**References**

1. **Management of intraoperative problems after cardiopulmonary bypass**

**Author:**[Michael G Fitzsimons, MD](https://www.uptodate.com/contents/management-of-intraoperative-problems-after-cardiopulmonary-bypass/contributors)**Section Editor:**[Jonathan B Mark, MD](https://www.uptodate.com/contents/management-of-intraoperative-problems-after-cardiopulmonary-bypass/contributors)**Deputy Editor:**[Nancy A Nussmeier, MD, FAHA](https://www.uptodate.com/contents/management-of-intraoperative-problems-after-cardiopulmonary-bypass/contributors)

<https://www.uptodate.com/contents/intraoperative-problems-after-cardiopulmonary->bypass?search=Management%20of%20intraoperative%20problems%20after%20cardiopulmonary%20bypass&source=search\_result&selectedTitle=1~150&usage\_type=default&display\_rank=1

1. **Reversal of anticoagulation and management of bleeding after cardiopulmonary bypass**

**Authors:Kamrouz Ghadimi, MDIan J Welsby, BSc, MBBS, FRCASection Editor:Jonathan B Mark, MDDeputy Editor:Nancy A Nussmeier, MD, FAHA**

1. [**https://www.uptodate.com/contents/reversal-of-anticoagulation-and-management-of-bleeding-after-cardiopulmonary-bypass?search=protamine&source=search\_result&selectedTitle=3~108&usage\_type=default&display\_rank=3**](https://www.uptodate.com/contents/reversal-of-anticoagulation-and-management-of-bleeding-after-cardiopulmonary-bypass?search=protamine&source=search_result&selectedTitle=3~108&usage_type=default&display_rank=3)
2. **Unverzagt S, Wachsmuth L, Hirsch K, et al. Inotropic agents and vasodilator strategies for acute myocardial infarction complicated by cardiogenic shock or low cardiac output syndrome. Cochrane Database Syst Rev 2014; :CD009669.**
3. **Bernard F, Denault A, Babin D, et al. Diastolic dysfunction is predictive of difficult weaning from cardiopulmonary bypass. Anesth Analg 2001; 92:291.**
4. **Elmi-Sarabi M, Deschamps A, Delisle S, et al. Aerosolized Vasodilators for the Treatment of Pulmonary Hypertension in Cardiac Surgical Patients: A Systematic Review and Meta-analysis. Anesth Analg 2017; 125:393.**
5. **Sardo S, Osawa EA, Finco G, et al. Nitric Oxide in Cardiac Surgery: A Meta-Analysis of Randomized Controlled Trials. J Cardiothorac Vasc Anesth 2018; 32:2512.**
6. **Fischer GW, Levin MA. Vasoplegia during cardiac surgery: current concepts and management. Semin Thorac Cardiovasc Surg 2010; 22:140.**
7. **Mekontso-Dessap A, Houël R, Soustelle C, et al. Risk factors for post-cardiopulmonary bypass vasoplegia in patients with preserved left ventricular function. Ann Thorac Surg 2001; 71:1428.**
8. **Shore-Lesserson L, Baker RA, Ferraris VA, et al. The Society of Thoracic Surgeons, The Society of Cardiovascular Anesthesiologists, and The American Society of ExtraCorporeal Technology: Clinical Practice Guidelines-Anticoagulation During Cardiopulmonary Bypass. Anesth Analg 2018; 126:413.**
9. **Society of Thoracic Surgeons Blood Conservation Guideline Task Force, Ferraris VA, Ferraris SP, et al. Perioperative blood transfusion and blood conservation in cardiac surgery: the Society of Thoracic Surgeons and The Society of Cardiovascular Anesthesiologists clinical practice guideline. Ann Thorac Surg 2007; 83:S27.**