

# Guidelines for antimicrobial therapy of acute upper respiratory tract infections in Taiwan

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Studies in the past decade have shown an alarmingly high rate of antimicrobial resistance among common pathogens in Taiwan. The reported rates of antimicrobial resistance among several pathogens are the highest in the world. The widespread resistance to "first-line" antibiotics is a cause of concern, and has generated considerable problems for primary care physicians in prescribing and treating their patients appropriately.

Data from the Bureau of National Health Insurance showed that the major indication (65.4%) for antibiotic use in outpatient clinics is the treatment of respiratory tract infections, of which one-third is due to acute upper respiratory tract infections (URIs). In patients given a

diagnosis of acute URIs, one-third received antibiotics. Physicians in Taiwan need to understand the correct use of antibiotics in acute URIs, and recognize the repercussions of inappropriate use of antibiotics. To this effect, a symposium on acute URIs was held on March 2, 2002, participated by local and foreign experts in the field and primary care physicians, to discuss the epidemiology, pathophysiology, causative pathogens, clinical manifestations, diagnosis, and treatment of acute URIs in Taiwan. A consensus meeting to establish guidelines for antimicrobial therapy in acute URIs was subsequently held jointly by the Infectious Diseases Society of the Republic of China (IDSROC), the Medical Foundation in Memory of Dr. Deh-Lin Cheng,

## Guidelines for antimicrobial therapy of acute respiratory tract infections

Diagnosis	Drug of choice	Alternative
Acute sinusitis	Amoxicillin (high dose) <sup>a</sup> Ampicillin	Amoxicillin/clavulanate Ampicillin/sulbactam 2° or 3° cephalosporins (oral)
Acute otitis media	Amoxicillin (high dose) Ampicillin	Amoxicillin/clavulanate Ampicillin/sulbactam 2° or 3° cephalosporins (oral)
Acute pharyngotonsillitis <sup>b</sup>	Penicillin V Benzathine penicillin (IM)	Clindamycin Macrolides 1° cephalosporins
Acute epiglottitis <sup>c</sup>	Amoxicillin/clavulanate Ampicillin/sulbactam 2° or 3° cephalosporins	Chloramphenicol Aztreonam Imipenem or meropenem
Acute bronchitis <sup>d</sup>	—	—
Common cold <sup>e</sup>	—	—
Influenza <sup>f</sup>	Amantadine (Influenza A only) Rimantadine (Influenza A only) Oseltamivir Zanamivir (inhalation)	

<sup>a</sup>80 to 90 mg/kg/d in 3 to 4 divided dose in children.

<sup>b</sup>No antimicrobial treatment except suspected streptococcal pharyngitis. Symptoms highly suggestive of streptococcal pharyngitis are sore throat, exudative pharyngitis, and cervical lymphadenopathy; symptoms not suggestive include cough, rhinorrhea, pharyngeal ulcer, and conjunctivitis.

<sup>c</sup>Antimicrobial therapy should be administered intravenously.

<sup>d</sup>No antimicrobial treatment in patients without underlying lung disease or airway obstruction.

<sup>e</sup>No antimicrobial treatment. Mucopurulent nasal discharge does not mean bacterial infection.

<sup>f</sup>During epidemic period, in high-risk groups (chronic obstructive airway disease, cardiovascular disease, immunocompromised host, health care workers, and elderly) in the first 24 to 48 h.

Foundation of Professor Wei-Chuan Hsieh for Infectious Diseases Research and Education, and Lee CY's Research Foundation for Pediatric Infectious Diseases and Vaccine. Participating parties to the consensus meeting included board members of the IDSROC and experts in the field.

The principles upon which treatment guidelines were established were:

1. Establishment of guidelines from the viewpoint of primary care physicians.
2. Antimicrobial agents recommended in the guidelines

- are agents already available on the market in Taiwan.
3. Guidelines were based on local epidemiology and antimicrobial resistance rates.
4. Recommendations were made for oral antibiotics.

Treatment guidelines were passed through the board of the IDSROC. A copy was circulated to hospitals, clinics, and primary care physicians, and also published here in the *Journal of Immunology, Microbiology and Infection*. These guidelines will be updated and revised yearly as necessary, to serve as a reference to all practicing physicians in Taiwan.

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