

Safe blood for Nigerian (the role of the marketplace).

OBSERVE PROTOCOL

Background

Blood is an essential element of human life, and there are no substitutes for it. Blood is the essence of life and is one of the most precious donations anyone can receive.

Blood is the only medicine freshly prepared by clinical laboratories for case management in the hospitals, and the only source of blood is by donation.

Donating blood to save an anonymous recipient requires a "will" that motivates the donor to act generously and without expecting any return.

Blood collection centres throughout the world are facing difficult times as they strive to ensure the safety of the blood supply in the face of chronic shortages and a constantly shrinking donor base.

Safe blood is a description to be assigned to a unit of blood prepared for transfusion that was obtained under the guidance of a local or regional authority policy framework. Safe blood could also be described as a blood unit made available through coordinated collection, screening, storage, and distribution used according to the patient's need.

Safe blood is produced and used through all the following and more:

- Selection of healthy voluntary donors with an absence of low risk of transfusion transmissible infections (TTI)
- Use of stipulated and regulatory adopted guidelines for proper screening of the donors for high-risk pathogens of HIV, HCV, syphilis, HBV, etc.
- Categorization and allocation of blood types using ABO, rhesus, and red cell antigen compatibility screenings.
- Collection of blood products from the non-paid donors under the right physiology and climatic conditions using quality non-compromised consumables and accessories.
- Transportation of these blood products using the right channel tracked and monitored for temperature excursions.
- Storage of blood products using the right instruments calibrated annually to assure safety and reliability.

- Issuing of blood products to recipients according to needs. Giving a product component and not a whole blood. If a patient needs a red cell concentrate and the clinician transfuses whole blood, this might lead to antibody overload and further worsen the already delicate condition of the patient. Wrong administration of blood component as a whole or in part makes the product unsafe for the recipient.

The marketplace is described as the environment where conception of ideas, research, innovations, supply, demands, and passive and active commercial transactions happen.

As you may have noticed, the aforementioned descriptions encompass the complete spectrum of the healthcare market, ranging from the upstream healthcare value chain, which includes research, development, production, packaging, and commercialization, to the downstream healthcare value chain, which includes distribution, retailing, hospitals, associated regulations and policy makers, consumers, and so on.

Problem statement

Due to the increasing population in Nigeria, there is a growing demand for blood products. However, the supply is not keeping up with the demand, as fewer people are willing to donate blood.

Demand for blood is rising alarmingly, and current blood donation is insufficient to meet the demand.

Blood banking centres are facing a shortage of blood all over the country thereby leading to sharp practices.

Providing an adequate and safe blood supply has remained a challenge. Despite the high need in sub-Saharan Africa, statistics show low supply against increasing demand.

The challenge of our power supply is further causing a major scarcity factor because facilities can't store more units for future use.

Nigeria's porous market approach has orchestrated an influx of low-quality blood screening-related products.

The microeconomic and macroeconomic factors of our nation have pushed many clinicians and decision-makers in the echelon of healthcare value chains to make decisions based on prices, thereby ignoring the most important aspect of quality relevant for safety and sustainability.

The merchandising philosophy of upstream and downstream market players at the expense of quality.

The Trend

The regulation and administration approach to safe blood in Nigeria have evolved with tremendous milestones regarding this aspect of healthcare.

Already following WHO guidelines on blood and blood-related products, the National Blood Service Commission has established guidelines for the approach to obtaining safe and accessible blood products for those in need of them.

Second, it is the mandate of the Medical Laboratory Science Council of Nigeria to conduct local evaluations on both imported and locally produced IVDs, including those used for screening and obtaining safe blood.

It is commendable to mention that the Lagos State Government has been implementing a more streamlined, decentralized, and centralized approach to screening and issuing safe blood in Lagos State.

For nearly two decades, National Hospital Abuja has been at the forefront of delivering component blood products using a revolutionized multicomponent gold standard device.

Blood products have become increasingly essential in healthcare settings, serving as reliable resources for the safe and effective management of various blood-related diseases among women, children, and other adults requiring critical care in areas such as cancer treatments.

Clearly, blood management centers, including Nigerian tertiary hospitals and National Blood Transfusion Service Centres are looking for ways to become more self-sufficient, to manage existing donor pools, and to attract new donors while maintaining stringent guidelines that assure patient safety.

The role of the marketplace in safe blood for Nigerians

For my topic today, I will restrict my discussions to the marketplace, the downstream sector dominated by distributors and retailers of healthcare commodities, e.g., members of HEPAN.

The marketplace showcases several revolutionary technologies that bring convenience and improved safety to the blood donation space.

The available technologies range from sample collection kits to processing, donor screening & compatibility, component separations, storage instruments, temperature monitoring devices, transportation, temperature tracking, and waste management & disposal.

In all the above beautiful developments by the marketplace players, managing their drawbacks has been the bane of sustaining quality and accessible safe blood for the populace.

This unique marketplace plays a pivotal role in ensuring patient safety in all aspects of healthcare, specifically for safe blood, hence my presentation tonight to share some suggestions following over two decades of market experience.

I will summarize my recommendations for the marketplace's roles in promoting safe and convenient blood donation, as well as making blood products accessible to the public.

1) Promotion of standardized screening kits and methods for safe blood.

There are regulatory frameworks and algorithms provided by our national authority for safe blood. Our vendors in the marketplace would research and align the recommendation therein to source and stock inventory of such goods for onward provision of safe blood.

For instance, NBSC recommends using a minimum of 4th-generation ELISA kits as a standard to screen donors for HIV-1 before certifying them free from the virus. It is expected in the marketplace to continue to promote kits with similar features and not less. There are numerous ELISA kits available for HIV screening in the market, but

if they are not of the 4th generation, the marketplace players would refrain from promoting them.

When we in the marketplace comply with this kind of recommendation it would help our end users to focus more on what is appropriate and safe than what is cheap and convenient.

2) Supporting centralization of blood donor screening, storage and distribution

The marketplace shall support this approach to reduce their running costs and footprint instead of dealing with vast small clinics demanding supplies and after-sales support.

The infrastructure required to produce safe blood, if consolidated, would improve efficient use of resources from the market by creating robust forecast systems and demand visibilities.

The aforementioned factors are crucial for guaranteeing safety, quality, and strict adherence to standard procedures. If carefully implemented, this could help reduce costs and improve the quality of products and services.

3) Adoption of technologies for automations

Technology adoption would benefit consumers and market players. It would improve quality, access, safety, and robust workflow.

As previously mentioned, the marketplace has pioneered numerous innovative technologies, but their adoption into the Nigerian market has been slow due to a lack of capital. Also, the marketplace has permitted in some ways the sluggish rollout of these technologies by their promotion of traditional tools known for their shortcomings.

Delivering blood transfusion automations through the marketplace will help to ensure that recipients receive the correct blood types and components, as opposed to the current practice of transfusing whole blood.

In this instance, the marketplace provides and dictates the necessary technologies, leaving end-users with available options for automation, thereby improving the provision of safe blood for Nigerians.

Technology adoption in the marketplace will help to streamline access and cut down the influx of substandard products into our market.

4) We have a huge role in storage

Medical goods, including those required for blood transfusion, require specific temperature storage conditions. Any compromise on these requirements provides gaps for erroneous outcomes in the clinical diagnostic space.

One of the key characteristics that determine the safety of a blood product is its storage. The players in the marketplace shall continue to make important decisions and intangible value additions by storing all blood-related goods and blood products without compromise.

Blood units, screening kits, consumables, and accessories all required prescribed storage conditions and should be kept accordingly.

Nobody is a patient; a compromise in the storage condition would amount to a compromise in the patient safety. The market players will henceforth, avoid entirely supplying these goods than providing them to our hospitals and laboratories at an assumed temperature status.

Beyond storage, our cold chain facilities should be tracked, monitored for temperatures, and documented for future reference and trend analysis. This is part of renewed effort by market players to ensure sustainability in healthcare.

We are determined more than ever to change the narrative. The era of using domestic refrigerator appliances to store blood should be over henceforth, we will not permit or become accomplice to such substandard practice. We will not promote any IVD product without due diligence on their process of production from the manufacturers.

We shall ask and check their obtained certification of storage instruments and verify their submissions independently.

The marketplace shall promote only internationally standardized products for blood storage.

We partake nor help hospitals or clinics to cut corners by improvising blood storage instruments, thereby compromising safety.

5) Adoption of external auditing for process improvements

Every improvement from the marketplace shall be a plus to the efforts by end-users and authorities to provide safe blood to Nigerians.

It is good to have a robust system in place, but it would be helpful to allow an objective review of it by a third party.

Our vendors from the marketplace shall make it a practice going forward to allow some external auditors to check their storage facilities and make recommendations for their internal process improvements, especially adopting and maintaining the right temperatures for varieties of medical goods.

6) Transportation

We shall object to poor transportation and logistic approaches to receive and transport blood-related goods to where they are needed. We shall continue to adopt adequate transportation channels and facilities to handle this sensitive life-saving product, blood. Track and monitor goods and services related to blood and other medical goods in extension.

7) Employment and continuous training approach

Based on perceived gaps, the marketplace might equally speed up any perceived knowledge gaps by employing the services of relevant healthcare professionals to interpret and implement the recommended standard requirements. In the short run, it might look expensive, but the benefits far outweigh any expended cost in the long term if safe blood provision is the focus.

Conclusion

Given the shrinking donor pool, it's critical to optimize the amount of blood derived from each donor. Blood supply is often critical to ensure optimum patient care.

The good efforts of the marketplace players are pivotal to the provision of safe and accessible blood products.

The support and corporation of the consumers is hereby sought to continue to provide safety engineered products for safe blood to Nigerians. And we shall continue to do our part in provision of safe blood for Nigerians while filling the patient safety gaps by ensuring proper handling and storage of clinical laboratory reagents 24hours a day, 7days a week and 365days a year nonstop.

Thank you for listening.