Preface

The Development of the Nascent Field of Pediatric Transfusion Medicine

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Editors

The concept of childhood is a more recent construct of civilization from the seventeenth century. Previously in human history, once a person could walk and talk, there was no distinction, and more importantly, no protection for this vulnerable time in development. This transition in thinking of childhood as a distinct entity separate from adulthood with distinct developmental stages and special needs gave birth to the specialty of pediatrics in the late nineteenth century. There is now worldwide recognition of the special status of children in many cultures, and we are just beginning to understand the depth of these differences, which are potentially greater than anyone could have predicted. As the concepts of childhood and adulthood have continued to evolve, children are now known to have unique health considerations, distinct diseases, and even different biochemical profiles from adults. In transfusion medicine, emerging evidence has continued to show that the principles once applied universally to all ages cannot be extrapolated to children by simply adjusting for smaller total blood volumes. The past several decades have explored concepts from which additive solutions are safe in children all the way to more recent explorations into emerging cellular therapies for childhood diseases once thought to be incurable, such as sickle cell disease. The arena of pediatric transfusion medicine continues to gain momentum and produce a body of research expanding at an astounding pace. This issue of *Clinics in Laboratory Medicine* covers the current evidence-based guidelines, hemovigilance, product selection, coagulation, cellular therapies, hemolytic disease of the fetus and newborn, and novel blood component therapies for the pediatric and neonatal patient. With this special issue, we hope to summarize some of the most recent research,

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review the current understanding of best practices, and touch on what to expect in the future from the leading experts in this exciting field.

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