exacerbations of ABPA respond well to voriconazole, itraconazole, or a short course of glucocorticoids—long-term azole therapy usually helps minimize corticosteroid exposure and maintain remission. Antifungal response in *Aspergillus* bronchitis is gratifying, but relapse after 4 months of therapy is common.

Resistance in *A. fumigatus* to one or more azoles, although uncommon, is increasingly found globally. Resistance may be derived from azole fungicide use for crops. In addition, resistance arising from multiple mechanisms may develop during long-term treatment, and a positive culture during antifungal therapy is an indication for susceptibility testing.

Surgical treatment is important in several forms of aspergillosis, including fungal ball of the sinus and single aspergillomas, in which surgery is curative; invasive aspergillosis involving bone, heart valve, sinuses, and proximal areas of the lung (to avoid catastrophic hemoptysis); brain abscess; keratitis; and endophthalmitis. In allergic fungal sinusitis, removal of abnormal mucus and polyps, with local and occasionally systemic glucocorticoid treatment, usually leads to resolution. Persistent or recurrent signs and symptoms may require more extensive surgery (ethmoidectomy) and possibly antifungal therapy. Surgery is problematic in chronic cavitary pulmonary aspergillosis, usually resulting in serious complications. Bronchial artery embolization is preferred for problematic hemoptysis.

PROPHYLAXIS

In situations in which moderate or high risk is predicted (e.g., after induction therapy for acute myeloid leukemia), the need for antifungal prophylaxis for superficial and systemic candidiasis and for invasive aspergillosis is generally accepted. Fluconazole is commonly used in these situations but has no activity against *Aspergillus* species. Itraconazole solution of SUBA-itraconazole capsules provide enough bioavailability for modest efficacy, the latter with fewer adverse events. Posaconazole tablets are more effective in reducing infection rates and the need for empirical antifungal therapy. Some data support the use of IV micafungin in those with