

WHO RECOMMENDATIONS ON THE PRODUCTION, CONTROL AND REGULATION OF PLASMA FOR FRACTIONATIONA. Padilla*World Health Organization, Geneva, Switzerland*

Since 1976, the WHO's technical position regarding quality and safety of blood products has been set out in the WHO Requirements for the collection, processing and quality control of blood, blood components and plasma derivatives. The requirements define a quality assurance system based on the existence of a national structure independent from manufacturers as well as the principles of quality assurance for biological products i.e. control of starting material, production process and final product supported on the adherence to the principles of Good Manufacturing Practices. Numerous developments have taken place since the time those requirements were last published in 1994 (1), requiring the development of complementary guidance documents which would fill the main gaps. An example of such a guidance document is the WHO Guideline on Viral Inactivation and Removal Procedures, adopted in 2003 (2). These Guidelines pertain to the validation and assessment of viral inactivation and removal steps employed during the manufacturing of human blood plasma derivatives and virally inactivated plasma for transfusion, either prepared from plasma pools or from individual donations. This WHO Guideline is being of significant impact on the implementation of quality assurance systems in the introduction of viral inactivation procedures and the validation of these processes, supporting the Quality Assurance capacity building activities for Medicines Regulatory Authorities. Also, a number of gaps were identified in the WHO Requirements above mentioned, notably related to quality aspects of plasma as a starting material for manufacture of medicinal products. Those include the selection criteria for blood/plasma donors, donation and (plasma) pool testing/screening policies, the epidemiology of transmissible diseases among blood donors, processing of plasma, inventory management, GMP for blood/plasma collection centres, requirements for inspection by local control authorities and issues related to the licensing and approval of blood and plasma collection centres. To fulfill those gaps, new WHO Recommendations have been adopted in 2005 (3) which intend to provide guidance on the production, control and regulation of human plasma for fractionation as a source material for plasma derived medicinal products. Furthermore, an updated WHO Guideline on Tissue Infectivity Distribution in Transmissible Spongiform Encephalopathies has also been prepared (4). Such combination of information is necessary for the manufacture of safe plasma derivatives at global level. The new Recommendations, by bringing together experience and information, will serve as a guide to blood establishments and fractionators in their implementation of appropriate procedures for the production and control of the starting plasma material, and will facilitate the provision of safe fractionated plasma products worldwide.

The major interventions considered in the WHO Recommendations to assure the quality and safety of plasma for fractionation will be discussed. The WHO Recommendations and Guidelines are intended to assist National (Medicine) Regulatory Authorities (NRA) in establishing the supervision necessary for assessment of the quality and safety of plasma for fractionation, either prepared locally or imported. Manufacturers of plasma derivatives (fractionators) may use these guidelines when discussing the quality criteria of plasma for fractionation with representatives of blood establishments and the National Regulatory Authorities.

References: [1]WHO. Requirements for the collection, processing and quality control of blood, blood components and plasma derivatives. Technical Report Series No. 840, Annex 2. World Health Organization, Geneva 1994 [2]WHO Guidelines on viral inactivation and removal procedures intended to assure the viral safety of human blood plasma products. Technical Report Series No. 924, Annex 4. World Health Organization, Geneva 2004 [3]WHO Recommendations on the production, control and regulation of plasma for fractionation. Expert Committee on Biological Standardization 2005: Technical Report Series (In press). [4]WHO Guidelines on Tissue Infectivity Distribution in Transmissible Spongiform Encephalopathies. Expert Committee on Biological Standardization, 2005. In press. All documents are published via Web site: www.who.int/bloodproducts.