26231 - MAJOR OUTCOMES FOLLOWING HIGH RISK CARDIAC SURGERY

**Roanda Pretorius MSc, Bart Investigators ;
Ottawa Health Research Institute, Ottawa, ONTARIO, Canada**

INTRODUCTION. There is a risk of major complications in patients following high risk cardiac surgery. There are limited observational data describing other outcomes following high-risk cardiac procedures. We describe clinically important outcomes related to massive bleeding in a clinical trial cohort of high-risk patients.

METHODS. The BART trial is a multi-centre triple-blind randomized controlled trial comparing three antifibrinolytic agents in high-risk cardiac surgical procedures.

Following informed consent, patients are randomized to receive either: Aprotinin (2 million kallikrein inhibitory unit (KIU) bolus + 2 million KIU pump prime + 2 million KIU infusion on cardiopulmonary bypass (CPB)), tranexamic acid (30mg/kg loading dose + 2mg/kg pump prime + 16mg/kg/hr on CPB) or epsilon-aminocaproic acid (10g loading dose + 2g/hr on CPB). Transfusion protocols are suggested as part of this RCT.

RESULTS. A total of 1210 surgeries were performed which included 36.1% isolated (redo CABG/valve or aortic procedures) and 63.8 % combined procedures (CABG with valve/aortic or other high risk combinations). For the composite primary outcome of massive postoperative bleeding an 11.2% event rate was reported. See Table 1.

DISCUSSION. This trial is the largest randomized trial of antifibrinolytic drugs in high risk surgery conducted to date. The current rates for the primary and secondary outcome exceeded our initial predictions by more than two-fold. The higher rates may be explained by the inclusion of a higher risk population than initially anticipated or the lack of recent, good quality data from large patient cohorts in which to base assumptions.

Table 1: Major Outcomes Following High Risk Surgery

Outcomes (CRF Completed) N=1210					
Primary Outcome:	Totals N (%)	Secondary Outcomes:	Totals N (%)	Other Serious Events:	Totals N (%)
Bleeding from Chest Tubes	93 (7.7)	Myocardial Infarctions	53 (4.4)	Respiratory Failure	160 (13.3)
Massive Transfusion	30 (2.5)	Cerebrovascular accidents	40 (3.3)	Renal Failure	93 (7.7)
Death Due to Hemorrhage	9 (0.7)	All cause death	55 (4.6)	Prolonged low output state	182 (15.0)
Re-operation for massive Post-op bleeding	87 (7.2)	Any Events	127 (10.5)	Any events	270 (22.4)
Any Massive Bleeding events	135 (11.2)				