

## Chapter 20

# Management and Operations of Transfusion Medicine: Impact of Policy, Planning, and Leadership on Bridging the Knowledge Gap

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### ABSTRACT

*Healthcare includes supportive services like blood transfusion. To manage blood supply and transfusion services, leadership development is paramount. E-learning has become a common global approach in teaching. However, there are limitations. Some are difficult to influence and eliminate. E-learning packages are promoted to effectively deliver education but are still not penetrated in clinical transfusion. Most clinicians have little knowledge of risks and benefits of hemotherapy. E-learning found its way into the field of blood transfusion. However, audits of clinical transfusion practice have demonstrated deficiencies in knowledge and practice that impact patient safety and in some cases result in death. WHO initiated a post-academic master course, “Management of Transfusion Medicine,” focused on leadership in restricted economy countries. This chapter focuses on bridging the knowledge gap in management and operations of transfusion medicine.*

## **INTRODUCTION**

To manage blood supply centres or establishments and hospital blood transfusion services, leadership development is paramount especially in the area of e-learning. However, there are still limitations of which some are difficult to influence and eliminate, because they are an integral part of less developed societies.

E-learning packages are increasingly being promoted as an effective way of delivering training within the National Health Service in Europe (especially the UK), North America and Australia. One alternative to the traditional lecture format is the use of online technology in continuing nursing education, also known as eLearning continuing nursing education (Gerkin, Taylor & Weatherby, 2009). This is because technology has revolutionized the ability to facilitate professional clinicians and nursing competence through the use of online education. In fact, the use of e-learning in the staff development environment has only recently been explored (Benson, 2004; Bernhardt, Runyan, Bou-Saada & Felter, 2003). Although they are being promoted increasingly as an effective way of delivering education, they have still not really penetrated the clinical transfusion practice illustrating that the importance of adequate knowledge and competence of blood prescribing clinicians is still not well recognized (Smit Sibinga & Oladejo, 2013).

According to Lundvall and Borras (1999), the global on-going revolution in Information and Communication Technologies (ICTs) has given rise to a learning economy wherein the capability to learn how to create new knowledge and adapt to changing conditions now determines the performance of individuals, institutions, regions, and countries. This has led to an increase in the demand for e-learning both in the organizational and the educational sector. Thus, the biggest growth in the Internet, and the area that will prove to be one of the biggest agents of change, will be in e-learning (Rosenberg, 2001). In view of this, the demand for a well-educated workforce has driven many countries to rethink their education systems towards e-learning. E-learning is defined as learning facilitated and supported through the utilization of information and communication technologies (Jenkins & Hanson, 2003). Thus, e-learning includes use of ICTs (e.g., Internet, computer and tablet, mobile phone and video) to support teaching and learning activities.

## **TRANSFUSION MEDICINE**

Transfusion Medicine is a bridging science dealing with the vein-to-vein events of blood transfusion. From the public oriented marketing and motivation sciences through the technical provision of acquiring source material, manufacturing, and distribution to the clinical science of bedside transfusion practice and handling adverse events.

Smit Sibinga and Pitman (2011) presented a broad overview of the various states of development of Transfusion Medicine. The focus is on how to bridge the existing knowledge gaps. Observations in various countries in different parts of the world have demonstrated the need for adequate and competent human capacity development and retention. A state of development in Transfusion Medicine is not in the first place dependent on upgraded equipment, technologies and methodologies, but on the accessibility of education (teaching and training) – a competent human capacity. Globally, clinicians prioritize clinical work, and extra time away would be a serious imposition. However, the need for education in clinical use of blood (in-hospital transfusion chain) is not only restricted to low and medium Human Development Index (HDI) countries, but stretches well into high and even very high HDI countries (UNDP HDI).

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