

## Preface



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*Guest Editor*

Antibody deficiency is the most common clinically significant immunodeficiency. This inability to produce specific antibodies against microbial agents can be caused by defects of B cells, T cells or both arms of the immune system. In addition, selective or universal antibody deficiency can be associated with innate immune defects as well as with a large number of multi-organ syndromes.

Invariably, antibody deficiency ultimately leads to susceptibility to life-threatening infections and autoimmune manifestations. Equally consistent is the efficiency of IgG replacement therapy in preventing infections. Immunoglobulin (Ig) replacement has saved the lives and dramatically reduced morbidity in numerous patients who have primary immunodeficiency, especially in the last 25 years since the introduction of Ig that is suitable for intravenous administration. These products, which were developed by the blood-product pharmaceutical industry, allowed for administration of higher doses that could build IgG trough levels comparable to normal serum homeostasis.

Appropriate trough levels can be achieved by monthly administration of IVIg or weekly injections of subcutaneous Ig. Each route of infusion has its advantages and disadvantages, but both are welcomed by patients who can choose which modality would best accommodate their lifestyle. To date, approximately ten percent of patients in North America have chosen the recently introduced subcutaneous route of Ig administration.

This issue provides an important review of all aspects of immunoglobulin therapy, including the definition of patients who need this treatment as well as evolution of products and treatment protocols. We also discuss extensively various routes of Ig infusion and their impact on the healthcare system.

**DEDICATION**

This issue is dedicated to an exceptional leader, Dr. Fred Rosen, who, through ingenuity and extraordinary dedication, elevated the field of primary immunodeficiency to its current stature for the benefit of patients.

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