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Cover: The artwork on the cover of this month’s issue is by one of the winners of our 2011 Cover Art Contest, Sabrina M. of Heflinville, NY. Sabrina’s pediatrician is Joseph Theres, MD.

Bacterial infections, and appropriate complications are the mainstay of therapy for CVID. Intravenous immunoglobulin and subcutaneous immunoglobulin replacement are fractionated blood products made from pooled human plasma from thousands of individuals, incorporating a mixture of antibodies against a wide spectrum of infectious diseases. Immunoglobulin helps neutralize bacterial toxins, superantigens, and viruses. Immunoglobulin also activates complement and promotes phagocytosis and antibody-mediated cytotoxicity. This therapy can be life saving in most individuals and improves their overall prognosis.

When patients who have CVID present with respiratory tract infections, physicians should have a lower threshold for starting antibiotics that have activity against S pneumoniae, H influenzae, and S aureus. Longer duration of therapy may be needed. This patient decided to undergo weekly subcutaneous immunoglobulin replacement therapy. His initial doses were given in the clinic to monitor for adverse reactions and then successFully transitioned to home subcutaneous immunoglobulin therapy.

At his most recent visit, at 19 years of age, all investigative studies, including complete blood cell count, trough immunoglobulin levels, pulmonary function testing, and high-resolution CT scan, yielded normal results. He has not required treatment for any severe infections since initiating subcutaneous immunoglobulin.

Lessons for the Clinician

• Patients who present with infections that are frequent, do not resolve with typical antibiotic therapy, involve unusual organisms, or affect unusual sites should raise concern for a primary or secondary immunodeficiency.

• A general immunodeficiency evaluation should include complete blood cell count with differential, with special attention to both the absolute neutrophil count and absolute lymphocyte count, total hemolytic complement concentration, and quantitative immunoglobulin levels.

• Patients suspected of having CVID should be referred to an immunologist and require a multidisciplinary team approach for management and for surveillance for autoimmune disease, malignancies, and infections.

• Intravenous immunoglobulin or subcutaneous immunoglobulin replacement is the treatment of choice in patients with CVID and can be life saving.

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The views expressed in this article are those of the authors and do not necessarily reflect the official policy or positions of the U.S. Department of the Air Force, the U.S. Department of Defense, or the United States Government.

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