



The Use of O Neg in the Military Setting

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RAMC

CD Path Blood Supply

Centre of Defence Pathology Blood Supply



- BMS (All Services)
- Birmingham QEH (Royal Centre Defence Medicine)
- Logistical Function
- Technical Support
- Blood Establishment



Blood and Transplant



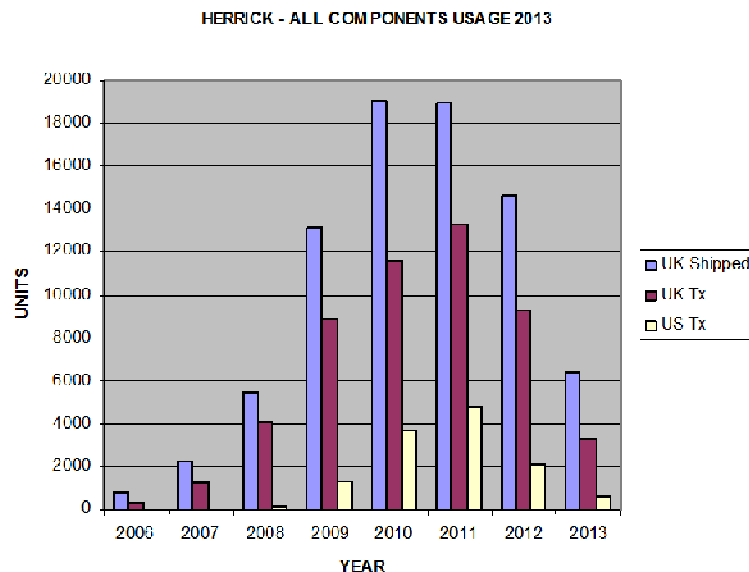
History

World War Two
1940 - 43 (North Africa)
63,000 casualties
10000 Blood: 41000 plasma

<2 blood pints per casualty
transfused



- Military imperative drives innovation
- Discrete UK armed forces Blood service
- Historic use of whole blood (to be revisited?)
- Balance of Plasma:RCC
- Mass Transfusion



Current UK Military Policy



O NEG authorised for:

- Women <51 yrs
- All under 18 yrs
- Transfusion dependent D neg patients
- Those who have formed immune anti -D

O POS (to conserve stocks):

- Males > 2 units
- Adults (unknown D status)
- Postmenopausal women

Circulatory Problems *supplying blood overseas*



- 24/7 On call service
- Ready to fly in 4 hours
- Selection of appropriate components (plasma?)
- Shipping via RAF or Civil airlines
- Training (customs, dangerous air cargo)

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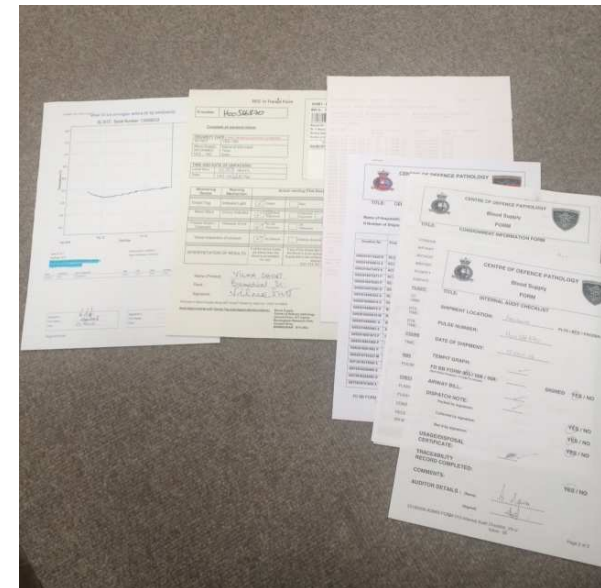


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The Golden Hour Box (48 Hours transit time)



Temp IT Tag logger in
each consignment.
Traceability is
paramount





Deployed Blood Banking



- Dependent on scale and capability of facility
- Ranges from Lab Cold to Portable Units



Training and Technical Support are essential considerations

Future needs – rugged, power issues (Solar?), man portable, vehicle borne solutions



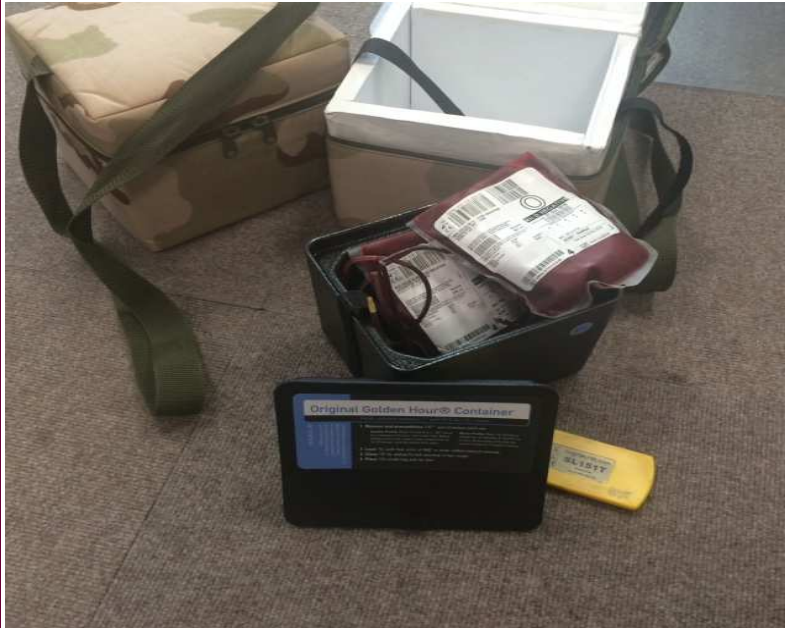
The 'Role 3' Hospital



- BMS – Part of the Surgical team
- Mass Transfusion
- ROTEM
- Diagnostic support
- Apheresis deployed
- Large donor panel
- Excellent logistical infrastructure
- Management of stock
- Issue Shock Packs



'Shock Packs'



- O Neg RCC x 2 units
Grp AB FFP x 2 units
- Two packs per flight
- TXA
- Fibrinogen (new)
- Significance of
Battlefield first aid
- Golden Hour system
and daily rotation
(plasma) with MERT
Crew
- Space consideration

The Small team



- Small scale Operations
- Austere conditions + prolonged 'hold'
- Maritime supply
- Need for 'bespoke' blood supply including freeze dried plasma
- Training needs
- Allied nations
- EDP





Emergency Donor Panels & the 'Virtual O NEG'



- Difficulties of Supply
- Need to address coagulopathy
- Pre-screening in UK
- Training needs and equipment
- 'Buddy –Buddy'
- Post Transfusion screening



Concluding Remarks

“That such supplies were freely given without question is a tremendous tribute to the magnitude and constancy of the public effort, typified by the ordinary civilian blood donor”

Brigadier Lionel Whitby, C.V.O, M.C
Army Blood Transfusion Service
Southmead, Bristol, 1945





Acknowledgments

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Major Gary Fitchett – *Defence Specialist Advisor (Pathology)*

References

Clinical Guidelines for Operations

<https://www.gov.uk/government/publications/jsp-999-clinical-guidelines-for-operations>

Further Reading:

‘Massive Transfusion’

J R Army Med Corps 2011;157:S277-S283 doi:10.1136/jramc-157-03s-04