Cost of Blood in Equatorial Guinea

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ABSTRACT

This study

1. Determines the cost from a societal standpoint of a unit of blood ready to be transfused in the Republic of Equatorial Guinea.
2. Compare the results with other African and Sub-Saharian countries using a standard methodology.

THE REASON WHY:

1.- Lack of information in Sub-Saharian countries and REG

Table 1. Compared number of results founds in NCBI by countries and entries.

LITERATURE		BOOKS	PUBMED	PUBMED CENTRAL
Search Entry	Country	BOOKS AND REPORTS	SCIENTIFIC& Medical abstracts/ citations	FULL TEXT JOURNAL ARTICLES
Blood +	US	11.692	1.581.396	697.423
	AUS	2.690	61.780	97.846
	EUR	2.803	102.069	136.260
	ASIA	1.598	91.053	82.132
	AFR	2.046	37.501	86.315
	S.SAH	0	10	45
Cost + Blood +	US	3.735	17.985	115.875
	AUS	1.098	1.162	22.299
	EUR	986	3.606	36.535
	ASIA	646	1.902	20.073
	AFR	849	1.222	25.237
	S.SAH	0	0	10

Source :Own elaborated from data www.ncbi.nlm.nih.gov Searches made on November 14th 2016.

THE REASON WHY:

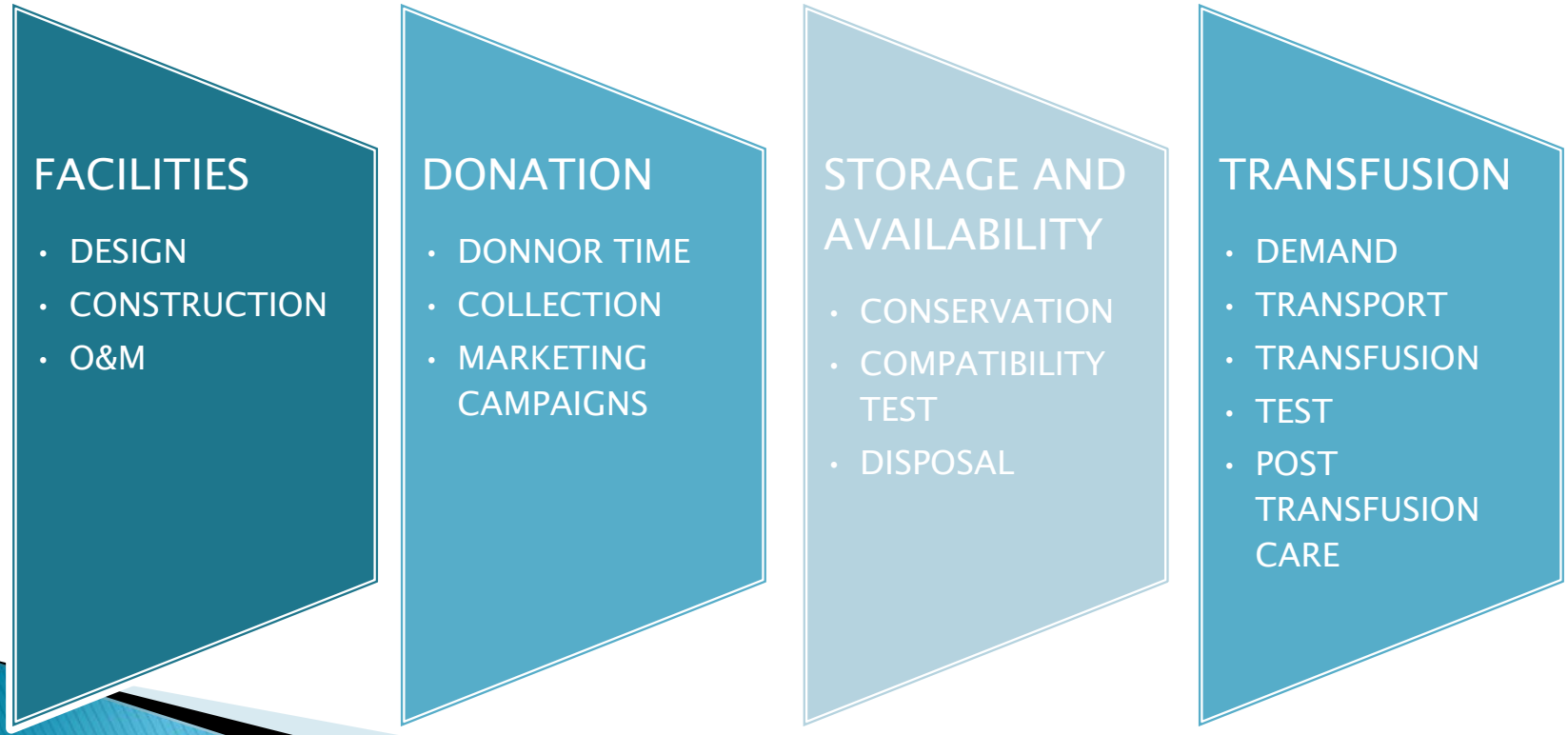
2.- Different approaches of value (and cost) of blood:

- Blood is a good with economical value. All cost should be considered.

- Blood is free, voluntary and “unlimited” resource, where the cost is only the cost of a donation process.

METHODOLOGY:

1.- Costs Drivers in the process of blood donation and transfusion (BD&T) according to Cost of Blood Multidisciplinary Consensus Conference-2005.



METHODOLOGY : COST DRIVERS CONSIDERED

- In UE and most ODCE Countries conducted studies: Greece, Sweden, Canada, Germany…

- In some African Countries: Malawi, Zimbawe, Nigeria:

- In this study:

METHODOLOGY:

1. **Specific designed survey sent to:**
    1. The Blood Laboratories Directors and Hospital Directors. (Public owned).
    2. The National Blood Networks Centers Directors (private managed by AGEM) in Malabo and Bata.
2. **Data from Government sources:** Health Ministry, investment reports, WHO Statics…
3. **Calculation made according to standard methodology proposed in 2005, considering real conditions.**
    1. Fixed Costs: i.e. Hospital in Malabo has 24 laboratory staff members and practices 30 Donations processes per month.
    2. Reduced number of donors: REG 0,9 donations/ 1.000 hab. vs 18.6 in South Africa; or vs 32 High income countries (WHO DATAC 2010)

RESULTS:

- The Cost of a Unit of Blood transfusion-ready from societal standpoint in Equatorial Guinea determined is **2,846,47 EUR** (σ=945,68; N=3; Euros 2016)

- The most important part of this value are wages per donation: 1.255 Eur /donation. (σ=461,42)

DISCUSSION:

- From a societal standpoint the Technical Efficiency is far from actual situation.
- The problem to be solved is the donation process number. From actual donation ratio 0.9 to 18 donations/ 1000 hab. Will reduce the societal cost and increase efficiency.
- Investment in security and blood-surveillance, is not as necessary as increasing number of donations.

DISCUSSION:

- Comparing with other results available.

Table 2. Compared data from Cost of Blood studies conducted in different countries. All values are in Eur 2016.

SWEDEN	CANADA	ZIMBABWE	EUROPE (6 countries)	MALAWI (only lab. tests)	EQUATORIAL GUINEA
571,74	397,46	119.04	533,42	26,27	2,846,47

CONCLUSIONS:

- From a societal standpoint all costs have to be considered, not only the direct operational ones.
- As the donation facilities and staff does not work in ideal conditions increasing the number of donation, calculations should be made in real work times conditions. Otherwise results will be biased.
- The value obtained is much higher than other results obtained in other studies

Many thanks for your attention

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