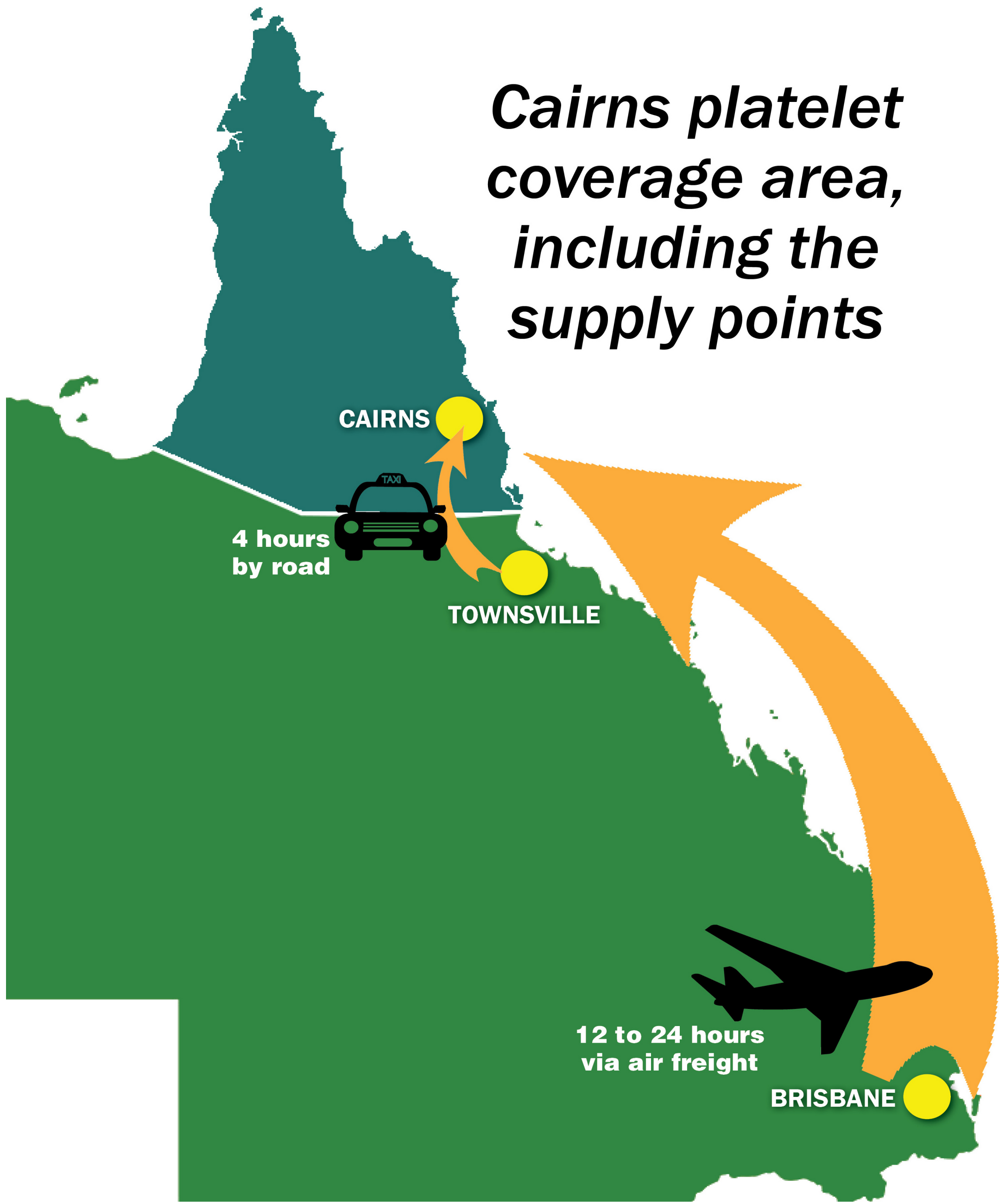


Reducing Platelet Wastage in a Regional Australian Haematology Centre: Impact of Phone Calls to Clinical Staff for Expiring Platelet Stock

Background



Blood products, including platelets, are a critically important resource for patient care. A certain amount of fresh blood products are expected to be discarded due to shelf life limitations being balanced against adequate and timely supply.

However where discardment of blood products is not inevitable this is considered wastage.¹ Platelet stock presents a unique challenge due to shorter shelf life (5 days during the study period).

The National Blood Authority publishes guidelines to assist laboratories utilize blood products in the most optimal way including suggestions for strategies to reduce wastage. Larger centrally located laboratories have been able to significantly reduce platelet wastage by rotating expiring stock between centres.²

However In our remote regional centre this is not feasible as well as the additional challenge of a standard platelet order to delivery time of 12-24 hours (from Brisbane) and no other stock within 4 hours via road (from Townsville at transport cost of ~\$1000).

Figure 1: Map of Queensland (QLD) showing area to which Cairns pathology laboratory supplies platelet stock (dark green). Arrows indicating source of platelet products and order to delivery time. Note that QLD is > 10x times larger than England (in terms of land area).

Method

Our senior transfusion scientist introduced routine phone calls to haematology clinical staff where platelets were expiring in the next 12 hours. Clinicians would then request platelets for patients who were expected to require platelet transfusion in the next 12-24 hours. Excel spread sheets of platelet inventory and logs of phone calls to clinicians were also kept.

We compared Discards as Percentage Issued (DAPI) published in National Blood Authority reports for July-December 2016 prior to the intervention with DAPI for July-December 2018 after this intervention was routinely established.

Results

We observed an absolute reduction of 9.2% in DAPI between the two time periods (23.0% July-December 2018 vs 32.2% for July-December 2016). From July-December 2018 66 phone calls were made to clinical staff regarding expiring platelet stock. The total number of platelets issued in the two time periods was similar (391 July-December 2016 vs 387 July-December 2018). Although the benchmark of 17% is not met this figure is a comparator produced by the National Blood Authority for laboratories of similar size however does not take into account location.

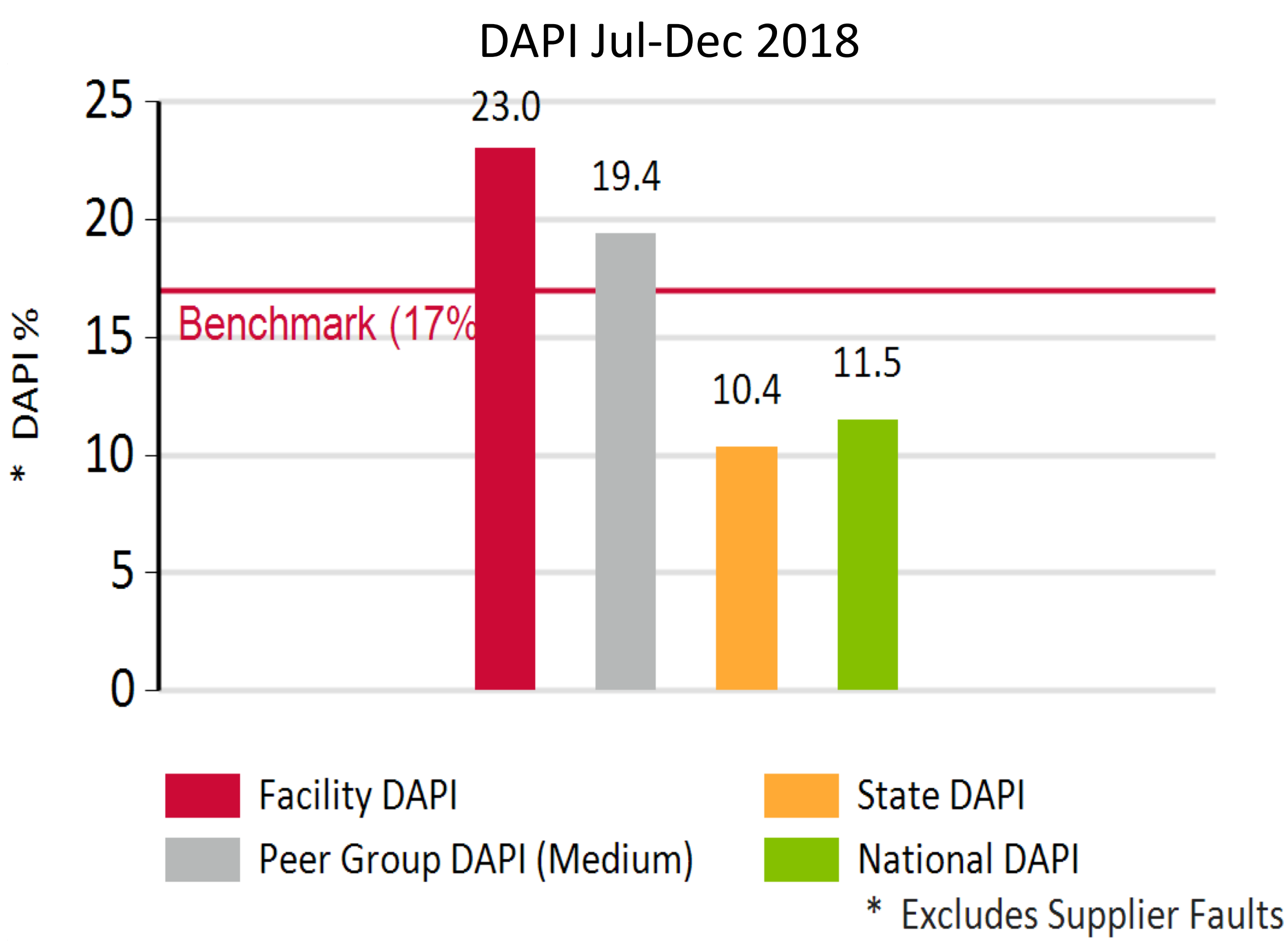
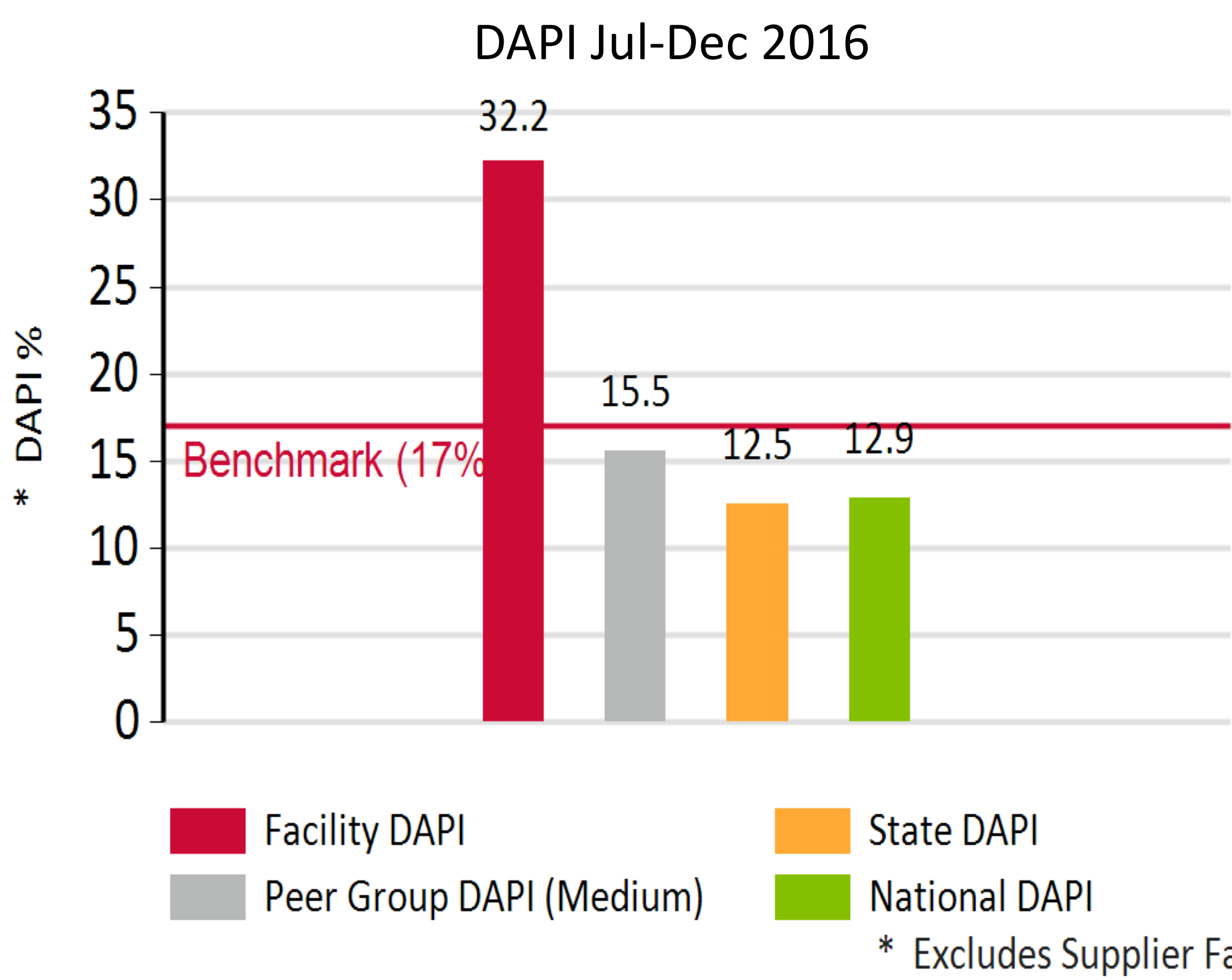


Figure 2: DAPI for Jul-Dec 2016 and Jul-Dec 2018 reproduced from Bloodnet Fresh Blood Product Management Reports for Cairns Hospital

Conclusion

Our results demonstrate a simple yet effective best practice inventory management strategy to reduce platelet wastage. We are not aware of any other centres who are utilising this strategy.

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References:

1. National Blood Authority. National Blood and Blood Product Wastage Reduction Strategy 2013-2017. <https://www.blood.gov.au/wastage>
2. National Blood Authority. BloodMove Platelets - a successful system to significantly reduce platelet wastage. 2015. <https://www.blood.gov.au/bloodmove-platelets>