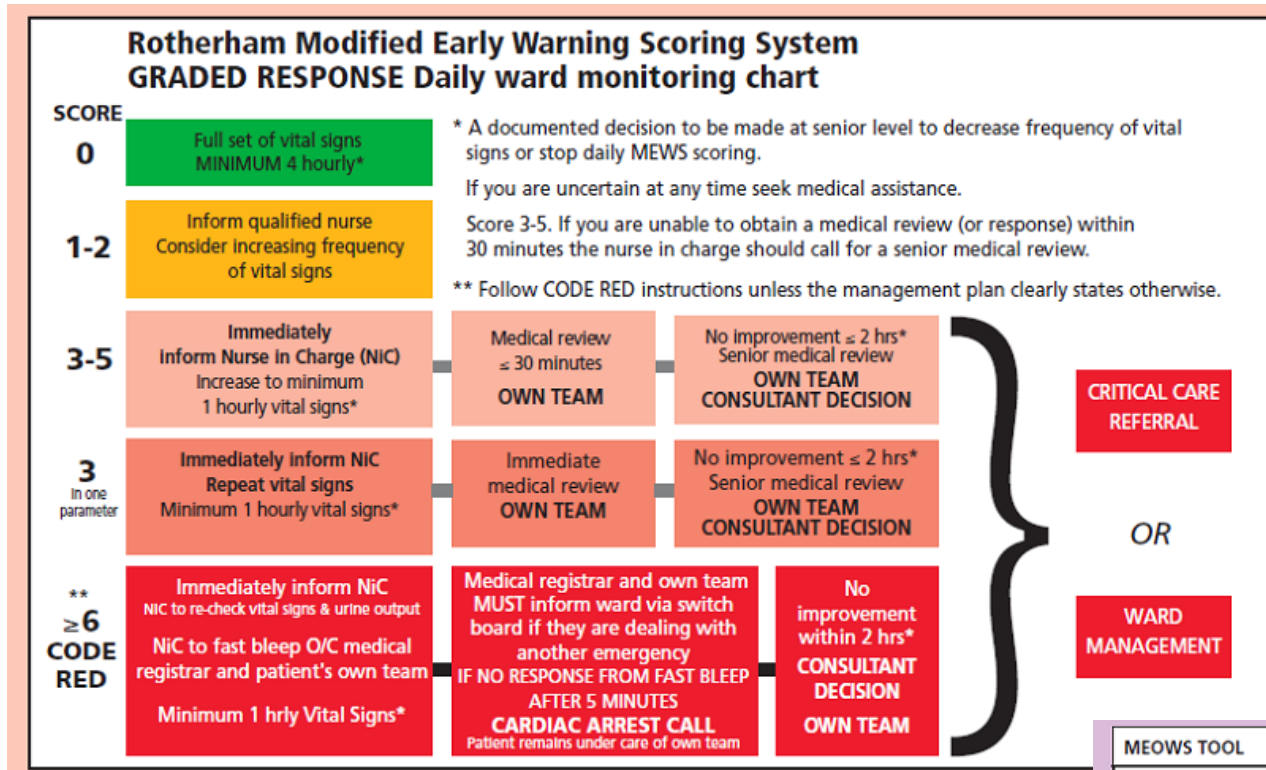
Observation Scores



PCS Build



PCS Build



MEOWS TOOL Any observation highlighted in **RED** should be brought to the immediate attention of the medical team.

	3	2	1	0	1	2	3
Systolic BP	< 70	71 - 80	81 - 90	91 - 139	140 - 159	160 - 169	> 170
Diastolic BP			< 45	46 - 89	90 - 99	100 - 109	> 110
HR/pulse	< 40		41 - 60	61 - 99	100 - 110	111 - 129	> 130
TEMP		< 35	35.1 - 37.5	36.1 - 37.5	37.6 - 37.9	> 38	
Conscious Level	New confusion			Alert	Voice	Pain	Unresponsive
RR	< 8			9 - 18	19 - 25	26 - 29	> 30
UOP mls/hr	Anuric	< 20	21 - 30	> 30			
Oxygen Sats (%)	< 95			> 95			
Supplemental Oxygen				Air			Requires supplemental oxygen





PCS Build

Line	Rule English Display
1	v21 Offset 0 Save as v21
2	Convert v1 To Integer Save as v3
3	Reg Service Save as v2
4	If Reg Reg Status & Type Is equal to "PRE ER" Then Compute "AE" Save as v2
5	If v21 Exists And v21 Is equal to "Y" Then Compute "OBS" Save as v2
6	Concatenate "Heart rate has been recorded as " and v3 and ". Are you sure this is correct?" Save as v20 If Reg Age Current Greater than or equal to "16.00.00" And v2 Is equal to one of the following: "AE" Then Compute v2 Save as v5 Or if Reg Age Current Greater than or equal to "16.00.00" And v2 Is equal to "OBS" Then Compute v2 Save as v6 Or if Reg Age Current Greater than or equal to "16.00.00" And v2 Is not equal to any of the following: "AE", "OBS" Then Compute v2 Save as v7 Or if Reg Age Current Less than "1.00.00" Then Compute v2 Save as v8
7	Or if Reg Age Current Is within the range of "1.00.00" through "4.99.99" Then Compute v2 Save as v9 Or if Reg Age Current Is within the range of "5.00.00" through "11.99.99" Then Compute v2 Save as v10 Or if Reg Age Current Is within the range of "12.00.00" through "15.99.99" And v2 Is not equal to "OBS" Then Compute v2 Save as v11 Or if Reg Age Current Is within the range of "12.00.00" through "15.99.99" And v2 Is equal to "OBS" Then Compute v2 Save as v6



PCS Build

MEWS (All locations)												
159 patients as of 23/09/18 14:40												
Name	Age	Sex	SI	Location	EWS ▲	VS	LastOb	Next Obs	Admit Reason/EDD	At Risk	AKI	Situation
	21	F		B5CHAIRS-1	9		22/09 1302		vomiting, disten...			
	82	F		B4CB2-1	7		23/09 1410		Generally unwe...		🎯	
	17	F		SITBY3-1	4		23/09 1421		LIF pain			
	74	F		A7CB4-1	3		23/09 1339	18:00 Obs... 22:00 Obs...	Low consciousne... 25/09/18			
	22	M		FITZBY1-1	3		23/09 0742					
	44	F		A7BY1-3	2		22/09 2206					
	75	M		A7CB1-1	2		23/09 1331	18:00 Obs... 22:00 Obs...	For blood produ... 17/09/18		🎯	
	78	M		FITZBY2-1	2		23/09 1239					
	35	F		SAUBY1-2	2		23/09 1047	14:00 Obs... 18:00 Obs...	Epigastric pain...			
	56	F		A7BY1-2	1		23/09 1253	14:00 Obs... 22:00 Obs...				
	52	F		A7CB5-1	1		23/09 1336	18:00 Obs... 22:00 Obs...				
	33	F		GAUBY-3	1		23/09 0644	10:00 Obs... 14:00 Obs...	ABDO PAIN ? PID			
	29	F		GAUCUB-1	1		23/09 1252	14:00 Obs... 18:00 Obs...	3RD DAY laparos...			
	38	F		B11BY2-3	1		23/09 0939	14:00 Obs... 18:00 Obs...	transcervical ...			
	96	M		B4BY1-1	1		23/09 1343	18:00 Obs... 22:00 Obs...	RUQ pain and Ja...			
	51	M	!	B4BY2-4	1		23/09 1434	22:00 Obs... 10:00 Obs...				

- Lists
- Status Board
- On Call Staff
- Assignments
- Clinical Data
- Open Chart
- Close Chart
- Change Site/Dept
- Preferences



PCS Build

	02/08/18 08:49	08/08/18 11:35	08/08/18 11:37	17/08/18 09:36	28/08/18 09:05
<input type="checkbox"/> Oxygen					
Sats %	92 L	98	0 L		
O2	BiPAP (NIV)	On Air	On Air	BiPAP (NIV)	
O2 Percentage	35				
O2 Venturi					
O2 Litres	5				
<input type="checkbox"/> Respiratory Rate					
RR	26 H	18	0 L		
<input type="checkbox"/> Heart Rate					
HR	110 H	60	0 L		66
<input type="checkbox"/> Day 0					
HR					
<input type="checkbox"/> Blood Pressure					
BP	102/70	110/60	0/0 L		125/88
<input type="checkbox"/> Day 0					
BP					
<input type="checkbox"/> Temperature					
Temp	38.4 C H	36 C	0 C L		
<input type="checkbox"/> Blood Sugar					
Blood Sugar	17				
<input type="checkbox"/> Urine Output					
Urine Output	60-200	Not collected	Not collected		
<input type="checkbox"/> Conscious Level					
Conscious Level	Voice	Alert	Alert		
<input type="checkbox"/> Nausea					
Nausea & Vomiting	None	None	None		
<input type="checkbox"/> Pain/Sedation					
Pain Score (on movement)		None (0)	None (0)		
Sedation Score	Dozing Intermit...				

<input type="checkbox"/> Total MEWS					
MEWS	10	0	12		
<input type="checkbox"/> Comments					
Comments			patient comba...		
<input type="checkbox"/> Location					
Recorded on:	TRNA4	TRNA4	TRNA4		



PCS Build

4 Hour Frequency

Choice

?

Suggested Frequency: Please ensure obs schedule is also amended on Worklist if appropriate.
Minimum 4 Hourly

30 Mins

1 Hourly

2 hourly

3 hourly

4 hourly

8 hourly

12 hourly



Rollout

- Pilot – Elective orthopaedic ward
- Rollout plan (pilot details and outcome)
- Nurse led implementation
 - Review IT equipment and estates (plug sockets)
 - Each ward got upgraded WOWs and tap in access
 - 1 week training prior to live
 - 2 weeks support
 - E-learning made available



Outcomes – from rollout

- PDSA improvement model
 - Access for students
 - Frequencies
 - Time taken
 - Partial observations



Audit Outcomes

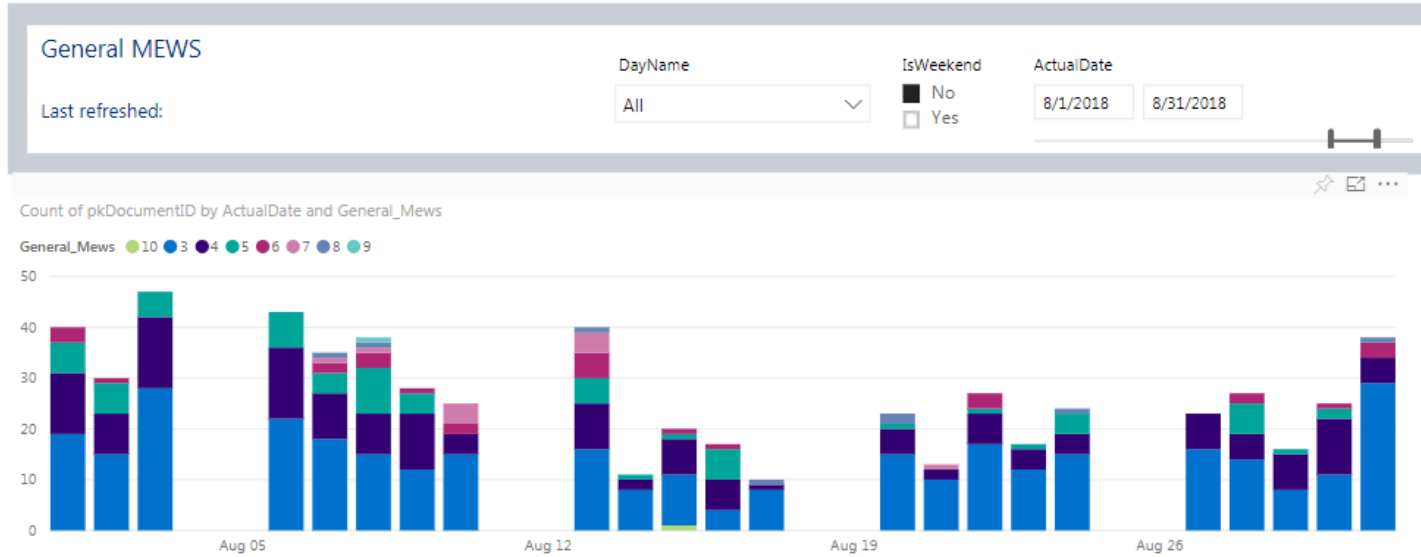
- Previous audits have meant reviewing a large selection of paper notes.
- This can now be done using the power bi tool to view data
- Sepia dashboards show ward and patient level data

The post live audits have shown:

- All patients are now scored correctly and the nurse in charge is informed when required
- MDT working on the wards
- Faster Doctor response times
- Results can be viewed immediately from anywhere in the hospital

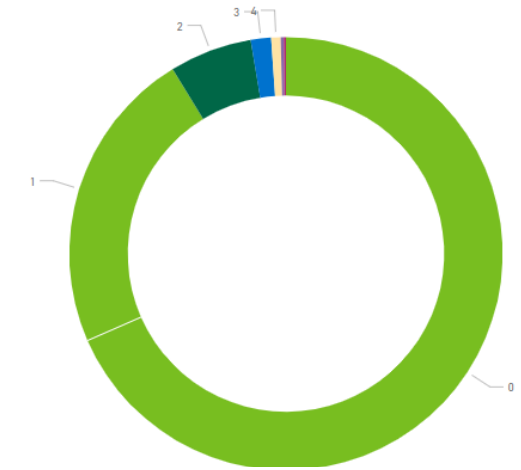


Power BI and Sepia Dashboards



%GT Count of pkDocumentID by General_Mews

General_Mews: 0 1 2 3 4 5 6

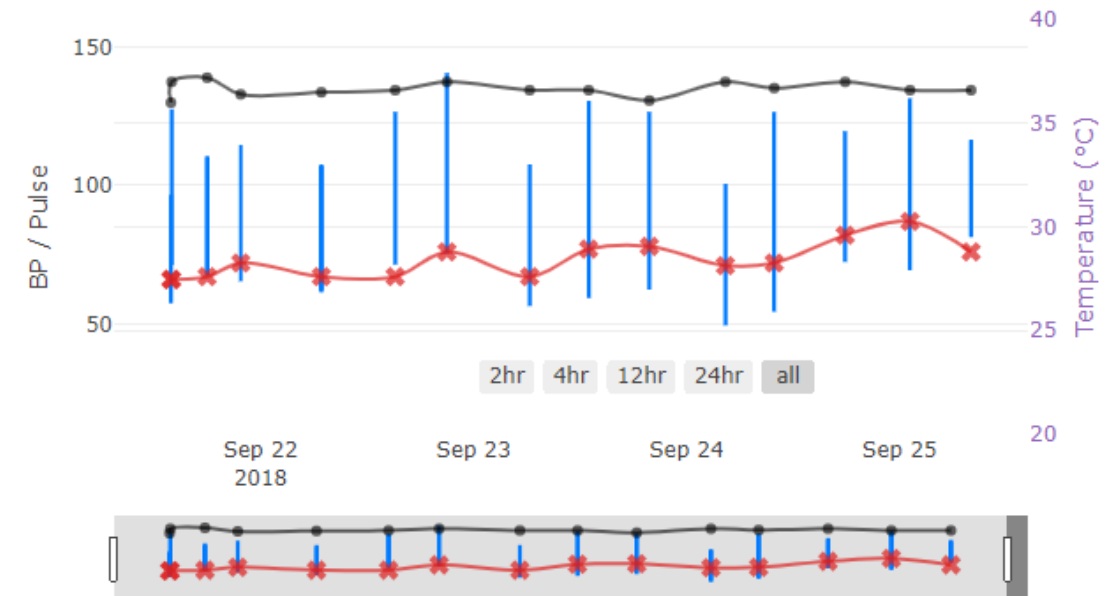


4 **5 hr** **4H**

F 24

Taken 25/09/2018 14:19

HEART RATE	RESP RATE
51	14
BP	TEMP (°C)
105/61	36.6
O2 SAT (%)	O2 DELIVERY
100	On Air
CONSCIOUS	URINE OUT (ML)
Alert	<20



Where are we now?

- We are live in 9 areas
- Monitor the number of admissions to ITU/ HDU
 - We expect these to increase initially
- Monitor bed management for improvement
- We have new implementation audit criteria:

Audit Criteria	Audit Criteria
User Entry	Current SOP policy for MEWS
End user satisfaction	To improve easier access/view of patients at risk
Escalation	Adherence to SOP policy for MEWS

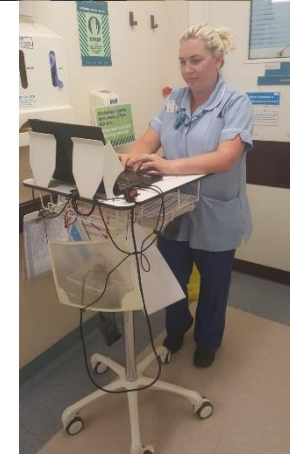


Still to do, learning next projects

- Further rollout to wards and treatment areas
- NEWS2
- Improve auditing functionality
- Additional training resources
- The methodology of nurse led implementations will be used to roll other inpatient nursing documentation out.
- Rollout of large touch screens



Any Questions?



Thank you

