Medication Management Committee
Mercy Medical Center
Cedar Rapids, Iowa

**Formulary Addition**

Bridion (sugammadex)
- Selective relaxant binding agent indicated for reversal of neuromuscular blockade induced by rocuronium or vecuronium in adults undergoing surgery. This addition is restricted for Anesthesiology use only.

Makena (hydroxprogesterone caproate)
- Progestin indicated to reduce the risk of preterm birth in women with singleton pregnancies that have a history of singleton spontaneous preterm birth.

**Formulary Deletion**

Donnatal Elixir

**Policies/Protocols**

High Alert Medications
- Independent double checks added to Magnesium IV bolus doses.

Look Alike Sound Alike Medication Chart
- idaruCIZUMAB (Praxbind)
- IDArubicin (Idamycin)

Timeliness of Medication Administration
- Annual review

Atropine Administration
- NICU added as an approved site for Atropine administration.

**Alert Space Suppressions**

- Drug/drug interaction between Ondansetron (Zofran) and Propofol (Diprivan). Pharmacy will still monitor for QT prolongation on patient who are receiving extended administration of these medications.

- Decrease the drug interaction for Tetcycline and Divalent/Trivalent Cations from a high severity to a moderate severity. Pharmacy will still get the warning on verification and can change administration times of medications to avoid this interaction.

- Set the high dose warning for Digoxin to fire at doses greater than 0.25 mg/day. The max daily dose will remain at 0.5 mg/day.

**Membership**

Fadi Yacoub, Chair
Susan Schima, MD
Asma Al-Zougbi, MD
Martin Cearras, MD
Lauren Cumings
Stephanie Hoenig, ARNP
Becky Prier
Lisa Ridge
Linda Klein
Kathy Swift
Nadiya Baumhover

Vincent Reid, MD
Chris Walsh, MD
Usha Renganathan, MD
Mary Brobst
Sarah Schloss, ARNP
Jamie Sinclair
Ariel Loring
Jen Goings
Megan Standish
Andrea Bennett
**Therapeutic Interchanges**

<table>
<thead>
<tr>
<th>Medication Ordered</th>
<th>Interchanged To</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anoro Ellipta 1 inhalation daily</td>
<td>Advair 100/50 1 inhalation daily BID</td>
</tr>
</tbody>
</table>

**Policies/Protocols**

**Daptomycin Dosing in Obese Patients**

- For patients with a BMI ≥ 30 kg/m², daptomycin will be dosed based on adjusted body weight

**Alert Space Suppressions**

- Increase the frequency for max number of doses per day for IV Morphine and Hydromorphine from 12 times per day to 24 times per day. This warning will be switched back to 12 times per day once the new post-op analgesic order sets go live.

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- **Andrea Bennett**

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**Inside This Issue**

- Formulary Interchange
- Policy Approvals
- Alert Space Suppressions
We invite you to join us in congratulating

Dr. Mark Hogenson

on his retirement

Thursday, June 30 from 5 to 6:30 p.m.

Lundy Pavilion
Mercy Medical Center
701 10th St. SE
Cedar Rapids, IA 52403

Hors d’oeuvres will be served.
State-of-the-Art
A Level III trauma facility, Mercy Medical Center’s Emergency Department is fully equipped with state-of-the-art technology to handle the most serious of healthcare emergencies.

You’ll Be in Good Hands
All physicians in Mercy’s Emergency Department are board-certified in emergency medicine. Our nurses are also specially trained, many of whom are nationally certified in emergency nursing.

For stroke patients, Mercy is one of only 7% of U.S. hospitals to achieve stroke door-to-treatment time in less than 60 minutes.

Six Years and Counting!
Every second counts with a heart attack. That’s why in June 2015, Mercy celebrated six years of providing 100 percent of our patients with “door-to-balloon” times more quickly than the national average of 90 minutes. In fact, Mercy has the best door-to-balloon times in the state — 25 minutes faster than the national average.

Door to balloon is the time it takes from when a patient enters the ER to when they receive life-saving intervention with heart vessel balloon angioplasty.

It’s The Mercy Touch at work and we’re the only hospital in the area and part of a select few in the nation to reach this milestone.

Faster times save lives in the Mercy Emergency Department.
**Insulin Subcutaneous Carb Counting Meal Order Edits:**

**Situation:**
- Beginning June 20th, 2016 carb snack order edits will be LIVE in EPIC.

**Background:**
- Nursing reported that diabetic patients on insulin are sometimes ordering carbohydrate snacks, but they are unsure how many snacks should be allowed and if they should be covering the snack with insulin.

**Assessment:**
- Currently, the carb snack order in EPIC does not limit the number of carb snacks a patient can have.
- The current Insulin Subcutaneous Carbohydrate Counting Meal order set does not contain insulin to cover carb snacks.

**Recommendation:**
- The diet order in EPIC has been updated to clarify the carb snack order is “2 snacks PRN per day”. *(The patient can have an unlimited number of NON carbohydrate snacks).*
- The carb snack order has been defaulted in the Insulin Carb Count Meal order set:

```
Dietary Orders

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>05/10/16 1351</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diet General; Adult Carb Counting (45-75 gm Carbs/Meal)</td>
<td>Carb Count 15-30 gram Snack (2 snacks PRN per day)</td>
<td>Diet effective now 05/10/16 1350</td>
</tr>
<tr>
<td>Question</td>
<td>Answer</td>
<td>Comment</td>
</tr>
<tr>
<td>Diet Type</td>
<td>General</td>
<td></td>
</tr>
<tr>
<td>Carbohydrate Restriction</td>
<td>Adult Carb Counting (45-75 gm Carbs/Meal)</td>
<td></td>
</tr>
<tr>
<td>Other Restriction(s):</td>
<td>Carb Count 15-30 gram Snack (2 snacks PRN per day)</td>
<td></td>
</tr>
</tbody>
</table>
```

- A PRN NovoLOG order has been added to the Insulin Carb Count Meal order set to cover the carb snack:

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insulin aspart (NovoLOG) pen injection 8 Units : Dose 8 Units : Subcutaneous As needed : High Blood Sugar For Carb Count 15-30 gram snack coverage
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- Contact Jaclyn Smith with questions at 319-398-6725

May 2016 – Approved by the Diabetes Committee
Summary AAP/AHA
2015 Guidelines for Cardiopulmonary Resuscitation
and Emergency Cardiovascular Care of the Neonate

On October 15, 2015, the American Heart Association (AHA) and American Academy of Pediatrics released new 2015 Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care of the Neonate. The guidelines serve as foundation for the Neonatal Resuscitation Program® (NRP®) 7th edition materials that will be released in Spring 2016 and must be in use by January 1, 2017.

The guidelines are based on a rigorous, 5-year, evidence-based topic review by the International Liaison Committee on Resuscitation (ILCOR), reflected in their Consensus on Science and Treatment Recommendations (CoSTR) also released on October 15, and represent thousands of hours of preparation, review, and oftentimes spirited debate.

The NRP Steering Committee has prepared the following summary that highlights the major changes. The full ILCOR CoSTR and guidelines can be viewed online at eccguidelines.heart.org.

Initial Steps of Newborn Care

- Non-vigorous newborns with meconium-stained fluid do not require routine intubation and tracheal suctioning; however, meconium-stained amniotic fluid is a perinatal risk factor that requires presence of one resuscitation team member with full resuscitation skills, including endotracheal intubation.
- Current evidence suggests that cord clamping should be delayed for at least 30 to 60 seconds for most vigorous term and preterm newborns. If placental circulation is not intact, such as after a placental abruption, bleeding placenta previa, bleeding vasa previa, or cord avulsion, the cord should be clamped immediately after birth. There is insufficient evidence to recommend an approach to cord clamping for newborns who require resuscitation at birth.

Oxygen Use

- Resuscitation of newborns greater than or equal to 35 weeks’ gestation begins with 21% oxygen (room air). Resuscitation of newborns less than 35 weeks’ gestation begins with 21% to 30% oxygen.
- If a baby is breathing but oxygen saturation (SpO2) is not within target range, free-flow oxygen administration may begin at 30%. Adjust the flowmeter to 10 L/min. Using the blender, adjust oxygen concentration as needed to achieve the oxygen saturation (SpO2) target.
- Free-flow oxygen cannot be given through the mask of a self-inflating bag; however, it may be given through the tail of an open reservoir.
- If the newborn has labored breathing or SpO2 cannot be maintained within target range despite 100% free-flow oxygen, consider a trial of continuous positive airway pressure (CPAP).

Positive-pressure Ventilation

- After completing the initial steps, PPV is indicated if a newborn is apneic or gasping or the heart rate is less than 100 beats/min. A trial of PPV may be considered if the baby is breathing and the heart rate is more than 100 beats/min but oxygen saturation (SpO2) cannot be maintained within target range despite free-flow oxygen or CPAP.
- For PPV, adjust the flowmeter to 10 L/min.
- Initial ventilation pressure is 20 to 25 cm H2O. When PEEP is used, the recommended initial setting is 5 cm H2O.
- If PPV is required for resuscitation of a preterm newborn, it is preferable to use a device that can provide PEEP. Using PEEP (5 cm H2O) helps the baby's lungs remain inflated between positive pressure breaths.
- When PPV begins, consider using an electronic cardiac monitor for accurate assessment of the heart rate.
- The most important indicator of successful PPV is a rising heart rate. If the heart rate does not increase, PPV that inflates the lungs is evidenced by chest movement and bilateral breath sounds with ventilation.
- When PPV begins, the assistant listens for increasing heart rate for the first 15 seconds of PPV.
- If you are attempting PPV but the baby is not improving and the chest is not moving despite performing each of the ventilation corrective steps (MR, SOPA), including intubation, the trachea may be obstructed by thick secretions. Suction the trachea using a suction catheter inserted through the endotracheal tube or directly suction the trachea with a meconium aspirator.
January 1, 2017, is the NRP 7th edition implementation date.
By January 1, all institutions and learners should be utilizing the 7th edition of the NRP.

**Endotracheal Intubation and Laryngeal Masks**

- Intubation is strongly recommended prior to beginning chest compressions. If intubation is not successful or not feasible, a laryngeal mask may be used.
- Newborns greater than 2 kg and greater than 34 weeks’ gestation require a size 3.5 endotracheal tube. The size 4.0 endotracheal tube is no longer listed on the NRP Quick Equipment Checklist.
- The vocal cord guide on the endotracheal tube is only an approximation and may not reliably indicate the correct insertion depth. The tip-to-lip measurement, or depth of the endotracheal tube, is determined by using the “Initial Endotracheal Tube Insertion Depth” table or by measuring the nasal-tragus length (NTL).

**Chest Compressions**

- Chest compressions are indicated when the heart rate remains less than 60 beats/min after at least 30 seconds of PPV that inflates the lungs, as evidenced by chest movement with ventilation. In most cases, you should have given at least 30 seconds of ventilation through a properly inserted endotracheal tube or laryngeal mask.
- Chest compressions are administered with the 2-thumb technique. Once the endotracheal tube or laryngeal mask is secured, the compressor administers chest compressions from the head of the newborn and the person delivering ventilation via endotracheal tube or laryngeal mask moves to the side to make room for the compressor at the head of the newborn.
- An electronic cardiac monitor is the preferred method for assessing heart rate during chest compressions.
- Chest compressions continue for 60 seconds prior to checking a heart rate.

**Medication**

- Epinephrine is indicated if the newborn’s heart rate remains less than 60 beats/min after at least 30 seconds of PPV that inflates the lungs (moves the chest), preferably through a properly inserted endotracheal tube or laryngeal mask, and another 60 seconds of chest compressions coordinated with PPV using 100% oxygen. Epinephrine is not indicated before you have established ventilation that effectively inflates the lungs.
- One endotracheal dose of epinephrine may be considered while vascular access is being established. If the first dose is given by the ET route and the response is not satisfactory, a repeat dose should be given as soon as emergency umbilical venous catheter (UVC) or intraosseous access is obtained (do not wait 3–5 minutes after the endotracheal dose).
- The recommended solution for acutely treating hypovolemia is 0.9% NaCl (normal saline) or type-0 Rh-negative blood. Ringer’s Lactate solution is no longer recommended for treating hypovolemia.

- The umbilical venous catheter is the preferred method of obtaining emergency vascular access in the delivery room, but the intraosseous needle is a reasonable alternative. All medications and fluids that can be infused into an umbilical venous catheter can be infused into an intraosseous needle in term and preterm newborns.
- Sodium bicarbonate should not be routinely given to babies with metabolic acidosis. There is currently no evidence to support this routine practice.
- There is insufficient evidence to evaluate safety and efficacy of administering naloxone to a newborn with respiratory depression due to maternal opiate exposure. Animal studies and case reports cite complications from naloxone, including pulmonary edema, cardiac arrest, and seizures.

**Thermoregulation and Stabilization of Babies Born Preterm**

- In preparation for the birth of a preterm newborn, increase temperature in the room where the baby will receive initial care to approximately 23°C to 25°C (74°F–77°F). The goal is an axillary temperature between 36.5°C and 37.5°C.
- The anticipated gestational age is less than 32 weeks, additional thermoregulation interventions, such as plastic wrap or bag and thermal mattress and hat, are recommended.
- A 3-lead electronic cardiac monitor with chest or limb leads provides a rapid and reliable method of continuously displaying the baby’s heart rate if the pulse oximeter has difficulty acquiring a stable signal.
- A resuscitation device capable of providing PEEP and CPAP, such as a T-piece resuscitator or flow-inflating bag, is preferred.

- If the anticipated gestational age is less than 30 weeks, consider having surfactant available. Consider administering surfactant if the baby requires intubation for respiratory distress or is extremely preterm.

**Ethics and Care at the End of Life**

- If responsible physicians believe that the baby has no chance for survival, initiation of resuscitation is not an ethical treatment option and should not be offered. Examples include birth at a confirmed gestational age of less than 22 weeks’ gestation and some congenital malformations and chromosomal anomalies.
- In conditions associated with a high risk of mortality or significant burden of morbidity for the baby, caregivers should allow parents to participate in decisions whether resuscitation is in their baby’s best interest. Examples include birth between 22 and 24 weeks’ gestation and some serious congenital and chromosomal anomalies.

**Keep in Mind**

- January 1, 2017, is the NRP 7th edition implementation date. By January 1, all institutions and learners should be utilizing the 7th edition of the NRP.
New Name: Pediatric Treatment Center

- Formally known as the Mercy Pediatric Inpatient Center
- Providing expanded services for pediatric patients
- Save time and travel costs for patients (no longer need to travel to U of I)
- Convenient location at Mercy in Cedar Rapids
- Nurses specialized in caring for hospitalized children

- Services include:
  - Blood pressure checks
  - Wound care (dressing changes, packing, etc.)
  - Intravenous infusions
  - Blood transfusions
  - Port access and lab draws
  - Vaccines and injection series
  - Migraine treatments
  - Urology services
Pediatric Treatment Center
(This is NOT part of the Mercy Pediatric Clinic)

- You can now refer through EPIC!
- Choose ‘Ambulatory Referral to Pediatric Treatment Center’

Once a referral is made, providers can order the therapy plan for the patient in EPIC.