

Higher risk of revision for infection using systemic Clindamycin prophylaxis compared to Cloxacillin in primary knee arthroplasty.

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Introduction: Patients reporting penicillin allergy often receive clindamycin as systemic antibiotic prophylaxis. The effect of clindamycin has however not been compared to antibiotics with proven effect in joint arthroplasty surgery. The aim of study was to reveal if there were differences in the rate of revision due to infection after total knee arthroplasty (TKA) depending on which antibiotic was used.

Patients and methods: Patients reported to the Swedish Knee Arthroplasty Register having a TKA performed due to osteoarthritis during the years 2009 – 2015 were included. The type of prophylactic antibiotic is individually registered. For 80,018 operations survival statistics were used to calculate the rate of revision due to infection until the end of 2015, comparing the group of patients receiving cloxacillin with those receiving clindamycin as systemic prophylaxis.

Results: Cloxacillin was used in 90% of the cases, clindamycin in 7% and cephalosporins in 2%. The risk of becoming revised due to infection was higher when using clindamycin than cloxacillin, RR 1.51 (95% CI: 1.18-1.95, p=0.001). There was no significant difference in revision rate due to other causes, (p=0.21).

Discussion: We advise that patients reporting allergic reaction to penicillin have their allergic history explored. In the absence of clear history of type 1 allergic reaction we suggest the use of a cephalosporin. No recommendation can be given regarding patients with type 1 allergy.

Conclusions: By using register data, novel information on the effectiveness of clindamycin as antibiotic prophylaxis was obtained. Based on these findings current recommendations have to be revised.