Aspirus Hospital Summery of FDA-Approved β-lactam Antibiotics with Similar Side Chainsa

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Agent** | **Agents with Similar Side Chains** | | | | |
| **Amoxicillin** | Ampicillin | Cefaclor | Cefadroxil1 | Cefprozil1 | Cephalexin |
| **Ampicillin** | Amoxicillin | Cefaclor1 | Cefadroxil | Cefprozil | Cephalexin1 |
| **Aztreonamb** | Ceftazidime1 | Ceftolozane |  |  |  |
| **Cefaclor** | Amoxicillin | Ampicillin1 | Cefadroxil | Cefprozil | Cephalexin1 |
| **Cefadroxil** | Amoxicillin1 | Ampicillin | Cefaclor | Cefprozil1 | Cephalexin2 |
| **Cefdinir** | Cefixime2 |  |  |  |  |
| **Cefditoren** | Cefepime1 | Cefotaxime1 | Cefpodoxime1 | Ceftriaxone1 |  |
| **Cefepime** | Cefditoren1 | Cefotaxime1 | Cefpodoxime1 | Ceftriaxone1 | Ceftaroline |
| **Cefixime** | Cefdinir2 |  |  |  |  |
| **Cefotaxime** | Cefditoren1 | Cefepime1 | Cefpodoxime1 | Ceftriaxone1 | Ceftaroline |
| **Cefoxitin** | Cefuroxime2 | Penicillin G |  |  |  |
| **Cefpodoxime** | Cefditoren1 | Cefepime1 | Cefotaxime1 | Ceftriaxone1 | Ceftaroline |
| **Cefprozil** | Amoxicillin1 | Ampicillin | Cefaclor | Cefadroxil1 | Cephalexin |
| **Ceftaroline** | Cefepime | Cefotaxime | Cefpodoxime | Ceftriaxone | Ceftazidime |
| **Ceftazidime** | Aztreonam1 | Ceftolozane |  |  |  |
| **Ceftolozane** | Aztreonam | Ceftazidime |  |  |  |
| **Ceftriaxone** | Cefditoren1 | Cefepime1 | Cefotaxime1 | Cefpodoxime1 | Ceftaroline |
| **Cefuroxime** | Cefoxitin2 |  |  |  |  |
| **Cephalexin** | Amoxicillin | Ampicillin1 | Cefaclor1 | Cefadroxil2 | Cefprozil |
| **Penicillin G, V** | Cefoxitin |  |  |  |  |

aAgents not listed are either not approved for use in the United States (ceftizoxime, ceftibiprole) or do not share common side chains (e.g., piperacillin, ticarcillin, nafcillin, dicloxacillin, meropenem)

bAztreonam cross-reacts with ceftazidime, with which it shares an identical side-chain

1Identical R1 side chain

2Identical R2 side chain