

特別講演 3

総会長招聘講演
オランダの血漿分画事業

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Plasma products programme in the Netherlands

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The first Netherlands' blood transfusion service (BTS) was founded in 1930 in Rotterdam, based on the pioneer work of Percy Oliver, the founder of the first Red Cross BTS in London (UK), who recruited only voluntary, non-remunerated blood donors (VNRBD). The success of the BTS in Rotterdam resulted in more BTSs, and in 1939 a Central Blood Transfusion Committee (CBTC) was installed for central coordination. The threat of a world war created a demand for 'conserved' blood and two conservation institutes were built of which the Amsterdam facility became later the Central Laboratory of the Netherlands' Red Cross BTS (CLB), where freeze dried plasma was produced for the treatment of war victims, and blood transfusion research and diagnostic services took place, as well. Legislation on blood was developed since 1965. Based on a CBTC's proposal, from 1973 on the 110 BTSs were transformed into 22 regional Red Cross blood banks that were responsible for donor recruitment and production and delivery of blood components; in CLB, internationally renowned blood transfusion and immunological research, diagnostic services and plasma fractionation developed further. Over the years, not only the demand increased for blood components but also for albumin solutions, clotting factor VIII and immune globulins. Major progress was made in blood transfusion science, i.e. the first blood separation machine (1987) and the first evidence-based Consensus Guideline on Blood Transfusion Therapy of the world (1982), but logistic, collaborative and quality issues

and the development of European legislation on blood forced the Minister of Health for a merger between the blood banks and the CLB in 1998 with the aim to create a national blood transfusion organization, Sanquin Blood Supply, with nationally uniform blood components based on high quality and safety standards. The following years, quality requirements and cost containment resulted in further concentration of activities and Sanquin consists currently of 5 divisions: Blood Bank, Plasma Products, Diagnostic Services, Research, and Reagents. The financially not-for-profit basis of Sanquin supports basic and applied research which in 2012 has resulted in 12 theses and 175 scientific publications in peer reviewed journals. By law, the blood bank is the only organization in the country which is responsible for the supply of blood components; the plasma products division however operates in a commercially competitive environment. For the manufacturing of plasma products for the Netherlands, the blood bank provides recovered and source plasma from VNRBD aiming for self sufficiency. In the coming future for the best possible supply of blood and plasma products, two seemingly contradictory developments play a role. The significant reduction of the use of blood components in hospitals over the last years (the number of transfusions of red cells decreased from 564,290 (2009) to 506,671 (2012)) and a reduction of the budget of the health care sector of 6% in general, forced Sanquin to start implementing a cost effectiveness programme resulting in a reduction of full-

time positions. At the same time, a major growth of the Plasma Products Division due to contract manufacturing and export activities asks for scaling up of the facilities from 300,000 L in 2012 to 2,200,000 L in 2016, which reinforces Sanquin's already solid foundations and thus strengthens the Dutch blood supply. Sanquin expects that alternative products and transfusion techniques and new transfusion therapy policies will reduce further

the demand for blood components. A increase of the demand for plasma derived medicinal products (i.a. immune globulins, albumin, clotting factors) worldwide however is expected, in particular in developing countries, and will increase the demand of qualified plasma for fractionation. This development on the supply of suitable recovered and source plasma for fractionation will become a major challenge for the future.