ΑΡΘΡΟ ΣΥΝΤΑΞΗΣ
EDITORIAL

Blood donation systems as an integral part of the health system

Blood transfusion is vital in the treatment of people suffering from various acute and chronic diseases and it permits safe surgery. Human blood should be recognised as a national resource to be shared with those whose life or health depends on its availability, safety and appropriate use.[1–7] Transfusion of blood and blood products is an important part of modern health care and it is a responsibility of governments to provide transfusion services to their citizens. Traditionally, however, blood transfusion services were of low priority in the health care systems in the majority of countries worldwide. In developing countries, where, according to some estimates, 80% of the world population has access to only 20% of the global blood supply, the position of blood transfusion services within the health care system attracts little interest and absorbs a very small percentage of the budget assigned to health.[8–10] Under such circumstances, the quality and development of blood services have been considered as very costly and resource hungry activities. Bitterly, in this respect, the pandemic of AIDS has had a positive side; i.e. the awakening among the health care provides of awareness of the need for strengthening blood transfusion services.[8,9]

The Council of Europe, since its foundation in 1949 as the first European political organization, recognising the importance of blood transfusion in the health sector, established three basic principles upon which blood transfusion systems can be developed.[1–10] These are the promotion of voluntary non-remunerated blood donation, the goal of achieving self-sufficiency in blood and blood products, and the ensuring of high quality of donated blood or plasma. On the same basis other international organizations have also set up recommendations, conventions and agreements for governments on policies about blood, and the responsibilities of health authorities, medical professionals, blood donors and the public have been defined.[8–11]

For the establishment of an effective national blood transfusion system as an integral part of a national health policy, the three key factors are: development of a national blood policy, well trained and committed professionals and a national advisory committee of experts in the field of blood. The national blood policy should be modelled on the above recommendations and backed by legislation. Otherwise, there is a risk of commercialization of the blood donation and transfusion systems and this is likely to lead to exploitation of both donor and patients and to increased risks of transmission of diseases by blood transfusion.[8–11]

The question of whether blood is considered as a commercial product, "goods", or as a gift, private or public, characterises a blood donation system, which in turn reflects a value system in the context of a national health system.[2,6,12,13] The socioeconomic, cultural and organisational differences which exist between countries are the reasons for the differences between donors systems.[13]

In Europe, there is no country where a system of paid blood donation prevails, and non-remunerated blood donation has been established for many years in the majority of the member states of the European Union. In many central and eastern European countries mixed systems co-exist and it is among the objectives of most of these countries which are currently undergoing socioeconomic change, to include voluntary non-remunerated blood donation in their health sector reforms.[13]

Safety and blood donation systems

Comparisons between paid and voluntary and between mixed and voluntary blood systems have been made since Titmuss wrote his monumental book "The gift relationship; from human blood to social policy".[2] He was the author who first put emphasis on the societal values of blood and the economic functioning under humanitarian-altruistic principles. Beal and Van Aken in their paper "Gift or Goods" have also referred to the debate about voluntary versus paid blood donation. In this work and in other relevant papers, the issues of safety and quality assurance of blood are examined in the light of current legislation and practice, and the recent clinical data concerning risk factors in various donor groups are discussed in the context of the various donation systems.[6]

The commercial firms argue that the private blood banks carry out the same tests as the public blood transfusion services.[13] However, evidence from early clinical studies revealed that blood products from private blood banks showed an increased risk of hepatitis B.[10] This was attributed to the fact that the paid donor comes from very low socio-economic classes in whom alcohol and drug abuse, nutritional and other unspecified medical conditions are common. Similar differences were identified in the early 1990s by various authors in relation to screening for hepatitis C, where 10–11% positivity was found in commercial plasma donors and 45–70% in intravenous drug users. In Germany the ratio of remunerated to voluntary non-remunerated donation for HIV positive donors was estimated at 8%, and the prevalence of anti-HTLV-II antibody in Spanish paid plasma donors was found ten-fold higher compared to whole blood donations.[13–16]

Currently, the debate about paid versus non-paid blood and plasma donation continues and the value of PCR testing in assuring blood safety is under discussion by both sides. However safety cannot be guaranteed by a non-remuneration policy alone.[14–17] Sociodemographic and psychological factors (e.g., sex, age, region, education, frequency of donation, type of donors) are also important and have their impact on safety and quality.[14]

Following a crude classification of donors into three categories, i.e. voluntary, family replacement and remunerated, blood safety has been examined by frequency of donation; new or first time, sporadic or regular donors, and the data available for behavior of donors and non-donors are discussed. According to these data, the life-style of the donor is a marker of quality and a prerequisite for safety, and for this reason current practices in blood donor motivation and selection are also examined.[9,14]

According to recent reports from the International Federation of Red Cross and Red Crescent Societies and the European Union, the principle of voluntary non-remunerated blood donation as defined by the Council of Europe is not applied properly in several countries with non-remunerated blood donation systems. In various places in Europe a sum of 25 ECU is given to "volunteer" blood donors as reimbursement of travel expenses, plateletapheresis and plasmapheresis donors receive money and blood donors are given food tokens, theatre tickets or free trips. Donors may be allowed extra time off work or school, depending on age, or given extra vacation. Blood donor associations may negotiate with the blood services over blood distribution in "exchange" for their "deposited and banked" contribution.[18]

The reasons for such practices may be associated with economic misfortune, acute blood insufficiencies (general or seasonal), cultural concepts and the lack of appropriate education of the public and target groups. Social and political changes can aggravate these conflicts and may not provide the necessary conditions for the development of consistent educational program for promoting voluntary non-remunerated blood donation, coupled with appropriate legislation and the introduction of binding regulations for the blood donation system.[14]

On the threshold of the new millennium and in view of the existing international conflicts, national and civil disturbance, war and other major social and economic uphevals, the development of programs for the recruitment and retention of voluntary non-remunerated blood donors is a challenge which calls for further support and reassurance. Extensive studies in Europe have investigated the reasons for which people give or do not give blood and the attitudes of Europeans about these issues. Data of the European Commission from the "Eurobarometer 41" study performed in 1994 showed that 52% of Europeans thought people gave blood because it was the right thing to do.[18] However, in Mediterranean countries (Greece, Italy, Spain and Portugal) the reason most frequently stated was also personal, i.e., because of needs of a relative or friend. This finding was further analyzed in Greece in the context of quantitative and qualitative surveys conducted in 1997 to investigate the profile of the blood donor and his/her attitudes towards blood donation and transfusion. The message, which cannot be ignored, arising from these studies and other relevant research is that in those

countries where the family has remained a strong unit, many donors give blood because of the need of a relative or friend. In countries characterized by a mosaic of nationalities or races, with history of civil war and uprisings, nationalism and separatism, it may be unreasonable to expect that the principle of altruistic donation for the unknown fellow-man, as required by international organizations, can be adopted easily.[14]

It is essential to give serious thought to how, in practice, family replacement donors may be "converted" into regular volunteers. In this respect, provision of appropriate information and counselling and the other standard procedures applied to enhance donor motivation and selection should stress those factors most likely to affect the replacement donor's decision to donate voluntarily.

Starting from the point that the blood donor is the prerequisite for blood transfusion, his/her needs must be the focus of all activities. Without blood, it is not possible to consider the question of blood safety and quality. Without the blood donor, it is not feasible to develop transfusion medicine. How can the goal of a consistent supply of safe blood be achieved? How can blood safety and quality be assured?

Developing programs for blood donor recruitment and retention

Taking into account the mentioned above points, the establishment of voluntary, non-remunerated blood donation should be the means utilized to achieve the goal of a consistent supply of safe blood. However, this is not an easy task.[8] Some countries are introducing legislation requiring the phasing out of paid donors and in other places, where the family has remained a strong unit, practices are being developed to convert motivated family replacement donors into regular volunteers who will give blood for the anonymous fellow-man.[8]

These important changes which ultimately aim at the recruitment and retention of regular blood donors with low-risk behavior can only be achieved through the establishment of a national blood donor recruitment program, staffed by trained personnel, and backed by an active information, education and motivation campaign. It also requires vigilance by donor clinic staff, stringent donor selection criteria, the systematic use of a medical questionnaire to identify donors for deferral or exclusion, high quality donor care and meticulous blood donor record systems.[8–10]

Management of blood donor recruitment and retention

Effective blood donor recruitment and retention should to be managed in a businesslike way by a director of blood donor recruitment. The director should be a professional specialised in communication, marketing and management, and with extensive knowledge of the needs and capabilities of the blood transfusion services. The director of blood donor recruitment must be a member of the senior management team in the blood services,[8] with a mandate to establish and implement management systems which permit the staff and volunteers involved to publicise the need for blood and to recruit, inform and organize blood donors to meet the community's needs for blood. It is important that the staff be continuously trained in all relevant aspects of blood donor recruitment and retention, and of the blood transfusion services.[8] For the development of an effective program for public education and blood donor motivation, realistic targets should be set, which can be achieved, taking into account the local and national blood requirements.

Provided that optimal use of blood can be assured, a realistic target will range from 40–50 donations per 1000 population per year.[10,13] The safety for the blood recipient of voluntary non-remunerated blood donation must also be emphasized in community education efforts. These messages and the donation procedures need to be explained. Fears (related to needles, fainting, weakness etc.) and mistaken ideas (e.g. that HIV may be contracted by donating blood) should be addressed by well trained recruiters using appropriate educational materials. This work is carried out through the mass media, by personal contact in mobile units (stable or community-based), in blood centers, in hospitals, in the armed forces and other places conducive to the education and motivation of target groups.[8,13,14,19,20]

Good public relations on the part of the blood recruitment team and all the staff of the blood services are essential and in this context, important persons at the local and national levels (athletes, movie actors, TV stars, singers and heads of villages and municipalities, as well as church leaders) may be excellent role models for their communities.[8,13]

Ideally, the blood donor should be a regular donor who gives blood every 3–4 months, who is well informed about risky behaviors and who has proved competent in taking care of his/her health. Regular blood

donors are tested frequently and for this reasons they constitute a low-risk population for infectious markers compared to the general population.[8–10]

Retention of blood donors depends largely on their satisfaction with the blood services. A warm welcome by qualified personnel who pay attention to the donors' well-being is essential. The blood donors who feel at home in the blood center will come again and bring their family members and friends. They may become platelelapheresis, plasmapheresis, or double erythroapheresis donors and they may be enrolled to work voluntarily in recruiting new blood donors, organising blood donation sessions, offering refreshments etc. The donors must also feel that their gift is useful for the community and appreciated.[13,14]

For these reasons good communication programs with recognition of donations are key factors in blood donor recruitment and retention.[21] Awards, letters of appreciation and encouragement refreshments, ceremonies, parties, newsletters, are all valuable materials and methods which can be utilized for promoting blood donation. For the purposes of recruitment and retention of blood donors, development of a donor data-base is essential, and donor notification and referral for counselling, as well as monitoring of transfusion transmitted infections in the donor population should be an integral part of the quality system in the blood services.

Guidelines, standard operating procedures, monitoring indicators and work evaluation methods are tools of quality management and quality assurance in blood transfusion.[8,10,20–22] Vulnerability and capacity assessment (VCA) is a process recommended to help the blood department to meet the challenge of the strategic work plan, reflecting goals, strategies and priorities.[23] Promotion of regional cooperation and maintaining links with international organizations are other important activities of a national blood transfusion service directed towards sustaining the development effort.

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