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The Evolving Role of the Transfusion Practitioner

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ABSTRACT

Much of the recent work in transfusion practice has shifted to focus on the patient, after efforts over previous decades to ensure the quality and safety of blood products. After the commencement of hemovigilance and transfusion practice improvement programs, the introduction of transfusion practitioners (TP) into health care services and blood centers has continued to increase worldwide. Since this relatively new role was introduced, much work of the TP has focused on patient and staff education, adverse events, transfusion governance, and monitoring of transfusion practices within organizations. The complex nature of the transfusion process makes the TP an integral link in the transfusion chain. Together with hospital transfusion teams and committees, the TP works collaboratively to facilitate the transfusion change management programs and initiatives. Recently, the TP role has evolved to include an emphasis on patient blood management and, to some extent, is shaped by national standards and regulations. These established roles of the TP, together with the ever-changing field of transfusion medicine, provide new opportunities and challenges for a role that is continuing to evolve worldwide.

Contents

The transfusion of blood and blood products continues to be integral to the provision of health care worldwide. Developed countries have largely eliminated the risk of transfusion-transmitted infections by extensive screening of donors and stringent laboratory processes. The focus in these countries, including Australia, has now shifted from the safety of the blood product itself, to the processes surrounding delivery of the product to the patient such as transport, storage, administration, and patient outcomes.

Internationally, hemovigilance systems have been implemented to improve the safety of blood products and transfusion processes. Hemovigilance refers to a "a set of surveillance procedures covering the whole transfusion chain (from the collection of blood and its components to the follow-up of recipients), intended to collect and assess

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information on unexpected or undesirable effects resulting from the therapeutic use of labile blood products, and to prevent their occurrence or recurrence" [1].

Since the work of hemovigilance began in France in the 1990s, similar systems have been established worldwide. The World Health Organization Global Database on Blood Safety reports that a national hemovigilance system was present in 13% of low-income countries, 30% of middle-income countries, and 78% of high-income countries [2]. Hemovigilance systems operate at international, national, state, and local levels and rely heavily on voluntary reporting. Instrumental to hemovigilance work, through data collection and reporting, education and awareness is a network of transfusion practitioners (TPs), employed to drive and promote the safe and appropriate use of blood.

This article will review the experiences and available literature regarding the emerging and changing role of the TP, its history, and the contribution of this role to hemovigilance. Articles indexed in PubMed, Google Scholar, and Medline were searched using the following Subject Heading search terms: "Transfusion Practitioner," "Transfusion Nurse," "Transfusion Practice," and "Transfusion Safety Officer." Additional publications and relevant practice guidelines were also included. Although the published literature is limited, this article will explore the challenges and opportunities facing TPs as the transfusion medicine focus continues to shift improving patient care. This relatively new role is also known worldwide as transfusion nurse or transfusion safety officer and will be referred to in this article as TP.

World Experience

Australia, like the rest of the developed world, invested in the TP role during the implementation of transfusion practice improvement and formal hemovigilance programs. One of the first hemovigilance reporting schemes was established in the UK, in 1996. Serious Hazards of Transfusion (SHOT) is an independent professionally led reporting scheme that captures data on adverse transfusion events from participating health care organizations. In 2005, The UK Blood Safety and Quality Regulations 2005 and the European Union directive established the mandatory reporting of all serious adverse events related to blood and blood products to the Medicines and Healthcare Products Regulatory Agency. A new reporting system—Serious Adverse Blood Reactions and Events (SABRE) was introduced and together with SHOT provides hemovigilance data for the UK [3].

In 1998, the Department of Health's Better Blood Transfusion Health Service Circular was published and recommended the establishment of hospital transfusion committees (HTCs) and for hospitals to participate in SHOT and introduce transfusion protocols and education programs for clinical staff to improve transfusion practice and transfusion safety. Some hospitals began to employ TPs to support this work [4]. In 2002, this was replaced by the Health Service Circular titled "Better Blood Transfusion: Appropriate Use of Blood." This sets out a new plan of action, which included the appointment of hospital TPs in all hospitals and the establishment of hospital transfusion teams [4]. According to the National Health Service Blood and Transplant (NHSBT) survey of TPs in England and North Wales, in 2010, there were more than 200 TPs employed across England and Wales [5].

In 2001, the Scottish Better Blood Transfusion program successfully trialed the introduction of TPs in its hospitals. By late 2003, 18 TPs were based throughout Scotland supported by the Scottish National Blood Transfusions Service [6]. The TP in Scotland is usually a senior nurse or biomedical scientist with a broad remit and who reviews training performance to ensure only competent staff participate in the transfusion process with the aim that "blood is used safely and effectively into the future in a changing healthcare system" [6].

In the United States, there are currently more than 30 formal TP programs in operation [7]. The 2011 National Blood Collection and Utilization Survey revealed that 201 US hospitals employed a TP and 60% of these were full time [8]. The role of TP has been filled by either a registered nurse with an expertise in blood administration and education or an experienced medical technologist/scientist with transfusion medicine expertise. This role is based either in the hospital or blood center and is responsible for improving the utilization of blood components, reductions in hospital costs, education of staff, and implementation of best practice processes to improve transfusion safety [7]. The TP is also responsible for capturing and reporting adverse transfusion data into the US National Healthcare Safety Network Biovigilance component module.

In Canada, various transfusion practice improvement programs were established from the late 1990s. Each Canadian province developed and implemented functional blood programs to help hospital transfusion services meet the national mandate and to improve blood utilization and patient safety through best practices and education [7]. In 1999, the health ministry in Quebec implemented hemovigilance programs and created and funded the first 20 TP positions in large hospitals [9].

Australian Experience

Within Australia, there have been a number of transfusion practice improvement projects ranging from local hospital-level to state-wide partnerships involving a number of health services in coordinated programs. From 2001, state-wide projects, such as BloodSafe in South Australia and Blood Matters in Victoria, were established to implement strategies and practical tools to assist health services to improve clinical practice and transfusion outcomes and included the piloting of TPs in a number of participating health services. An assessment of the TP role was undertaken after its inception during the collaborative Blood Matters Program in Victoria in 2001 and was overwhelmingly positive. Most of the participating centers rated the availability of a specialist TP as the most critical factor in the success of their transfusion practice improvement projects [10]. The success of the TP role has seen the ongoing roll out of TPs and later transfusion trainers (TTs). In Australia, the TT does not have specialist qualifications in transfusion and is thus often easier to recruit. A TT typically works in a more remote area with a focus on education and hospital transfusion practice. Currently, there are more than 40 health services with either TPs or TTs employed in Victoria and the equivalent of 40 full-time TPs employed nationally.

According to a report for the Australian Council for Safety and Quality in Health Care in 2005, evidence from these pilot programs indicates that transfusion practice typically reverts to historical norms when practice improvement projects come to closure. This suggests that sustained improvements need to be supported by established jurisdictional programs but driven at a local level by HTCs and, most importantly, a specialist trained human resource such as a TP backed up by medical and scientific staff with expertise in transfusion medicine [10].

Education and Qualifications for the TP Role

The TP is a specialist role similar to other hospital-based specialist practice roles (infection control and diabetes care) and can be fulfilled by individuals from a variety of professional backgrounds. A 2010 survey of England and North Wales TPs by the NHSBT revealed 69% of respondents were nurses [4]. However, many professionals are from a scientific background. A professional with a blood transfusion scientist/technologist qualification has a strong laboratory and blood banking knowledge base and an existing relationship with the blood supplier and transfusion medical staff. However, they are often not as familiar with clinical management of patients and bedside administration procedures [8]. The TP from a nursing background brings different expertise such as patient management, an extended knowledge of bedside practices, and an existing relationship with nursing and medical staff [9].

Blood services and transfusion improvement programs have established a number of educational opportunities for those undertaking the TP role. In the United States, the United Blood Services for

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Hospitals and Physicians offers a 3-day transfusion safety officer program [11]. In the UK, there are currently no national TP courses; however, a number of NHSBT study days are available [12].

In 2002, in Australia, a TP education program was established during the Blood Matters pilot program based in Melbourne. Over time, the course developed to include authors and content reviewers from around the country and is administered by the University of Melbourne in conjunction with Blood Matters [13]. The Graduate Certificate in Transfusion Practice provides an opportunity for those working in transfusion to gain further education focused on specialist content, with recognized postgraduate qualifications. The online format of the course has enabled students nationally and internationally to enroll and has attracted students from a broad range of health professional backgrounds.

Transfusion practitioners can also benefit from joining a professional special interest group. In 2011, the Australian and New Zealand Transfusion Professional was formed with the support of the Australian and New Zealand Society of Blood Transfusion and aims to promote consistency within transfusion practice through knowledge sharing of practice change, with particular reference to national guidelines and standards and patient blood management practices [13]. In Scotland, the TP network has developed information sharing between hospitals and health boards in an effort to standardize some transfusion practices. A TP network was established in Canada, with the introduction of a voluntary e-mail network, as a resource for TPs [9]. Special interest groups and TP forums are of particular importance for TPs who work alone, as they provide the resources and support required to fulfill the role. The National TP Survey of England and North Wales, 2010, reported that 50% of TPs were the only TP in their hospital [4], suggesting that support from special interest groups is imperative for these more “isolated” practitioners.

Providing Transfusion Education in Hospitals

A 2003 survey on the recommendations of the UK HSC Better Blood Transfusion found that respondents thought the best way to improve transfusion practice in hospitals was to increase education and training, followed by the appointment of a TP [14]. Implementing transfusion-related education programs for hospital staff is an essential part of the TP role. Establishing in-service lectures on safe transfusion practice to clinicians, nurses, orderlies, and blood bank staff is a frequent responsibility of the TP [8]. Transfusion-related education has evolved to include the development of self-directed online learning. The advantages of e-learning include flexibility and the ability to engage the learner in interaction and assessments to ascertain understanding of the content [6]. Many online education sessions also allow authors of the packages (in this situation the TP) and managers to see records of staff who have completed the training.

The South Australian Department of Health and Ageing together with BloodSafe initially established an eLearning program suitable for nurses, physicians, laboratory scientists and technicians and couriers, porters, and assistants. BloodSafe eLearning Australia is now nationally funded and is Australia's best recognized online course for clinical practice and patient blood management. Transfusion practitioner and health services from across Australia and internationally use BloodSafe eLearning Australia for their transfusion education and competency training. BloodSafe eLearning is supported by all state governments, the Australian Red Cross Blood Service (the Blood Service), the National Blood Authority (NBA), and the Australian and New Zealand Society of Blood Transfusion [13].

In the United States, the United Blood Service has developed a Blood Systems eLearning Center, where health professionals can complete a number of self-study transfusion-related courses. Importantly, completion of one of the self-directed learning courses by laboratory staff will earn one continuing education credit for the American Society of Clinical Laboratory Science professional education program [11]. In Wisconsin, a 1-day transfusion practice educational program is offered to all nurses twice a year and provides an opportunity for nurses to engage with transfusion medicine experts. Since its inception in 2007, the program has been attended by more than 275 nurses [7]. The Ontario Regional Blood Coordinating Network in Canada has established an electronic learning tool titled *Bloody Easy* [8].

In Scotland, Better Blood Transfusion developed *Learn Blood Transfusion*, an interactive eLearning resource and reporting system that collects data on who should have transfusion training and reports to TPs every 2 months their overall training figures. *Learn Blood Transfusion* is now recommended and supported by SHOT and the UK Blood Services. In July 2013, 80% of staff in NHS Scotland, who require transfusion training, had been trained [6].

The availability of these online educational tools has provided TPs and managers with valuable resources to assist with transfusion education. A 2010 NHSBT survey of TPs in England and North Wales found that TPs spend the highest portions of their time on transfusion education and training and competency assessments [4]. The use of online resources can facilitate a move toward consistent education at local, regional, and national levels.

With a major focus of transfusion practice improvement programs being patient engagement and consent, providing patients with adequate and appropriate transfusion information contributes to a patient's ability to make an informed choice about their transfusion [8]. Patient education resources in a variety of languages are readily available from transfusion practice programs and blood services worldwide and are available for TPs to use. Transfusion practitioner expertise regarding the specific services their organization provides and their patient population demographics ensure that the appropriate materials are sourced.

Auditing

The collection of data through auditing assists with transfusion governance and quality improvement processes and identifies any practice improvement areas. Transfusion practice auditing within a health care service is an important role undertaken by the TP. Local auditing provides data for the HTC, quality or governance unit, and executive committees on consent rates, blood administration or product usage, and compliance with transfusion policies and procedures. Data collection may also follow an incident in an effort to determine local practice or following the identification of a patient safety concern. Attendance at regional TP meetings or special interest groups can also identify areas for transfusion practice audits [13].

In Australia, the TP is also responsible for collecting data for submission to jurisdictional programs, such as Blood Watch or Blood Matters. These clinical audits are used to compare current transfusion practices with clinical best practice guidelines [13]. Similarly, in the UK, the National Comparative Audit of Blood Transfusion is a national audit program that provides an infrastructure for hospitals to measure care provided to transfused patients [15].

Audit results are often the catalyst for transfusion change management programs, as seen by Turner et al [16], who successfully implemented a transfusion practice initiative following audit results revealed poor performances by nursing staff with regard to patient identification and the administration and checking of blood. Following the introduction of 2-dimensional bar code technology, postimplementation audits showed an improvement from 11.8% to 100% in correct verbal identification of patients [16]. Similar results were shown in a pilot study in Australia, where data from auditing revealed poor compliance with patient identification pretransfusion. Following the introduction of 2-dimensional bar code technology and patient safety software, audit results revealed correct patient identification improved from 57% to 94% [17].

Adverse Event Management

Despite years of work that TPs, HTCs, and jurisdictional organizations have invested in promoting appropriate and safe blood product usage, errors and adverse events still occur in transfusion practice.

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Another role of the TP is to capture, monitor, and manage errors and adverse events that occur within their health service. Recognizing and reporting on transfusion-related incidents and adverse events are important, as the TP can work with the transfusion team to make recommendations for future transfusions, follow up with the patient/family and clinical staff, and maintain a database of hospital transfusion reaction rates [8]. The reporting on these events is not only a priority at local level to HTC or governance committees but also to state or national surveillance systems.

Australian surveillance systems have been established at a jurisdictional level, and these report to a national framework. In Australia, all reporting is voluntary; however, from January 2013, the national government recommended that all health care organizations participate in hemovigilance activities either locally or at a state or national level [2]. Serious Transfusion Incident Reporting is a voluntary reporting system that collects hemovigilance data from 4 states and territories across Australia. The national hemovigilance data are collated by the NBA, with the objective of the system being to provide data on the real risks and hazards of transfusion and evidence for improvements in transfusion safety [2]. Similar practice occurs internationally, with hemovigilance reporting systems such as SABRE and SHOT in the UK, New Zealand Blood Service Haemovigilance Programme [18], and the Public Health Agency of Canada's Transfusion-Transmitted Injury Surveillance System [9] all receiving reports from TPs on adverse transfusion events.

Administrative

Since the 1998 release of the HSC UK Better Blood Transfusion recommendations, 91% of hospitals surveyed have established HTCs [14]. In 2011 in Australia, the National Safety and Quality Health Service published standards outlining the need for a Transfusion Quality Improvement Programme overseen by an HTC [13]. Hospital transfusion committee transfusion governance activities include monitoring, reviewing, and improving hospital transfusion data such as wastage, consent rates, and transfusion-related errors. Key responsibilities of the committee include risk management and analysis of adverse transfusion events and to provide further reports to executive and clinical governance committees. The HTC includes representatives from key areas of transfusion practice such as transfusion medicine, hematology/oncology, perioperative (anesthetics and surgical), nursing, emergency, pathology, and intensive care unit. Unfortunately, effectiveness of some HTCs in Australia has historically been low due to members' limited time or lack of commitment [10]. Transfusion practitioners are integral in supporting the work of the HTC, as their role is dedicated to facilitating the transfusion practice activities of the HTC. The TP supports the workings of the HTC by providing a resource for coordination and other activities [10]. The TP, working with senior medical and other staff and management, is often described as the driving force behind the implementation of changes in policies and procedures that affects blood transfusion [9].

A transfusion episode is a heavily governed series of processes, where different agencies oversee one or more components of the transfusion safety chain [10]. This multidisciplinary approach makes the TP an integral contributor, as they act as a contact and liaison between departments within their health service and external state and national jurisdictional organizations (see Figure). The TP provides a vital link between these different provider groups, in particular those beyond the hospital laboratory [10].

Transfusion Governance

The acquisition of extended transfusion knowledge gained from experience, further study, and TP networks ensures that the TP is an excellent resource for both clinical and laboratory staff. In a survey of English hospitals in 2003, respondents were asked to indicate what they considered to be the best ways of improving blood transfusion practice. Suggestions included better accessibility to advice and improved communication between the hospital blood bank and other departments [14]. These can be achieved with the availability of a dedicated TP with expert knowledge to act as a hospital resource and the dedicated time to be a liaison between the laboratory and clinical departments.

Transfusion practitioner expertise can be used to ensure that current clinical practices align with state, national, and international guidelines and standards. Together with members of the HTC, a key responsibility of the TP is to ensure that transfusion policies and procedures are developed, kept current, and promoted. Through auditing, the TP can also provide evidence that staff are adhering to these policies and procedures. Parris and Grant-Casey [19] stated that there was anecdotal evidence to suggest that focused delivery of good transfusion practice messages by a TP raised awareness and had the potential to improve practice.

Transfusion practitioners have also successfully used their expertise and local knowledge to assist in the development of guidelines. Transfusion practitioner networks in Scotland have significantly contributed to the development and review of massive hemorrhage template by the Clinical Transfusion Advisory Committee. Ideally, the TP network, along with the Clinical Transfusion Advisory Committee, will be able to further encourage the sharing of information to achieve a more uniform approach to policies and procedures in Scotland [6].

Patient Blood Management

The evolution from a “product-centered” approach toward a “patient-centered approach” gave rise to patient blood management (PBM). Patient blood management aims to improve patient outcomes [20] and has been adopted by the World Health Organization as the new standard of care for transfusion practice [21]. Adoption of a multidisciplinary, coordinated approach to PBM has reportedly resulted in a reduction in red cell utilization (and associated costs); avoidance of transfusion-related incidents and adverse events; and, ultimately, better patient outcomes [22]. In Australia, the government sponsored the NBA to coordinate the development of PBM guidelines—6 modules that provide recommendations in relation to best PBM clinical practice. Spahn et al [21] describe Australia as the first country in the world to replace traditional transfusion guidelines with national PBM guidelines. This, together with the Western Australian implementation of PBM within its public sector, has made Australia a model for other nations to follow [21]. The National Blood Transfusion Committee supported by the NHS England has recently published online recommendations regarding the implementation of PBM [23].

Many countries, including the United States and most of Europe, are challenged with introducing PBM at national and state levels [21]. As there are often few government regulations regarding PBM, the decision is often left with the hospitals. The challenge in implementing these guidelines in hospital settings is support from a wide range of disciplines coordinated by the Transfusion Committee and the TP. The importance of PBM has seen the expansion of the TP role or, in some organizations, the introduction of a PBM coordinator role. Some organizations have created job descriptions that combine the role of PBM coordinator with that of a TP, while elsewhere, they work independently, with 2 distinct sets of responsibilities [8]. Either way, bringing about a practice change from product focus to patient focus requires a cultural shift at all health service levels [24]. Farmer et al [24] identify 2 positions required to successfully implement a patient blood management program, namely, a medical director and a PBM nurse coordinator.

Challenges/Opportunities

Health services worldwide have used the TP role to improve transfusion practice through change management programs, which provide

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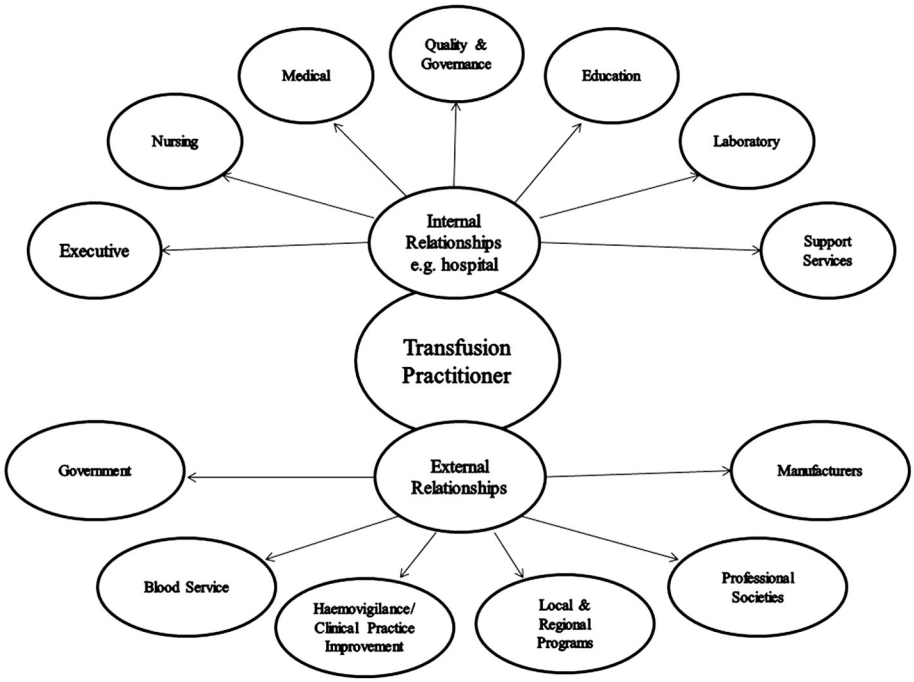

Figure. Transfusion practitioner relationships.

opportunities for TPs contribute to the introduction of best practice initiatives. Slapak et al [7] describe how a TP working with the Puget Sound Blood Center and a 350-bed Seattle hospital found a "defect rate" (one or more requirements of correct patient monitoring missing) of 37% during a random audit of blood component administration documentation. The TP worked with hospital clinical staff to develop a training guide and revise electronic documentation tools. Postimplementation defect rates were consistently less than 5% monthly [5].

These local practice improvement projects need the support of staff hospital wide. A challenge facing many TPs is engaging executive support to ensure the success of these projects. A 2010 NHSBT survey of TPs recognized that fulfilling the national and regulatory requirements, including competencies, requires more support from departmental managers within their organizations. Seventy-six percent of TPs surveyed said that they would gain greater job satisfaction if they had better managerial support [4]. As transfusion medicine is multidisciplinary, support for the work being undertaken is required from health service executives. Engaging managers and clinical staff in change management projects is always challenging, especially given the competing demands on these individuals' time. However, the inclusion of an executive member on the HTC can provide this necessary support. A quality/risk manager can be a valuable member of an HTC, as they can assist in achieving hospital-wide change in transfusion practice due to their knowledge of quality systems within the organization [13].

Transfusion practitioners are often involved in identifying areas needing improvement, appropriate study, and data collection in transfusion medicine research. This can link well with both practice improvement activities (to design, test, and implement and monitor interventions) as well as providing career development opportunities for TPs themselves. In Australia, TPs contribute to research projects of the Transfusion Outcomes Research Collaborative (such as by data collection for validation studies contributing to establishment of a national registry for massive transfusion and critical bleeding events [25]) and participate in annual investigators' meetings. Another example of TP involvement in research was a study undertaken in 2009 into "wrong blood in tube" errors. The overall objective was to understand the factors leading to lapses in procedures as well as the barriers to success across 3 Victorian hospitals emergency departments. Six key human factor categories were identified and included environment, staff, equipment, patient, procedure, and culture. This study highlighted the complexities of the wrong blood in tube and made a total of 40 recommendations to improve safety [26].

Financial status of health services and external stakeholders can place pressure to demonstrate value on TPs and the organizations supporting their roles. Securing funds to assist in financing the TP role would be improved by demonstrating both direct and indirect cost savings by having a TP. While a reduction in blood wastage can be measured as a monetary value and this alone can be very persuasive for health service managers, the savings to health care services as a result of avoiding adverse events or inappropriate transfusion is more difficult, especially in the absence of robust hemovigilance data. Consequently, it remains a constant challenge for transfusion practice improvement programs in many settings to maintain funding for TPs. The financial support provided for the TP role often results in the inability for some organizations to fund the role full time. As a result, many TPs undertake dual roles, as highlighted in the 2010 survey of England and North Wales TPs by the NHSBT, which revealed 18% of TPs are in a dual role. Unfortunately, 40% of those in a dual role do not want to be in the role in a year's time, highlighting the challenges and dissatisfaction faced by TPs trying to fulfill dual roles [4]. Unfortunately, the financial status of many institutions may continue to create uncertainty for TPs due to budget restraints.

A major challenge facing many TPs, particularly those in England, is the lack of a national-defined criteria or detailed guidance on the specific scope and objectives for the role [4]. This lack of role definition may lead to assignment of inappropriate tasks, which are not "transfusion related." Throughout the UK, this has lead to a difficulty in recognizing the increasing workload of the TP.

Evolution of the Role

The role and responsibilities of the TP vary widely and have evolved significantly. A summary of these responsibilities is outlined in the Table.

The focus of the TP historically has been to promote within their organization the safe and appropriate use of blood products. While the focus on staff and patient education, appropriate clinical practice, and collection of data remains, the role now includes the promotion of PBM and the achievement of and compliance with national standards,

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Table
Transfusion practitioner responsibilities

Key responsibilities	Activities
Promote safe and appropriate blood transfusion practice	• Risk assessments • Audits and feedback • Develop and implement practice standards and guidelines (policies/protocols) • Patient education • Research
Training and education of staff	• Develop, maintain, deliver, and evaluate learning packages
Manage and monitor errors and adverse events	• Develop and maintain processes for the reporting of incidents and reactions
Laboratory and clinical liaison	• Facilitate communication
Manage change within the organization	• Engage key stakeholders and leaders • Develop and communicate plans • Risk assessment • Assess effectiveness
Administrative	• Accreditation • Documentation • Reports to institutional management and governance committees
Promote specialized role of transfusion practitioner	• Continuing education and professional development • Raise awareness by presentations at seminars and conferences • Secure ongoing funding for TP

where these exist. A report on England and North Wales TPs indicating that while the main focus of the Better Blood Transfusion initiative has not changed from safe and appropriate use, the TP role has been significantly reshaped by other national requirements, most noticeably the Blood Safety and Quality Regulations and the national transfusion competencies [4].

In 2011, The Australian Commission on Safety and Quality in Health Care developed the National Safety and Quality Health Service Standards. These 10 standards are integral to Australian health services, as organizations must comply with these standards for accreditation. Significantly, Standard 7 is devoted entirely to blood and blood products and describes the systems and strategies for safe and appropriate management of blood and blood products. The standard covers all areas of transfusion practice from governance systems and policies to patient consent and wastage. The introduction of a whole standard focused on blood and blood products highlighted the importance of transfusion-related clinical governance and the work of HTCs, in particular TPs. Transfusion governance is now mandated and includes establishing policies and procedures and monitoring and reporting on adverse events and recognizes the importance of patient involvement such as informed consent [24]. The standards have highlighted the importance and need for transfusion governance and safety and, as a result, support the work of clinicians, TPs, and other members of the transfusion team [27]. This recognition has created the opportunity to obtain executive support from internal and external stakeholders for a number of transfusion practice improvement activities.

As the role of the TP continues to evolve so too must the environment in which some responsibilities are undertaken. Internet, mobile phones, and social media are inexpensive and readily accessible avenues for information sharing and education. Web sites, social media sites, and mobile applications are being used for patient and staff education. Examples of these initiatives include the introduction of a Web site by the NHSBT to promote the appropriate use of platelets [28] and mobile applications resources by the Blood Service in Australia about blood component information, iron overload, and fact sheets [29].

The changing world of transfusion medicine will inadvertently aid in the professional development of the TP. Local experiences, implementation of change management opportunities such as PBM, and new technologies, together with ongoing educational opportunities such as the Graduate Certificate of Transfusion Practice (and associated qualifications), are all examples of how the TP can develop in the role professionally. Importantly, the emphasis hospitals now place on compliance with the national standards has resulted in greater reliance of this specialist position from the executive level down.

Conclusion

The central focus of the TP should remain to promote the safe and appropriate use of blood, with key responsibilities in transfusion governance, education, and hemovigilance reporting. However, opportunities are evolving to include the implementation of PBM programs and the introduction of new technologies to improve patient and product identification and ordering of blood products. Patient safety remains a collaborative approach between the blood providers, health services, and transfusion teams, with the TP acting as a key link between, and resource for, these groups and a driver of safety and appropriateness.

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