Health Services Research

Behrouz Mansouri Taleghani^a Hans-Gert Heuft^b

^aDepartment of Hematology and Central Hematology Laboratory, Inselspital, Bern University Hospital and University of Bern, Bern, Switzerland;

^bInstitute for Transfusion Medicine, Hannover Medical School, Hanover, Germany

Health services research (HSR) is a relatively young scientific field that developed through bridging social science perspectives with the contributions of individuals and institutions engaged in delivering health services. As a result the multidisciplinary scientific field of HSR investigates how social factors, financing systems, organizational structures and processes, medical technology, and personal behaviors affect access to health care, the quality and cost of health care, and quantity and quality of life.

From the beginning it has been scientifically acknowledged that the efficiency and safety of blood transfusion relies on the scientific inputs of a number of medical disciplines. After being mainly focused on safety, availability, compatibility, and optimal use of blood products as reflected by the milestones of transfusion medicine research, such as discovery of the ABO blood group system and the Rhesus blood group system, the testing for viral infection markers such as HIV and HCV, NAT-PCR as well as the testing for bacterial infections and pathogen inactivation, transfusion medicine has now developed into a highly interdisciplinary field encompassing medicine, public health, and law. Known as the ‘transfusion chain’, raw blood from healthy donors undergoes a number of processing operations between the sampling, distribution, and transfusion phases.

In recent years HSR is gaining an increasing attention in scientific approaches of transfusion medicine and by that widening the scope significantly.

The articles presented in this issue deal with some of the most prominent aspects of HSR. Volken et al. [1] give an overview on how blood group distribution in Switzerland has changed over the last 70 years due to immigration from several countries and how this affect blood donor recruitment and blood product requirements.

The papers by Müller-Steinhardt et al. [2] and Schönborn et al. [3] deal with the consequences of the current demographic change for the blood donor population and the blood supply in two federal states of Germany. The main problems that we are facing in the future are a decreasing donor pool due to the shortfall of a substantial part of the donor population because of age and an increased demand of blood products accompanying the aging of Western populations.

Donor recruitment plays a significant role in safeguarding an adequate blood supply, and the selection of healthy donors is crucial to maintain the existing high level of blood safety. The use of a questionnaire to assess donor eligibility is mandatory in the European Union. Due to the de-centralized structure of the blood supply in Germany, at present, different questionnaires are in use. To optimize the quality of donor recruitment, a group on behalf of the National Advisory Committee ‘Blood’ developed a uniform donor questionnaire which aimed to be as simple as possible, comprehensible, accepted by donors, and effective in selecting low-risk healthy donors. The challenges accompanying the introduction of this new donor questionnaire are highlighted in the articles by Houareau et al. [4] and Offergeld and Heiden [5].

Another important issue is the administration safety of blood products. An analysis of errors occurring in the German transfusion system showed that the adherence to the extensive German transfusion guidelines (particularly with regard to transfusion needs) is low, and that transfusion safety might be improved by technical solutions such as barcode- or RFID-based scanner techniques [6].

References

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