Maternal immunization to fetal blood cells has been recognized for nearly a century. Pathologists are well versed in the resulting fetal morbidity in the forms of erythroblastosis and hydrops fetalis. Great progress has recently been made in understanding the pathophysiologic and molecular mechanisms of alloimmune diseases. The progress has been led by a constellation of clinical investigators, basic scientists, obstetricians, pediatricians, perinatologists, hematologists, and blood bankers who have focused their specialized efforts on improving the outcome of pregnancies at risk. The newly acquired information is dispersed in various specialty journals and reports.

In “Alloimmune Disorders of Pregnancy,” the editors and contributors provide an up-to-date and well integrated account of the subject in one authoritative volume. Basic information is summarized in the first four chapters, which review the pathophysiologic of alloimmune cytopenias, blood group antibodies involved in hemolytic disease of the fetus and the newborn (HDFN), the basis and practice of screening for hemolytic disease, and screening for thrombocytopenia. The following two chapters deal with antibody-mediated immune suppression and clinical aspects of anti-D prophylaxis. The prophylaxis is described with technical details, including tables, recommendations, and guidelines. The cost-effectiveness of antenatal versus postnatal prophylaxis is discussed with supportive data from the National Health Service in the UK. PCR-based assays for evaluating alloimmune pregnancies are reviewed under the topic of fetal genotyping.

The second half of this volume deals with clinical problems. Laboratory assays to determine the severity of hemolytic disease are followed by chapters on its therapy. Intrauterine transfusion, the most effective antenatal therapy, is described with clarity and in detail. Blood banking procedures are reviewed, as well as selecting the appropriate cell type for transfusion and the scheduling of exchange transfusions for treatment of neonatal jaundice. The contributors include interesting and previously unpublished observations, such as the successful intrauterine transfusion of ABO-incompatible maternal blood as prenatal therapy for HDFN.

The closing chapters are concerned with diagnosis and treatment of alloimmune thrombocytopenia and neutropenia. These diseases are less frequent than hemolytic anemia, but the different course of thrombocytopenia that affects the first child may have grave results due to major bleeding and cerebral hemorrhage. The final chapter on treatment of alloimmune thrombocytopenia is detailed, practical, and comprehensive.

The editors and contributors have produced an authoritative volume that includes all aspects of alloimmune disorders of pregnancy. The text is clear and easy to read; there are extensive cross-references between chapters, which are useful for quickly locating information. The extensive table of contents provides detailed information about each chapter. Many helpful figures demonstrate molecular biological details and immune mechanisms. Each chapter contains extensive current references. This volume should well serve clinical and laboratory scientists, and clinicians in practice, as well as students who are entering this field.