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# Cefepime Hydrochloride

National Cancer Institute

## Source

National Cancer Institute. *Cefepime Hydrochloride*. NCI Thesaurus. Code C1041.

The hydrochloride salt of a semi-synthetic, beta-lactamase-resistant, fourth-generation cephalosporin antibiotic derived from an Acremonium fungal species with broad-spectrum bactericidal activity. Administered parenterally, cefepime inhibits bacterial cell wall synthesis by binding to and inactivating penicillin-binding proteins (PBP) located on the inner membrane of the bacterial cell wall. Inactivation of PBPs interferes with the cross-linkage of peptidoglycan chains necessary for bacterial cell wall strength and rigidity, resulting in a reduction of bacterial cell wall stability and cell lysis. This agent is more active against a variety of Gram-positive pathogens compared to third-generation cephalosporins.