

# 소아과 외래에서의 항생제 요법

## Antibiotic Treatment in Pediatric Primary Care

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### Abstract

It has become apparent that infants and children are not small adults. Usually, they suffer from a different array of infectious diseases. The disposition of antimicrobial agents in their bodies is different and is often their response to drug therapy. And, there are substantial differences in these variables even among pediatric age groups. The intelligent use of antimicrobial agents in children requires more than simple extrapolation of observations made in adults. So, we need a very intensive research effort into the pharmacodynamic and kinetic and response to antimicrobial drugs in the pediatric patients. Also, the frequent empirical antibiotic use has led to increased resistance to certain antimicrobial groups. Appropriate prescription of antibiotics in primary care is influenced by several factors in the antibiotic use by general practitioners. An empirical prescription guideline based on the pharmacoepidemiology of resistance, recommending the use of potent and effective antibiotics that are less influenced by resistance to the marker, may help counter the spread of resistance in the community.

**Keywords :** Antimicrobial agents; Pediatric age;  
Empirical prescription guideline;  
Antibiotic resistance; Primary care

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(1).

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(2).

(3).

1.

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(1, 4).

2.

가 가

가 가

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chlo-

ramphenicol, erythromycin, tetracycline

, benzathine penicillin

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(narrow spectrum),

(4).

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(1, 4).

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가

4.

3.

Unbuffered penicillin G, ampicillin, penicillinase resistant penicillins(nafcillin, cloxacillin, dicloxacillin), lincomycin

가

## 1. Penicillin

Penicillin V	25~30mg/kg/day div 3 or 4		
Procaine Penicillin	25~30mg/kg/day single or div.2		Procain
Benzyl Penicillin	60~120mg/kg/day div. 4	180~320mg/kg/day div. 4 or 6	
Ampicillin	50~100mg/kg/day div. 4	200~300mg/kg/day div. 4 or 6	
Amoxycillin	25~50mg/kg/day div. 3	100~300mg/kg/day div. 3 or 4	Ampicillin
AMX - Clavulanate	25~50mg/kg/day div. 3	100mg/kg/day div. 4	Beta - lactamase

2 . lanate ), macrolides 가 , amino-  
buffered penicillin G, amoxycillin, erythromycin, glycosides 가  
, clindamycin .

tetracyclines, sulfonamides, lincomycins,  
(5). 4 chloramphenicol, metronidazole 가  
(5, 6).

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### 1. Penicillin

1

### 2. Cephalosporin

2

### 3. Macrolide

3

peni-  
cillins, cephalosporins, carbacephems beta -  
lactam , beta - lactam beta - lac-  
tamase inhibitor ( : ampicillin - sul-  
bactam, amoxicillin - sulbactam, amoxicillin - clavu-

### 4. Aminoglycoside

## 2. Cephalosporin

Cephalexin(1st)	25~50mg/kg/day div. 4				
Cephadrine(1st)	25~50mg/kg/day div. 4				
Cefaclor(2nd)	20~50mg/kg/day div. 2 to 4				
Cefuroxime axetil(2nd)	30~40mg/kg/day div. 3	2	125mg	1	2
Cefprozil(2nd)	30mg/kg/day div. 3				
Cefixime(3rd)	8~10mg/kg/day div.1 or 2				
Cefpodoxime proxetil	10mg/kg/day div. 2				

## 3. Macrolide

Erythromycin	20~50mg/kg/day div. 3 or 4	25~50mg/kg/day div. 4	, <i>lobacter</i>	, <i>Legionella</i> , <i>Campy-</i>	
Azithromycin	10mg on day 1, 5mg thereafter		EM	, ,	
Roxithromycin	5~10mg/kg/day div. 2		Azithromycin		
Clarithromycin	15mg/kg/day div. 2		Azithromycin	, <i>H. pylori</i>	

## 4. Aminoglycoside

Gentamicin	3~7.5mg/kg/day div. 3	, ,			
Amikacin	15~22.5mg/kg/day div. 2 or 3	, 가	Aminoglycosides		
Tobramycin	3~7.5mg/kg/day div. 3	, ,			
Netilmicin	4~7.5mg/kg/day div. 3	, ,			

5.

Trimethoprim - Sulfamethoxazole	8mg/kg/dayTMP 20~40mg/kg/day SMX div. 2	20mg/kg/day TMP 100mg/kg/day SMX div. 4	<i>E.coli, Proteus, Salmonella, Shigella, Yersinia, Pneumococcus, Pneumocystis carinii, M. catarrhalis</i>
Clindamycin	20~30mg/kg/day div. 4		<i>S. aureus, Streptococcus, Actinomyces,</i>
Tetracycline	25~50mg/kg/day div. 4		Chlamydia, Mycoplasma, Brucella, Actinomyces, 9
Doxycycline	2~4mg/kg/day once daily		TM
Chloramphenicol	not appropriate	50~75mg/kg/day div. 3 50~100mg/kg/day div. 3 or 4	<i>Salmonella, Shigella, Haemophilus influenzae, B. fragilis, Meningococcus</i>
Metronidazole	22.5mg/kg/day div. 3(for anerobic infection)	22.5mg/kg/day div. 3	<i>Bacteroids</i> sp., anaerobic bacteria, <i>Clostridium</i> sp., <i>Entamoeba histolytica</i>
Erythromycin - sulfisoxazole	40mg/kg/day EM, 120mg/kg/day SF div. 4		

, ramphenicol, gentamicin, tetracycline

( 4). 가

mupirocin ( *S. aureus*, group A streptococcus impetigo)

5.

5

6.

Silver nitrate drops, erythromycin , tetracycline

(5).

. bacitracin poly-

mixin 가 ,

. tobramycin, chlo- .

1.
  - 1) 가  
 , , 1  
 (cephalexin 50mg/kg/day #3~4 po)  
 mupirocin .
  - 2) 가  
 EM 1 , 2 5 .
  - 3) 가 (Bullous Impetigo)  
 anti - staphylococcal agent(1  
 , cloxacillin) 5~7 , amoxi-  
 cillin, amoxicillin - clavulanate 가 .
  - 4) Animal, Human Bite  
 Amoxicillin - clavulanate 20~40mg/kg/day #3  
 po 5~7 ,  
 가 .
  - 5) Omphalitis  
 benzathine  
 penicillin 5 unit 1 , bacitracin  
 ,  
 .  
 staphylococcal skin scalded syndrome 2 3  
 가 ,  
 (1, 4).
2.
  - 1)  
 chlamydia EM  
 10~14  
 , gonococcus 3  
 7  
 . *S. aureus*, *P. aeruginosa*
  - 2)  
 Polymyxin B/ bacitracin .
  - 3) Dacryocystitis  
 가  
 .  
 (orbital cellulitis), endoptha-  
 lmitis  
 (1, 4).
3.
  - 1)  
 Amoxicillin 30mg/kg/day #3 po 7  
 Co - trimoxazole  
 가 가
  - 2)  
 Amoxicillin 30~50mg/kg/day #3 po 7~10  
 2 3  
 ,  
 .

### 3) Vaginitis

Chlamydia macrolide , (9).

AMX, amoxicillin - clavulanate,

metronidazole (5~7 ) , 48

, , ,

.

, amoxicillin 40~45mg/kg/day 2  
(1, 4). 10~14 , 2 5~7 .

3

4. amoxicillin amoxi-  
cillin - clavulanate amoxicillin  
80~90mg/kg/day , 2  
가, salmonella , *E. coli* 3 (10).

, *C. defficile*

가 가 1 ceftriaxone  
(7). 50mg/kg 1  
(11)

가 *Vibrio* (tetracyclin doxy- 2  
cyclin), *C. defficile* (metronidazole),  
(TMP/SMX), (TMP/SMX, 3  
, (TMP/SMX, 3 2)  
, *Campylobacter* (ery- 10 14  
thromycin), shigellosis(TMP/SMX, cefixime) , 39 ℃  
(8). 3~4 가

(12).

### 5.

1) , 7 ,  
, 2 3~5  
가 2  
가 10~14 (13). 3

3~4

3)

가 12

1.

6

3

1

4

가

non -

(14).

typable *H. influenza*, *M. catarrhalis*, *S. pneumoniae*

amoxycillin 1 20mg/kg

sulfisoxazole 1 50mg/kg

4)

3

가

6

group A streptococcus

(1, 10).

*S. pneumoniae*

가

tube replacement ade-

noidectomy

15

38 °C

2.

(5%)

(1 ~ 2%)

1

4

가

3

30 ~ 50%

(15). Group A streptococ-

80%

cus

7 ~ 10

macrolide

(10 ~ 15%).

vesicourethral reflux가

1

3

(1, 4).

TMP - SMX

1

TMP 2mg/kg, SMX

10mg/kg

1

, TMP 5mg/kg,

가

SMX 25mg/kg

2



nitrofurantoin 1 1~2mg/kg 1

3.

1)

4

erthromy-

cin 1 40~50mg/kg 4 14

erythromycin

TMP - SMX TMP 8mg/kg, SMX 40mg/kg

1 2 14 (1, 4).

2)

0.3~1.0%

24 rifampin

10mg/kg( 600mg/day) 12

4 . ceftriaxone 15

125mg

(1, 6).

3) B

B

4

rifampin 1 20mg/kg

1 4 (4, 5).

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