

# PEDIATRIC RAPID RESPONSE TEAMS



June 2011

Guidelines for Implementing a Team

## Illinois Emergency Medical Services for Children



is a collaborative program between the  
**Illinois Department of Public Health**

and

**Loyola University Medical Center**

[www.luhs.org/emsc](http://www.luhs.org/emsc)



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# INTRODUCTION

Pediatric Rapid Response Teams (PRRTs) are multidisciplinary groups of clinicians within a hospital that can bring pediatric specific critical care expertise to the patients' bedside as a way to improve clinical outcomes. Other common names and variations for Rapid Response Teams are Critical Access Teams (CAT), Medical Emergency Teams (MET) and Critical Care Outreach (CCO). Rapid Response Teams (RRTs) in general have been implemented over the years as a way to decrease the number of unnecessary and avoidable deaths that occur in hospitals every day (1). Although implementing RRTs will not be able to prevent all in-hospital codes since clinical conditions can change suddenly and without warning, it has been shown that both adults and pediatric patients typically have several hours of warning signs and symptoms of deterioration that occur before a cardiopulmonary arrest (CPA) (2). The Agency for Healthcare Research and Quality (AHRQ) has defined these "failure to rescue" events as deaths that occur as a result from complications rather than the primary diagnosis and commonly occur in non-ICU areas (3). Several systemic issues have been found to contribute and lead to these "failure to rescue" events (4, 5, 6):

- Failures in planning including assessments, treatments and goals
- Failure to communicate including a delay in calling for assistance
- Lack of readily available medical staff
- Lack of empowerment to obtain assistance
- Failure to recognize the signs and symptoms of deterioration in the patient's condition

Having a Pediatric Rapid Response team in place within a hospital can provide a means to address and prevent many of the systemic issues that have been found to contribute to the "failure to rescue" events involving pediatric patients.

Although the effectiveness of RRTs in the adult population has been repetitively demonstrated, there have been relatively few studies that examine their effectiveness in the pediatric population. However, as a result of the 100,000 Lives Campaign and the "Getting to Zero: the Kids Campaign" initiated by the Institute for Healthcare Improvement (IHI) in 2004-2006, many hospitals began initiating Pediatric Rapid Response Teams based on the potential benefits that could occur (6). One children's hospital revealed an eighteen percent drop in monthly mortality rate and a seventy one percent drop in monthly codes after initiating a pediatric rapid response team at their facility (2). Over the nineteen months that this study was conducted, thirty three children's lives were saved (2). The implications that this has on mortality rates of hospitalized children nationally are tremendous.

# ROLE OF PEDIATRIC RAPID RESPONSE TEAMS

The main goal of having a Pediatric Rapid Response Team in a facility is to have a system in place that identifies pediatric patients who may be at risk for arrest and quickly provides the resources necessary to assess, stabilize and assist with transfer to either to a higher care unit or facility that can better care for that patient. It is imperative to emphasize that implementing a PRRT in a facility is not intended to take away the control of the management of that patient's care from the primary physician nor is it to replace the traditional clinical hierarchy (3, 7). The benefits that PRRTs do provide include:

- Reduction of cardiac arrest and mortality rates, including postoperative mortality (3,8)
- Improved clinical outcomes and decrease duration of hospital stay (3)
- Provide a system to educate staff on recognizing signs and symptoms of physiological deterioration or instability (9)
- Improve the safety culture within the facility by assisting with detection of medical errors and system safety issues
- Improve staff satisfaction and empowerment of the nurses, other medical personnel and family to be able to request urgent medical assistance

One additional role that a Pediatric Rapid Response Team may play is to provide additional staffing resources to assist in times of surge capacity and mass casualty incidents that involve critically ill pediatric patients. Mass casualty incidents (MCI) are disaster events that result in more patients than the available resources can manage using routine procedures. When these types of incidents involve children, they can quickly overwhelm hospitals especially those who do not normally care for children or that do not have many resources in reserve. Having a Pediatric Rapid Response Team can provide a hospital with additional resources in times of mass casualty incidents that involve children.

## MAJOR COMPONENTS

### Team Composition

The makeup of the Pediatric Rapid Response Team should be based on the individual hospital's needs, culture, and available resources. The minimum requirements would be a critical care nurse with pediatric background or training and a pediatric trained respiratory therapist (4). Respiratory therapists are essential members on Pediatric Rapid Response Teams because the most common cause for an arrest in the pediatric population is related to respiratory complications. Others that may be added to the PRRT if resources are available include pediatric intensivist, pharmacists, hospitalists, nurse practitioners, resident physicians, physician assistants, nursing supervisor and a chaplain. Whatever the makeup of the team is in each hospital, certain factors need to be considered (4, 8, 10, 11). Team members need to be able to respond immediately; have the technical, diagnostic and communication skills to respond to a variety of emergencies and initiate a higher level of care; be able to prescribe treatments either directly or

through pre-established protocols; and be able to organize care in such a way that it supports and educates staff. One other factor to consider, especially for smaller hospitals that may not have pediatric intensive care services, is to designate during the planning process a team member who will be responsible for initiating and coordinating the transfer if the patient needs to be sent to another facility for higher level of care. This could be accomplished, for example, by adding the nursing supervisor or manager to the team.

Currently, there are two systems through which a hospital can develop or incorporate a PRRT into its current rapid response team and/or code team system. There are advantages and disadvantages to both system models. Each hospital has to determine their needs and available resources when deciding which one would be the best choice for their facility.

A 1-tier system means that there is one team within a hospital that responds to all rapid response calls and code events. Advantages of this system are that definitive care is quick, and all services are immediately available with one team. Several disadvantages of a 1-tier system are it requires highly skilled personnel to respond, even if it is for an urgent consultation; it is more costly; and it can be more intimidating to the staff initiating the response. Smaller hospitals who have limited staffing resources may find this system easier and more practical to implement.

In a 2-tiered system, the code team and rapid response teams are completely separate and have established criteria for what each team is responsible for responding to. The main advantages of this system are that it's less costly and less intimidating to staff. Disadvantages include the need for more staff with expert clinical skills to be available for two teams (3). Large health care institutions that have more available resources may find this system realistic to implement.

## Criteria to Activate the Pediatric Rapid Response Team

Many hospitals that have initiated Pediatric Response Teams in their facilities have established criteria for activating the team. Evidence has shown that establishing specific call criteria that includes both nurse and physician components may lead to better outcomes (10). The most common reasons listed for initiating RRTs in hospitals include (8):

- Acute changes in heart rate, blood pressure, or respiratory rate
- Hypoxia
- Mental status changes
- Staff and/or family concerns

In appendix E, there are examples of criteria hospitals use including the PEWS (Pediatric Early Warning Score) to activate their pediatric rapid response teams.

There are important factors to consider when developing criteria for activation of the PRRT. First, establishing a “no false alarm” approach will reinforce that a serious concern for the patient is a valid reason for activating the team (8). Second, pediatrics patients have more variables to be

considered when developing the call criteria for a RRT compared to adults due to age specific norms (3). This can cause some confusion for staff and family on what is the right time to activate the team. Developing criteria that is clear and that contains as few variables as possible to adequately cover common warning signs seen in pediatric patients may decrease confusion and resistance to activating the team. Thirdly, during the implementation process it is vital to determine where in the hospital the team will respond to. For example, code teams often respond to calls in nonclinical areas like the cafeteria or lobby. It is necessary to determine if the rapid response team will do the same or is to be used only on patient care units. Next, it is important to define the pediatric age range that the PRRT will be responsible for responding for. Finally, hospitals will need to address whether a pediatric versus an adult RRT responds to a call for assistance when pediatric patients are cared for on adult patient care units.

## Activating the Pediatric Rapid Response Team

### Who can activate the team?

Any staff member that either identifies the patient is showing signs of deterioration as dictated by the established criteria or has serious concerns about the patient can activate the team.

Giving families the ability to access the rapid response team is not universal at all facilities who have initiated PRRTs in their hospital. There are typically concerns that family will overuse the team for minor concerns and problems. However, in one study done at the North Carolina Children's Hospital, eight percent of all PRRT activations were by family and in more than half of those family activated calls, the patient needed to be transferred to the PICU (12).

### How is the team accessed?

There are many ways the PRRT can be activated within a hospital. Some of these methods include:

- Pager system
- Public announcement
- Hospital operator
- Radios
- Wireless telephone
- Combination of above

## DOCUMENTATION

Documentation on a formal record during the rapid response event is crucial and should be added to the patient's medical record after the event. Documentation assists with communication about the event and interventions performed and allows for gathering information for quality improvement (4). There are several types of documentation records that can be used (see Appendix C). Key documentation elements include: reason for the call, who activated the call, interventions required and administered, team members that responded to the call, and the

patient disposition after event. When initiating a PRRT within a hospital, an assignment should be made on who will be responsible for the documentation during the event.

## COMMUNICATION

Breakdown in communication is the most common cause of many different types of medical errors and can occur among all health care professionals involved in the care of patients (13). One approach to improve communication not only during a rapid response event but in any critical medical situation is to use the Situation, Background, Assessment, Recommendation (SBAR) process. SBAR process aids staff in organizing and communicating the information about the patient's condition. See Appendix D for an example of a SBAR flow sheet and guidelines for its use.

## REQUIRED EDUCATION

### During Implementation of Pediatric Rapid Response Team

During the implementation of the Pediatric Rapid Response Team, education is vital to the success of the team. Education for team members includes PALS or other advanced pediatric critical care training, the SBAR process, defined protocols, communication skills, and the expectations of the team such as response time and importance of having a non-judgmental, non-punitive attitude. Goals, benefits and any misnomers about using the PRRT should also be included in the medical staff's education about using PRRT. Education for the general nursing staff should also include criteria for calling, the notification process, communication skills, SBAR process and the job roles and expectations of those involved (1). Further education is needed if the hospital plans to utilize those on the team during times of surge or mass casualty incidents involving critical ill children.

### Continued Education Requirements

Continual education is recommended, not only to maintain the skills of the PRRTs but also to remind staff of the importance and purpose of the rapid response team. Examples of types of training that can be used include skill competency training, mock rapid response alerts, seminars, and review sessions. Ensure team members remain current on PALS and other advanced pediatric critical care training. Another aspect of education that needs to be considered is if a family activating system is in place. It will be necessary for staff to orient parents or guardians on the activation process. Reminder posters should be placed in every patient room to remind staff and family of the criteria and the process to activate the team. Continual education on emergency preparedness such as the JumpSTART Pediatric MCI Triage Tool<sup>®</sup> is also recommended if the team will assist during surge or mass casualty incidents involving pediatric patients.

## PROTOCOLS

Some hospitals, especially those who do not have a physician dispatched with the rapid response team may choose to put in place standing orders or protocols for the pediatric rapid response team members to initiate. If a facility chooses this route, standing orders should be developed with both physician and nurse input and should be written into the hospital's Pediatric Rapid Response Team Policy.

Some common protocols or standing orders include:

- application of oxygen and use of airway adjuncts (nasal pharyngeal airways (NPA) or oral pharyngeal airways (OPA))
- ordering and obtaining exam tests (chest x-ray, laboratory tests, and electrocardiograms)
- administering certain medications (albuterol nebulizers, pain medications or antihistamines)
- administering an intravenous (IV) fluid bolus
- bedside glucose with treatment recommendations (glucose).

Once established, education about these protocols or standing orders should be provided to the PRRT and easily accessible during an event. The standing orders or protocols can be included on the Pediatric Rapid Response Team Documentation Record for quick access as well as ease of documentation.

## EVALUATION

Having an evaluation process in place is imperative when a Pediatric Rapid Response Team exists in a hospital. The evaluation process is used to gather feedback on patient outcomes, success stories, lessons learned and how accepted the process is. This feedback can then be presented to the staff and used for education, encouragement, and to emphasize the role the team is playing in patient safety and decreasing mortality (3). It is used to determine what difficulties exist in the system. The evaluation process gathers data on the results from outcome, frequency of usage, most common reasons for initiating the team, and benefits of having a PRRT which can then be used for quality improvement. The information gathered can not only be used to improve hospital processes, but can also provide needed research in relation to the benefits of Pediatric Rapid Response Teams (8). The evaluation process should include information gathered from all involved in the response: the one who activated the team (both staff and family), the team members, and medical staff. Many types of evaluation tools exist and can be used. An example of an evaluation form can be found in Appendix B.

# IMPLEMENTATION

There are many things that need to be taken into consideration when a hospital decides to implement a PRRT at their facility. Four necessary components have been identified to successfully implement this type of intervention (3, 8):

- **Afferent component:** consists of staff being able to detect an event and trigger the response (team). This component relies on the assessment and monitor interpretation skills of the staff.
- **Efferent component:** the area that provides the crisis response (the team itself) and available equipment.
- **Evaluative/Process improvement component:** exists to improve the patient care and safety.
- **Administrative Component:** exists to not only implement the process but maintain and sustain the services and system itself.

## Steps to Implement a Pediatric Rapid Response Team

The length of time it takes to implement a rapid response team in a hospital will depend on the culture of the institution. Eight to twelve months divided into three stages of planning, pilot, and full implementation have been cited.

### Planning

Administrative support during the planning stages is vital to the entire process. Lack of support from administration is often a recipe for failure. Administration sets the tone for acceptance of the process by the staff in the hospital. Identify nurse and physician leaders who can not only champion the project and cause but can also help to educate their colleagues. Specific goals or ways to measure success of the intervention should be developed during this planning step. Pre-code and post-code rates, mortality data, pre-ICU and post-ICU admission rates, and staff/family satisfaction are all examples of outcome measures that can be measured. Goals and outcome measures determined during this process need to be communicated to the both the leaders and stakeholders during the education process.

Determine the structure of the team. This includes establishing all the major components of the team as listed earlier in this document. If protocols are to be used, they should be designed during this phase.

Provide education and training as listed earlier in this document. Since education on communication is often left out of the implementation process, methods to improve communication should be included (3).

**Pilot**

Once the plans are in place for a PRRT, execute a pilot of the program. Start small by utilizing one floor or unit. After a designated time frame, allow changes or revisions to be made before initiating the program hospital wide.

**Full Implementation**

Introduction of the system hospital wide requires a significant amount of educational time. Many systems have been introduced over a two to four month time frame with intense education directed at both nurses and physicians (10). Factors that have been shown to impact the nurses' use of rapid response teams effectively include education on the process and team, support by medical and nursing staff, level of familiarity and advocacy the nurses have for the patients, and the workload of the nurses (14, 15).

## Barriers to the Implementation Process

**Barrier:**

The culture and professional norms that can exist within a hospital may be resistant to the process. Development of PRRTs may threaten some of the traditional hierarchal beliefs that exist in medicine.

**Solution:**

Senior hospital leaders must take an active and prominent role throughout the process while stressing the importance and benefits to patient care and safety that PRRTs can bring. Taking a multidisciplinary approach from the beginning and throughout the planning phase that includes physicians, mid-level providers, nurses, respiratory therapists, managers and administrative leaders will help build teamwork throughout the process. It is during this time that if a multidisciplinary approach is taken to define the roles, makeup and protocols for the team, this collaborative work can break down the barriers that tend to exist with traditional hierarchal beliefs. The Agency for Healthcare Research and Quality (AHRQ) published an innovation adoption guide called "Will It Work Here? A Decisionmaker's Guide to Adopting Innovations" that may be a useful reference while adopting new programs or making changes to existing ones within a hospital (16).

**Barrier:**

Limited data exists on the effectiveness of pediatric rapid response teams and hospitals may be skeptical or unwilling to put valuable resources into a process that does not have consistent research demonstrating the benefits (9). Physicians may discredit such safety measures like PRRTs because of inconsistent evidence that currently exists (9).

**Solution:**

Although it has been limited, the data from studies on the effectiveness of having a Pediatric Rapid Response Team at a hospital has been shown to be beneficial. One study recorded almost a thirty eight percent decrease in pediatric arrests outside of the ICU and a little more than twenty one percent drop in mortality (14, 17). The American Heart Association's 2010 Treatment Recommendations state that PRRTs may be beneficial in reducing the risk of respiratory and/or cardiac arrest in children that are hospitalized outside an intensive care unit (18). Hospitals and physicians may be subject to financial risk and liability claims for not implementing a rapid response system, even if its effectiveness has not been proven repetitively through multiple studies (9).

**Barrier:**

Lack of communication and teamwork that exists between disciplines may hinder efforts while developing all or certain components of the process (3).

**Solution:**

As mentioned above, if senior hospital leaders take an active and prominent role throughout the process, this will set the standard that is expected of those in the facility. The multidisciplinary approach that includes all disciplines will help build teamwork throughout the process. Earlier in this document, it was suggested that one factor to consider when developing the call criteria for the team is the need to take a "no false alarm approach." This concept of mutual respect and putting the safety and concern for the patients as the priority can help encourage teamwork and cooperation between disciplines. Finally, by providing education on the SBAR, communication between disciplines will be enhanced.

**Barrier:**

As hospitals struggle to function with scarce resources, the potential cost of implementing a significant patient safety measure such as a PRRT may be a source of resistance.

**Solution:**

In relation to the potential cost of executing a PRRT, it was found that a RRT program can be designed and implemented with no additional increase in funding for staffing (2). Utilizing the 1-tier method instead of the 2-tier method is a way to make use of existing staff and resources as a way to prevent increased costs from implementing a Pediatric Rapid Response Team. Providing education for the team as well as general staff during work time hours will allow for training without incurring increased costs.

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# Appendix B: Sample Evaluation Forms

Rapid Response Team Debriefing Form (2 sided)

Appendix E

## Rapid Response Team Evaluation/Debriefing Form DRAFT

(side 1) <b>RRT Requestors:</b> Med-surg/intermediate care/SSU staff, parents, others who are concerned about the patient	(side 2) <b>RRT Responders:</b> Hospitalists, Intensivists, PICU Nurses, PICU Respiratory Therapists
<p><b>The RRT arrived in a timely manner (&lt;10 min)</b></p> <p><input type="checkbox"/>                      <input type="checkbox"/></p> <p>Yes                                      No</p>	<p><b>We were able to be relieved from my duties in the PICU to respond to this RRT</b></p> <p><input type="checkbox"/>                      <input type="checkbox"/></p> <p>Yes                                      No</p>
<p><b>The RRT was helpful – approached patient and requesting unit ready to offer help/obtained info</b></p> <p><input type="checkbox"/>                      <input type="checkbox"/></p> <p>Yes                                      No</p>	<p><b>We received appropriate information from the requesting team.</b></p> <p><input type="checkbox"/>                      <input type="checkbox"/></p> <p>Yes                                      No</p>
<p><b>The patient’s plan of care reflected new interventions or treatments, and when to call.</b></p> <p><input type="checkbox"/>                      <input type="checkbox"/></p> <p>Yes                                      No</p>	<p><b>The RRT physician defined and communicated the plan of care going forward, and when to call.</b></p> <p><input type="checkbox"/>                      <input type="checkbox"/></p> <p>Yes                                      No</p>

<b>Patient transferred to PICU?</b>	<b>Y</b>	<b>N</b>	Pt Label
<b>Recommend Case for Review?</b>	<b>Y</b>	<b>N</b>	

**Comments or suggestions:**

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Please submit a [Children's Online Safety Learning Report](#) for any Safety Concerns.

If you have additional concerns, please contact the chair of the Resuscitation/RRT Committee (Tel # 612-743-0856).

**NOT PART OF MEDICAL RECORD**

Please mail to Resuscitation Performance Improvement Lead, MS# 17-750

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# Appendix C: Sample Documentation Forms

## C-1:

Patient Identification Information/Sticker (12/4/08)		Baystate  Medical Center <b>RAPID RESPONSE TEAM RECORD</b> FAMILY ACTIVATED CALL: <input type="checkbox"/>	
Date: _____		Time RRT Called: _____	
Time RRT Arrived: _____			
<b>CALLER TO COMPLETE</b>			
Person (Name) placing call: _____		Responders: <input type="checkbox"/> RN <input type="checkbox"/> RT <input type="checkbox"/> IV RN <input type="checkbox"/> MD/Resident	
Covering Physician: _____		MD notified Yes/No: _____ Response Yes/No: _____ Arrival time: _____	
<b>SITUATION</b>		<b>BACKGROUND / HISTORY</b>	
<input type="checkbox"/> <i>Concern that something is wrong</i> <input type="checkbox"/> <b>Respiratory</b> <input type="checkbox"/> Respiratory Distress ( <i>rate &lt;8 or &gt;28 BPM</i> ) <input type="checkbox"/> Threatened Airway <input type="checkbox"/> Change in Respiratory Rate <input type="checkbox"/> SaO <sub>2</sub> less than 90% on O <sub>2</sub> ( <i>&lt;90% despite supplement O<sub>2</sub></i> ) <input type="checkbox"/> <b>Cardiovascular</b> <input type="checkbox"/> Change in Systolic BP (<90 mmHg) <input type="checkbox"/> Change in HR (<40 or >130 BPM)		<input type="checkbox"/> <b>Other</b> <input type="checkbox"/> Failure to Respond to Treatment <input type="checkbox"/> Other Acute Decline in Patient Condition <input type="checkbox"/> <b>Neurological</b> <input type="checkbox"/> Acute Change in Level of Consciousness <input type="checkbox"/> Difficulty Speaking <input type="checkbox"/> Agitation, Delirium or Seizures <input type="checkbox"/> <b>Early Sepsis</b> <input type="checkbox"/> Infection-documented or suspected <input type="checkbox"/> On anti infective therapy <input type="checkbox"/> Increased/decreased WBCs count ( <i>≥ 12,000 or ≤ 4,000</i> )	
<input type="checkbox"/> Diabetes <input type="checkbox"/> Renal <input type="checkbox"/> Dialysis <input type="checkbox"/> CHF <input type="checkbox"/> Stroke <input type="checkbox"/> Surgery _____ <input type="checkbox"/> Pneumonia <input type="checkbox"/> Other: _____		<input type="checkbox"/> DNR/DNI <input type="checkbox"/> CMO	
<b>RRT NURSE ASSESSMENT ON ARRIVAL:</b>			
Initial vital signs: (2 or more consider early sepsis)			
Temp: _____ (≥100.4 or ≤96.8) HR: _____ (>90 bpm) RR: _____ (≥20) BP: _____ O <sub>2</sub> Sat _____ FiO <sub>2</sub> : _____			
LOC: _____ Breath Sounds: _____ Pain Level: _____ (0-10 Scale) Blood Sugar: _____			
<b>UNRESPONSIVE PATIENT:</b> ♦ Administer 50ml D50 (1 amp) ♦ Time administered: _____ ♦ Repeat POC in 20 min: _____		<b>TESTS/LABS:</b> ♦ Check POC glucose If <60 mg/dl: If patient awake: administer 25ml D50 (1/2 amp) Time administered: _____ Repeat POC BG: _____ ♦ PORTABLE CXR _____ CQ: Pneumonia (HX new/sudden onset respiratory symptoms/distress & no CXR obtained within last 24 hours) ♦ ISTAT POC ABG, Lactate, & Electrolytes if not previously done in the last 30-60 minutes Time: _____ pH: _____ Lactate: _____ CO <sub>2</sub> : _____ PO <sub>2</sub> : _____ HCO <sub>3</sub> : _____	
<b>AIRWAY/BREATHING:</b> ♦ Titrate FiO <sub>2</sub> to maintain patient's O <sub>2</sub> saturation >92% (use any modality) ♦ Time: _____ ♦ Modality used: _____			
<b>CIRCULATION:</b> ♦ If no signs/symptoms of HF & SBP <80mm: Administer 500ml 0.9% NS x 1 ♦ Time administered: _____ ♦ <input type="checkbox"/> N/A ♦ <input type="checkbox"/> 12 lead ECG Time: _____			
<b>MEDICATIONS/ADDITIONAL INTERVENTIONS:</b>		<b>ADDITIONAL VITAL SIGNS / TIME</b>	
Continue documentation of meds & vital signs on back of *WHITE FORM*			
<b>RRT NURSE FINAL ASSESSMENT:</b>		<b>RRT DEPARTURE TIME:</b> _____	
Disposition: <input type="checkbox"/> No transfer <input type="checkbox"/> Intercare <input type="checkbox"/> ICU or CICU <input type="checkbox"/> Progressed to Code <input type="checkbox"/> Made DNR/CMO Time of transfer: _____			
Physician: _____		RRT RT: _____	
RRT RN: _____		Time of Visit: _____	
Follow Up Visit: _____			
RRT Call Debrief Conducted: <input type="checkbox"/> Yes <input type="checkbox"/> No			
Family involved in debrief <input type="checkbox"/> Yes <input type="checkbox"/> No			
<input type="checkbox"/> Patient had subsequent Code Blue; <input type="checkbox"/> Patient expired; <input type="checkbox"/> Patient survived to discharge (Date) _____			
White Copy Send to Medical Record		Yellow Copy Return to Division of Healthcare Quality	

#194-12-2008



C-2



**CRITICAL ASSESSMENT TEAM CONSULTATION RECORD**

Patient Name: \_\_\_\_\_ Rm# \_\_\_\_\_ Caller's Name: \_\_\_\_\_ Time of Call: \_\_\_\_\_  
 RESIDENT NOTIFIED  YES  NO Name: \_\_\_\_\_

SITUATION		
Arrival Date: ____/____/____ Time: _____		
<input type="checkbox"/> Worrisome change in respiratory rate/effort <input type="checkbox"/> Worrisome change in heart rate <input type="checkbox"/> Worrisome change in character of pulse, perfusion or color <input type="checkbox"/> Worrisome change in behavior/LOC <input type="checkbox"/> Worrisome change in O <sub>2</sub> saturation <input type="checkbox"/> Seizures	<input type="checkbox"/> Worrisome change in blood pressure <input type="checkbox"/> Any staff member concerned about the patient's clinical status <input type="checkbox"/> Patient continues to demonstrate compromise despite interventions <input type="checkbox"/> Other	
BACKGROUND		
Reason for admission: _____		
Interventions this admission: _____		
Pertinent medications: _____		
Pertinent past medical history: _____		
Allergies: _____		
ASSESSMENT	Patient Weight: _____ kg	
Initial vitals: Date: ____/____/____ Time: _____ RR: _____ HR: _____ BP: _____ O <sub>2</sub> Sat: _____ GCS: _____		
Airway patient? <input type="checkbox"/> Yes <input type="checkbox"/> No	If no, describe: _____	
Breathing adequate? <input type="checkbox"/> Yes <input type="checkbox"/> No	If no, describe: _____	
Lungs normal? <input type="checkbox"/> Yes <input type="checkbox"/> No	If no, describe: _____	
Circulation adequate? <input type="checkbox"/> Yes <input type="checkbox"/> No	If no, describe: _____	
Is LOC at Baseline? <input type="checkbox"/> Yes <input type="checkbox"/> No	If no, describe: _____	
RECOMMENDATIONS		
INTERVENTIONS (CHECK ALL THAT APPLY):		
<input type="checkbox"/> Apnea, Oximetry, or Cardiac Monitoring	<input type="checkbox"/> Chest X-ray	<input type="checkbox"/> ABG/VBG
<input type="checkbox"/> Oxygen applied/increased	<input type="checkbox"/> Oral/nasal/pharyngeal suctioning	<input type="checkbox"/> Nebulizer treatment with albuterol/racemic epi
<input type="checkbox"/> Oral/nasal airway	<input type="checkbox"/> IV Fluid Bolus: _____	<input type="checkbox"/> Other: _____
<input type="checkbox"/> ECG	FOLLOW UP:	
<input type="checkbox"/> Other: _____	<input type="checkbox"/> Family aware	<input type="checkbox"/> Discussed with patient's Fellow or Attending Dr. _____
PATIENT OUTCOME:		
<input type="checkbox"/> Code Blue initiated	Date: ____/____/____	Time: _____
<input type="checkbox"/> Transferred to higher level of care	<input type="checkbox"/> Bedside Nurse/Resident to notify MD/Family	
<input type="checkbox"/> No change in level of care		
<input type="checkbox"/> Other: _____		
Additional documentation:		
<input type="checkbox"/> See Resuscitation Record	<input type="checkbox"/> See Patient record	<input type="checkbox"/> See Order Form
RESPONSE		
Post vitals: Date: ____/____/____ Time: _____ RR: _____ HR: _____ BP: _____ O <sub>2</sub> Sat: _____ GCS: _____		
Follow Up Notes: _____		
_____		
TEAM	Departure Date: ____/____/____	Time: _____
APN/Hospitalist Signature: _____	PICU Charge RN Signature: _____	RCP Signature: _____
Please print name: _____	Please print name: _____	Please print name: _____

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C-3

Appendix D



Rapid Response Team Consultation Record

627 (1/09)  
Page 1 of 2

Patient Name: \_\_\_\_\_ Room #: \_\_\_\_\_ Caller's Name: \_\_\_\_\_ Time of Call: \_\_\_\_\_

**SITUATION** Arrival Date: \_\_\_\_/\_\_\_\_/\_\_\_\_ Time: \_\_\_\_ RN: \_\_\_\_\_ RCP: \_\_\_\_\_

- Worrisome change in heart rate
- Worrisome change in systolic blood pressure
- Worrisome change in level of consciousness
- Worrisome change in O2 saturation
- Worrisome change in respiratory rate/effort
- Expressed Family Concern

**BACKGROUND**

Reason for this admission: \_\_\_\_\_  
 Pertinent past med history: \_\_\_\_\_  
 Interventions this admission: \_\_\_\_\_  
 Current medications: \_\_\_\_\_

**ASSESSMENT**

Patient Weight: \_\_\_\_\_ KG

Vital Signs: \*\*\* Recorded on Back of Rapid Response Team Consultation Record \*\*\*

NL ABNL

- Airway (drooling, congestion, stridor etc.): \_\_\_\_\_
- Breathing (wheezing, rhonchi, retractions etc.): \_\_\_\_\_
- Circulation: (Abnl rate, rhythm, color, refill etc.): \_\_\_\_\_
- Consciousness (confused, agitated, somnolent etc.): \_\_\_\_\_

**RECOMMENDATIONS**

- CODE BLUE initiated
- (REQUIRED) Discussed patient with Physician: \_\_\_\_\_ M.D., then (check all that apply):
  - Transferred patient to higher level of care
  - No change in level of care.
  - Evaluated directly by Intensivist
  - Other: \_\_\_\_\_
- (REQUIRED) Patient's Attending notified by: \_\_\_\_\_ at \_\_\_\_\_ hours
- Interventions (check all that apply):
  - Apnea, Oximetry, or Cardiac Monitoring
  - Oxygen applied / increased
  - Oral / nasal airway
  - ECG
  - Other: \_\_\_\_\_
  - Other: \_\_\_\_\_
  - Chest X-ray
  - ABG/VBG
  - Oral / nasal / pharyngeal suctioning
  - Nebulizer treatment with albuterol/ racemic epi
  - IV Fluid Bolus \_\_\_\_\_
- Additional documentation
  - See Resuscitation Record
  - See Physician Report
  - See Physician Order Form

**TEAM**

Departure Date: \_\_\_\_/\_\_\_\_/\_\_\_\_ Time: \_\_\_\_\_

Signature: \_\_\_\_\_ RN      Signature: \_\_\_\_\_ RCP  
 Signature Date: \_\_\_\_\_ Signature Time: \_\_\_\_\_      Signature Date: \_\_\_\_\_ Signature Time: \_\_\_\_\_

Continued



# Rapid Response Team Consultation Record

627 (1/09)  
Page 2 of 2

FREQUENT VITAL SIGNS	TIME:					
	Temp:	/	/	/	/	/
	Site:					
	Pulse:					
	Respirations:					
	Systolic BP:	/	/	/	/	/
	Diastolic BP:	/	/	/	/	/
	FiO2:	/	/	/	/	/
SaO2:	/	/	/	/	/	
INITIALS:						

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# Appendix D: SBAR Form and Guidelines

## SBAR report to physician about a critical situation

<b>S</b>	<p><b>Situation</b>                      I am calling about &lt;patient name and location&gt;.                      The patient's code status is &lt;code status&gt;                      The problem I am calling about is _____                      I am afraid the patient is going to arrest.</p> <p>I have just assessed the patient personally:</p> <p>Vital signs are: Blood pressure ____/____, Pulse _____, Respiration ____ and temperature _____</p> <p>I am concerned about the:</p> <p>Blood pressure because it is over 200 or less than 100 or 30 mmHg below usual                      Pulse because it is over 140 or less than 50                      Respiration because it is less than 5 or over 40.                      Temperature because it is less than 96 or over 104.</p>
<b>B</b>	<p><b>Background</b>                      The patient's mental status is:                      Alert and oriented to person place and time.                      Confused and cooperative or non-cooperative                      Agitated or combative                      Lethargic but conversant and able to swallow                      Stuporous and not talking clearly and possibly not able to swallow                      Comatose. Eyes closed. Not responding to stimulation.</p> <p>The skin is:                      Warm and dry                      Pale                      Mottled                      Diaphoretic                      Extremities are cold                      Extremities are warm</p> <p>The patient is not or is on oxygen.                      The patient has been on _____ (l/min) or (%) oxygen for _____ minutes (hours)                      The oximeter is reading _____ %                      The oximeter does not detect a good pulse and is giving erratic readings.</p>
<b>A</b>	<p><b>Assessment</b>                      This is what I think the problem is: &lt;say what you think is the problem&gt;                      The problem seems to be cardiac infection neurologic respiratory ____                      I am not sure what the problem is but the patient is deteriorating.                      The patient seems to be unstable and may get worse, we need to do something.</p>
<b>R</b>	<p><b>Recommendation</b>                      I suggest or request that you &lt;say what you would like to see done&gt;.                      transfer the patient to critical care                      come to see the patient at this time.                      Talk to the patient or family about code status.                      Ask the on-call family practice resident to see the patient now.                      Ask for a consultant to see the patient now.</p> <p>Are any tests needed:                      Do you need any tests like CXR, ABG, EKG, CBC, or BMP?                      Others?</p> <p>If a change in treatment is ordered then ask:                      How often do you want vital signs?                      How long to you expect this problem will last?                      If the patient does not get better when would you want us to call again?</p>

---

## Guidelines for Communicating with Physicians Using the SBAR Process

1. Use the following modalities according to physician preference, if known. Wait no longer than five minutes between attempts.
  1. Direct page (if known)
  2. Physician's Call Service
  3. During weekdays, the physician's office directly
  4. On weekends and after hours during the week, physician's home phone
  5. Cell phone

Before assuming that the physician you are attempting to reach is not responding, utilize all modalities. For emergent situations, use appropriate resident service as needed to ensure safe patient care.

2. Prior to calling the physician, follow these steps:
  - Have I seen and assessed the patient myself before calling?
  - Has the situation been discussed with resource nurse or preceptor?
  - Review the chart for appropriate physician to call.
  - Know the admitting diagnosis and date of admission.
  - Have I read the most recent MD progress notes and notes from the nurse who worked the shift ahead of me?
  - Have available the following when speaking with the physician:
    - Patient's chart
    - List of current medications, allergies, IV fluids, and labs
    - Most recent vital signs
    - Reporting lab results: provide the date and time test was done and results of previous tests for comparison
    - Code status
3. When calling the physician, follow the SBAR process:

**(S) Situation:** What is the situation you are calling about?

  - Identify self, unit, patient, room number.
  - Briefly state the problem, what is it, when it happened or started, and how severe.

**(B) Background:** Pertinent background information related to the situation could include the following:

  - The admitting diagnosis and date of admission
  - List of current medications, allergies, IV fluids, and labs
  - Most recent vital signs
  - Lab results: provide the date and time test was done and results of previous tests for comparison
  - Other clinical information
  - Code status

**(A) Assessment:** What is the nurse's assessment of the situation?

**(R) Recommendation:** What is the nurse's recommendation or what does he/she want?

Examples:

- Notification that patient has been admitted
- Patient needs to be seen now
- Order change

4. Document the change in the patient's condition and physician notification.

*This SBAR tool was developed by Kaiser Permanente. Please feel free to use and reproduce these materials in the spirit of patient safety, and please retain this footer in the spirit of appropriate recognition.*

# Appendix E: Call Criteria

## E-1

### Normal Vital Signs

Vital signs are based on chronological age, not adjusted age.  
Vital signs are assessed by norms for age, not adjusted baseline for the patient.

	Heart Rate at rest	Respiratory Rate at rest
Newborn (birth – 1 month)	100-180	40-60
Infant (1 – 12 months)	100-180	35-40
Toddler ( 13 months – 3 years)	70-110	25-30
Preschool (4 – 6 years)	70-110	21-23
School Age (7 – 12 years)	70-110	19-21
Adolescent (13 – 19 years)	55-90	16-18

Hockenberry, M.J., Wilson, D., & Winkelstein, M.L. (2005). *Wong's Essentials of Pediatric Nursing*, 7th ed. Elsevier Mosby: St. Louis.

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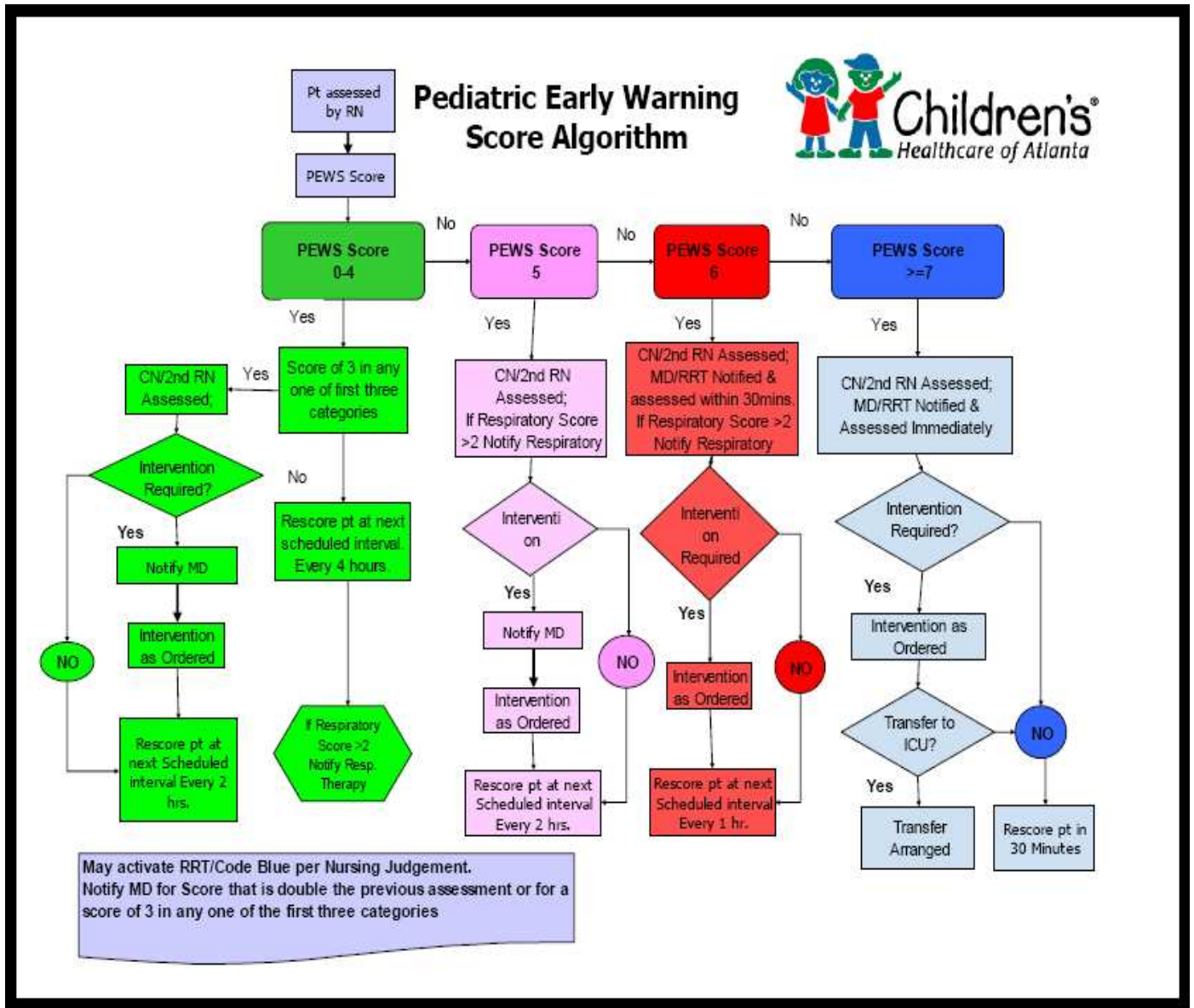
### Pediatric Early Warning Score (PEWS)

	3	2	1	0	Score
<b>Behavior</b>	<ul style="list-style-type: none"> <li>• Reduced response to pain <b>OR</b></li> <li>• Lethargic/confused</li> </ul>	Irritable	Sleeping	Playing/ Appropriate	
<b>Cardiovascular</b>	<ul style="list-style-type: none"> <li>• Bradycardia <b>OR</b></li> <li>• Tachycardia of 30 above normal rate <b>OR</b></li> <li>• Gray or cyanotic <b>AND</b> mottled <b>OR</b></li> <li>• Capillary refill 5 seconds <b>or</b> above</li> </ul>	<ul style="list-style-type: none"> <li>• Tachycardia of 20 above normal rate <b>OR</b></li> <li>• Grey or cyanotic <b>OR</b></li> <li>• Capillary refill 4 seconds</li> </ul>	Pale <b>or</b> dusky <b>OR</b> capillary refill 3 seconds	Pink <b>OR</b> capillary refill 1-2 seconds	
<b>Respiratory</b>	<ul style="list-style-type: none"> <li>• 50+%FiO2 <b>or</b> 8+liters/min. <b>OR</b></li> <li>• <math>\geq</math>5 below normal parameters with retractions <b>or</b> grunting</li> </ul>	<ul style="list-style-type: none"> <li>• 40+%FiO2 <b>or</b> 6+liters/min. <b>OR</b></li> <li>• Retractions <b>OR</b></li> <li>• &gt;20 above normal parameters</li> </ul>	<ul style="list-style-type: none"> <li>• 30+%FiO2 <b>or</b> 3+liters/min. <b>OR</b></li> <li>• &gt;10 above normal parameters <b>OR</b></li> <li>• using accessory muscles</li> </ul>	Within normal parameters, no retractions	

\*Score by starting with the most severe parameters first.  
 \*Score 2 extra for every 15-minute nebs (includes continuous nebs) or persistent post-op vomiting.  
 \*Use "liters/minute" to score regular nasal cannula.  
 \*Use "FiO2" to score a high flow nasal cannula.  
 Monaghan, A. (2005) Detecting and managing deterioration in children. *Paediatric Nursing*, 17, 32-35. Adapted for use at Children's of Minnesota.  
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