



*\*Mild symptoms: skin rash > 2 hours after exposure to suspected allergen*

*+Alternative antibiotics depend on local guidelines, but include*

- Vancomycin and clindamycin for gram positive cover
- An aminoglycoside or fluoroquinolone for gram negative cover
- Metronidazole for anaerobic cover



	Penicillins			1st generation cephalosporins							2nd generation cephalosporins							3rd generation cephalosporins						
	Penicillin	Amoxicillin	Ampicillin	Cefalotin	Cefazolin	Cefadroxil	Cefalodrine	Cephalexin	Cefradrine	Cefaloglycine	Cefprozil	Cefatrizine	Cefoxitin	Cefaclor	Loracarbef	Cefamandole	Cefmetazole	Cefotetan	Cefuroxime	Ceftizoxime	Cefotaxime	Cefpodoxime	Ceftriaxone	Ceftazidime
Penicillins	Penicillin			R1s							R1	R1												
	Amoxicillin					R1																		
	Ampicillin							R1	R1	R1				R1	R1									
1st gen cephalosporin	Cefalotin	R1s								R2											R2			
	Cefazolin											R1												
	Cefadroxil		R1											R1s										
	Cefalodrine	R1s										R1												
	Cephalexin			R1					R2															
	Cefradrine			R1						R2														
	Cefaloglycin			R1	R2																			
2nd gen cephalosporin	Cefprozil		R1																					
	Cefatrizine		R1																					
	Cefoxitin	R1s			R1														R2					
	Cefaclor			R1			R1s													R2				
	Loracarbef			R1											R2									
	Cefamandole																							
	Cefmetazole																							
	Cefotetan																							
3rd gen	Cefuroxime												R2											
	Ceftizoxime																						R1	
	Cefotaxime				R2																		R1	R1s
	Cefpodoxime																						R1	
	Ceftriaxone																						R1	R1s
	Ceftazidime																						R1s	

Table 2: Table indicating similarities in R1 or R2 side chain structures attached to the  $\beta$ -lactam ring. Antibiotics with similar side-chains as an antibiotic with suspected allergy (indicated by R1(s), R2) are advised to be avoided. When an allergy to a penicillin is suspected, we advise to avoid all penicillins, indicated by a cross.

R1 = identical R1-side chain;

R1s = similar R1 - side chain

R2 = identical R2-side chain;

R2s = similar R2-side chain

R is the main penicillin side chain.

Not included in this table are: Cefmenoxime, Cefditoren, Cefonicid, Aztreonam, Cefepime, Cephapirin, Cefpiramide, Ceftibuten, Cefdinir, Cefixime, Cefsulodin

Based on: Kim MH et al. *Allergy Asthma Immunol Res.* 2014 Nov;6(6):485-95