



# Between the Flags

Keeping patients safe



## Implementation of the NSW Health *Between the Flags Program*

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Patient Safety Manager

the **children's** hospital at Westmead



# the children's hospital at Westmead

- Commenced working on the “Recognition of the Deteriorating Child” project Dec 2008
- What could support and enhance our current system
- Data gathering and consultation began
  - Canberra's Compass program
  - Toronto Sick Children's
  - QLD's CEWT program



# the children's hospital at Westmead

- Colour coded charts with a track & trigger system, gaining national and international momentum
- NSW Health with the CEC commenced work on “Between the Flags” for adults in 2007
- Special Commission of Inquiry Acute Care Services in NSW Public Hospitals - Garling Recommendations



# Background

- The Between the Flags (BTF) Program is designed to establish a *'safety net'* in all NSW public hospitals and healthcare facilities that *reduces the risks* of patients deteriorating unnoticed and ensures they receive appropriate care in response if they do.



# Background



- The BTF Program uses the analogy of Surf Life Saving Australia's Lifeguards and Life Savers who *keep people safe* by ensuring they are under close observation and rapidly rescue them, should something go wrong.



# Background

- The BTF program is a State-wide program
- Progressive roll-out across all NSW Health
- The BTF Program has a Five Element Strategy, which is essential to its long-term sustainability – The 5 Pillars



# The 5 Pillars

1. Governance - State, Area, Facility and Unit levels
2. Calling Criteria for Clinical Review and Rapid Response incorporated in Standard Observation Charts
3. Clinical Emergency Response System (CERS)
4. Education
5. Evaluation- KPI's and Data Collection



# Paediatric Management Committee

- In June 2009 a Paediatric Between the Flags Management Committee was convened comprising multidisciplinary experts from across NSW.
- This committee is the agreed advisory body responsible for providing expert advice on the development and implementation of initiatives
- Resources – Limited
- Stakeholders – NSW Health, CEC, AHS's, Paediatric facilities, Families, Staff



# Paediatric Steering Committee

## Key Principles

- Consultation (as much as possible – will not be able to please everyone)
- Take into account what is already out there
- Evaluate evidence – but not be crippled by it
- Keeping it simple
- Take into account Adult BTF, National agenda, other state
- State roll out – standards, templates, policies – tight vs loose approach
- Child ≠ Small Adult



# Sub Groups Formed

- Observation chart development group
- Clinical Emergency Response Systems (CERS) group
- Education development group
- Evaluation group



# Observation Chart

- Standard observation charts- ‘track and trigger’
- Parameters that represent the most sensitive markers for deterioration, listed in order of sensitivity (ABCDE)
- Working on an A3 bi-fold design, that incorporates a 3 tier response
- Development of 5 charts
  - Special Care Nursery’s/ Postnatal Unit
  - Less than 12mths
  - 1-4yrs
  - 5-12yrs
  - Greater than 12 years



# Calling Criteria

- Standard Criteria for Clinical Review and Rapid Response
- Calling Criteria are represented as colour coded **zones** (with additional criteria documented on the chart),
  - Blue zone- Increase frequency of observations
  - Yellow zone- Clinical Review by admitting team within 30 minutes
  - Red zone- activate Rapid Response Team



FAMILY NAME \_\_\_\_\_ MRN \_\_\_\_\_  
 GIVEN NAME \_\_\_\_\_  MALE  FEMALE

Facility: \_\_\_\_\_ D.O.B. \_\_\_\_/\_\_\_\_/\_\_\_\_ M.O. \_\_\_\_\_

**STANDARD PAEDIATRIC OBSERVATION CHART (SPOC)**

**1-12 months** ADDRESS \_\_\_\_\_ LOCATION \_\_\_\_\_  
 COMPLETE ALL DETAILS OR AFFIX PATIENT LABEL HERE

**OTHER CHARTS IN USE**  
 Fluid Balance  Insulin Infusion  Other \_\_\_\_\_  
 Neurological  Pain / Epidural / Patient Control Analgesia  Other \_\_\_\_\_  
 Neurovascular  Other \_\_\_\_\_

**VARIATIONS TO FREQUENCY OF OBSERVATIONS**

|  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|
| DATE:                                  |  |  |  |  |  |  |  |
| Time:                                  |  |  |  |  |  |  |  |
| Frequency Required                     |  |  |  |  |  |  |  |
| Medical or Rapid Response Officer Name |  |  |  |  |  |  |  |
| Signature                              |  |  |  |  |  |  |  |

**ALTERATIONS TO CLINICAL REVIEW CALLING CRITERIA**  
 (MUST BE REVIEWED AT LEAST EVERY 48 HOURS) Any alterations MUST be confirmed by Consultant

|                                  |  |  |  |  |  |  |  |
|----------------------------------|--|--|--|--|--|--|--|
| DATE:                            |  |  |  |  |  |  |  |
| Time:                            |  |  |  |  |  |  |  |
| Respiratory Rate (20-40)         |  |  |  |  |  |  |  |
| Systolic Blood Pressure (80-100) |  |  |  |  |  |  |  |
| SpO <sub>2</sub>                 |  |  |  |  |  |  |  |
| Heart Rate (110-160)             |  |  |  |  |  |  |  |
| Other                            |  |  |  |  |  |  |  |
| Consultant Medical Officer Name  |  |  |  |  |  |  |  |
| Signature                        |  |  |  |  |  |  |  |

**INTERVENTIONS**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_

Other Charts in use

Prescribing the Frequency of Observations  
 i.e. Below the minimum standard of 8<sup>th</sup>hrly

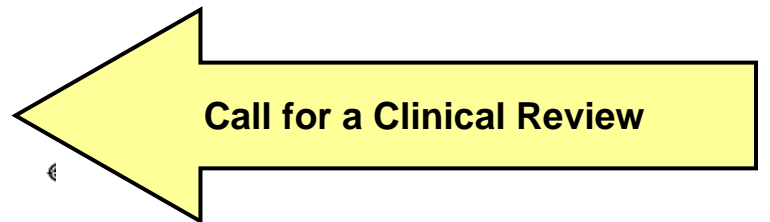
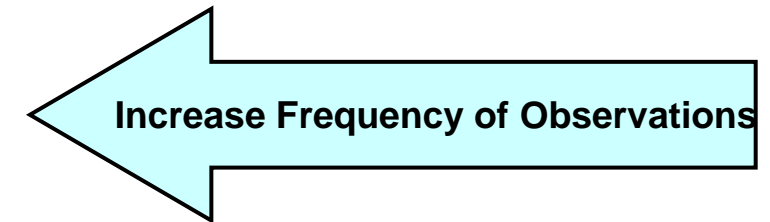
Alterations in calling Criteria i.e. SpO<sub>2</sub> 70%

Intervention i.e. paracetamol given

STANDARD PAEDIATRIC OBSERVATION CHART 1 - 12 months XXXXXXXXX

# Standard Escalation Protocol

| How to Respond  |   |  |
|---|---|--|
| Follow Local Escalation Protocol for who and how to call  |   |  |
| <b>Increase Frequency of Observations</b>   | <b>ANY BLUE ZONE Observation</b>  |  |
| <ol style="list-style-type: none"><li>1. You <b>MUST</b> consult promptly with the Nurse in Charge</li><li>2. You <b>MUST</b> initiate appropriate clinical care</li><li>3. Increase frequency of observations as clinically appropriate</li><li>4. Manage anxiety, pain, and review oxygenation</li><li>5. You may call for a Clinical Review at any time if you are worried about the patient</li></ol>   |   |  |
| <b>CONSIDER</b>   | <ol style="list-style-type: none"><li>1. Whether abnormal observations reflect deterioration</li><li>2. Whether there is an adverse trend in observations</li><li>3. What is normal for the patient</li></ol> |  |
| <b>Clinical Review</b>  | <b>ANY YELLOW ZONE Criteria</b>   |  |
| <b>CALL FOR A CLINICAL REVIEW</b>   |   |  |
| <ol style="list-style-type: none"><li>1. You <b>MUST</b> initiate appropriate clinical care</li><li>2. Increase frequency of observations as indicated by patient condition – but at least within 30 minutes</li><li>3. Response to clinical review <b>MUST</b> be within 30 minutes or escalation according to local protocol <b>MUST</b> occur</li><li>4. You may call for a Clinical Review at any time if worried about a child or unsure whether to call</li></ol> |   |  |
| <b>CONSIDER</b>   | <ol style="list-style-type: none"><li>1. Whether abnormal observations reflect deterioration</li><li>2. Whether there is an adverse trend in observations</li><li>3. What is normal for the patient</li></ol> |  |
| <b>Rapid Response</b>   | <b>ANY RED ZONE Criteria</b>  |  |
| <b>CALL FOR A RAPID RESPONSE</b>  |   |  |
| <ol style="list-style-type: none"><li>1. You <b>MUST</b> initiate appropriate clinical care</li><li>2. Commence Basic/Advanced Life Support if necessary</li><li>3. Inform the Nurse in Charge</li><li>4. Continuous Monitoring and record observations as indicated by the patient's condition</li></ol>   |   |  |
| <b>CHECK THE CLINICAL RECORD FOR ADVANCE CARE DIRECTIVES OR ALTERATIONS TO CALLING CRITERIA WHICH MAY AFFECT WHETHER A CLINICAL REVIEW OR RAPID RESPONSE CALL IS INDICATED</b>  |   |  |
| <b>DOCUMENTATION</b>  |   |  |
| <ol style="list-style-type: none"><li>1. Write interventions on the front of the chart under 'interventions'</li><li>2. Write treatment, escalation process, and outcome in the clinical record</li><li>3. Write date, signature and designation with each entry</li></ol>  |   |  |



Holes punched as per AS 2928-1999  
BINDING MARGIN - NO WRITING

BARCODE

BARCODE

Holes punched as per AS2928-1 999  
BINDING MARGIN - NO WRITING

3000000X 310510

NSW HEALTH

FAMILY NAME \_\_\_\_\_ MRN \_\_\_\_\_  
 GIVEN NAME \_\_\_\_\_  MALE  FEMALE  
 D.O.B. \_\_\_\_/\_\_\_\_/\_\_\_\_ M.O. \_\_\_\_\_  
 ADDRESS \_\_\_\_\_  
 LOCATION \_\_\_\_\_  
 COMPLETE ALL DETAILS OR AFFIX PATIENT LABEL HERE

NSW HEALTH

FAMILY NAME \_\_\_\_\_ MRN \_\_\_\_\_  
 GIVEN NAME \_\_\_\_\_  MALE  FEMALE  
 D.O.B. \_\_\_\_/\_\_\_\_/\_\_\_\_ M.O. \_\_\_\_\_  
 ADDRESS \_\_\_\_\_  
 LOCATION \_\_\_\_\_  
 COMPLETE ALL DETAILS OR AFFIX PATIENT LABEL HERE

Facility: \_\_\_\_\_  
**STANDARD PAEDIATRIC OBSERVATION CHART (SPOC)**  
**1-12 months**  
 Altered Calling Criteria

Facility: \_\_\_\_\_  
**STANDARD PAEDIATRIC OBSERVATION CHART (SPOC)**  
**1-12 months**  
 Altered Calling Criteria

| Date | Time | Respiratory Rate (breaths per minute) | Respiratory Effort | SpO <sub>2</sub> (in any amount of O <sub>2</sub> ) | Oxygen     | Heart Rate (beats per minute) | Capillary Refill | Blood Pressure (mmHg) Systolic Blood Pressure is the trigger | Level of Consciousness | Pain Score     | Temperature (°C) | Blood Glucose Level |
|------|------|---------------------------------------|--------------------|---|------------|-------------------------------|------------------|--|------------------------|----------------|------------------|---------------------|
|      |      | 65                                    | Severe             | 95  | L/min or % | 190                           | Seconds          | 130  | Alert                  | Severe (7-10)  | 41               |                     |
|      |      | 60                                    | Moderate           | 90  | L/min or % | 180                           | Seconds          | 120  | Alert                  | Moderate (4-6) | 40               |                     |
|      |      | 55                                    | Mild               | 85  | L/min or % | 170                           | Seconds          | 110  | Alert                  | Mild (1-3)     | 39               |                     |
|      |      | 50                                    | Normal             | 80  | L/min or % | 160                           | Seconds          | 100  | Alert                  | Nil            | 38               |                     |
|      |      | 45                                    |                    |   | L/min or % | 150                           | Seconds          | 90   | Alert                  |                | 37               |                     |
|      |      | 40                                    |                    |   | L/min or % | 140                           | Seconds          | 80   | Alert                  |                | 36               |                     |
|      |      | 35                                    |                    |   | L/min or % | 130                           | Seconds          | 70   | Alert                  |                | 35               |                     |
|      |      | 30                                    |                    |   | L/min or % | 120                           | Seconds          | 60   | Alert                  |                | 34               |                     |
|      |      | 25                                    |                    |   | L/min or % | 110                           | Seconds          | 50   | Alert                  |                |                  |                     |
|      |      | 20                                    |                    |   | L/min or % | 100                           | Seconds          | 40   | Alert                  |                |                  |                     |
|      |      | 15                                    |                    |   | L/min or % | 90                            | Seconds          | 30   | Alert                  |                |                  |                     |
|      |      | 10                                    |                    |   | L/min or % | 80                            | Seconds          | 20   | Alert                  |                |                  |                     |
|      |      | 5                                     |                    |   | L/min or % | 70                            | Seconds          | 10   | Alert                  |                |                  |                     |
|      |      | 3                                     |                    |   | L/min or % | 60                            | Seconds          | 0  | Alert                  |                |                  |                     |

**Airway & Breathing**

**Circulation**

**Disability/ Exposure**

Rapid Response Clinical Review Increase Frequency of Observations

**CONSIDER EARLIER ESCALATION OF PATIENTS WITH**

- Chronic / complex condition
- Post-operative
- Pre-existing cardiac conditions
- Opioid Infusions

**ADDITIONAL CLINICAL REVIEW CALLING CRITERIA**

|              |   |
|--------------|---|
| <b>A</b>     | <ul style="list-style-type: none"> <li>Partially Obstructed Airway or Stridor</li> </ul>  |
| <b>B</b>     | <ul style="list-style-type: none"> <li>Moderate Recissions</li> <li>Tracheal Tug</li> <li>Nasal Flaring</li> <li>Grunting</li> <li>Increasing Oxygen Requirement</li> <li>Difficulty talking or feeding</li> </ul>  |
| <b>C</b>     | <ul style="list-style-type: none"> <li>Central Capillary Refill <math>\geq 3</math> Seconds</li> <li>Greater than expected Fluid Loss</li> <li>Reduced Urine Output or Anuria (<math>&lt;1\text{mL/Kg/hr}</math>)</li> <li>Poor Peripheral Circulation (e.g. mottled, or pallor)</li> </ul> |
| <b>D</b>     | <ul style="list-style-type: none"> <li>Inconsolable</li> <li>Agitated or combative</li> </ul>   |
| <b>Other</b> | <ul style="list-style-type: none"> <li>New onset of fever <math>&gt; 38.5^{\circ}\text{C}</math></li> <li>BGL <math>&lt; 2.6</math> mmol/L</li> <li>New, increasing or uncontrolled pain</li> <li>Concern by any staff member</li> </ul>  |

**ADDITIONAL RAPID RESPONSE CRITERIA**

|              |  |
|--------------|--|
| <b>A</b>     | <ul style="list-style-type: none"> <li>Imminent Airway Obstruction</li> <li>New Onset of Stridor</li> </ul>  |
| <b>B</b>     | <ul style="list-style-type: none"> <li>Apnoea or Respiratory Arrest</li> <li>Gaspings</li> <li>Cyanosis</li> <li>Severe Recissions</li> <li>Absent Breath Sounds or Silent Chest</li> <li>Unable to speak or feed</li> </ul>   |
| <b>C</b>     | <ul style="list-style-type: none"> <li>Cardiac Arrest or Circulatory Collapse</li> <li>Significant Bleeding</li> </ul>   |
| <b>D</b>     | <ul style="list-style-type: none"> <li>Fall in GCS <math>&gt;2</math> points</li> <li>New or Prolonged Seizure Activity</li> </ul>   |
| <b>Other</b> | <ul style="list-style-type: none"> <li>BGL <math>\leq 2</math> mmol/L</li> <li>Deterioration not reversed within 1 hour of Clinical Review</li> <li>Patient deteriorates further during, before or after Clinical Review</li> <li>3 or more simultaneous 'yellow zone' observations</li> </ul> |

BARCODE

Holes punched as per AS2928-1 999  
BINDING MARGIN - NO WRITING

**NSW HEALTH**

FAMILY NAME: \_\_\_\_\_ MRN: \_\_\_\_\_  
 GIVEN NAME: \_\_\_\_\_  MALE  FEMALE  
 Facility: \_\_\_\_\_ D.O.B. \_\_\_\_/\_\_\_\_/\_\_\_\_ M.O. \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_  
 LOCATION: \_\_\_\_\_  
 COMPLETE ALL DETAILS OR AFFIX PATIENT LABEL HERE

**NSW HEALTH**

FAMILY NAME: \_\_\_\_\_ MRN: \_\_\_\_\_  
 GIVEN NAME: \_\_\_\_\_  MALE  FEMALE  
 Facility: \_\_\_\_\_ D.O.B. \_\_\_\_/\_\_\_\_/\_\_\_\_ M.O. \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_  
 LOCATION: \_\_\_\_\_  
 COMPLETE ALL DETAILS OR AFFIX PATIENT LABEL HERE

**STANDARD PAEDIATRIC OBSERVATION CHART (SPOC) 1-12 months**

Altered Calling Criteria

| Date | Time | Respiratory Rate (breaths per minute) | Respiratory Effort | SpO <sub>2</sub> (in any amount of O <sub>2</sub> ) | Oxygen     | Heart Rate (beats per minute) | Capillary Refill | Blood Pressure (mmHg) Systolic Blood Pressure is the trigger | Level of Consciousness | Pain Score     | Temperature (°C) | Blood Glucose Level |
|------|------|---------------------------------------|--------------------|---|------------|-------------------------------|------------------|--|------------------------|----------------|------------------|---------------------|
|      |      | 65                                    | Severe             | 95  | L/min or % | 190                           | Seconds          | 130  | Alert                  | Severe (7-10)  | 41               |                     |
|      |      | 60                                    | Moderate           | 90  | Device     | 180                           |                  | 120  | Verbal                 | Moderate (4-6) | 40               |                     |
|      |      | 55                                    | Mild               | 85  |            | 170                           |                  | 110  | Pain                   | Mild (1-3)     | 39               |                     |
|      |      | 50                                    | Normal             | 80  |            | 160                           |                  | 100  | Unresponsive           | Nil            | 38               |                     |
|      |      | 45                                    |                    | Probe Change  |            | 150                           |                  | 90   | Severe (7-10)          |                | 37               |                     |
|      |      | 40                                    |                    | L/min or %  |            | 140                           |                  | 80   | Moderate (4-6)         |                | 36               |                     |
|      |      | 35                                    |                    | Device  |            | 130                           |                  | 70   | Mild (1-3)             |                | 35               |                     |
|      |      | 30                                    |                    |   |            | 120                           |                  | 60   | Nil                    |                | 34               |                     |
|      |      | 25                                    |                    |   |            | 110                           |                  | 50   |                        |                |                  |                     |
|      |      | 20                                    |                    |   |            | 100                           |                  | 40   |                        |                |                  |                     |
|      |      | 15                                    |                    |   |            | 90                            |                  |  |                        |                |                  |                     |
|      |      | 10                                    |                    |   |            | 80                            |                  |  |                        |                |                  |                     |
|      |      | 5                                     |                    |   |            | 70                            |                  |  |                        |                |                  |                     |
|      |      | 3                                     |                    |   |            | 60                            |                  |  |                        |                |                  |                     |

Legend:  Rapid Response  Clinical Review  Increase Frequency of Observations

Children for special consideration

Additional Criteria for Clinical Review

Additional Criteria for Rapid Response, not captured within the Chart

Key to chart

**CONSIDER EARLIER ESCALATION OF PATIENTS WITH**

- Chronic / complex condition
- Post-operative
- Pre-existing cardiac conditions
- Opioid Infusions

**ADDITIONAL CLINICAL REVIEW CALLING CRITERIA**

|       |  |
|-------|--|
| A     | <ul style="list-style-type: none"> <li>Partially Obstructed Airway or Stridor</li> </ul>   |
| B     | <ul style="list-style-type: none"> <li>Moderate Recissions</li> <li>Tracheal Tug</li> <li>Nasal Flaring</li> <li>Grunting</li> <li>Increasing Oxygen Requirement</li> <li>Difficulty talking or feeding</li> </ul>   |
| C     | <ul style="list-style-type: none"> <li>Central Capillary Refill <math>\geq</math> 3 Seconds</li> <li>Greater than expected Fluid Loss</li> <li>Reduced Urine Output or Anuria (<math>&lt;</math>1mL/Kg/hr)</li> <li>Poor Peripheral Circulation (e.g. mottled, or pallor)</li> </ul> |
| D     | <ul style="list-style-type: none"> <li>Inconsolable</li> <li>Agitated or combative</li> </ul>  |
| Other | <ul style="list-style-type: none"> <li>New onset of fever <math>&gt;</math> 38.5°C</li> <li>BGL <math>&lt;</math> 2.6 mmol/L</li> <li>New, increasing or uncontrolled pain</li> <li>Concern by any staff member</li> </ul>   |

**ADDITIONAL RAPID RESPONSE CRITERIA**

|       |  |
|-------|--|
| A     | <ul style="list-style-type: none"> <li>Imminent Airway Obstruction</li> <li>New Onset of Stridor</li> </ul>  |
| B     | <ul style="list-style-type: none"> <li>Apnoea or Respiratory Arrest</li> <li>Gasping</li> <li>Cyanosis</li> <li>Severe Recissions</li> <li>Absent Breath Sounds or Silent Chest</li> <li>Unable to speak or feed</li> </ul>  |
| C     | <ul style="list-style-type: none"> <li>Cardiac Arrest or Circulatory Collapse</li> <li>Significant Bleeding</li> </ul>   |
| D     | <ul style="list-style-type: none"> <li>Fall in GCS <math>&gt;</math>2 points</li> <li>New or Prolonged Seizure Activity</li> </ul>   |
| Other | <ul style="list-style-type: none"> <li>BGL <math>\leq</math> 2 mmol/L</li> <li>Deterioration not reversed within 1 hour of Clinical Review</li> <li>Patient deteriorates further during, before or after Clinical Review</li> <li>3 or more simultaneous 'yellow zone' observations</li> </ul> |

**NSW HEALTH**

Facility: \_\_\_\_\_

PAEDIATRIC OBSERVATION CHART  
UNDER 30 DAYS

FAMILY NAME \_\_\_\_\_ MRN \_\_\_\_\_

GIVEN NAME \_\_\_\_\_

DOB / / \_\_\_\_\_

ADDRESS \_\_\_\_\_

LOCATION \_\_\_\_\_

# Special Care Nursery's/ Postnatal Units

\_\_\_\_\_ LTH

CHART

FAMILY NAME \_\_\_\_\_ MRN \_\_\_\_\_

GIVEN NAME \_\_\_\_\_  Male  Female

DOB / / \_\_\_\_\_ MO \_\_\_\_\_

ADDRESS \_\_\_\_\_

LOCATION \_\_\_\_\_

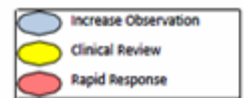
COMPLETE ALL DETAILS OR AFFIX PATIENT LABEL HERE

| Date | Time | Respiratory Rate<br>(breaths per minute) | Respiratory Effort | Oxygen<br>L/min or % | SpO <sub>2</sub> | Heart Rate<br>(beats per minute) | Capillary Refill<br>(Seconds) | Blood Pressure<br>(mmHG) | Level of Consciousness | Colour | Weight Loss % | Blood Glucose Level<br>(mmol/L) | Temperature<br>(°C) |
|------|------|--|--------------------|----------------------|------------------|----------------------------------|-------------------------------|--------------------------|------------------------|--------|---------------|---------------------------------|---------------------|
|      |      | 100                                      | Severe             | > 5 or > 60%         | 95               | 190                              | 4                             | 100                      | Alert                  | Blue   | > 15%         | > 3 mmol/L                      | 38.5                |
|      |      | 90                                       | Moderate           | 1-5 or 40-60%        | 90               | 180                              | 3                             | 90                       | Voice                  | Yellow | 11-14%        | 2.6-3 mmol/L                    | 38                  |
|      |      | 80                                       | Mild               | < 1 or < 40%         | 85               | 170                              | 2                             | 80                       | Pain                   | Pink   | 5-10%         | 1.7-2.5 mmol/L                  | 37.5                |
|      |      | 70                                       | Nil                | Device               | 80               | 160                              |                               | 70                       | Unresponsive           | White  | 0-5%          | < 1.7 mmol/L                    | 37                  |
|      |      | 60                                       |                    |                      | 75               | 150                              |                               | 60                       |                        |        |               |                                 | 36.5                |
|      |      | 50                                       |                    |                      | 70               | 140                              |                               | 50                       |                        |        |               |                                 | 36                  |
|      |      | 40                                       |                    |                      | 65               | 130                              |                               | 40                       |                        |        |               |                                 | 35.5                |
|      |      | 30                                       |                    |                      | 60               | 120                              |                               | 30                       |                        |        |               |                                 |                     |
|      |      | 20                                       |                    |                      | 55               | 110                              |                               | 20                       |                        |        |               |                                 |                     |
|      |      | 10                                       |                    |                      | 50               | 100                              |                               | 10                       |                        |        |               |                                 |                     |
|      |      |  |                    |                      | 45               | 90                               |                               |                          |                        |        |               |                                 |                     |
|      |      |  |                    |                      | 40               | 80                               |                               |                          |                        |        |               |                                 |                     |
|      |      |  |                    |                      | 35               | 70                               |                               |                          |                        |        |               |                                 |                     |
|      |      |  |                    |                      | 30               | 60                               |                               |                          |                        |        |               |                                 |                     |
|      |      |  |                    |                      | 25               | 50                               |                               |                          |                        |        |               |                                 |                     |
|      |      |  |                    |                      | 20               | 40                               |                               |                          |                        |        |               |                                 |                     |
|      |      |  |                    |                      | 15               | 30                               |                               |                          |                        |        |               |                                 |                     |
|      |      |  |                    |                      | 10               | 20                               |                               |                          |                        |        |               |                                 |                     |
|      |      |  |                    |                      | 5                | 10                               |                               |                          |                        |        |               |                                 |                     |
|      |      |  |                    |                      | 0                | 0                                |                               |                          |                        |        |               |                                 |                     |

- CONSIDER EARLIER ESCALATION OF PATIENTS AT HIGHER RISK OF DETERIORATION**
- At risk of infection. (viral or bacterial)
  - Infants of mothers who are Group B Streptococcus Positive
  - At risk of meconium aspiration syndrome
  - At risk of hypoglycaemia
    - <2.5kg or > 4.5kg
    - Infant of Insulin Dependant diabetic mother
  - At risk of haemolytic jaundice
  - Pre-existing congenital conditions e.g. cardiac disease

| ADDITIONAL CLINICAL REVIEW CALLING CRITERIA |   |
|---|---|
| A   | • Partially Obstructed Airway or Stridor  |
| B   | • Grunting<br>• Recessions<br>• Tachypnoea<br>• Nasal Flaring<br>• Increasing Oxygen requirement<br>• Difficulty Feeding  |
| C   | • Sternal Capillary refill ≥ 2 seconds<br>• Greater than expected fluid loss<br>• Reduced Urine output or anuria (<1ml/kg/hr)<br>• Poor Peripheral Circulation e.g. mottled or pallor |
| D   | • Inconsolable<br>• Agitated or Combative   |
| Other                                       | • New, increasing or uncontrolled pain  |

| ADDITIONAL RAPID RESPONSE CALLING CRITERIA |   |
|--|---|
| A  | • Threatened Airway Obstruction<br>• New onset of stridor   |
| B  | • Apnoea<br>• Gasping (pre-terminal)<br>• Cyanosis<br>• Severe Recessions<br>• Absent Breath sounds or Silent Chest<br>• Unable to feed   |
| C  | • Cardiac Arrest or Circulatory Collapse<br>• Significant Bleeding  |
| D  | • Fall in GCS of >2 points<br>• New or prolonged seizure activity   |
| Other                                      | • Deterioration not reversed within 1 hour of Clinical Review<br>• Patient deteriorates further before, during or after Clinical Review<br>• Serious Concern by any Staff Member<br>• 3 or more simultaneous 'yellow zone' observations |



# Pilot Sites

- Pilot undertaken across NSW
  - Sydney Children's
  - St George
  - Shoalhaven
  - Children's Hospital at Westmead
  - Murwillumbah
  - Wagga Wagga



# Pilot

- Charts used for 1 week period
- Pilot lead in each site
- Focus groups
- Questionnaire
- Data collated and themed (Pilot Group)
- Recommendations made to observation group



# Aims of the pilot

- Identify any serious issues in relation to under or oversensitivity of calling criteria.
- Identify usefulness of the parameters included
- Identify any problems with the clarity of instructions provided on the observation charts
- Identify issues with the design of the observation chart, including the ability to easily identify the correct chart for the age of the child



# **Clinical Emergency Response System – Draft Policy**

- All Areas have CERS committee
- Clinical Review
- Rapid Response
- Transfer & Retrieval Network
- Minimum requirements for equipment & support



# Rapid Response

- All facilities must have a Rapid Response Protocol
- Rapid Response tailored to local circumstances but must meet minimum standards.
- Rapid Response Teams will be implemented in larger facilities but MPS may develop formal liaison with NSW Ambulance Service.
- Minimum equipment/ skills / competencies for the designated Rapid Response Officer (RRO)
- One RRO per shift, 24 hours per day, 7 days per week
- Clinical Review within 30 minutes



# Rapid Response (Paediatrics)

- All of the previous requirements and
- Will incorporate role of NETs
- Working party to modify existing draft policy to meet Paediatric focus
- Development of the standards for who should respond and when.



# Education

- Tiered education program
  - Tier 1 **All Clinical Staff** – Awareness of BTF, Calling Criteria, and Escalation protocols, What to do while waiting for help.
  - Tier 2 **All First Line responders** – Home team and ward nurses who will initiate first line treatment and management of deteriorating patients.
  - Tier 3 **Rapid Response Team (RRT) members,** Rapid Response Officer (RRO)- Advanced Life Support and Resuscitation skills.



# DETECT

DETECTING DETERIORATION, EVALUATION, TREATMENT,  
ESCALATION, AND COMMUNICATING IN TEAMS ©

## Tier 2 – Adult Learning manual

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### CHAPTERS

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|                |   |
|----------------|---|
| Chapter one    | “When to Worry” .....                                     |
| Chapter Two    | “I Can’t Breathe” .....                                   |
| Chapter Three  | “Warm Hands Warm Feet” .....                              |
| Chapter Four   | The Five Causes of Anuria .....                           |
| Chapter Five   | The Confused Patient .....                                |
| Chapter Six    | Communication and Record Keeping .....                    |
| Chapter Seven  | Decisions at End of Life & How to Break Bad News .....    |
| Chapter Eight  | Everybody’s Angry & Say Sorry Mate (Open Disclosure)..... |
| Chapter Nine   | Airway Resuscitation .....                                |
| Chapter Ten    | Models of Clinical Emergency Response Systems .....       |
| Chapter Eleven | Safe Patient Transfer & Intrahospital Transport .....     |



# Evaluation

- Minimum Standards for data collection
- Key program performance indicators :
  - Process indicators that measure activity
  - Outcomes indicators for effectiveness including Unexpected Deaths and Potentially Preventable Deaths
- Working party – looking at modifying for Paediatrics
- Database (SESIAHS) to be used to collect data





# Between the Flags

Keeping patients safe



## What now???

- Possible launch in June 2010
- Continue developing educational material
- Continue to liaise with Area Health Services
- Keep advocating for Paediatrics at a State and National level





# Between the Flags

Keeping patients safe

