

Grant impact report

Please provide a 500-word (max) summary of what this BSH grant has allowed you to achieve.

In addition: Please include a recent photo of yourself.

Your grant report and photo will be published in our communications materials, including our website and social media platforms.

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Name	Dr. Onyinye Eze
Job title	Consultant Haematologist
Organisation	ESUT TEACHING HOSPITAL PARKLANE ENUGU NIGERIA
Grant awarded	BSH Global Haematology Scholarship
Year awarded	2023
Date started	15 th April 2024
Date completed	24 th May 2024

If you attended a conference with grant funding, we ask that you mention one piece of scientific or clinical research you found particularly interesting or innovative, with references or links to publication where possible.

Summary (please continue onto the next page should you need to)

Report on BSH-Sponsored NHSBT Training in Blood Transfusion

To: British Society of Haematology (BSH)

Subject: BSH-Sponsored NHSBT Training in Blood Transfusion

I am writing to provide a detailed report on the training I received through the British Society of Haematology (BSH) sponsorship, which allowed me to observe the world-class transfusion services at NHS Blood and Transplant (NHSBT). This comprehensive six-week training aimed to address the critical challenges in transfusion medicine that my home institution in Enugu, Nigeria, faces. The training was particularly significant given the high burden of diseases such as malaria, postpartum hemorrhage, sickle cell disease, and cancers in Enugu, all of which demand efficient, safe, and reliable blood transfusion services.

In my capacity as a consultant Haematologist working at a busy teaching hospital in Enugu, Nigeria, I have witnessed numerous transfusion-related challenges, including:

1. **Inconsistent Blood Availability:** Blood shortages are a recurring issue, leading to avoidable deaths, particularly in cases of postpartum hemorrhage, sickle cell crises, severe malaria, and cancer treatments that require blood transfusions.
2. **Suboptimal Blood Safety Standards:** The reliance on paid blood donors and insufficient infectious disease screening pose a high risk of transfusion-transmitted infections (TTIs) like HIV, hepatitis, and malaria.
3. **Inadequate Blood Management Protocols:** In Enugu, there are no established protocols for Patient Blood Management (PBM), resulting in unnecessary transfusions, which further strain the already limited blood supply.
4. **Absence of Hemovigilance Systems:** There is no structured system for monitoring and reporting adverse transfusion events, making it difficult to assess the safety and effectiveness of transfusions.
5. **Limited Knowledge and Training:** There is a significant gap in knowledge and training for clinicians, nurses, laboratory scientists, and other healthcare professionals involved in transfusion services, resulting in inefficient practices that compromise patient safety.

Addressing these challenges requires specialized training and the implementation of best practices in transfusion medicine. The BSH-sponsored NHSBT training was crucial in providing me with the knowledge, skills, and insight necessary to initiate improvements in our transfusion services.

During the six-week observership, I had the opportunity to engage in a variety of activities at NHSBT's Colindale and Manchester sites, shadowing leading experts in transfusion medicine and observing cutting-edge technologies and procedures. Below are the key areas of focus:

1. **Laboratory Visits and Blood Processing:** I visited NHSBT's testing, processing, and manufacturing facilities in Manchester and Colindale. These visits provided valuable insight into the processing and storage of blood and blood components, as well as the quality control measures necessary to maintain a safe blood supply.
2. **National Frozen Blood Bank and Red Cell Immunology (RCI):** I learned about the National Frozen Blood Bank and engaged in alloimmunisation testing at the RCI department in Colindale. Shadowing experts during these processes helped me understand the testing protocols for managing patients with conditions such as sickle cell disease, which requires frequent and safe transfusions.
3. **Haemovigilance and SHOT (Serious Hazards of Transfusion):** I met with the SHOT team and gained an in-depth understanding of the UK's comprehensive haemovigilance system. This experience will

be instrumental in establishing a similar system in Nigeria to track and prevent transfusion-related adverse events.

4. Patient Blood Management (PBM): Observing the PBM Practitioner Team gave me critical insights into optimizing blood use in hospitals by reducing unnecessary transfusions. This is particularly important in Nigeria, where blood shortages are common, and reducing wastage is essential to saving lives.

5. Donor Selection and Recruitment: I participated in meetings with the Donor Medical and Clinical Support Teams, observing how donor selection guidelines and medical discussions help ensure a safe blood supply. I also visited a static donor center to understand how the UK's voluntary blood donation model works—a key area of focus for improving donor recruitment in Nigeria, where paid donations are still prevalent.

6. Research and Development: Engaging with the NHSBT Research and Development team provided insights into ongoing research projects, such as the PANDA study, which focuses on preventing anemia in pregnancy, and the BTRU-data tranexamic acid implementation study. These projects highlight potential strategies for improving maternal health and transfusion practices in Nigeria.

7. Transfusion Practitioner and Audit Discussions: Meetings with transfusion practitioners and the National Comparative Audit Project Manager exposed me to best practices in clinical audits and how such systems can be adapted to evaluate and improve Nigerian transfusion services.

The training significantly enhanced my understanding of the complexities involved in blood transfusion services and provided a strong foundation for improving these services in Enugu, Nigeria. The following were the most impactful aspects of the training:

1. Donor Recruitment and Retention: The knowledge gained about voluntary donor recruitment will be instrumental in shifting away from paid blood donors to a more sustainable, voluntary donor system in Nigeria.

2. Blood Component Therapy: The experience of observing component therapy at NHSBT will allow me to introduce component separation techniques in my home institution, maximizing the use of donated blood and improving patient outcomes.

3. Implementation of Hemovigilance Systems: Understanding the SHOT haemovigilance system has given me a blueprint to establish a similar system in Enugu, enabling the monitoring of transfusion reactions and adverse events, thereby improving patient safety.

4. Patient Blood Management (PBM): With the knowledge gained from NHSBT's PBM practices, I will be able to work towards reducing unnecessary transfusions in Nigeria, conserving blood resources and minimizing risks to patients.

Since returning from the training, I have already shared the acquired knowledge with healthcare professionals in my institution and state through webinars and in-person training sessions. I have also initiated the establishment of a hospital transfusion committee in my institution and was recently appointed the State Director of the National Blood Service Commission, Enugu Centre. This new role affords me the opportunity to implement the skills and knowledge gained during the training on a larger scale across the state.

To further enhance the benefits of this training, I propose the following:

1. Continued Collaboration with NHSBT: Ongoing technical support from NHSBT, particularly in the areas of PBM, donor recruitment, and hemovigilance, would be valuable for implementing and sustaining improvements in Nigeria.
2. Regular Audits and Assessments: Conducting comparative audits between NHSBT and Nigerian institutions would be beneficial in tracking progress and identifying areas that require further attention.
3. Joint Research Initiatives: Collaborative research between NHSBT and Nigerian institutions on transfusion practices, particularly in areas like sickle cell disease management, would contribute to both knowledge sharing and practical improvements.
4. Training of Local Healthcare Workers: Developing a comprehensive training program for clinicians, nurses, and laboratory scientists in Nigeria, modeled after the NHSBT approach, will help raise the standards of transfusion practices and patient care.

In conclusion, the BSH-sponsored NHSBT training has provided me with invaluable knowledge and practical skills that will enable me to spearhead much-needed reforms in blood transfusion services in Enugu, Nigeria. I am grateful to the British Society of Haematology for this opportunity and to NHSBT for their mentorship. The training marks the beginning of a long-term effort to improve transfusion safety, availability, and quality in resource-limited settings.

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