This symposium covered all aspects of the role of the new oral cephalosporins in the treatment of pediatric acute respiratory-tract infections. Cefetamet possesses pronounced activity against bacterial pathogens commonly encountered in pediatric acute respiratory-tract infections, such as Streptococcus pneumoniae, Streptococcus pyogenes, Haemophilus influenzae and Moraxella catarrhalis. Cefetamet is highly stable to the 'classical' (3-lactamases (the TEM-1, TEM-2, OXA-1 enzymes). Dr. Cullmann addressed the question whether or not there is a threat of the emergence of resistant strains to the new oral cephalosporins. He noted that two mechanisms may principally cause resistance to these new compounds: the overproduction of chromosomally encoded (3-lactamases, with predominant cephalosporinase activity, and the recently observed extended-spectrum (3-lactamases. These enzymes have been observed only in some Enterobacteriaceae, which cause nosocomial infections, mainly in intensive-care units. So far, there are no reports suggesting a spread of these extended-spectrum (3-lactamases from single hospital units to outpatients. Since outpatients are the target of the new oral cephalosporins, the possibility for the emergence of resistant strains is distant. Edwards and Stoeckel reviewed the pharmacokinetic profile of the new oral cephalosporins in children. Cefetamet is the only compound of this group for which a complete analysis of all the pharmacokinetic parameters is available. Published data with other new oral cephalosporins in children are limited. It appears that children older than 1 year behave, more or less, like small adults. All new oral cephalosporins show similar biological half-life and oral bioavailability in adults and children. The dosing recommendations can be based on adult regimens, making adjustment only for the size differences. Cefetamet pivoxil, in particular, having a good pharmacokinetic profile, can be therapeutic with a twice-a-day dosing schedule.

Professor Dagan referred to the problems existing with the design and evaluation of the clinical studies on acute respiratory-tract infections of childhood. For this reason, prospective, comparative and randomized studies are warranted. There is frequently a difficulty in accurately differentiating the patients who have bacterial infections from those with a viral illness. It is
important to enroll adequate numbers of patients in order to avoid a and p errors in the statistical analysis. The investigator must be careful in the enrollment, exclusion and clinical evaluation of the children, as well as in the way the results are reported.

The second part of the symposium was focused on the results of preliminary clinical studies on cefetamet pivoxil in pediatric acute respiratory-tract infections. This new oral 3rd-generation cephalosporin seems to be at least as effective as cefaclor in the treatment of acute otitis media, as well as acute lower-respiratory-tract infections of childhood. In addition, cefatamet pivoxil for either 10 or 7 days seemed to be as effective as the standard regimen of the 10-day course of oral penicillin V for the treatment of streptococcal pharyngitis. Cefetamet pivoxil did not cause any clinically significant toxicity and was generally well tolerated with only minor gastrointestinal side effects in some of the patients.

If new studies continue to demonstrate its efficacy and safety, cefetamet pivoxil will be a valuable antibiotic for oral use in children with acute respiratory-tract infections, especially when a (3-lactamase-resistant drug is required.

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