

Ghana: First Steps in Haemovigilance

Southern Area Blood Centre



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Outline

- Blood Transfusion Services in Ghana
- The Southern Area Blood Centre
- Status of Haemovigilance Activity
- Progress
- Constraints
- Future Perspectives

Ghana



- Population: 27 million [2015]
- Stable democracy since 1992
- Per capita GDP \$1,427 [2014]
- HDI 0.579
- Life expectancy: 62.5 years
- HIV prevalence: 1.37% [2014]

Overview of Transfusion Services

- **Organisation**

- Fragmented; predominantly hospital-based; regional co-ordination in a few urban areas.
- National transfusion guidelines exist; not widely used
- Regulation by Food & Drug Authority from 2016

- **Collections:**

- Majority are hospital-led replacement donations
- 34% VNRBD in 2015; varies by hospitals
- BCI=5.8% [2015]; seasonal shortages are recurrent

- **Clinical transfusion:**

- Widespread use of whole blood
- Hospital transfusion practices vary
e.g. functional HTCs, use of transfusion documentation

The National Blood Service Ghana



- National Blood Policy adopted by cabinet in 2000
- Legislation yet to be passed
- Three Area Blood Centres are proposed; only Southern Area Blood Centre in Accra is fully operational.



Southern Area Blood Centre, Accra

[Ministry of Health/Nordic Development Fund]

The Southern Area Blood Centre

Products:

- Whole Blood
- Packed Red Cells
- Platelets (pooled + apheresis)
- Fresh frozen plasma
- Cryoprecipitate

[No leukoreduction, irradiation or pathogen inactivation]

Screening

- 100% HBsAg, anti-HCV, HIV-1&2, Syphilis
- CIA or ELISA

Status of Haemovigilance

- **Policy and Regulation**

2000: Ghana National Blood Policy calls for a facility-based and national system of haemovigilance: scope and operations not defined

2016: Food and Drugs Authority has begun registration of facilities involved in blood processing and transfusion for regulation

Status of Haemovigilance

- **Facilities**

- Patient monitoring practice differs among hospitals
- Laboratory investigation of transfusion reactions in many hospitals; however not reported
- District Health Information Management System (DHIMS) links public hospital data on transfusions

- **Laboratories**

- Near-misses and lab errors typically not reported

- **Donor Vigilance**

- Not reported

What's been done...

1. Establishment of Haemovigilance Unit

- Scope of HV activity defined as:
 - All acute transfusion reactions
 - Donor vigilance
 - Transfusion errors
- Voluntary reporting
- Mixed reporting channels:
DHIMS/Email/Phone
- 1 HV Officer, 1 Transfusion Nurse

What's been done...

2. Donor Vigilance

- Definitions have been adopted (ISBT)
- Incorporated in a Donor Management Manual and Donor Management Software
- Started at SABC: training, forms, monitoring



What's been done...

3. Patient Haemovigilance

- Development and distribution of guidelines and transfusion forms: consent, patient monitoring, transfusion record, investigation of transfusion reactions
- Identification of focal hospital transfusion liaisons for blood safety and supply issues, including haemovigilance

National Guidelines for the Clinical Use of Blood and Blood Products

Clinical Blood Transfusion Policy

National Blood Service, Ghana

National Blood Service, Ghana

Transfusion Adverse Reaction Reporting Form

Form to be completed and submitted to the National Blood Service (NBS) Ghana.

Form ID: NBS/AR/001/2018

Version: 1.0

Effective Date: 01/01/2018

Form includes sections for: Patient Information, Transfusion Details, Adverse Reaction Details, and Reporting Information.

Blood Transfusion Monitoring Form

Form to be completed and submitted to the National Blood Service (NBS) Ghana.

Form ID: NBS/BTM/001/2018

Version: 1.0

Effective Date: 01/01/2018

Form includes sections for: Patient Information, Vital Signs (BP, Temp, Pulse, Resp Rate), Blood Transfusion Details, and Reporting Information.

Time	BP (mmHg)	Temp (°C)	Pulse (beats/min)	Resp Rate (breaths/min)	Vital Signs	
					Observed	Recorded
10:00						
11:00						
12:00						
13:00						
14:00						
15:00						
16:00						

Transfusion Record

Form to be completed and submitted to the National Blood Service (NBS) Ghana.

Form ID: NBS/TR/001/2018

Version: 1.0

Effective Date: 01/01/2018

Form includes sections for: Patient Information, Transfusion Details, and Reporting Information.

What's been done...

3. Patient Haemovigilance

- Annual training of clinical staff and house officers on
 - Appropriate Blood Use, Safe Transfusion Practice
 - Recognition and Management of ATRs and
 - Haemovigilance



Way Forward

3. Patient Haemovigilance

- To increase awareness among clinical staff:
 - Prospective studies on acute transfusion reactions to determine incidence and patterns
 - Development of clinician's flowchart for classifying transfusion reactions. Highlights 'uncommon' transfusion reactions such as TACO, TRALI, and the features of AHTR

Major Constraints

- Absent legal framework for transfusion service
- Staff and funding for haemovigilance is low
- Weak quality systems in most transfusion facilities
e.g. weak bedside documentation practice, few audits
- Low awareness of transfusion reactions
among clinical staff
- Under-reporting of blood and transfusion data

Future Perspectives

- Encourage safe transfusion practice and data reporting from hospitals by meeting their blood requirements
- Training and follow up on use of transfusion documentation in partner facilities by HV Team
- Dissemination of outcomes of ATR study to increase awareness of transfusion adverse events
- Broader stakeholder engagement: health authorities, interest groups, public and private facilities
- Dissemination of HV report to stakeholders