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FLOLAN VS. BIVALIRUDIN DURING CARDIOPULMONARY BYPASS:
COST, OUTCOMES, LIMITATIONS

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The gold standard for systemic anticoagulation during cardiopulmonary bypass (CPB) is Heparin. However, one of the challenges to heparin anticoagulation is the presentation of hypersensitivity to heparin. Heparin Induced Thrombocytopenia is a rare but life-threatening complication of heparin therapy. It is an immune mediated disease associated with catastrophic thromboembolic events such as limb ischemia, myocardial infarct, stroke, pulmonary embolism, and even death. As challenging as the presentation of heparin hypersensitivity may be, there are alternatives for anticoagulation, but of significance are the limitations to such alternatives. Some of the alternatives for anticoagulation are Ancrod, Danaproid, Lepirudin, Argatroban, Trifiban, Bivalirudin, and Prostacyclin.

Bivalirudin is a popular and good substitution for anticoagulation. Bivalirudin is a better alternative to heparin anticoagulation, however, limitations are noted, such as the lack of existence of a reversal agent, cost, and further observations that will be discussed throughout this investigation. There is another alternative to heparin besides bivalirudin; Epoprostenol Sodium (trade name: Flolan). In this study, a retrospective data collection will show evidence of the safety, and effectiveness of using Flolan as an alternative for anticoagulation for HIT Type II patients during CPB. A prospective study will show the results of differences between flolan vs bivalirudin for use on CPB; costs, post-operative bleeding, length of stay, and other complications during cardiopulmonary bypass.