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## **Effects of early versus routine determination of prothrombin and activated thromboplastin time in postoperative bleeding among pediatric patients undergoing cardiopulmonary bypass**

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Excessive bleeding after cardiopulmonary bypass (CPB) continues to be an important cause of morbidity and mortality for both adult and pediatric population. This study aims to determine whether timing of PT and PTT determination is associated with incidence of post-operative bleeding in pediatric patients undergoing CPB. Double-blinded RCT was done. Included were 112 children who underwent open heart surgery from Feb 2012 to Dec 2012 at Philippine Heart Center. 56 had cyanotic CHD and 56 had acyanotic CHD. Each group was subdivided into Group A, early determination of PT and aPTT (blood sample taken after CPB) and group B, routine determination of PT and aPTT (blood sample taken after surgery). Chest tube drainage was the measure for postoperative bleeding. Blood products transfused were also recorded. Results showed 32.1% incidence of significant postoperative bleeding among patients with cyanotic CHD with Group A while 39.3% with Group B (p value=0.00). PRBC transfused among the cyanotic subjects in Group B is higher at 14.54 cc/kg compared to Group A at 9.89 cc/kg (p value=0.05). While among the acyanotic patients, there was no significant difference in the incidence of significant postoperative bleeding and volume of transfused blood products. We therefore conclude that significant postoperative bleeding incidence is higher in cyanotic patients, group B, than group A. Also, the volume of PRBC transfused among cyanotic patients in group B is larger compared with group A, whereas, among acyanotic patients, there is no significant difference.

### **Biography**

Rogelyn F Tapuro-Olais has completed her medical degree at Saint Louis University and internship at Philippine General Hospital. She had her pediatric residency training at Saint Louis University Hospital where she won first place in the Annual Residents' Research Contest in 2009. She completed her 3-year fellowship training in Pediatric Cardiology at the Philippine Heart Center. Presently, she is a clinical research fellow in echocardiography at the same institution.

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