CODE BLUE SERIES
Addressing the growing threat of non-communicable diseases on maternal health

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Comparing Mortality Rates

U.S. Women Are More Likely to Die in Pregnancy and Childbirth Than Those in Other Wealthy Nations

Maternal mortality ratio (maternal deaths/100,000 live births) among women ages 15–49

Potential contributing factors include:
- Poor access to prenatal care
- High rates of C-sections
- High rates of obesity, diabetes, and heart disease

Data: The data reflect UNICEF estimates because of missing internationally comparable data for the U.S. National statistics are available for most countries from the OECD.
CVD - a non-communicable disease contributor to maternal mortality

- CVD is the leading cause of death in pregnancy and postpartum in the U.S.
- 25% of maternal deaths are due to CVD or cardiomyopathy
- Myocardial infarction, postpartum cardiomyopathy, arrhythmia and congenital heart disease are common conditions
- Growing rates of gestational and type 2 diabetes and obesity in childbearing women contribute to CVD risk
Cycle of obesity, diabetes and CVD
Health inequity in access and treatment

• Barriers
  • Barriers to pre-pregnancy CVD assessment
  • Missed opportunities to identify risk factors during prenatal care
  • Gaps in intrapartum care
  • Minimal postpartum follow-up

• African American women have a 3 times higher risk of death from CVD compared to white women
  • institutional and systemic barriers
  • racial bias and gender inequity
National Public Health and Professional Organizations
- Engage/coordinate national partners and resources
- Develop QI tools
- Support multi-state data platform
- Support inter-state collaboration

Perinatal Collaborative, Department of Public Health, Hospital Assoc., Professional Groups
- Support/coordinate hospital efforts
- Share tools, resources, and best practices
- Use state data for outcome metrics
- Share and interpret progress

Hospitals, Providers, Nurses, Offices, and Patients
- Create QI team
- Implement bundles
- Share best practices
- Collect structure and process metrics
- Review progress
Maternal Safety Bundles: 4 Rs—Readiness, Recognition, Response, Reporting

Available with resource links at: safehealthcareforeverywoman.org
ACOG and American Heart Association – a call to action for pregnancy and postpartum care

• Low threshold for investigating cardiac symptoms in pregnancy and postpartum
• Suspect ischemic heart disease or cardiomyopathy with symptoms of shortness of breath or chest pain
• Provide clinical work-up (EKG, chest X-ray, echocardiogram and CT pulmonary angiography)
• Women at high-risk of cardiovascular disease may need careful monitoring for up to one year postpartum

From ACOG Presidential Task Force on Pregnancy and Heart Disease, Obstetrics and Gynecology, May, 2019
Approximately 33% of pregnancy-related deaths occur in the postpartum period.

Postpartum care that integrates lifestyle change with medical surveillance

- Postpartum HTN, glucose treatment
- Lifestyle behaviors (nutrition, physical activity)
- Psychosocial, depression, anxiety
- Collaborative Clinical partners

University of North Carolina
Pursuing a Life Course Approach to Reduce Threats of Non-Communicable Diseases

From Hussein J, Obstetric Medicine, 2017; 10 (1): 26-29
Alliance for Innovation on Maternal Health (AIM)
Goal: Reduce maternal deaths and severe maternal morbidity

By

| Promoting safe maternal care for every U.S. birth. | Engaging multidisciplinary partners at the national, state and hospital levels. | Developing and implementing evidence-based maternal safety bundles. | Utilizing data-driven quality improvement strategies. | Aligning existing safety efforts and developing/collecting resources. |
### Proposed Paradigm Shift for Postpartum Visits

<table>
<thead>
<tr>
<th>Postpartum Process</th>
<th>Primary maternal care provider assumes responsibility for woman's care through the comprehensive postpartum visit.</th>
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<tbody>
<tr>
<td></td>
<td><strong>Contact with all women within the first 3 weeks</strong></td>
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<tr>
<td></td>
<td><strong>Ongoing follow-up as needed 3–12 weeks</strong></td>
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<tr>
<td>BP check</td>
<td>3–10 days</td>
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<tr>
<td>High risk f/u</td>
<td>1–3 weeks</td>
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<tr>
<td></td>
<td><strong>Comprehensive postpartum visit and transition to well-woman care 4–12 weeks, timing individualized and woman-centered</strong></td>
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<tr>
<td>Weeks</td>
<td>0</td>
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</tbody>
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Modified from ACOG's "Optimizing Postpartum Care" Committee Opinion.

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ACOG

Eliminate preventable maternal mortality

#EveryMomEveryTime