University of Texas Medical Branch Center for Sleep Disorders Policy: Pediatric Medical Emergencies	Effective Date: 6/1/18 Revised Date: 5/2/18 Campus: ADC

PEDIATRIC MEDICAL EMERGENCIES

PURPOSE

Explicit criteria for defining cardiac, respiratory, neurologic, and psychiatric emergencies and other life-threatening events, and defining specific actions to be taken by the sleep center personnel when these situations arise, ensure that pediatric patients receive appropriate emergency medical care in the sleep center.

POLICY

All sleep staff will follow approved medical-emergency procedures. All personnel with patient-care responsibilities must be certified in Cardiopulmonary Resuscitation (CPR). CPR is initiated in medical emergencies according to standard procedures. These procedures are reviewed, approved and signed annually by the medical director.

Contact numbers for notification of Pediatric Medical Emergencies:

- **Strahil Atanasov, M.D. Cell: (281)468-0911**
- **Shahzad Jokhio, M.D Cell: (832) 701-5378**
- **Rizwana Sultana, MD Cell: (262) 993-5548**

Prior to lights out, the technician will contact the Medical Director, or his designee, for any of the following conditions in the pediatric patient:

- Baseline saturations $\leq 90\%$
- Baseline $EtCO2 \geq 50$ mmHg
- Irregular heart rate, respiratory rate or rhythm on EKG
- Vitals outside the range of normal as outlined below:

Age	Awake Heart Rate	Sleeping Heart Rate	Respiratory Rate
Infant (0-1)	100 – 160	75 – 160	30 – 60
Toddler (1-3)	80 – 130	60 – 110	24 – 40
Preschooler (3-5)	70 – 120	60 – 100	22 – 34
School-aged Child (5-12)	65 – 120	60 – 100	18 – 30
Adolescent (12-18)	60 – 110	50 – 100	12 – 16

General safety:

PEDIATRIC MEDICAL EMERGENCIES

- No child is left unattended. There must always be a technologist, parent or caregiver in the room with the child at all times. Adolescent and teenage patients without developmental or neurological impairment may stay in the room alone but must remain under camera surveillance by a technologist.
- The technologist intervenes if a child becomes entangled in the leads, or awakens in a confused or behaviorally distressed state. Intervention consists of entering the child's room untangling leads, wrapping leads together and securing with tape to the child's bedclothes in a manner that prevents entanglement. If the patient is confused or distressed the technologists comforts the child to help them back to sleep. The parent/guardian should be encouraged to participate.
- If a patient is standing or sitting and experiences cataplexy, the technologist should help the patient to the floor, place pillows under the patient so they are comfortable, stay with the patient and wait for the cataplexy to subside.

A pediatric medical emergency in the Sleep Disorder Center is defined as follows:

- Acute cardiopulmonary conditions:
  - Apneas greater than 2 minutes or associated with a sustained heart rate change (10 seconds) or desaturation
    - Age 2-6: HR less than 60 or greater than 150 or saturation less than 70%
    - Age 6+: HR less than 40 or greater than 150 or saturation less than 60%
    - Any abnormal rhythm
  - Sustained hypoxemia with oxygen saturation remaining persistently less than 88% after respiratory events have been resolved with CPAP
  - $EtCO2 \geq 60$ mmHg during sleep with or without associated respiratory events
  - Irregular heart rate or rhythm
  - New Onset or severe chest pain
  - New Onset or severe dyspnea
  - Cardiopulmonary arrest
  - Any arrhythmia, EEG phenomenon, respiratory event, or patient reported symptom and in the opinion of the Sleep Center technician may lead to an emergency situation.

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PEDIATRIC MEDICAL EMERGENCIES

- Neurologic Emergencies:
    - Change in level of consciousness
    - Change in mentation
    - Change in speech
    - Weakness in limbs or face
- Psychiatric Emergencies
    - Suicidal ideation or patient is deemed to be a threat to self or others (the patient must be visually monitored at all times and the Medical Director or his designee will be notified immediately).
    - In the case of a psychiatric or suicidal emergency:
        - Consider whether individual is a threat to him/herself and others. Call 3333 for ADC Location, specify location, patient age and nature of emergency. Contact Medical Director or his designee.
        - If patient has taken action which could result in serious injury to him/herself, Call 3333, specify location, patient age and nature of emergency. Contact Medical Director or his designee.
        - The technician shall always keep a positive attitude and remain calm
        - Do not be shocked by information that a patient may reveal to you or involve yourself in a debate with the patient
        - Encourage the patient to be calm and let them know additional help has been summoned
        - Patient should be kept under constant supervision until professional help has arrived
        - If a lethal situation has already occurred do not disturb scene, Call 3333, specify location, patient age and nature of emergency. Contact Medical Director or his designee.
        - Technician on duty will make sure of other patient's safety and not discuss the situation with anyone but professionals who respond to the scene.

PEDIATRIC MEDICAL EMERGENCIES

- When the situation has been resolved, all involved with the incident will document all pertinent information and the Program Manager will notify appropriate personnel and generate a report of the incident.

- Parasomnias
  - Observed unusual or violent behavior that might endanger patient's, family and/or staff's safety
  - Attempting to awaken a "parasomniac" by shaking or shouting can sometimes trigger an irritable, aggressive or violent response. Therefore, gently redirect the person back to bed by guiding him or her by the elbow and speaking softly and orienting patient to time and place.
  - In the event patient demonstrates abnormal movements while asleep, including attempts to get out of bed the technician shall initially try to speak to the patient via the intercom system. Attempts should be made to explain situation to the patient and calm the patient down.
  - It is important to avoid situation which may cause potential harm to the patient and/or technician through such episodes.
- Contact the Medical Director or his designee as well the program manager if situation persists or potential harm is anticipated.

- Seizures (see also Seizure Activity)
  - New onset seizure in a patient without a history of seizures
  - Seizure in a patient with a history of seizures
  - Electrical seizure without clinical correlate
  - Clinical seizure without electrical correlate
  - In the event of a seizure:
    - Keep calm; contact Medical Director or his designee and/or call 3333 for pediatric code team immediately.
    - Don't hold the person down or try to stop his movements
    - Continue recording, as long as it does not interfere with provision of patient care in an emergency
    - Clear the area around the person of anything hard or sharp
    - Loosen ties or anything around the neck that may make breathing difficult

PEDIATRIC MEDICAL EMERGENCIES

- Turn him or her gently onto one side, if possible. This will help keep the airway clear. Do not try to force the mouth open with any hard object or with fingers. Efforts to hold the tongue down can injure teeth or jaw.
- Be friendly and reassuring as consciousness returns
- Document everything in patient chart after emergent situation has either resolved or care has been transferred to appropriate personnel.

- Metabolic emergencies including diabetes:
  - Patients and/or parents will administer their own mediations and perform any level testing.
  - In the event patient or parent indicates that they are having symptoms of low or high blood sugar, the technician may ask the patient or parent to check blood sugar levels (provided patient or parent is able to do so). If unable to determine or assess this situation, contact Medical Director or his designee for further assistance.
  - Contact Medical Director or his designee and/or call 3333 for pediatric code team if symptoms persist, and/or blood sugar level is below 60 or above 300.

PROCEDURE

1. When it is determined by staff or faculty that a person requires emergency care, the following actions are to occur, but not necessarily in this order:

   - The Sleep Center Technologist will assess the patient's needs within the confines of his/her credentialed abilities.
   - Clinical care is provided as appropriate and with the resources available
     - Code team:

PEDIATRIC MEDICAL EMERGENCIES

        - The Technician will call extension 3333.
        - The operator may need exact location, type of code occurring, phone extension, age of patient and the technician's name.
    - Begin CPR
    - Do not discontinue recording, provided, it does not interfere with delivery of emergent care or technician is directed by medical team to discontinue this activity.
    - Document events on patient's technologist log/chart.
- Medical Director or his designee for notification of Medical Emergencies:
    - Shahzad Jokhio, M.D Cell: (832) 701-5378
    - Strahil Atanasov, M.D. Cell: 281-468-0911
    - Rizwana Sultana, M.D Cell: (262) 993-5548
- Keri Bolton, Program Manager is notified at:
    - Cell: 832-687-0259

2. If the person requiring emergency care is a patient, documentation of the event will be placed in that person's medical record. If the person is not a patient, then the technologist will create a written description of the event. The event record will be kept by Denise McElyea, Program Manager. A copy of the event record will be made available for the patient to take to their Primary Care Physician.
3. The Program Manager will be notified immediately of the event, who will:

    - Review the event and evaluate for further action (e.g. notification of Risk Management and complete report in PSN)
    - Technologist will complete and submit an Unusual Occurrence Report.
    - Report Summary and salient features to the Ambulatory Operations Council on a quarterly basis