Conference Abstract

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Blood Transfusion Service Policies, Resolutions and Frameworks: Historical Background and Current Global Efforts

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The journey toward universal access to safe, effective, and quality-assured blood products is rooted in a series of significant historical developments and coordinated global efforts. The evolution of transfusion medicine and blood safety practices has been shaped by scientific discoveries, technological advancements, and policy interventions. Historically, transfusion practices have evolved from rudimentary techniques in the 17th century to more sophisticated, life-saving procedures. Key milestones include the discovery of blood groups by Karl Landsteiner and the development of blood preservation methods during World War I and II, which laid the groundwork for modern blood banks. The establishment of national and international policies became essential to ensure the safety, quality, and availability of blood for transfusions. Early frameworks focused on volunteer non-remunerated donations to mitigate risks of transfusion-transmissible infections.

The field of transfusion medicine has benefited greatly from the contributions of numerous Nobel Prize laureates who have pioneered advancements in medical research, biology, and chemistry. There are ~ 13 notable Nobel Prize laureates who have contributed directly to the development of transfusion medicine.

In the contemporary era, global organizations such as the World Health Organization (WHO), International Society of Blood Transfusion (ISBT) and the International Federation of Red Cross and Red Crescent Societies (IFRC) have taken the lead in setting standardized guidelines to enhance blood safety and accessibility worldwide. The WHO has played a central role in the global pursuit of safe and effective blood products. This has been achieved through policy advocacy, technical guidance, and encouraging international collaboration. Resolutions like WHA28.72 (1975), WHA58.13 (2005), WHA63.12 (2010) and frameworks like the Global Blood Safety Initiative underscore commitment to achieving universal access to safe blood. There is an emphasis on strengthening national blood policies, establishing thorough regulatory frameworks, and promoting universal access to safe blood transfusions. Digital advancements and artificial intelligence are being integrated to improve supply chain management and predict demand surges, particularly in crisis situations.

Despite these achievements, challenges persist, including disparities in access to safe blood in low-income countries, cultural barriers to blood donation, weak regulatory oversight, and the ever-present threat of emerging TTIs (transfusion transmitted infections). Continuous global cooperation and commitment are vital to address these issues, ensuring equitable, safe, and sustainable blood transfusion services for all communities.

The historical developments in transfusion medicine, combined with strong policy frameworks and international cooperation, continue to drive progress toward the goal of universal access to safe blood products.

Disclosure

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