

Aztreonam (Cayston)

Summary of therapeutic value

Favourable effects. In one randomised – though open – study involving patients with cystic fibrosis and a chronic *P. aeruginosa* infection, some treatment results after six months of intermittent courses of aztreonam were more favourable than those of intermittent courses of tobramycin. Other treatment results were not more favourable, not clinically relevant or no reports were provided. The efficacy of tobramycin is equal to that of colistin.

Unfavourable effects. There are no known severe side effects of the inhalation of aztreonam, whilst the inhalation of tobramycin can lead to loss of hearing or renal function. Due to the risk of bronchospasms, colistin and aztreonam are used after bronchodilatation. The development of resistance is possible with all three products.

Experience. Experience with aztreonam is more limited than with tobramycin or colistin.

Applicability. The applicability of aztreonam for adult CF-patients is similar to that of tobramycin and colistin. There are fewer data on interactions with aztreonam. Interactions with a number of products are known to exist for tobramycin and colistin.

Ease of use. The ease of use of aztreonam is similar to that of tobramycin and colistin. Aztreonam and colistin are more laborious. The inhalation time is longer for tobramycin.

Final conclusion. For the treatment of adult patients with cystic fibrosis and a chronic *P. aeruginosa* infection, the inhalation of aztreonam has the same therapeutic value as the inhalation of tobramycin or colistin. The (in part) favourable effects of aztreonam, and the lack of unfavourable effects, are insufficient for an added therapeutic value, because there is only one, open, efficacy study and because experience with the product is limited. The use of aztreonam on children has been insufficiently studied.