007. TRUSTT me – transfusing RBCs in thalassaemia major, it's not cheap! TRUSTT study initial results.

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Background
No Australian data exist on costs of red blood cell **(**RBC) support for transfusion-dependent thalassaemia patients. This information is needed to inform management decisions, including understanding cost-effectiveness of new treatments. A previous European and US study (Shander et al, Transfusion 2010) in non-transfusion-dependent patients reported RBC product costs accounting for up to 32% of total transfusion costs.

Aim
Determine the true cost of RBC transfusion for transfusion-dependent thalassaemia in Australia (TRUSTT Study).

Method
A time-driven, activity-based, bottom-up costing of clinical, laboratory and administrative processes for outpatient and inpatient RBC transfusions for transfusion-dependent adult thalassaemia patients at Monash Medical Centre (MMC) was performed.
Detailed process maps with timings were developed for every procedure undertaken during March 2017. Direct and indirect costs (including personnel, consumables, equipment, clinical and testing procedures) were calculated, including costs of managing long-term consequences of transfusion, and other complications. Expert opinion was obtained where processes were unable to be timed.

Results
During the study period, 15,463 RBCs were issued in Victoria, of which MMC received 1,443 (9.3%). Of these, 478 (33%) were transfused to 117 adult thalassaemia patients, accounting for 3.1% of all RBCs issued in Victoria.
Thirty-two processes were mapped including prescription, sample collection, laboratory activities including inventory management, administration and follow-up of RBC transfusion.
Complexity of RBC requirements is demonstrated by 53% patients having a historically positive antibody screen, and 27.4% requiring antigen negative RBCs, although only 6.8% currently have a positive antibody screen.
For iron chelation, 79% patients received deferasirox, 18% patients received desferrioxamine, 3% received both.
Formal costing analysis is underway.

Conclusion
This study provides new data on the complexities of transfusion and other (e.g. chelation) support for an important group of transfusion-dependent patients. Detailed cost data determined as part of this study will be valuable for clinicians, hospital management, governments, blood services, patients and the broader community.