

# Clinical Use of Antibiotic In Children



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## Otitis Media: To Treat or Not to Treat?

Guidelines	Children < 2 years	Children > 2 years
2004 US-AAP*	• ATB in all < 6 M, or certain Dx or severe (even uncertain Dx) ----(ATB no improvement in 48-72 hr of observation)----	• ATB only in severe and certain Dx
1990 Dutch College of General Practitioners Guidelines*	• Symptomatic Rx • Mandatory contact after 24 hr • If no improvement, ATB, or symptomatic Rx for a further 24 hr	• Symptomatic Rx • If symptoms persist after 3 days, re-evaluate and ATB if needed

\*Pediatrics 2004;113:1451-65 \*\*From J et al. BMJ. 1997;315:98-102.

## The Most Appropriate 1<sup>st</sup> Line Drug for AOM is Amoxicillin

- *S.pneumoniae* is the most common cause
- *S.pneumoniae* is least likely to cure without ATB
- Increased resistance of *S.pneumoniae* (>40% in Thailand)
- Amoxicillin give the longest time above MIC<sub>90</sub> for DRSP
- May increase amoxicillin dose without A/E
- Amoxicillin is the cheapest

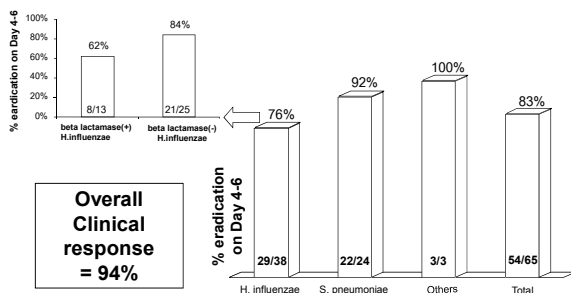
## The Best ATB for DRSP is Amoxicillin!

### Rationale to Increase the dosage of Amoxicillin

- In low risk for DRSP ( $MIC_{90} = 2-4 \text{ mcg/ml}$ )  
 >> 45-50 MKD ->>Est. MEF level 1-6 mcg/ml
- In high risk for DRSP  
 >> 80-90 MKD ->>Est. MEF level 3-8 mcg/ml
- Risk for DRSP:  
 >> Recent antimicrobial exposure (within 3 mo)  
 >> Young age (<2 yo.)  
 >> Day-care attendance Dowell. PIDJ 1999;18:1-9.

AAP 2003 recommend start with high dose in all

## Efficacy of High-dose Amox in AOM



Pediatr Infect Dis J. 2003;22:410.

## Second Line Treatment Regimens After Failing Amoxicillin

US-AAP 2004	Opinion for Thailand
High-Dose Amox-clav (80-90/6.4 MKD)	High-Dose Amox-clav (80-90/6.4 MKD)
Ceftriaxone (50)	Cefuroxime (30)
	Cefdinir (14)
	Cefpodoxime (10)
	Cefditoren (3-6)