

Preoperative

- Calculate STS predicted risk of mortality and major complications
- Urinary biomarker assessment, as indicated
- Delay surgery after administration of IV contrast
- **Hold ACEi and ARB 48 hours prior to surgery**
- Hold metformin 24 hours prior to surgery
- Optimize patient volume status
- Consider Mechanical Cardiac Support in patients at high-risk for postcardiotomy cardiogenic shock

Intraoperative

- **Maintain O₂ Delivery Index 270-300 mL/min/m² during CPB**
- NIRS – cerebral and renal (for select moderate and high-risk patients)
- Transesophageal echocardiography unless contraindicated
- PA Catheter (for select moderate and high-risk patients)
- Goal-Directed Therapy
 - Maintain CI $\geq$ L/min/m²
 - Maintain SvO₂ $\geq$ 60%
 - Maintain CVP <12 and lowest PAD needed to achieve other hemodynamic goals
 - UOP $\geq$ 0.5 mL/kg/hour
- Obtain serum lactate after patient separated from pump
- Obtain urinary biomarker assessment

Postoperative (first 24-48 hours)

- **Goal-Directed Therapy**
 - Maintain CI $\geq$ L/min/m²
 - Maintain SvO₂ $\geq$ 60%
 - Maintain SBP 100-130 or MAP 65-85
 - Maintain CVP <12 and lowest PAD needed to achieve other hemodynamic goals
 - UOP $\geq$ 0.5 mL/kg/hour
- Obtain serum lactate on arrival to ICU and as indicated
- Obtain urinary biomarker assessment, as indicated

Legend: Orders in Bold are Class I or IIA or equivalent. Orders in italics were inconsistently Class I or IIA, Class IIB, or supported by evidence published in peer-reviewed journals

References

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