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The American College of Obstetricians and Gynecologists

GUIDANCE ON CARDIOVASCULAR DISEASE AND PREGNANCY

National Academies of Sciences, Engineering, and Medicine (NASEM) – National Academies Consensus Study

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Disclosures and Conflict of Interest

- None to disclose

ACOG Overview

Member association for obstetricians and gynecologists focused on:

- Practice guidelines for health care professionals and educational materials for patients
- Programs and initiatives to improve women's health,
- Advocacy for members and patients

More than 60,000 members

- Includes more than 95% of eligible ob-gyns in the US,
- 12 Districts represent various regions, countries, territories, and states in North and South America

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ACOG Guidance Documents

Clinical Practice Guidelines

Evidence-based clinical recommendations

Follow modified GRADE process	Comprehensive literature searches	Evaluation of quality of evidence	Standardize recommendation language	Methods update to Practice Bulletins	Additional document types
• PICO, Covidence, RoB, Evidence tables and maps, internal peer review	• PubMed and other relevant databases	• Assessment of the benefits and harms of alternative care options	• Classified by strength and evidence quality • Good Practice Points included	• All current documents routinely reviewed	• Clinical Consensus • Committee Statements

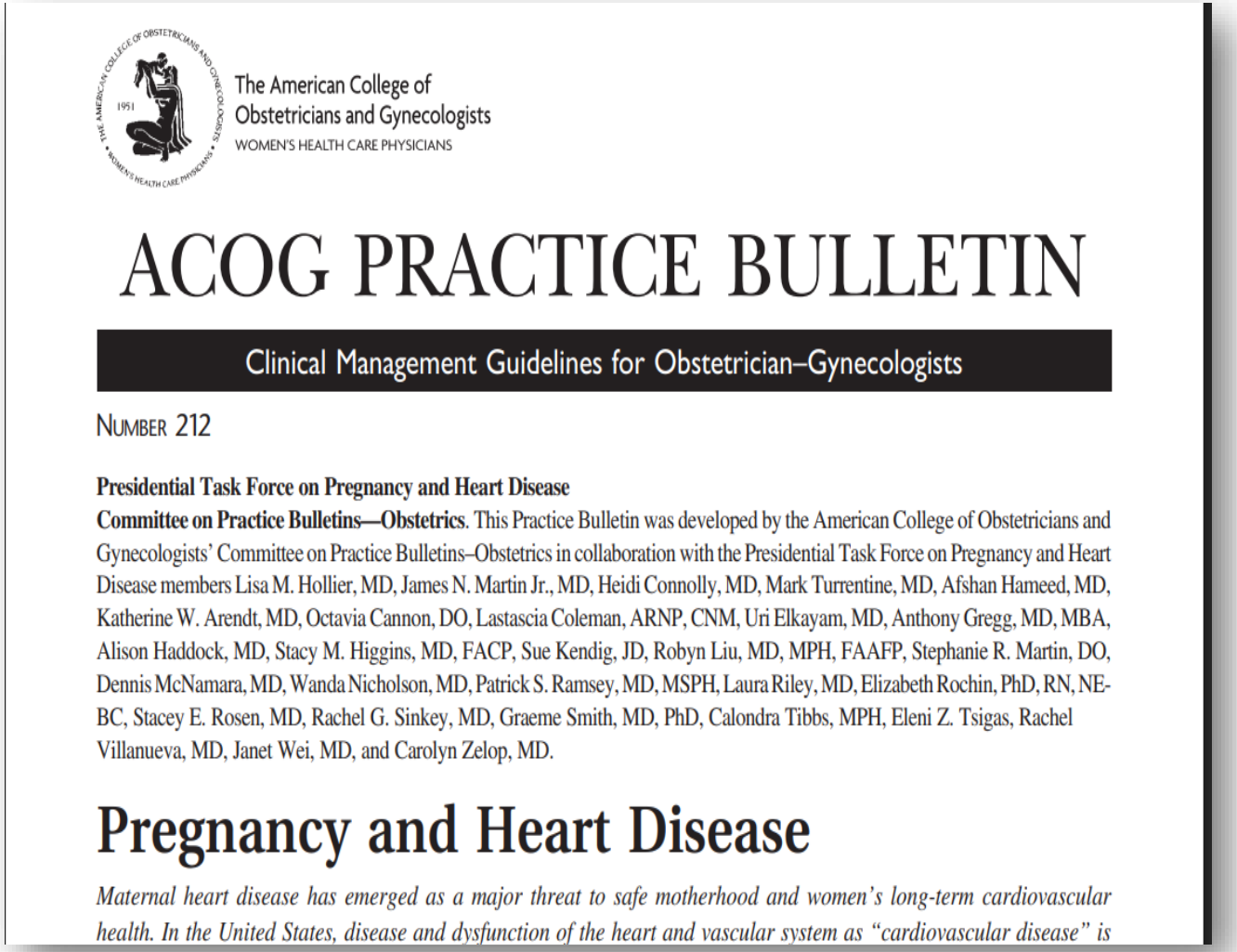
ACOG GUIDANCE

"*Pregnancy and Heart Disease*"

Practice Bulletin #212

2019 (Reaffirmed 2025)

- Developed in partnership with numerous stakeholder organizations and experts
- Part of ACOG Presidential Initiative



The American College of Obstetricians and Gynecologists
WOMEN'S HEALTH CARE PHYSICIANS

ACOG PRACTICE BULLETIN

Clinical Management Guidelines for Obstetrician–Gynecologists

NUMBER 212

Presidential Task Force on Pregnancy and Heart Disease

Committee on Practice Bulletins—Obstetrics. This Practice Bulletin was developed by the American College of Obstetricians and Gynecologists' Committee on Practice Bulletins–Obstetrics in collaboration with the Presidential Task Force on Pregnancy and Heart Disease members Lisa M. Hollier, MD, James N. Martin Jr., MD, Heidi Connolly, MD, Mark Turrentine, MD, Afshan Hameed, MD, Katherine W. Arendt, MD, Octavia Cannon, DO, Lastascia Coleman, ARNP, CNM, Uri Elkayam, MD, Anthony Gregg, MD, MBA, Alison Haddock, MD, Stacy M. Higgins, MD, FACP, Sue Kendig, JD, Robyn Liu, MD, MPH, FAAFP, Stephanie R. Martin, DO, Dennis McNamara, MD, Wanda Nicholson, MD, Patrick S. Ramsey, MD, MSPH, Laura Riley, MD, Elizabeth Rochin, PhD, RN, NE-BC, Stacey E. Rosen, MD, Rachel G. Sinkey, MD, Graeme Smith, MD, PhD, Calondra Tibbs, MPH, Eleni Z. Tsigas, Rachel Villanueva, MD, Janet Wei, MD, and Carolyn Zelop, MD.

Pregnancy and Heart Disease

Maternal heart disease has emerged as a major threat to safe motherhood and women's long-term cardiovascular health. In the United States, disease and dysfunction of the heart and vascular system as "cardiovascular disease" is

Pregnancy and heart disease. ACOG Practice Bulletin No. 212. American College of Obstetricians and Gynecologists. Obstet Gynecol 2019;133:e320–56.

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Framing the Issue

CVD is leading cause of maternal mortality in US with significant racial disparities.

Cardiomyopathy is leading cause of maternal deaths, (23% of deaths in late postpartum)

Has guidance for screening, diagnosis, and management prepregnancy to postpartum

Addresses acquired heart conditions, often develop silently and acutely during or after pregnancy.

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Diagnostic Challenge of CVD in Pregnancy

- Physiologic Changes in Pregnancy:
  - Hemodynamic
  - Structural heart changes
  - Hematologic, Coagulation and Metabolic changes
- Pregnancy symptoms overlapping with signs and symptoms of heart disease
- Impact on CVD diagnostic tests
- Predispose to adverse outcomes in those with underlying CV disease

Table 2. How to Differentiate Common Signs and Symptoms of Normal Pregnancy Versus Those That Are Abnormal and Indicative of Underlying Cardiac Disease

	ROUTINE CARE	CAUTION*†	STOP†‡
	Reassurance	Nonemergent Evaluation	Prompt Evaluation Pregnancy Heart Team
History of CVD	None	None	Yes
Self-reported symptoms	None or mild	Yes	Yes
Shortness of breath	No interference with activities of daily living; with heavy exertion only	With moderate exertion, new-onset asthma, persistent cough, or moderate or severe OSA§	At rest; paroxysmal nocturnal dyspnea or orthopnea; bilateral chest infiltrates on CXR or refractory pneumonia
Chest pain	Reflux related that resolves with treatment	Atypical	At rest or with minimal exertion
Palpitations	Few seconds, self-limited	Brief, self-limited episodes; no lightheadedness or syncope	Associated with near syncope

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Selected Recommendations

All women be assessed for CVD in the prenatal and postpartum period.

Women with known heart disease should see a cardiologist prior to pregnancy

Patients with moderate and high-risk CVD should be managed during pregnancy, delivery, and postpartum in a medical center able to provide a higher level of care

Multidisciplinary Pregnancy Heart Team should include obstetric providers, maternal-fetal medicine specialists, and cardiologists and anesthesiologists.

Recommend a comprehensive, cardiovascular postpartum visit at three months, to develop discuss plan for yearly follow-up and future pregnancy intentions.

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Is Clinical Management Guidance Enough?

Gaps in evidence:

- Self Management of Blood Pressure – promising but limited data on outcomes
- Alternative measures of blood pressure – e.g. digital tools

Gaps in Implementation:

- Awareness for patients
- Increased provider knowledge
- Large proportion of CVD deaths are >42 days postpartum
- Outside of obstetric setting
- “Have you been pregnant in the past year?”

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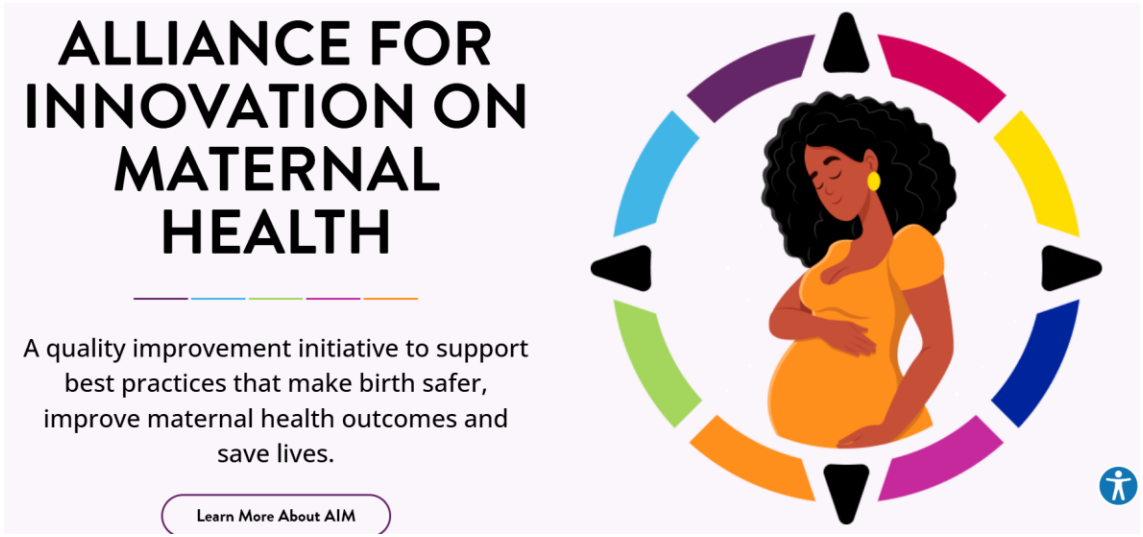
ACOG Clinician Education

Heart Health for the Pregnant Patient (7 CME course)

- Describe the physiology of normal pregnancy and recognize signs and symptoms of heart disease
- Assess risk of congenital heart disease and acquired heart disease
- Discuss management in congenital heart disease and acquired heart disease, including peripartum cardiomyopathy
- Recognize the association of adverse pregnancy outcomes on future long-term cardiovascular risk

Quality Improvement Initiative: Alliance for Innovation on Maternal Health (AIM)



AIM National Team develops resources and provides technical assistance to all entities participating in AIM.

Currently 75% of Birthing Facilities Participate with AIM State & Jurisdiction Teams

https://saferbirth.org/

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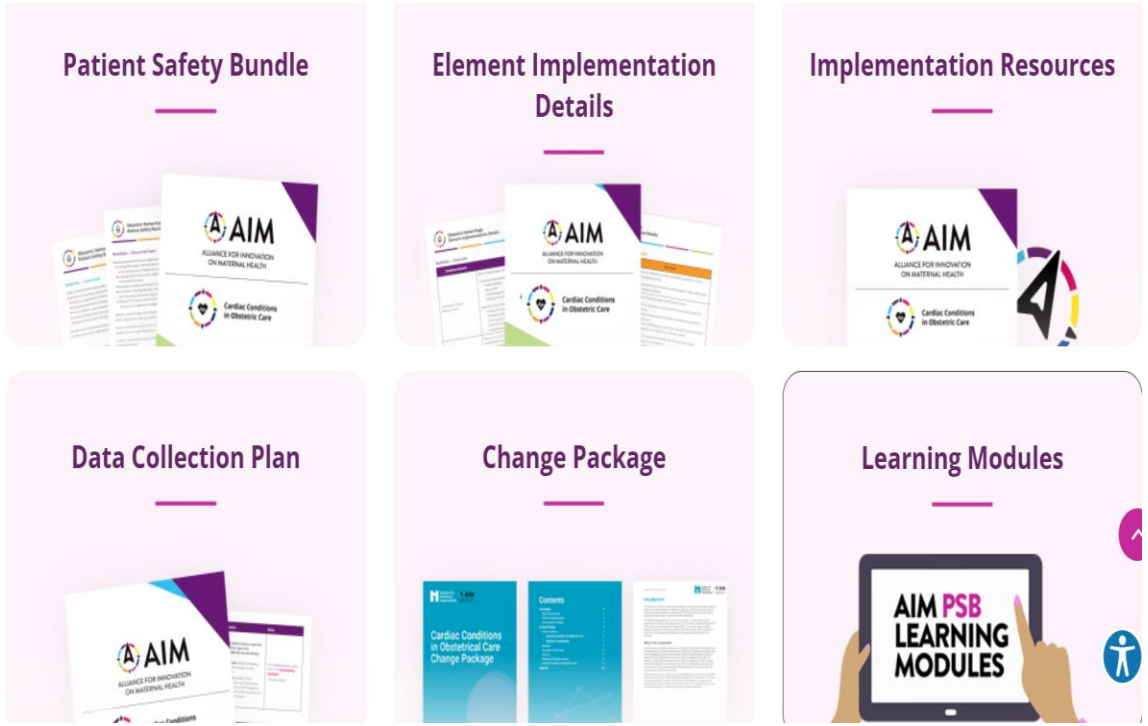
AIM Patient Safety Bundle: Cardiac Conditions in Obstetric Care

Implementation tools

- Evidence informed best practices for pregnant and postpartum people
- Adaptable to variety of facilities and resource levels
- Standard protocols with checklists and escalation policies
- Coordinate transitions of care including discharge from birthing facility to home and transition from postpartum care to ongoing primary and specialty care.



https://saferbirth.org/psbs/cardiac-conditions-in-obstetric-care/

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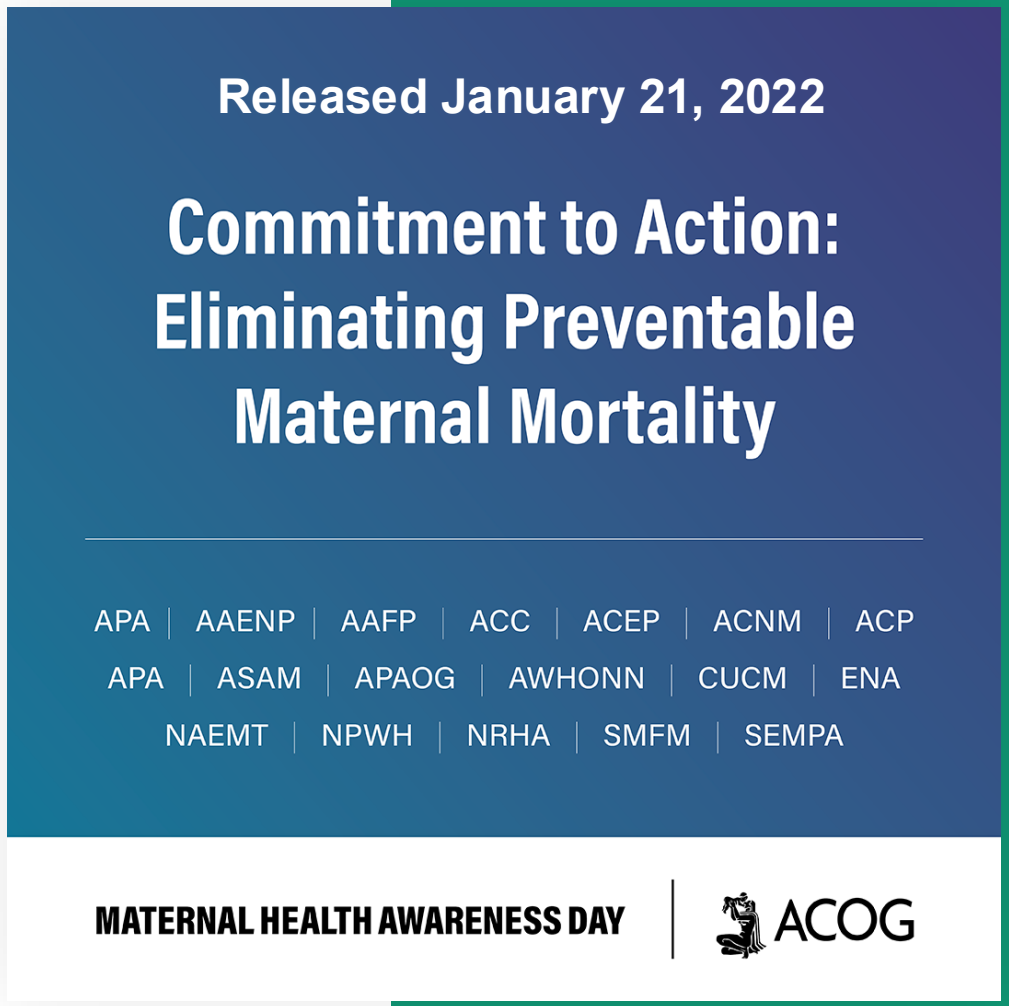
Obstetric Emergencies in Nonobstetric Settings

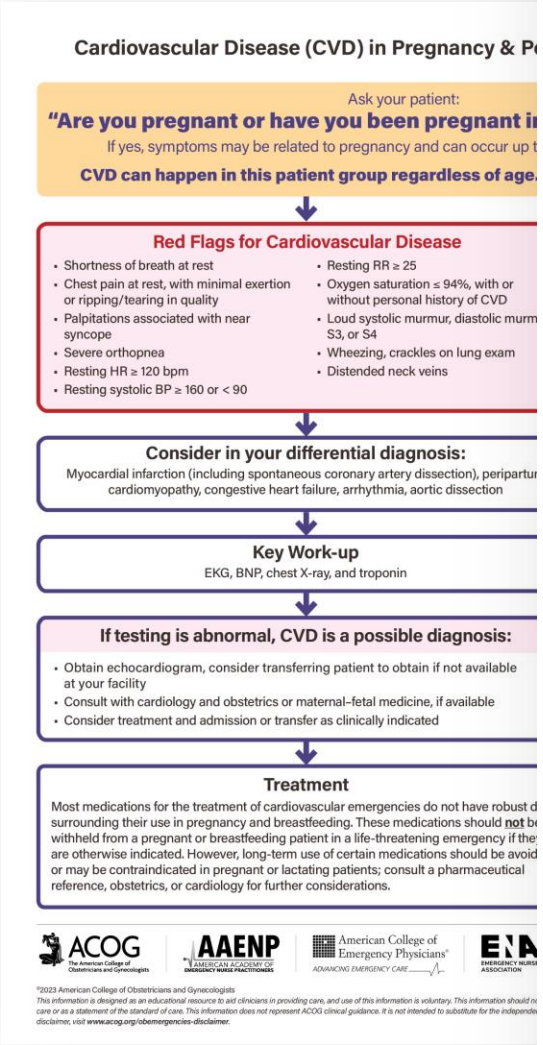
- Increase awareness of the critical role of non-OB providers in care of patients experiencing obstetric emergencies
- Improve identification of patients who are pregnant or have been pregnant in the last 12 months
- Enhance readiness among non-OB providers to identify and stabilize or treat a patient with an obstetric emergency

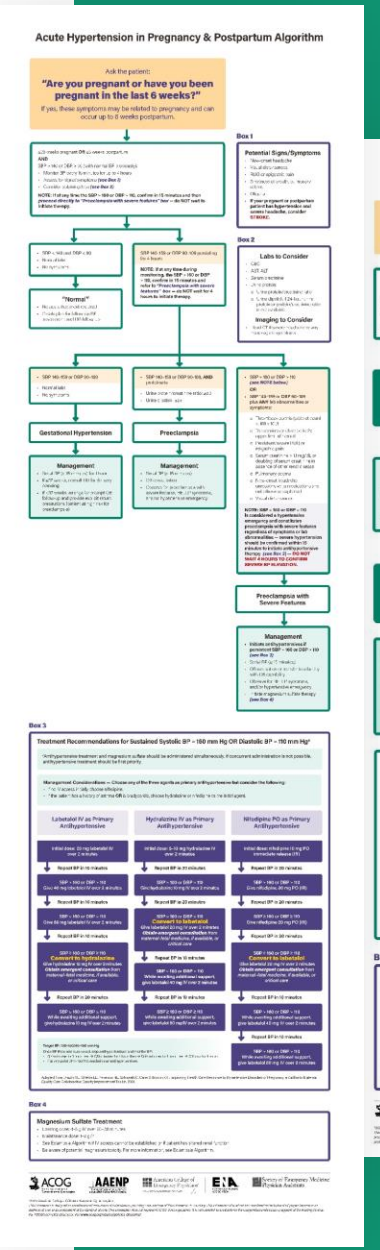


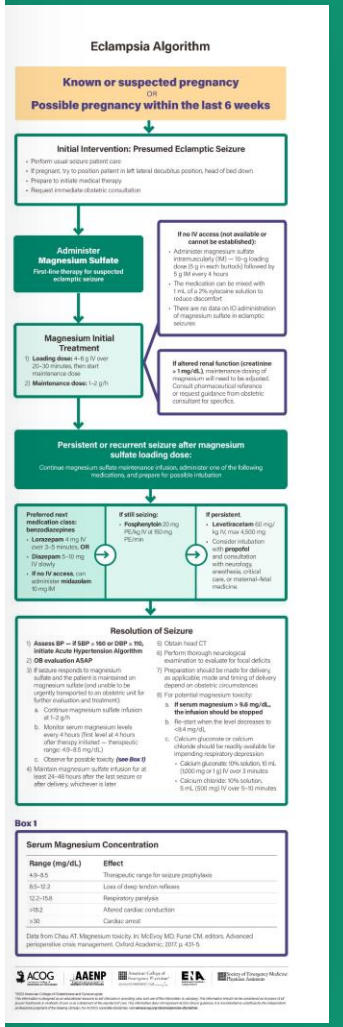
Identifying and Managing

Created algorithms and guidelines on hypertension, eclampsia, CVD, and hemorrhage for:

- Emergency department
- Emergency medical services
- Urgent care







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www.acog.org/OBemergencies

Summary

- Clinical guidance for management of heart disease in pregnancy is data-supported but gaps exist
- Prevention of SMM relies in part on identifying patients who are pregnant or postpartum
- Outcomes data is needed to evaluate tools to identify at risk pregnant and postpartum patients.

Thank you!

Questions?