

Immediate Response Training (IRT): Evaluating a blended delivery model of training in the detection and management of patient deterioration.

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400 Bed adult teaching and research hospital

350,000 and 400,000 presentations per year

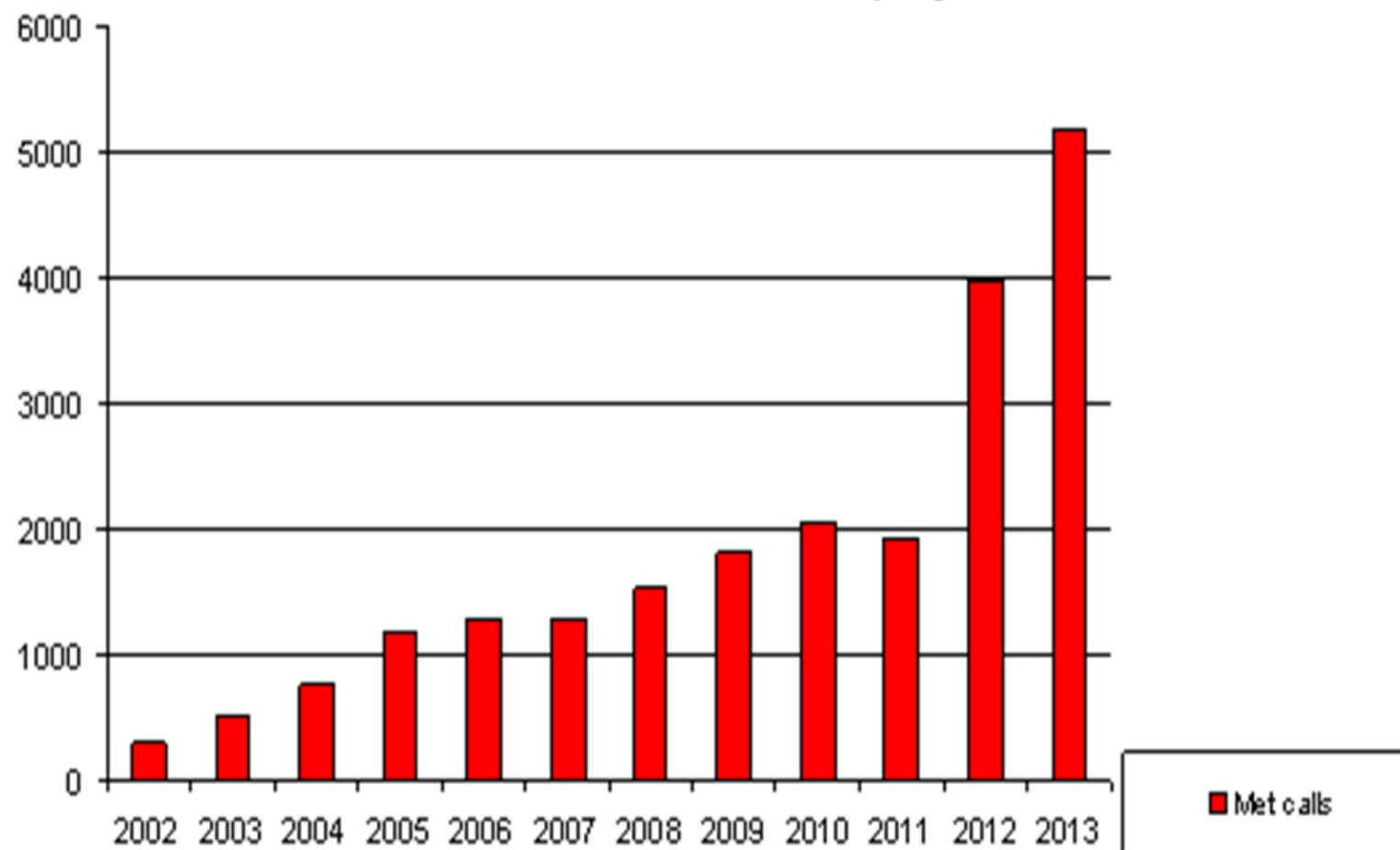
Statewide specialty services;

- Heart & Lung Transplant
- Burns
- HIV
- Trauma
- HBO

Background

- NSQHS Standards
- S9 Recognising and Responding to Clinical Deterioration in Acute Health Care
- MET well established
- Clinical Review Criteria and escalation policy introduced

Alfred Hospital
Number of MET calls/Code blue per year



Graphic Observation Chart

		Date										Time																				
		Time										Time																				
Respiratory Rate (breaths / min)	Print ≥ 36																					Print ≥ 36										
	30 - 35																					30 - 35										
	25 - 29																					25 - 29										
	20 - 24																					20 - 24										
	11 - 19																					11 - 19										
	7 - 10																					7 - 10										
	Print ≤ 6																					Print ≤ 6										
O ₂ Saturation % on air or O ₂ (Print)	≥ 94%																					≥ 94%										
	91-93%																					91-93%										
	≤ 90%																					≤ 90%										
O ₂ Flow Rate (L/min)	Print ≥ 10																					Print ≥ 10										
	8 - 9																					8 - 9										
	6 - 7																					6 - 7										
	4 - 5																					4 - 5										
	Print ≤ 3																					Print ≤ 3										
O ₂ Mode of Delivery	Print																					Print										
Blood Pressure (mmHg) Systolic BP ↕ Diastolic BP (Call criteria applies to SBP only)	Print ≥ 200																					Print ≥ 200										
	190																					190										
	180																					180										
	170																					170										
	160																					160										
	150																					150										
	140																					140										
	130																					130										
	120																					120										
	110																					110										
	100																					100										
	90																					90										
	80																					80										
	70																					70										
	60																					60										
	50																					50										
	Print ≤ 40																					Print ≤ 40										
Heart Rate (beats/min)	Print ≥ 160																					Print ≥ 160										
	150																					150										
	140																					140										
	130																					130										
	120																					120										
	110																					110										
	100																					100										
	90																					90										
	80																					80										
	70																					70										
	60																					60										
	50																					50										
	Print ≤ 40																					Print ≤ 40										
Temperature (°C)	Print ≥ 40																					Print ≥ 40										
	39 - 39.9																					39 - 39.9										
	38 - 38.9																					38 - 38.9										
	37 - 37.9																					37 - 37.9										
	36 - 36.9																					36 - 36.9										
	35 - 35.9																					35 - 35.9										
	Print ≤ 34.9																					Print ≤ 34.9										
Consciousness (if necessary, note patient before scoring)	Alert																					Alert										
	Voice																					Voice										
	Unresponsive																					Unresponsive										
Pain Score (None (0) - Worst (10))	At Rest																					At Rest										
	Movement																					Movement										
Other																																
Name (Initials)																																
Escalation / Intervention																																

Clinical Review Criteria		
Vital Sign	Response Criteria	Action Required
Respiratory Rate	7 – 10 breaths / min OR 25 – 35 breaths / min	• Inform Nurse in Charge (NIC)
Oxygen Saturations (on air or O ₂)	91 – 93%	• NIC or delegate ensures patient is reviewed and nursing interventions documented
Oxygen flow rate	• Any oxygen flow rate of 6L/min or more • Increase in O ₂ flow rate of ≥ 4 L/min	• If no response from HMD within 10 mins, NIC to Inform Registrar and request patient review
Systolic Blood Pressure	91 – 100 mmHg OR 160 – 150 mmHg	
Heart Rate	41 – 50 OR 120 – 139 beats / min	
Temperature	< 36.0C OR > 38.0C	
Conscious state	Previously alert patient now only responsive to verbal stimuli	• If no response from Registrar within 10 mins, NIC to do one of the following: - Inform ICU Liaison Nurse/ After Hours Co-ordinator - Activate MET call - Inform Consultant
Other	You are worried about the patient but they do not fit the above criteria	

MET Call		
Vital Sign	Response criteria	Action Required
Airway	Threatened	• Activate on MET Call (dial 68)
Respiratory Rate	≤ 8 breaths / min OR ≥ 36 breaths / min	• Patient unit to attend patient
Oxygen Saturations (on air or O ₂)	≤ 90%	• Registrar to ensure Consultant is notified
Systolic Blood Pressure	≤ 90 mmHg OR ≥ 200 mmHg	
Heart Rate	≤ 40 OR ≥ 140 beats / min	
Conscious state	• Any unexpected decrease in level of consciousness • Fall in GCS > 2 points • Seizures (CH activate Code Blue)	
Other	• Serious concern • Uncontrolled pain	

Code Blue	
Response Criteria	Action Required
• Not breathing or absence of normal breathing • Unresponsive • Absence of movement • Seizures (CH only)	• Activate a Code Blue call (dial 68) • Patient unit to attend patient • Registrar to ensure Consultant is notified
A Code Blue will be activated for outpatients, call & visitors requiring a Medical Emergency Response	

General Instructions	
You must record a full set of physiological observations:	
• On admission or initial assessment	
• Prior to and after transfer from one clinical area to another	
• If the patient is deteriorating	
• Whenever you are concerned about a patient	
• At a frequency appropriate for the patient's clinical state (minimum of three times a day or eight hourly intervals unless otherwise documented)	
• Refer to Minimum Standard of Monitoring and Documenting Adult Physiological Observations (AH 1211)	
• When graphing observations, place a dot in line with the corresponding value and connect it to the previous dot with a straight line. For blood pressure, use the symbol indicated on the chart	
• Whenever an observation falls within a yellow or purple area, follow the actions described in the Clinical Review, MET Call and Code Blue boxes above unless a modification has been made	
• If observations are within yellow and purple areas at the same time, follow the actions required for the purple area	

O ₂ Mode of Delivery / Respiratory Device	
RA = Room Air	H = Humidifier
NP = Nasal Prongs	R = Non Re-Breather
HM = Hudson Mask	NV = Non-Invasive Ventilation

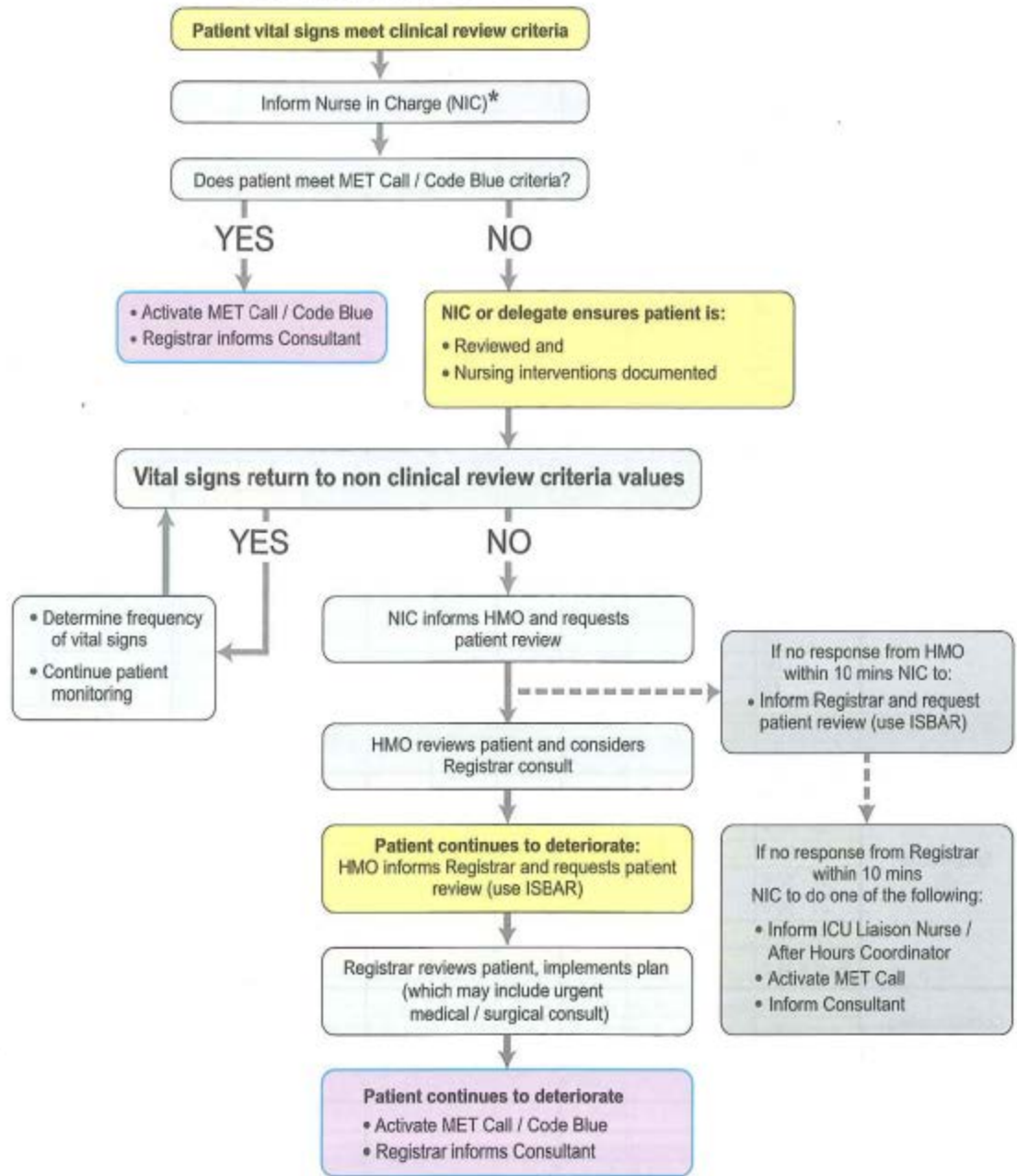
Escalation Policy

- Pt meets CRC
- Nurse In Charge (NIC) / Resource nurse notified;
 - Performs nursing assessment
 - Implements & documents nursing interventions
 - Informs HMO of clinical scenario and plan if required
- Deterioration reversed / mitigated
- Resource nurse / NIC key role - Assessment

	Date			
	Time			
Respiratory Rate (breaths / min)	Print ≥ 36			
	30 - 35			
	25 - 29			
	20 - 24	●	●	●
	11 - 19			
	7 - 10			
	Print ≤ 6			
O ₂ Saturation % on air or O ₂ (Print)	≥ 94%	95	97	96
	91-93%			
	≤ 90%			
O ₂ Flow Rate (L/min)	Print ≥ 10			
	9 - 9			
	6 - 7		●	●
	4 - 5	●	●	●
	Print ≤ 3			
O ₂ Mode of Delivery	Print	NP	HM	HM
Blood Pressure (mmHg)	Print ≥ 200			
	190			
	180			
	170			
	160			
	150			
	140			
	130	↑	↑	↑
	120			
	110			
	100			
	90	↓	↓	↓
	80			
Diastolic BP	70			
	60			
	60			
	50			
	Print ≤ 40			

If patient reaches MET call criteria at any time: Activate MET Call Response

ESCALATION PROCESS



ISBAR = Introduction / Situation / Background / Assessment / Recommendation

*NIC refers also to resource nurse

Immediate Response Training (IRT)

- Program to train resource nurses / NIC pilot on trauma ward
- 3 phase approach
 - Pre-Learning
 - Study Day
 - Post-Assessment

Pilot

- Trauma Ward
- Nurse in Charge / Resource Group
- 14 of 16 leadership staff attended

Pre Learning

- LMS module developed
- Mandatory pre learning package
- Pre learning quiz

Navigation

My CPD

- ▶ Site pages
- ▶ My profile
- ▼ Current course
 - ▼ IRT
 - ▶ Participants
 - ▶ Reports
 - ▼ Immediate
 - Response Training
 - Pre-Training
 - Feedback
 - Pre-Learning Package**
 - Pre-Learning
 - Quiz
 - Clinical Assessment
 - Course
 - Feedback
 - Completion
 - Certificate
- ▶ My training

Settings

- ▼ SCORM package administration
 - Logs
- ▶ Training administration
- ▶ My profile settings

Immediate Response Training

Menu

Immediate Response Training

Welcome to the **Immediate Response Training** online package.

There is a Quiz to take once this learning package is complete.



Use the "**Next**" and "**Prev**" buttons at the bottom right of the slides to navigate through this learning package.



< PREV

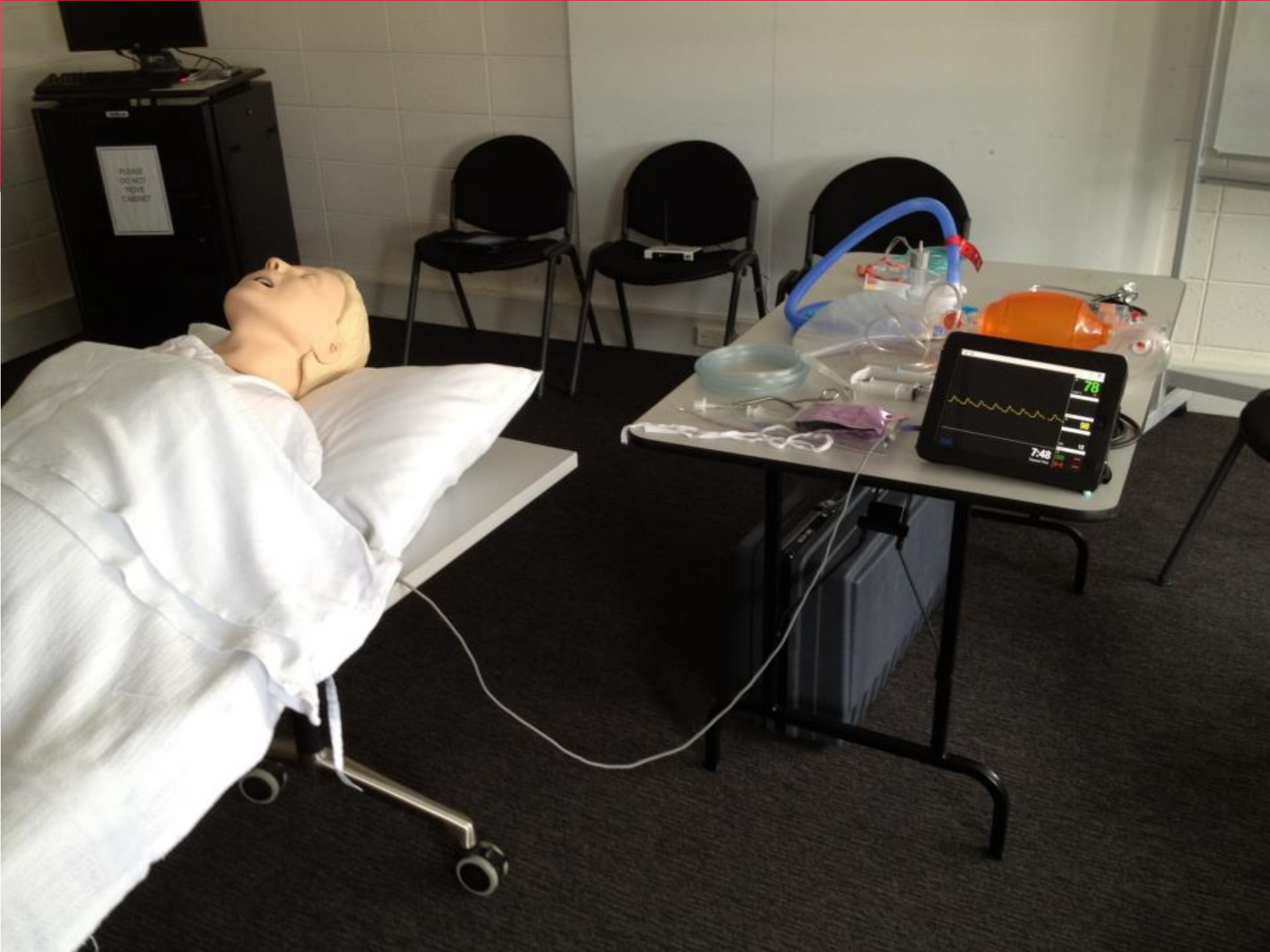
NEXT >

Study Day

- Focus on hands-on practical stations and low fidelity scenarios
 - Clinical Review Criteria
 - MET
 - Code

Immediate Response Training (IRT) **AlfredHealth**

0830 - 0835	Welcome and Introductions	
0835 – 0915	Skill Station: A to E Assessment	
0915 – 1000	Crisis Resource Management	
1000 - 1015	MORNING TEA	
1015 – 1130	Skill Station: Airway & Breathing	
1130 - 1230	Cardiac Monitoring and the Deteriorating Patient	
1230 – 1300	LUNCH	
1300 – 1400	Scenario One	
1400– 1500	Scenario Two	
1500 – 1515	AFTERNOON TEA	
1515 – 1615	Scenario Three	
1615 – 1630	Debrief & Evaluation	



PLEASE
DO NOT
OPEN
CABINET



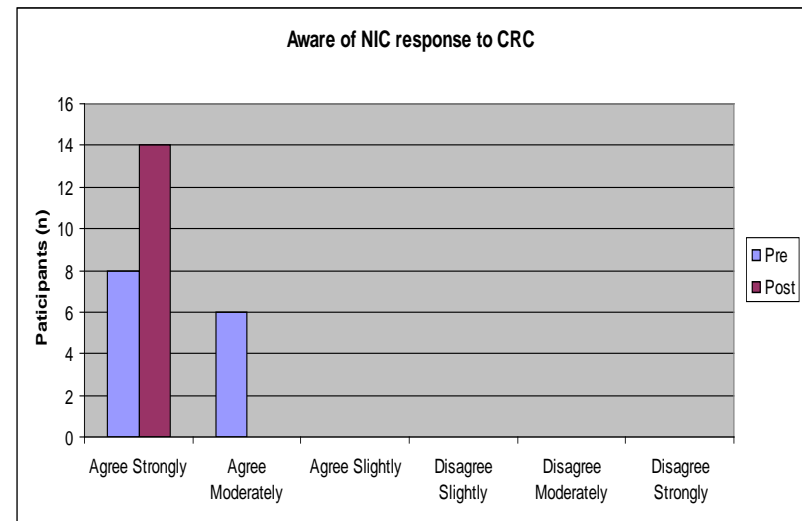
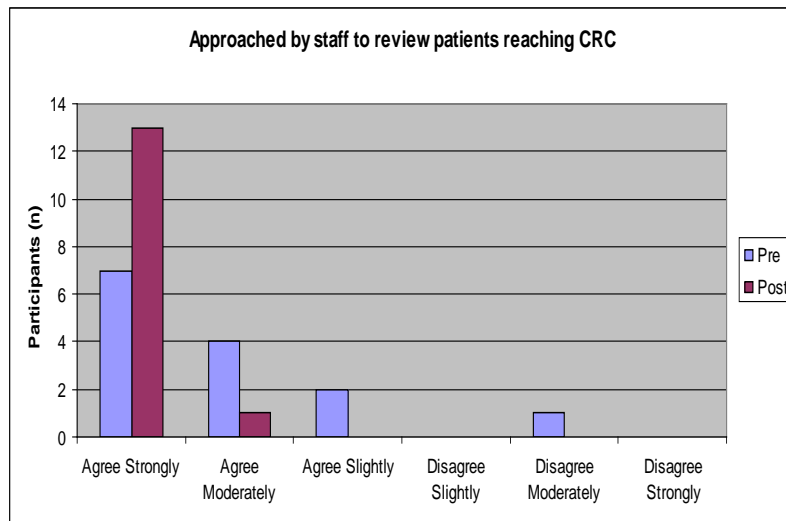
StarBoard



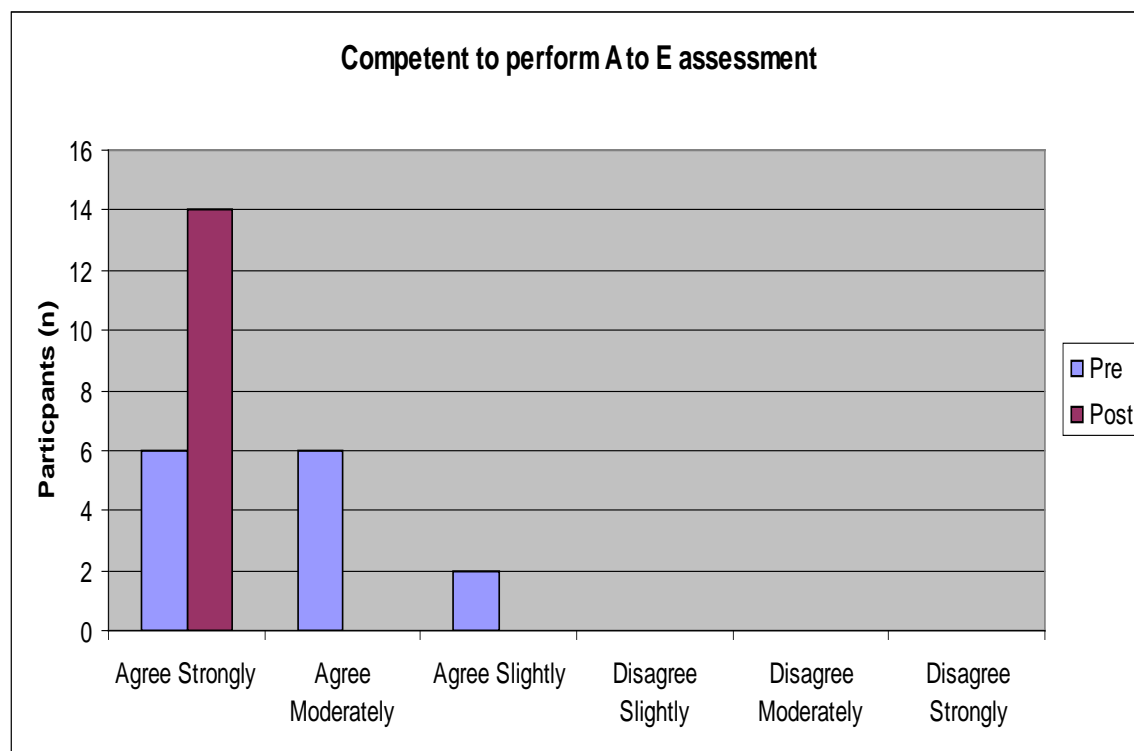
Post Assessment

- Supervised A to E assessment under clinical conditions
- Typically MET / Code event
- Mandatory Feedback
- Completion Certificate

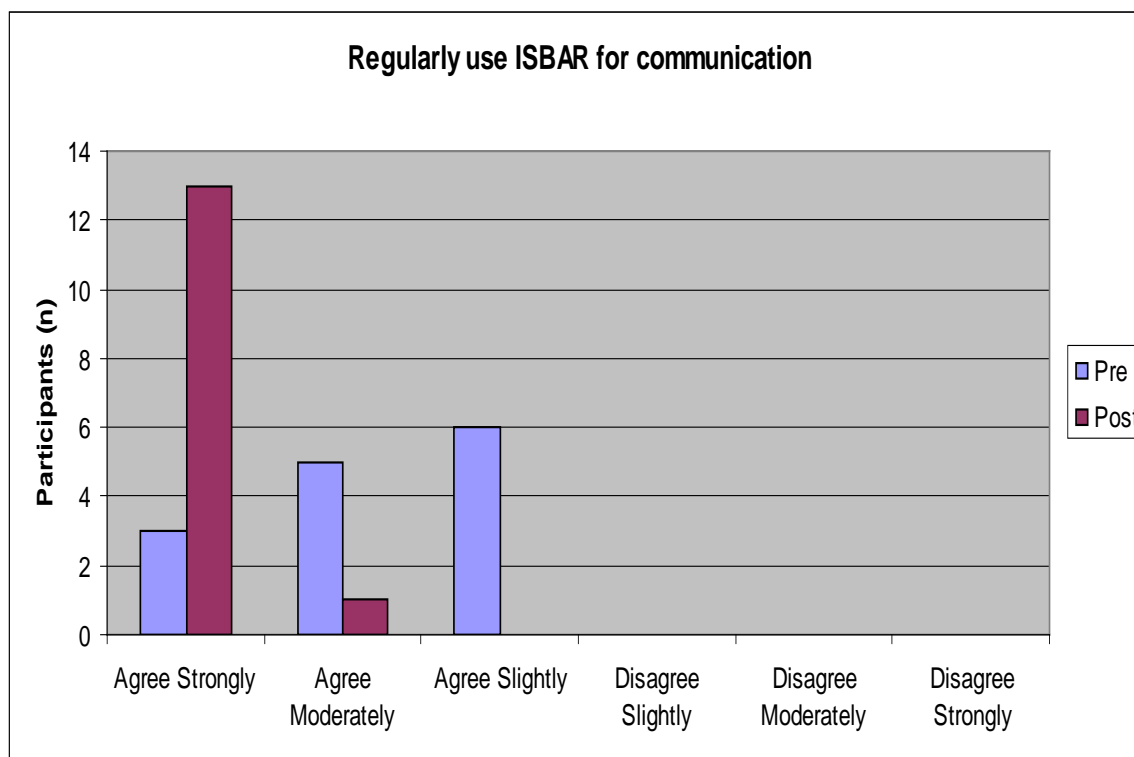
Results – 1 month post course



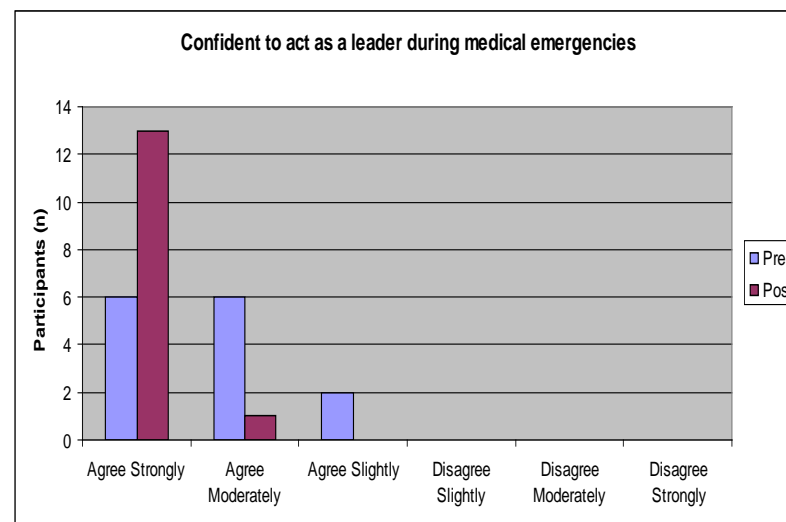
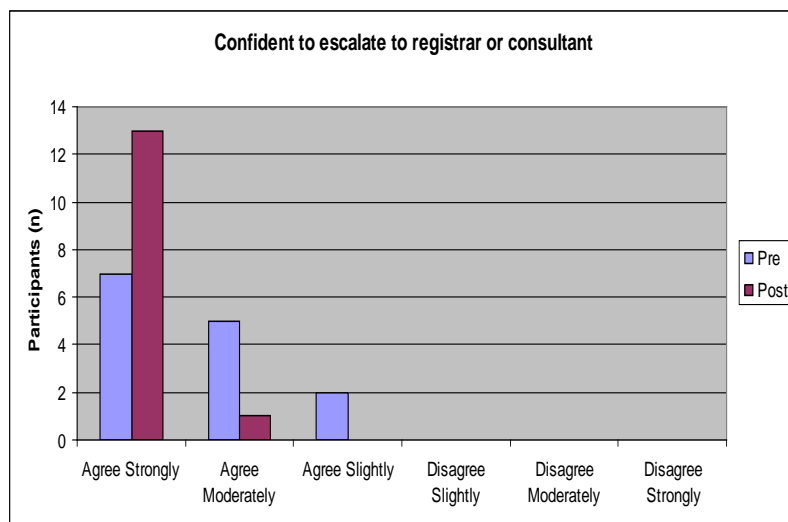
Results



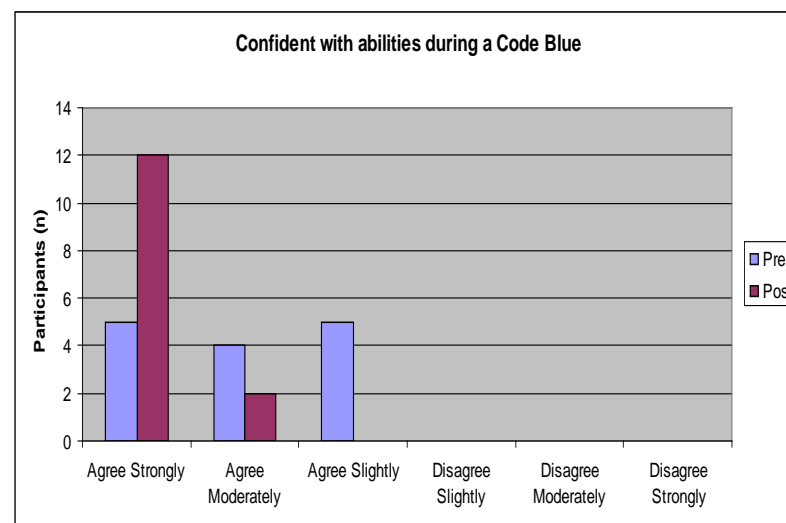
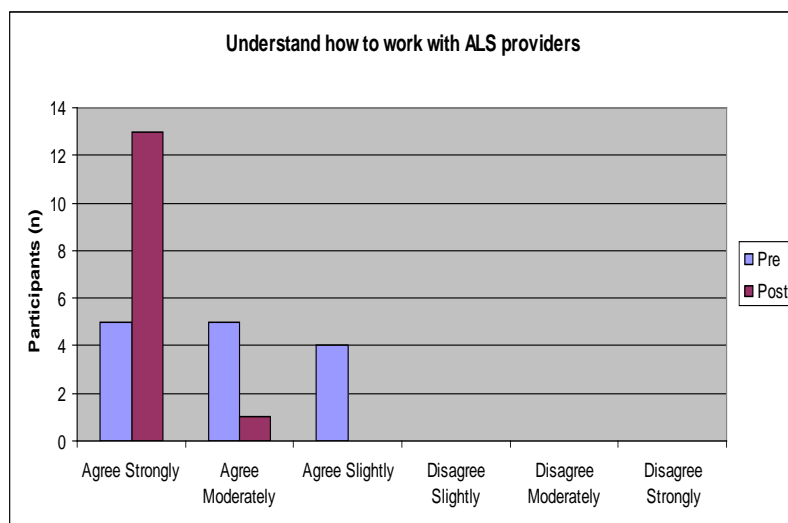
Results



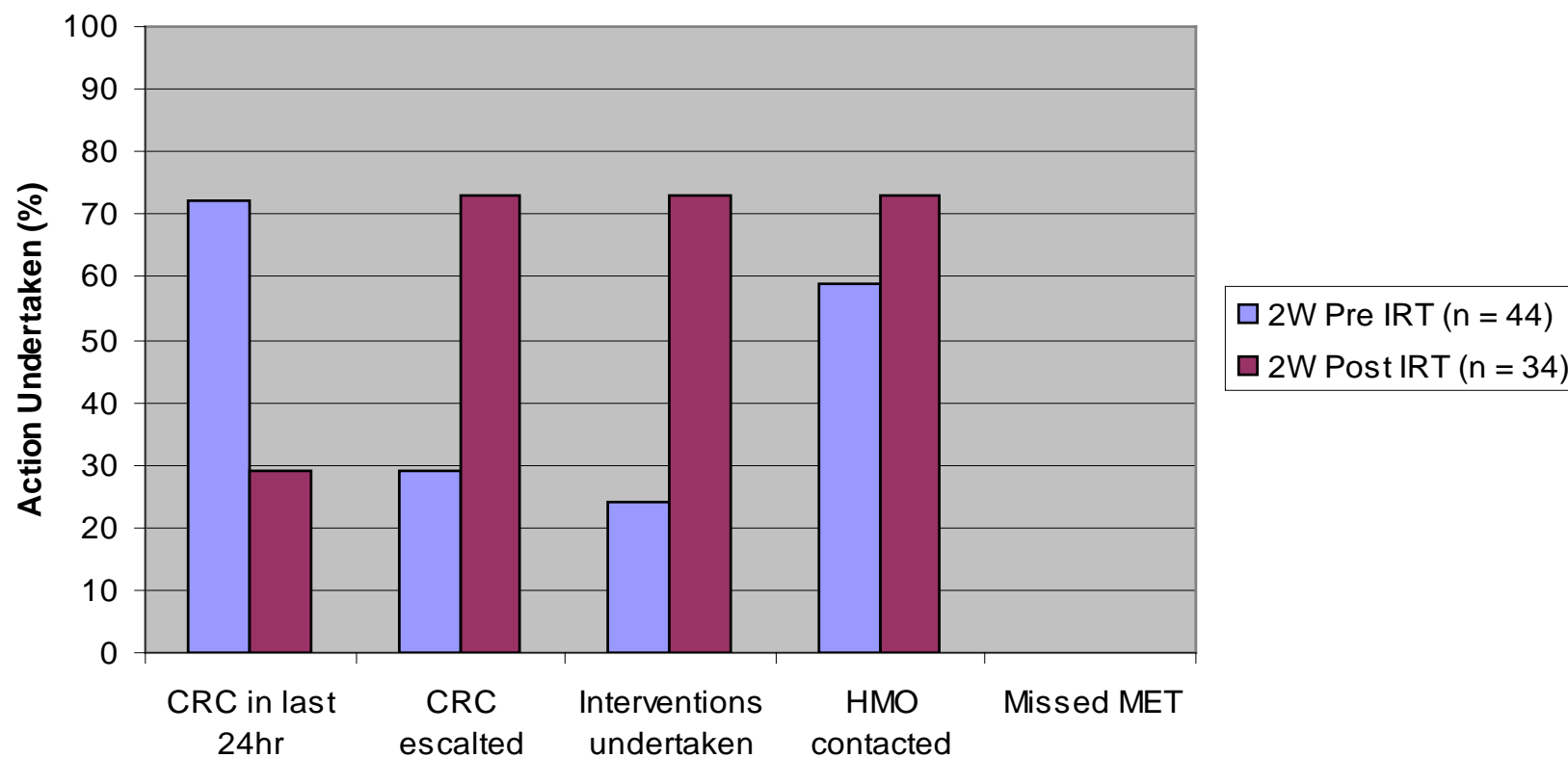
Results



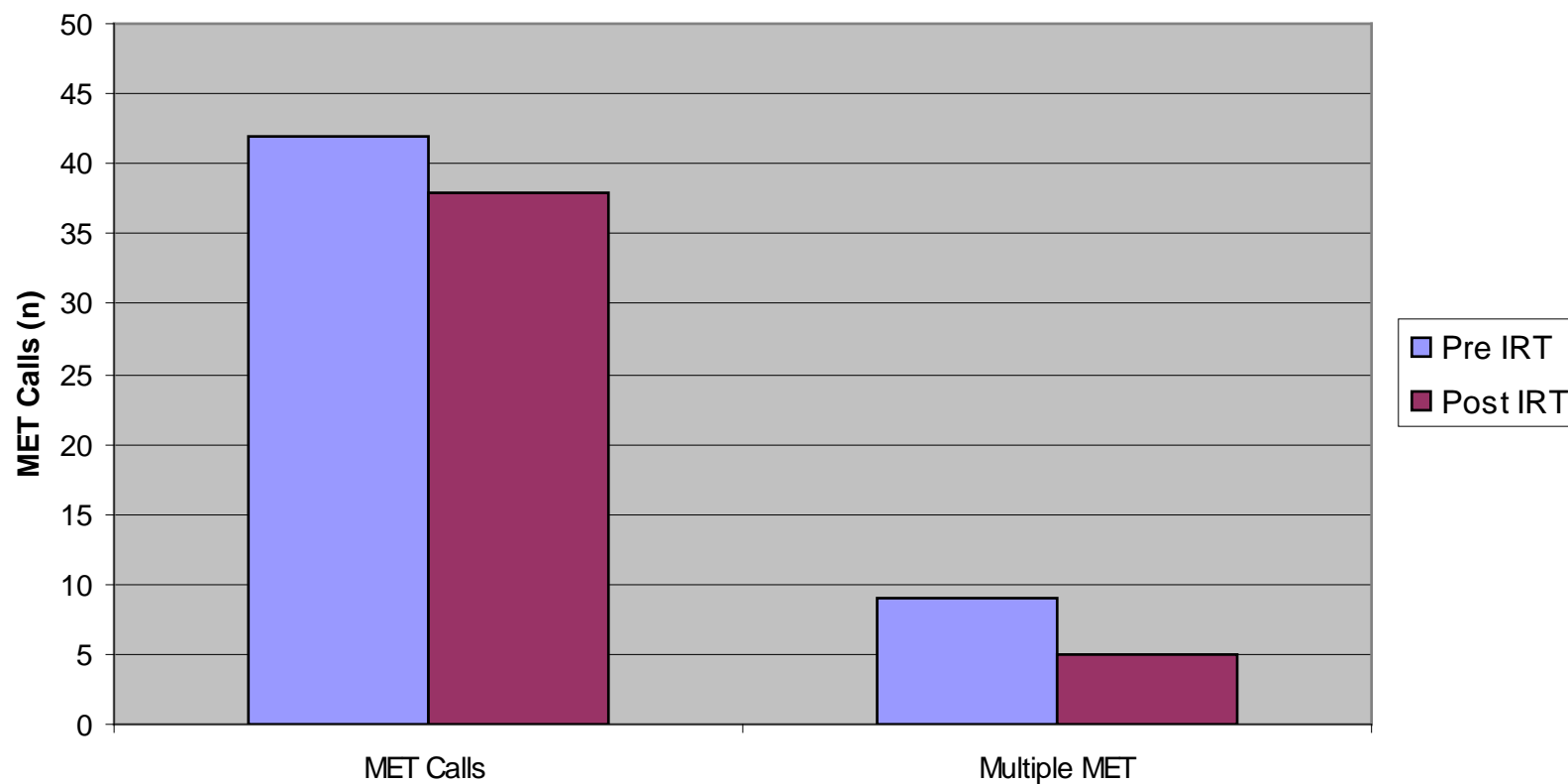
Results



Pre versus Post IRT Audit



2W MET Call Data



Post pilot and the road ahead?

- Roll out to all NIC across 3 sites
- Pathway to being a nurse in charge
- Patient and Family activated escalation

Participant Feedback

“Just wanted to say thanks again for a really awesome study day on Thursday. It was very impressive and very well put together, set up, presented and the interactive and hands on experience was excellent”

“I personally appreciated the education and particularly found the assisting with intubation skills beneficial (I have actually been stressing about this lately and have been meaning to get my CSDN to do some education with me!!!)”

Just wanted to pass on the positive kudos, you have clearly put a lot of time, energy and thought into it and it definitely shows and rewards”

“As an ICU liaison nurse I have seen the nurses who have completed IRT on 2 West put their A to E assessments into practice during MET calls, advocating for their patients and acting as leaders during medical emergencies”