High Risk Obstetrics in Northern Michigan

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Objectives

1. Discuss the obstetrical high risk conditions of a small community hospital in northern Michigan.
2. Discuss management strategies for dealing with these high risk conditions.
3. Discuss the unique situation of community hospitals that are long distances from regional perinatal centers in northern Michigan.
Basics

• I have no financial interests to disclose.
Obstetrics in Cadillac, Michigan

• Mercy Hospital Cadillac
  – Level I nursery
  – 2 ObGyn physicians
  – 1 Midwife
  – 7 pediatricians
  – 300-400 deliveries per year
Challenges

• Geographical
• Social
• Medical
Geographical Challenges

• Distance to nearest specialty nursery or neonatal intensive care unit
  – Munson Medical Center   51.4 miles   58 minutes
  – DeVos Children’s Hospital   95.3 miles   1 hr 24 mins

• Distance to nearest full-time Maternal Fetal Medicine Services
  – Spectrum Health Butterworth   95.3 miles   1 hr 24 mins

www.google.com/maps
Weather

• Average annual snowfall
  71-100 inches

• Annual number of days of precipitation
  Cadillac       158 days
  Frankfort      134 days
  Houghton Lake  138 days
  Traverse City  147 days

National Climatic Data Center. NOAA's 1981-2010 Climate Normals.
## Social Challenges

<table>
<thead>
<tr>
<th></th>
<th>Wexford County</th>
<th>Missaukee County</th>
<th>Michigan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jobless Rate</td>
<td>12.1%</td>
<td>11.6%</td>
<td>8.7%</td>
</tr>
<tr>
<td>Persons below Poverty</td>
<td>17.7%</td>
<td>15.5%</td>
<td>16.3%</td>
</tr>
<tr>
<td>Medicaid Births</td>
<td>59.1%</td>
<td>58.4%</td>
<td>45.1%</td>
</tr>
<tr>
<td>Smoking during pregnancy</td>
<td>29.9%</td>
<td>21.1%</td>
<td>19.5%</td>
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<tr>
<td>Overweight</td>
<td>39.6%</td>
<td>33.5%</td>
<td>30.1%</td>
</tr>
<tr>
<td>Obesity</td>
<td>37%</td>
<td>32.7%</td>
<td>35.6%</td>
</tr>
<tr>
<td>No dental visit in past year</td>
<td>30.6%</td>
<td>38.3%</td>
<td>26%</td>
</tr>
</tbody>
</table>

Medical Challenges

• Maternal Issues
  – Diabetes
  – Hypertension
  – Seizure disorders
  – Uterine anomalies
  – History of preterm labor
  – Significant mental health issues
  – Significant social issues
    • Homelessness, incarceration
  – Substance abuse
    • Methamphetamines, cocaine, heroine, prescription narcotic abuse
  – Other
    • Brain mass, recent myocardial infarction, thyroid cancer, current thromboembolism
Medical Challenges

• Fetal and placental issues
  – Clubfoot
  – Abdominal mass
  – Brain cysts
  – Intrauterine growth restriction (IUGR)
  – Suspicious accreta
  – Polyhydraminos
Medical Challenges

- Undiagnosed before delivery over the last 1 ½ years
  - Hypoplastic left heart (two cases)
  - Ambiguous genitalia
  - Joubert Syndrome
  - Noonan Syndrome
  - Tubular Sclerosis
  - Fetal arrhythmias
  - Accreta
  - Increta
  - Rhabdomyocarcoma
Management Strategies

• Clinic Level
  – High Risk List
  – Development of office protocols
  – Consistency of care
Management Strategies

• Local Level
  – District Health Department #10
    • MIHP
    • WIC
    • Tobacco cessation programs
  – Catholic Human Services
  – Child Protective Services
  – Hospital Social Work
  – Hospital departments/administration
Management Strategies

• Regional Level
  – Perinatal Regional Planning Group
  – Spectrum Health Maternal Fetal Medicine
    • Good relationship
    • Telemedicine
    • Annual case reviews
Management Strategies

• Breastfeeding
  – Local breastfeeding coalition
  – WIC
  – Breastfeeding support in the office
Management Strategies

• Mental Health
  – LifeSkills Psychological Services
  – “BabySteps” postpartum group
  – Postpartum Support International
    • Education
    • Training
Management Strategies

• Transportation
  – Ride programs (?)
  – Gas cards
  – Local bus service
  – Telemedicine
Future Goals

• Patient compliance
  – High risk nurse

• Financial support
  – Ongoing legislative participation

• Education
  – Anesthesia providers, emergency room providers, and hospitalist providers