Safety of Outpatient Parenteral Antimicrobial Therapy for Endocarditis

Sir—Andrews and von Reyn [1] raise concerns about the use of outpatient parenteral antimicrobial therapy (OPAT) for endocarditis and provide reasonable recommendations for dealing with them. Their experience with 2 deaths is a lesson for us all.

Decisions about OPAT require a thorough knowledge of serious infections and iv antibiotic therapy. Patient selection for OPAT requires a review of the factors the authors mention but also needs an assessment of the home situation, with which physicians are often not familiar [2]. The need for close monitoring and observation of outpatients receiving iv antibiotics may not be appreciated by either hospital physicians, whose purview and responsibilities may be limited to the hospital, or by the ambulatory care physician, who may have little knowledge or experience with what have traditionally been hospital infections.

Although Andrews and von Reyn [1] point out the increased risks of complications of endocarditis during the first 2 weeks of therapy, it is important to note also that the risks of iv antimicrobial therapy increase with time, even if the infection responds well clinically. The likelihood of vestibular toxicity or nephrotoxicity with use of gentamicin and leukopenia with use of β-lactams or vancomycin clearly increases after 2 weeks of therapy, which is just when the risk of complications of endocarditis vanes [3, 4]. Physicians must remain vigilant throughout the course of OPAT and perform regular examinations and laboratory monitoring.

The OPAT Outcomes Registry has been designed to answer some of the questions that Andrews and von Reyn [1] pose about safety and outcomes with OPAT [5–7]. Of the 7800 recorded patients who received OPAT since 1996 at 24 centers around the United States, 198 had a diagnosis of bacterial endocarditis; 44 of these cases were due to Staphylococcus aureus. OPAT was ended early for 30 patients (15%) for reasons that included death, for 2 patients; 1 death was related to placement of a central line in the hospital, and 1 was due to a stroke that occurred after 14 days of OPAT. Twenty-six patients were hospitalized. The reasons included the following: surgery, for 6 patients (1 of whom required urgent surgery); conditions unrelated to OPAT, for 16 patients; and complications of OPAT, for 4 patients. Rates of hospitalization are often higher for endocarditis than for other infections [8–10]. Courses of antibiotic therapy were changed for 15 patients (7.5%) due to adverse antibiotic effects, which included fever (5 patients), renal toxicity (4), and leukopenia (1).

The careful review by Andrews and von Reyn [1] should be a valuable guide for physicians while further information is being collected by the OPAT Outcomes Registry regarding the benefits, risks, and potential pitfalls of OPAT for various disease states. It is critical that physicians take an active rather than passive role in managing OPAT in order to assure that the quality of care is as good as it is in the hospital.

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References


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Business Aspects of Infectious Diseases

Sir—On behalf of the Clinical Affairs Committee (CAC) of the Infectious Diseases Society of America (IDSA), we want to express our appreciation and gratitude to Dr. Joiner and colleagues for assessing the adequacy of fellowship training in our specialty [1]. As the IDSA attempts to respond to the needs of the trainees who are beginning a dynamic, exciting and challenging career in infectious diseases (ID), we applaud the willingness of the Training Program Director’s Committee to determine how graduates evaluate their experiences—information that was not sought in their initial report on fellowship training in ID [2] but was incorporated into the 1998 IDSA membership survey [3]. The Committee’s stated intention to incorporate the results of the survey into recommendations for changing the design of training programs is the best guarantee that fellowships will remain enlightening, educational, and pertinent preparations for careers in ID.

In light of this commitment and the fact that the majority of IDSA members are now clinicians, we note with interest the finding that >90% of the fellows surveyed found their training lacking with respect to the business aspects of medicine, personnel management, billing, coding, practice marketing, and dealing with managed care contracts. We agree with the authors’ statement that “it is rare for an academic ID program to have faculty with expertise in the business aspects of the discipline” ([1], p. 261). However, the CAC strongly disagrees with their recommendation that this weakness be corrected by ceding the responsibility for our fellows’ education in business acumen to internal medicine program directors and departments. Do we allow pulmonologists to teach our fellows how to diagnose and treat pneumonia in an immunocompromised host? Shall we ask intensive-care specialists to instruct them on the use of antibiotics in critical care units?

We believe this educational charge must be taken up by the IDSA and, specifically, the CAC. The solution lies within the IDSA: it is the clinicians in the private practice of ID. These physicians have been required to become experts in running and analyzing economically successful practices. They have been forced to learn the business of medicine to survive and prosper, and they are now willing and capable of transmitting their experience and insight to our fellows in training.

Our committee firmly and enthusiastically recommends a collaborative effort between program directors and the CAC and IDSA leadership to strengthen and expand fellows’ training in the increasingly demanding but essential skills of mastering the business aspects of ID practice. The CAC also feels this cannot be accomplished in a 1-day symposium, such as Fellows’ Day at the Annual Meeting. The extent and complexity of this subject would best be taught through sustained and prolonged experience with clinicians in private practice. Structured rotations with private practice clinicians, guided by a formal curriculum, may be the best way to accomplish this goal. The CAC believes this is a viable and practical way to correct the critical deficiency of training programs that educate fellows in the business aspects of ID practice—a shortcoming that has now been confirmed by the results of both the membership and the training graduates surveys.

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References

The United States Food and Drug Administration and the End of Antibiotics

Sir—For nearly 2 decades, antibacterial research has been the “Cinderella” area in the pharmaceutical industry. The market for these products—which are used to treat acute, not chronic disease—is modest. There are many products available, including many generic products. For the most part, the market is growing only slowly and, except for the problem of resistance, the public is largely satisfied.

Recently, when presenting proposals for Phase III trial designs for antibacterial compounds to the US Food and Drug Administration (FDA) and to European regulatory bodies, a number of companies, both small and large, were told that the designs for equivalence studies had to target a 10% delta for the lower limit