

Cardiogenic Shock Team ACTIVATION

Call **888.727.7646** or **505.727.7646**

Early Identification & Easy Access to CS Care



Heart Hospital
of New Mexico
@ LOVELACE MEDICAL CENTER

WHY is there a Cardiogenic Shock Team?

Early identification and treatment improves survival in Cardiogenic Shock.

WHAT is the Cardiogenic Shock Team?

A multidisciplinary team dedicated to optimizing the care of Cardiogenic Shock patients via:

- Rapid identification
- Coordinated consultation
- Early transfer/admission to CICU or Cath Lab

WHO is on the Cardiogenic Shock Team?

- Interventional Cardiologist
- Cardiac Surgeon
- Advanced Heart Failure
- CVICU Intensivist

HOW is the Cardiogenic Shock Team activated?

Cardiac Access: 888.727.7646 or 505.727.7646

WHO activates the Cardiogenic Shock Team?

- Emergency Room
- Other units in the hospital (Cath Lab, ICU)
- Other hospitals

WHEN is the Cardiogenic Shock Team Activated?

Call the Shock Team as soon as Cardiogenic Shock is suspected.

Clinical Criteria

- ACS or Heart Failure
- SBP < 90mmHg (for 30 min) or use of vasopressors/inotropes
- Lactate > 2mmol/L
- Evidence of end-organ hypo-perfusion (acute kidney injury/ acute liver injury/ acute pulmonary edema, altered mental state)

Hemodynamic Criteria (if known)

- CI < 1.8 (or 2.2L/min/m² with inotropes)
- CPO < 0.6
- PAPI < 1.0
- PCWP > 15mmHg

Contraindications*

- DNAR
 - Terminal Illness
- >> Note: for STEMI, Follow STEMI pathway

**if any questions, contact the Cardiogenic Shock Team*

AFTER the team has been activated

- Utilize the EPIC Cardiogenic Shock Team Activation order panel
- Obtain ongoing vital signs, ECGs, Labs (BNP, Troponin, Lactate, CBC, CMP)
- Maintain 2 large bore IVs
- Minimize vasopressors/inotropes to maintain MAP of 60mmHG

Cardiogenic Shock Team COORDINATION

Call **888.727.7646** or **505.727.7646** to activate Heart Team

Reduce Variations in CS care and Reduce Fractured CS care



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Cardiogenic Shock Team Goals

- Early identification of CS patients
- Early Right Heart Catheterization
- Early hemodynamic support with PMCS
- Minimize vasopressors/inotropes
- Heart recovery

Clinical Criteria

- Acute Coronary Syndrome or Heart Failure
AND
- SBP < 90mmHg (for 30 min) or use of vasopressors/inotropes
- Lactate > 2mmol/L
- Evidence of end-organ hypo-perfusion

Contraindications to PMCS

- DNAR
- Terminal Illness
- Unable to anticoagulated
- Cardiac arrest with CAHP score > 200*
- Advanced multi-system organ failure

*calculation tool on Inovant or
<http://andrewminerweb.com/cahp-score-3/>

*CPO=MAP x CO/451

*PAPi=(sPAP-dPAP)/RA

Heart Team Activation

- Call One-Call at **888.727.7646** or **505.727.7646** for any patient with criteria for **Cardiogenic Shock**
- Ongoing Vital Signs, ECG, Labs.

NON - ACS

- Right Heart Catheterization
- Echocardiography

ACS

- Coronary angiography
- Right Heart Catheterization

Are Hemodynamic Criteria for Cardiogenic Shock Met?

- SBP < 90mmHg (for 30 min) or use of vasopressors/inotropes
- CI < 1.8 (or < 2.2 L/min/m² with inotropes)
- PCWP > 15mmHg
- CPO < 0.6*
- PAPi < 1.0

NO

- Coronary revascularization
- Swan-Ganz Catheter left in place

YES

- Percutaneous Mechanical Circulatory Support (PMCS)
- Coronary revascularization
- Assess need for RV support (CPO, PAPi)

Cardiac Intensive Care Unit

- Ongoing hemodynamic assessment
- Serial reassessment of end-organ perfusion
- Assess for LV/RV recovery
- Wean vasopressors/inotropes
- Consider escalation of treatment for PAPi < 1 and/or CPO < 0.6

Cardiogenic Shock Team MANAGEMENT

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Serial Assessment q4hr x 24hrs

- Lactate
- Fick CO/CI
- CPO and PAPI
- Continuous hemodynamics

And if PMCS:

- LDH & Haptoglobin
- Neurovascular checks
- Limited Echo daily
- IVF to keep RA > 10, PCWP > 12

*Criteria for Refractory Shock

- Lactate > 3
- UOP < 30cc/hr
- CPO < 0.6
- Increasing pressure requirement
- Evidence of organ hypo-perfusion

Criteria for RV Dysfunction

- PAPI < 1.0
- RA > 15mmHg
- RA/PCWP ratio > 0.63

*CPO=MAP x CO/451

*PAPI=(sPAP-dPAP)/RA

