Blood Transfusion in Kumasi, Ghana

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July 12, 2018
Background - Health Care in Ghana

- National population is approximately 25 million
- Life Expectancy - 62 years for males, and 64 for females
- Ghana consists of 10 regions, each each served by a regional hospital (government run) and supported by other district hospitals and private health care facilities.
- Ghana’s Health Service (GHS) is responsible for all district and regional hospitals. Teaching hospitals and private hospitals are run separately.
- In 2003, the National Health Insurance Authority was established. Ghanaians pay a premium based on their income to benefit from the National Health Insurance Scheme. Children, elderly, pensioners and those deemed to be in great poverty are exempted from the payments.
Blood Transfusion Services in Kumasi, Ghana

Donor Walk-in Clinic → Initial Donor Screening → Mobile Session

Donation Pre-Screening

Low Hb or positive for HBV, HCV or HIV

Deferred

Blood Collected from Donor

Blood is grouped

Blood stored in appropriate fridge

Appropriate Blood Bag sent to ward

Patient receives Transfusion

Request for blood in ward → Transfusion Request Form Completed → Patient blood withdrawn (3ml) for cross-match → Patient blood sample brought to Blood Bank with request form → Patient blood is cross-matched
Challenges facing blood transfusion services in Kumasi

- **Infectious diseases and risk of transfusion transmitted infections (TTIs)**
  - Reduced by health risk assessment and pre-donation testing for HIV (1 and 2), Hepatitis B, Hepatitis C and syphilis

- **Blood supply** - High demand due to high rates of road traffic accidents, post-partum haemorrhages, surgeries and malaria related anaemia. Not enough donations to meet demand.
  - Blood supply increased through more blood drives and the inclusion of replacement donors

- **Cost** - Regular load shedding leads to increased costs of maintaining refrigerators and freezers (due to increased costs associated with running generators)
Encouraging existing blood donors to return to maintain a steady and safe blood supply

- 30 semi-structured interviews with 30 blood donors post donation (21/30 VNRD, 9/30 replacement donors) were conducted, with the aim of exploring how to encourage people to donate blood and how to retain existing donors.

- Donors felt that prior to donating they would appreciate the following information:
  - More information about their ‘general health status’ - i.e. am I healthy?
  - Greater detail on the donation process
  - Reassurance from staff members that donating would not be ‘too painful’

- All donors seemed willing to return to donate. Replacement donors were more willing to return if a friend or family member required blood.

- Some donors felt that the snack they were provided with post-donating (a malt drink and biscuits) should be something which would help them recover from donating blood.
Impact of securing replacement donors on transfusion recipients

- 24 semi-structured interviews were conducted with patients who had received a blood transfusion within the last 48 hours.
  - Respondents from all the different hospital departments were interviewed (e.g. A&E, Surgery, O&G, Paediatrics, Medicine and Oncology).

- 17/24 patients asked to find one or more replacement donors
  - Among these 17 patients, some were asked prior to their first blood transfusion, some in between multiple transfusions and other post-transfusion.
  - Patients were asked to find anywhere from 0-6 replacement donors. Actual number of replacement donors secured varied from 0-4
  - Replacement donors were most commonly immediate family or extended family.

- The majority (13/17) of transfusion recipients had ‘no difficulty’ in finding the requested number of replacement donors.
  - In one isolated case a patient reported to have given a donor an extra 40 cedis (6 GBP) as compensation. Otherwise, transfusion recipients simply provided the replacement donors with food and/or their transportation costs.
Additional feedback from transfusion recipients

- Consent always obtained
- Brief information about reason for transfusion given, but more detail could be added
- Greater information regarding the risks and benefits of blood transfusions necessary
Recommendations based on findings

- WHO (2001) and many national blood policy documents across the globe recommend pre-donation counselling. Interviews with blood donors in Kumasi indicate that this is an important time when clinic staff can establish a good relationship with donors and potentially encourage them to return.

- Given the difficulty in obtaining an adequate supply of blood, replacement donation should not necessarily be discouraged.
  - In spite of the WHO recommendation for 100% volunteer donors (WHO, 2001), donating for a friend or family member appears to be a highly motivating factor for people.
  - Securing replacement donors does not appear to pose any significant burden to most transfusion recipients.
  - Research has shown that there is no significant difference in blood safety between first time volunteers and first time replacement donors (Allain, 2011, Reddy, 2012).

- Transfusion recipients should be provided with greater details regarding the reason they require a transfusion and the risks and benefits.
References