



AB024. 52. Analysis of blood transfusion practices for vascular bypass surgeries using the maximum surgical blood ordering schedule

Rosaleen Louise Lyons¹, Martina O'Connor², Margaret Tarpey², Sean Naughton¹, Donal Courtney², Muhammad Tubassam², Stewart Wals², Sherif Sultan², Wael Tawfick²

¹Department of Vascular and Endovascular Surgery, ²Galway Blood and Tissue Establishment, Galway University Hospital, Galway, Ireland

Background: The maximum surgical blood ordering schedule (MSBOS) provides procedure specific recommendations for cross matching of red cells concentrate (RCC). Our MSBOS recommends to cross-match 4-unit of RCC for Aorto-iliac/femoral bypasses, 2-unit for femoro-distal bypasses, with a group-screen and hold (GSH) for femoro-popliteal/femoral bypasses. The internationally recommended cross-match to transfusion ratio (CTR) is <2:1.

Methods: Clinical audit; with data collection on all bypass surgeries performed in our institution from August 2017 to August 2018. Procedures were assessed for compliance against MSBOS guidelines from the APEX database.

Results: A total of 42 bypasses were performed with

four excluded, as they were performed in combination with aortic aneurysm repair. Seventeen femoro-popliteal bypasses should have had a GSH. However, sixteen were cross-matched 2-unit of RCC, resulting in 32-unit being cross-matched, with 3-unit transfused (CTR =10.6). Seven aorto-bifemoral bypasses were cross-matched 4-unit as per MSBOS. In total 28-unit were cross-matched, with one transfused (CTR =28). Of seven femoro-distal bypasses, four requested the recommended 2-unit, two cross-matched 4-unit and one requested 3-unit. A total of 19-unit were requested, with 8-unit transfused (CTR =2.37). Two axillo-bifemoral bypasses requested 4-unit each, with 5-unit transfused (CTR =1.6). One axillary-brachial bypass requested 4-unit, with none transfused. Two ilio-femoral bypasses cross-matched 6-unit, with three transfused (CTR =2). One aorto-superior mesenteric artery (SMA) bypass cross-matched 4-unit, with none transfused. One iliac-SMA bypass cross-matched 4-unit, transfusing 2-unit.

Conclusions: We recommend reducing cross-matching for aorto-iliac/femoral bypasses from 4 to 2 units. Improved compliance with MSBOS guidelines is required, especially for GSH procedures. Unnecessary cross-matching is wasteful of blood bank resources.

Keywords: Blood transfusion; bypass surgery; maximum surgical blood ordering schedule (MSBOS); vascular surgery

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