Patient Safety

Leapfrog

Osceola Regional Medical Center was recently awarded a safety grade “A” by the Leapfrog Group, a not-for-profit group that focuses on safety, quality, and affordability of health care through data collection and public reporting initiatives. We are one of only 855 hospitals in the country to receive this grade!

Furthermore, we were also recognized as a 2018 Leapfrog Top Teaching Hospital in the small hospital category! We were one of only 2 winners of this designation in the state of Florida and 53 nationwide. This requires both receiving an “A” safety grade and achieving quality outcomes in the top 10% in the nation!

I want to sincerely thank everyone for your continued participation in our Patient Safety and Quality Initiatives, Root Cause Analyses, and reporting processes for patient safety events and near misses.

PAMR Urgent Messages


Two of these recent messages are attached.

- Peripartum Cardiomyopathy
- Maternal Early Warning System (implementation of this would be a great QI project!)

Dr. Anna Varlamov, Chair of the ACOG District XII Maternal Mortality Committee, will be coming to give us a special lecture on Maternal Mortality utilizing PAMR data review on Tuesday, 2/12/19 at 0730 in GME 250, Side A. All residents and faculty are invited!
Noteworthy News

- New ACOG Practice Bulletins on:
  - Benefits & Risks of Sterilization
  - Use of Hormonal Contraception in Women with Coexisting Medical Conditions
  - Vaginal Birth After Cesarean Delivery
  - Fetal Growth Restriction
  - Chronic Hypertension in Pregnancy
  - Gestational Hypertension & Preeclampsia
  - Pregestational Diabetes Mellitus

- No more stipend starting next year (everything built into budget) – will discuss further at Resident/PD Meeting

- Patient Keeper Handoff Tool coming July 1, 2019

CREOG Corner

**Intrahepatic cholestasis of pregnancy (ICP)** is the most common pregnancy-specific liver disease. The incidence is between 0.2%-2%. Risk factors include multifetal gestations, a personal or family history of ICP, in vitro fertilization, cholelithiasis, advanced maternal age, and Hepatitis C. Transport of bile acids from the liver to the gallbladder is disrupted and bile acids become transported from the liver to the blood, resulting in systemic effects.

ICP classically presents in the third trimester with pruritis, generally of the palms and soles, often worse at night. Patients may have excoriations, but typically do not have a rash. Patients may also demonstrate dark urine, pale stools, and rarely, jaundice. A small proportion of patients may present earlier in gestation, with similar outcomes to patients presenting in the third trimester.

The diagnosis is confirmed by elevated total serum bile acids in the absence of an alternative diagnosis. The primary bile acids are cholic and chenodeoxycholic acid. Most labs use an upper limit of normal of 10 micromoles/L. Liver enzymes may be elevated, but this is not necessary for the diagnosis. Bile acids cross the placenta into the fetal circulation, posing significant risk to the fetus. ICP is associated with preterm delivery (spontaneous and indicated), nonreassuring fetal status, meconium staining, respiratory distress syndrome, and stillbirth. These pregnancies are at an increased risk for preeclampsia and gestational diabetes. There is a linear relationship between serum bile acid levels and the risk of fetal complications.

Ursodeoxycholic acid (UDCA) is the preferred treatment for symptomatic ICP. Liver indices, bile acids, and pruritis may improve with treatment. It is unclear if fetal outcomes improve. The mechanism of action may involve a reduction of serum bile acids in both maternal and fetal circulations.

Given the increased risk of fetal demise after 37 weeks, many experts recommend antenatal testing and serial growth scans. Some experts also suggest risk thresholds based upon bile acid levels. Some studies suggest an increased risk of adverse neonatal outcomes when bile acid levels exceed 40 micromoles/L. Weekly monitoring of bile acids may be warranted as those individuals could be managed more aggressively and delivered sooner. Recommendations vary, but most experts suggest delivery by 37 weeks. There is no contraindication to a vaginal delivery.
Don’t forget to do your CITI & Healthstream training prior to starting any IRB paperwork!

IHI QI modules are required prior to starting PGY1-2 QI project!

Research Road

New IRB & Updates to “Common Rule”

Recently, UCF IRB changed from the iRIS system to the Huron system. You can find a link to the new system here (https://ucf1.huronresearchsuite.com/sp) or at the top right corner of the IRB website (http://www.research.ucf.edu/compliance/irb.html). Along with this transition has come new Protocol and Application forms. Please make sure to update any old blank forms you have downloaded to the Drive or your computer. Any new submissions of projects going forward will need to use the new forms. You MUST submit form HRP-251 – Faculty Advisor Review with your initial documents to the IRB. Also, if you are working with anyone from outside UCF, you would need to include forms HRP-253 – External Team Member Information and HRP-252 – Individual Investigator Agreement.

The Department of Health & Human Services’ Federal Policy for the Protection of Human Subjects (“Common Rule”) was also updated on 1/21/19. This included changes to the categories of research that are “exempt” from IRB review, the addition of a “limited” IRB review category, and new instructions for retrospective data review (termed “secondary research”). These changes will be updated in the new forms.

Training resources to get started using Huron are available at: http://www.research.ucf.edu/Compliance/IRB/Submissions/index.html

Submitting Research to Publish Through External Data Release

- Any research to be published or presented in any way must be submitted for approval through EDR first.
- Allow 30-60 days for approval (know your deadlines!).
- In the Office of Research-GME folder on Medhub, under the EDR/Pubclear folder, there is a new EDR/Pubclear Guide (2019 Version) with helpful hints and tips – please review this before preparing submission.
- Must utilize HCA-approved poster templates for any poster presentation.

2/12/19: Guest Lecture – Dr. Varlamov (ACOG)
2/13/19: Guest Lecture – Dr. Catania
2/15/19: Resident/PD Meeting
2/21/19: Wellness Hour - Difficult Events
2/25/19: Morbidity & Mortality Conference
2/27/19: Quality Council 12:00
3/1/19: HCA GRAD Grant Applications due
3/15/19: ACGME Back to Bedside Proposals due
3/15/19: MATCH DAY!
3/27/19: Quality Council 12:00

FAST FACTS

32.8%
Q3 2018 NSTV C section rate (Goal < 33.3%)

27.26%
Overall 2018 NTSV C section rate (Q1-3)

100%
Q3 2018 PC-01 Elective Deliveries > 39 Weeks (Goal 100%)
Sepsis

Sepsis is one of the major medical emergencies where quick intervention has a high chance of improving outcome and reducing the risk of death. To that end, the Surviving Sepsis Campaign was created by the Society of Critical Care Medicine. Implementation of the Sepsis Bundle has been shown to improve patient outcomes. The bundle includes:

- To be started within 1 hour of recognition of sepsis (completed within 3 hours):
  - Measure serum lactate level (repeat if > 2 mmol/L)
  - Obtain blood cultures prior to administration of antibiotics
  - Administer broad spectrum antibiotics
  - Administer 30 mL/kg crystalloid for hypotension or lactate > 4 mmol/L

- To be completed within 6 hours:
  - Apply vasopressors to maintain a MAP > 65 mmHg
  - Measure central venous pressure & central venous O2 sat
  - Remeasure lactate

Didactic Den

Attendance is being tracked at all required lectures utilizing a sign-in sheet.

Antepartum Conference is officially here! First or second Wednesday of every month at 0800
Wellness Way

by Michelle S. Ozcan, MD

The UCF/HCA Greater Orlando OB/Gyn residents continue working together to foster our wellness and resilience!

In the past few months, we have had CREOG Wellness Pilot Curriculum sessions on: Gratitude where we wrote a gratitude letter and started collecting stickers for our Superhero cards, Building Resilience where we filled out our own resilience tree and learned how to nourish it, and Time Management and Priorities where we discussed what is important to each of us and created our personal Time Matrix.

We recently had a Reflection session where we discussed the difficult topics of Physician suicide and depression. We will be purchasing a subscription to MoodGym for all of our residents. There are also many resources available at https://med.ucf.edu/academics/graduate-medical-program/trainee-wellness-program/ and https://healthadvocate.personaladvantage.com/portal/landing?a=1. The Health Advocate 24/7 assistance number is: 877-240-6863 and the National Suicide Prevention Lifeline is: 800-273-TALK (8255). Don’t forget that there are many people available whenever you need to talk, including your program leadership, faculty, fellow residents, and your Wellness Partners as well as an independent Ombudsman through UCF.

Finally, the UCF/HCA GME Greater Orlando Local Wellness Committee is off to a great start as well! We held our first meeting, brainstormed some wonderful ideas for initiatives, formed some small groups (like the Marathon group, the Sports group, the Disney group, etc.) and planned our first GME Holiday Party which took place on January 4, 2019. We now have a bulletin board in the GME department where we will be posting announcements, invitations, and pictures! We are excited to have 2 events coming up in the Spring – the UCF Challenge Course (a team-building ropes course) and a Family Field Day! More information to follow!
Florida PAMR Findings:

1999–2012: 11.1% of pregnancy-related deaths in Florida were due to cardiomyopathy.¹

1999–2011: 78% of pregnancy-related deaths occurred during the postpartum period.²

From 2009–2013:
- The percent of pregnancy-related deaths due to cardiomyopathy for non-Hispanic black women was 55% versus 25% for non-Hispanic white women.
- 80% of women who died from pregnancy-related cardiomyopathy were either overweight or obese (BMI > 25).³

Providers:

Peripartum cardiomyopathy is the development of heart failure in the last month of pregnancy or within 5 months postpartum in the absence of prior heart failure with no identifiable cause and echocardiogram indicative of left ventricular (LV) dysfunction.⁴

SIGNS/SYMPTOMS—ONSET CAN BE EASILY MISSED⁵
- Marked limitation of physical activity. Comfortable at rest. Less than ordinary activity causes fatigue, palpitation or dyspnea⁵
- Unable to carry on any physical activity without discomfort, symptoms of heart failure at rest, if any physical activity is undertaken, discomfort increases⁶
- Arrhythmia/Cardiac Arrest
- Women with PPCM most commonly have dyspnea, dizziness, chest pain, cough, neck vein distention, fatigue and peripheral edema³

PPCM CRITERIA
- Idiopathic (no other cause) heart failure characterized by left ventricular (LV) systolic dysfunction
- At the end of pregnancy or during the postpartum period (spectrum of timing)
- Diagnosis of exclusion
- Ejection fraction (EF) generally below 45%
- Left ventricular (LV) dilation not required

RISK FACTORS⁷,³
- Social: Advanced maternal age, smoking, malnutrition, African American race
- Medical: Hypertension, Diabetes, family history, sleep apnea, obesity
- Obstetric: Gravidity and parity, number of children, labor inducing medications, multiple gestation, family history

For more information, contact:
Angela Thompson, RN, BSN
Maternal and Child Health
Florida Department of Health
Angela.Thompson@flhealth.gov
(850) 558-9686
Early diagnosis is essential—watch for early signs and symptoms and a decline in function
Echocardiogram, the primary diagnostic test, to identify left ventricular systolic dysfunction
Differential Diagnosis: myocardial infarction, amniotic fluid embolism, severe pre eclampsia, pericarditis, pulmonary thromboembolism, myocarditis, sepsis, drug toxicity, metabolic disorders, and aortic dissection
When a postpartum patient presents with a cough and shortness of breath a careful physical examination should follow. If hypoxemia is identified or risk factors raise suspicion an echocardiogram should be considered

PAMR Recommendations (2015):  
Importance of identifying barriers for participation in treatment for non-compliant patients.

MANAGEMENT
- Similar to standard treatment for other forms of heart failure
- Avoid routine use of ACE-inhibitors or angiotensin receptor blockers (ARBs) during pregnancy

Collaboration between cardiologists, obstetricians, perinatologists, neonatologists and anesthesiologists is essential
Consider transfer to high risk perinatal center and potential for early delivery

PAMR Recommendations (2015):
Important to provide preconception and interconception care for patients with co-morbidities.

DISCHARGE
- Ensure follow-up appointment in one week and consider more frequent follow-up care if history of cardiac symptoms.
- Patient and family should be counseled to return immediately to emergency room or L&D triage if showing any signs or symptoms
- Educate on the importance of long-acting reversible contraceptives (LARCs), interconception care and risks of future pregnancies

5. Johnson-Coyle http://ajcc.aacnjournals.org/mwg-internal/desls23ju73ds/progressId=fa2ctf6lXzGGGx9N5f8r16s._VEgwXp15j08os9A6u,_&dl
Florida PAMR Findings:

- 55.3% of the maternal deaths in Florida in 2015 were preventable. In an additional 18.4% of the deaths, there was a possible chance to alter the outcome.¹

Contributing factors:

- Lack of healthcare standardized policies and procedures (80%)
- Delay of treatment (25%)
- Lack of diagnosis (20%)
- Lack of healthcare knowledge/skills assessment (20%)
- Lack of treatment (15%)
- Delay of diagnosis (10%)
- Lack of care coordination/referrals/transfers, follow-up (10%)

PAMR MESSAGE TO PROVIDERS:

Deterioration of the clinical condition of a maternity patient can occur rapidly and lead to tragic consequences if adverse signs are not recognized early. Case reviews of maternal deaths have revealed a concerning pattern of delay in recognition of hemorrhage, hypertensive crisis, sepsis, venous thromboembolism, and heart failure.² Having a Maternal Early Warning System can help facilitate timely recognition, diagnosis, and treatment for women developing critical illness. A number of organizations have recommended the use of maternal early warning tools as a method of addressing this problem. There are now clinical data suggesting that the use of these tools can reduce maternal morbidity and mortality especially due to hemorrhage and infection.³

PAMR MESSAGE TO HOSPITALS:

PAMR endorses the Joint Commission requirements that:

- Hospitals have a process in place for recognizing and responding as soon as a patient’s condition appears to be worsening.
- Hospitals develop written criteria describing early warning signs of a change or deterioration in a patient’s condition and when to seek further assistance.⁴

For more information, contact:
Angela Thompson, RN, BSN
Maternal and Child Health
Florida Department of Health
Angela.Thompson@flhealth.gov
(850) 558-9686
PAMR Recommendations:
Follow the National Partnership for Maternal Safety, Patient Safety Tool, Maternal Early Warning System (MEWS) Protocol. An example of a MEWS protocol that could be used as an early warning system is provided in the table labelled “Maternal Early Warning System”.

- The early warning score is a guide used to determine the degree of sickness and is based on key vital sign measurements and clinical condition.
- Early recognition of vital sign changes is important to trigger further clinical evaluation.

The Maternal Early Warning System has two components:
- Maternal Early Warning Criteria/Signs
- Effective Escalation Policy

### MATERNAL EARLY WARNING SYSTEM

<table>
<thead>
<tr>
<th>MEASUREMENT</th>
<th>LESS THAN OR EQUAL TO</th>
<th>BETWEEN: 81–89</th>
<th>BETWEEN: 150–159</th>
<th>GREATER THAN OR EQUAL TO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systolic BP (mmHg)</td>
<td>80</td>
<td></td>
<td>150–159</td>
<td>160</td>
</tr>
<tr>
<td>Diastolic BP (mmHg)</td>
<td>49</td>
<td></td>
<td>91–99</td>
<td>100</td>
</tr>
<tr>
<td>Respiratory Rate</td>
<td>10</td>
<td></td>
<td>22–29</td>
<td>30</td>
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<tr>
<td>Heart Rate</td>
<td>50</td>
<td></td>
<td>111–119</td>
<td>120</td>
</tr>
<tr>
<td>Oxygen Saturation (%)</td>
<td>94</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urine output (ml per hour)</td>
<td>35</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
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- Any combination of the following: Maternal agitation, confusion, or unresponsiveness
- Patient with hypertension reporting a non-remitting headache or shortness of breath
- Patient complaining of constant, systemic, and severe musculoskeletal pain

**Red** = any 1 red, requires immediate action, call provider immediately to come for bedside evaluation

**Orange** = any 1 orange, should be reassessed and confirmed prior to calling the provider within 10 minutes

**Yellow** = any 2 yellow, should be reassessed and confirmed prior to calling the provider within 10 minutes