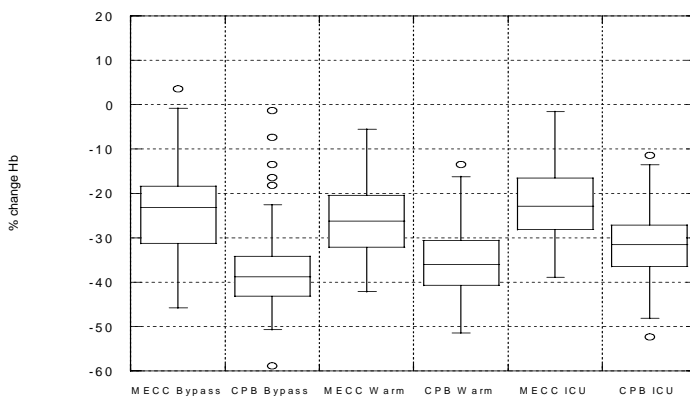


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 Abstracttitel: CAN WE ACHIEVE NORMOVOLAEMIC CARDIOPULMONARY BYPASS AS PART OF A BLOOD CONSERVATION STRATEGY IN CARDIAC SURGERY?

A key issue in limiting blood transfusion in cardiac surgery is both the number of patients receiving blood and the volume of blood transfused in the perioperative period. One method that has a significant potential to achieve this reduction is the use of Miniaturised Extracorporeal Circulation (MECC) for Cardiopulmonary Bypass (CPB). Aspects of this technique, both perfusion and anaesthetic, make this a normovolaemic method of CPB.

These include a minimal final priming volume ( $\leq 300$  ml), no venous reservoir and an increased blood: cardioplegia ratio to reduce haemodilution. A heparin bonded circuit permits a reduced heparin dose (ACT of 300s).

From our first 200 MECC cases we performed a subgroup analysis of CABG x 3 with similar bypass duration. We compared these with historical controls (same surgeon prior to the introduction of MECC). % changes in Hb from preoperative values while on bypass and on admission to ICU are shown.



All MECC results were significantly ( $p < 0.001$ ) compared with CPB. We believe that this data gives additional weight to the argument that MECC, as a means of achieving normovolaemic CPB, has a significant potential to reduce perioperative blood transfusion.