CDPH California Department of PublicHealth

CMQCC California Maternal Quality Care Collaborative

# CVD Assessment Algorithm For Pregnant and Postpartum Women

**Red Flags**

- Shortness of breath at rest
- Severe orthopnea ≥ 4 pillows
- Resting HR ≥120 bpm
- Resting systolic BP ≥160 mm Hg
- Resting RR ≥30
- Oxygen saturations ≤94% with or without personal history of CVD

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**PROMPT EVALUATION** and/or hospitalization for acute symptoms

*plus*

**CONSULTATIONS** with MFM and Primary Care/Cardiology

**Personal History of CVD**

**Without Red Flags**

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**CONSULTATIONS** with MFM and Primary Care/Cardiology

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(No Red Flags and/or no personal history of CVD, and hemodynamically stable)

**SYMPTOMS**
*NYHA class ≥ II

Suggestive of Heart Failure:
- Dyspnea
- Mild orthopnea
- Tachypnea
- Asthma unresponsive to therapy

Suggestive of Arrhythmia:
- Palpitations
- Dizziness/syncope

Suggestive of Coronary Artery Disease:
- Chest pain
- Dyspnea

**VITAL SIGNS**
- Resting HR ≥110 bpm
- Systolic BP ≥140 mm Hg
- RR ≥24
- Oxygen sat ≤96%

**RISK FACTORS**
- Age ≥40 years
- African American
- Pre-pregnancy obesity (BMI ≥35)
- Pre-existing diabetes
- Hypertension
- Substance use *(nicotine, cocaine, alcohol, methamphetamines)*
- History of chemotherapy

****PHYSICAL EXAM**

**ABNORMAL FINDINGS**
Heart: Loud murmur or
Lung: Basilar crackles

NO

YES

**≥ 1 Symptom + ≥ 1 Vital Signs Abnormal + ≥ 1 Risk Factor or ANY COMBINATION ADDING TO ≥ 4**

**Consultation indicated:**

**MFM *and* Primary Care/Cardiology**

Obtain: **EKG and BNP**
- **Echocardiogram +/- CXR** if HF or valve disease is suspected, or if the BNP levels are elevated
- 24 hour Holter monitor, if arrhythmia suspected
- Referral to cardiologist for possible treadmill echo vs. CTA vs. alternative testing if postpartum

Consider: **CXR**, **CBC**, Comprehensive metabolic profile, Arterial blood gas, Drug screen, TSH, etc.

**Follow-up within one week**

**Results negative**

Signs and symptoms resolved
Reassurance and routine follow-up

**Results abnormal**

**CVD highly suspected**

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