EXECUTIVE SUMMARY

Health care includes supportive services such as laboratory, radiology and blood transfusion. To manage blood supply centres and hospital blood transfusion services, leadership development is paramount. In 2000, a post-academic Master course for Management of Transfusion Medicine (MMTM) was initiated, focused on restricted economy countries. E-learning has become a common approach in teaching and training in many parts of the world. However, there are still limitations of which some are difficult to influence and eliminate, because they are an integral part of less developed societies in different parts of the world. E-learning packages are increasingly being promoted as an effective way of delivering training, but they have still not penetrated the clinical transfusion practice. Most clinicians have little knowledge of the risks and benefits of supportive haemotherapy, illustrating that the importance of adequate knowledge and competence of blood prescribing clinicians is still not well recognized. E-learning has found its way into the field of blood transfusion. However, audits of clinical transfusion practice have consistently demonstrated deficiencies in knowledge and practice that impact on patient safety and in some cases, result in death. This paper focuses on bridging the knowledge gap in management and operations of transfusion medicine from the perspectives of planning, policy and leadership issues.

Keywords: Clinical Use of Blood, E-Learning, Knowledge Gap, Leadership, Management, Transfusion Medicine

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ORGANIZATION BACKGROUND

Introduction

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, mobile phone and video) to support teaching and learning activities.

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).

This article provides an insight in transfusion medicine and e-learning as a promising way to bridge the existing knowledge gap, especially in the clinical part of transfusion medicine. The chapters 2 and 3 provide the current state of the art of e-learning in transfusion medicine and the clinical use of blood. Chapter 4 describes the development of a post-graduate Master curriculum for leadership in transfusion medicine, focused on management and based on e-learning as a distance learning methodology followed by a real time exposure with additional face-to-face tutorials and a Master thesis. The chapters 5 and 6 analyse the differences in experiences between countries and the approaches to adopt and overcome through proper policy making. The chapters 7 and 8 reflect on the lessons learnt and the future developments in the attempt to bridge the knowledge gap at a global level.

Transfusion Medicine and E-Learning

Since the United Nations’ (UN) Declaration of Human Rights was proclaimed in 1948, much has improved. However, the fundamental right of health and education is still lacking behind in large parts of the world. Since the outbreak of the HIV/AIDS epidemic, WHO has put enormous effort in controlling the epidemic. In particular, much energy has been invested in the development of safe and sustainable blood supply systems as an integral part of the health care. The Global Database on Blood Safety (GDBS) provides a far from cheerful picture (WHO-GDBS, 2004): 19% of the global population belongs to the more developed world with access to 61% (49 million) of all blood collected for transfusion which complies with all modern requirements of safety, and is provided by good organisations according to international standards of quality. The remaining 81% of the global population lives in countries that still have to go a long way to development. Here, only 39% (32 million) of the blood is collected, which often does not meet even basic requirements of safety - unsafe and unreliable donors, over 7% is not tested at all, and 32% only partially and often with poor quality reagents and inconsistent methodologies. Most important problems encountered include: lack of political will and vision, insufficient legislation and regulations, lack of infrastructure and