

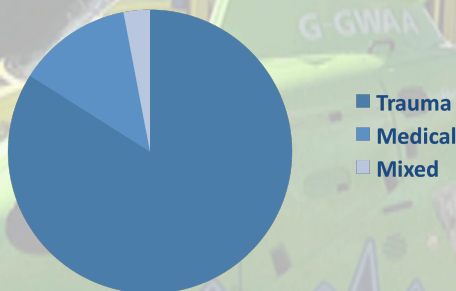
Pre-hospital Blood Developing a Service

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Background

- In 2015 Great Western Air Ambulance (GWAA) developed and initiated its pre-hospital blood service in collaboration with North Bristol NHS Trust (NBT) and the Freewheelers Motorcycle Couriers Charity.
- Experience was drawn from both military and civilian practices. At the time only 5 other Air Ambulances in the UK were running a similar service and GWAA was the first to do so in the Southwest region.
- Pre-hospital blood usage modelling, using multiple patient databases (TARN, GWAA, NBT Transfusion), showed a suspected transfusion frequency of between once a week and once a fortnight.
- The service was developed to carry 2 units of O-ve packed red blood cells (PRBC) in Credo boxes.

Casemix



Blood Usage

- 13% of pts only received 1 unit PRBC (38% of these ROLE on scene).
- 76% of pts received 2 units PRBC (of these 21% needed more on scene).
- 11% of pts received ≥ 4 units PRBC.
- 1/3 of pts needed more than 2 units of blood product on scene.

Summary

- 62 Pre-hospital transfusions in the first year.
- The majority of transfusions were for traumatic injuries.
- 1/3 of pts needed more than 2 units of blood product on scene.
- Only 3 pts received no further blood in ED.

Future Development

- From Spring 2017 GWAA will be one of the first Air Ambulances in the country to carry PRBC and Fresh Frozen Plasma (FFP).
- To aid versatility 2 Credo boxes will be carried each containing a unit of PRBC and FFP.



Results

- The Critical Care Team carried out 62 transfusions in the first year of use (August 15 – July 16).
- 23% were delivered by a Critical Care Paramedic only team (with consultant top cover).
- 82% of pts survived to hospital.
- 57% (12/21) of pts with Traumatic Cardiac Arrest had a sustained ROSC. This compares favourably with other reported literature¹.
- Only 3 pts (5%) received no further blood in the ED suggesting a robust training programme and governance structure.
- There were no reported serious untoward incidents.



1. Grasner J, Wnent J, Seewald S et al. Cardiopulmonary resuscitation traumatic cardiac arrest - there are survivors. An analysis of two national emergency registries. *Crit Care* 2011;15(6):R276

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