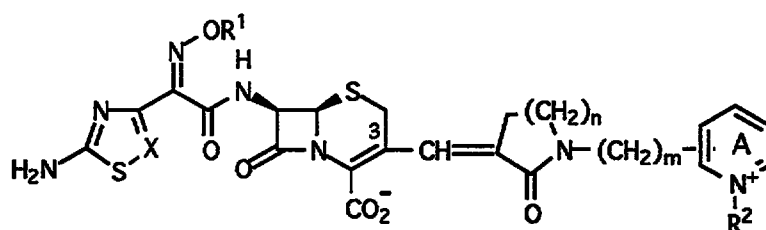


Abstract

Cephalosporin pyridinium derivatives of the general formula I



I

5 wherein

R^1 is hydrogen, lower alkyl, cycloalkyl or acetyl;

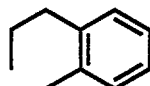
X is CH or N;

n is 0, 1 or 2;

m is 0 or 1;

10 R^2 is hydrogen, lower alkyl, ω -hydroxy alkyl, benzyl or lower alkyl-heterocyclyl, the benzyl and the heterocyclyl group being unsubstituted or substituted with at least one of the groups amino, cyano, carboxy, halogen, hydroxy, lower alkyl, lower alkoxy or $-\text{CONR}_2$, R being hydrogen or lower alkyl; or R^2 is $-\text{CH}_2\text{CONR}^4\text{R}^5$; wherein

15 R^4, R^5 are independently hydrogen, ω -hydroxy-alkyl, phenyl, naphthyl or heterocyclyl, the phenyl, naphthyl or heterocyclyl being unsubstituted or substituted with at least one of the groups of optionally protected hydroxy, halogen, optionally substituted lower alkyl, optionally substituted lower alkoxy, ω -hydroxyalkyl and/or cyano; or R^4 and R^5 form together a group of formula



25 with the proviso that m is 1, when the pyridinium ring A is a pyridinium-4-yl;

as well as readily hydrolysable esters thereof, pharmaceutically acceptable salts of said compounds and hydrates of the compounds of formula I and of their esters and salts.