To assess the relative and absolute risks of liver injury following exposure to flucloxacillin and identify subgroups at potentially increased risk” Wing et al (2017).

Abstract:

Background: Flucloxacillin is an established cause of liver injury. Despite this, there are a lack of published data on both the strength of association after adjusting for potential confounders, and the absolute incidence among different subgroups of patients.

Objectives: To assess the relative and absolute risks of liver injury following exposure to flucloxacillin and identify subgroups at potentially increased risk.

Methods: A cohort study between 1 January 2000 and 1 January 2012 using the UK Clinical Practice Research Datalink, including 1 046 699 people with a first prescription for flucloxacillin (861 962) or oxytetracycline (184 737). Absolute risks of experiencing both symptom-defined (jaundice) and laboratory-confirmed liver injury within 1-45 and 46-90 days of antibiotic initiation were estimated. Multivariable logistic regression was used to estimate 1-45 day relative effects.
What is the risk of liver injury associated with flucloxacillin?

Results: There were 183 symptom-defined cases (160 prescribed flucloxacillin) and 108 laboratory-confirmed cases (102 flucloxacillin). The 1–45 day adjusted risk ratio for laboratory-confirmed injury was 5.22 (95% CI 1.64–16.62) comparing flucloxacillin with oxytetracycline use. The 1–45 day risk of laboratory-confirmed liver injury was 8.47 per 100 000 people prescribed flucloxacillin (95% CI 6.64–10.65). People who received consecutive flucloxacillin prescriptions had a 1–45 day risk of jaundice of 39.00 per 100 000 (95% CI 26.85–54.77), while those aged >70 receiving consecutive prescriptions had a risk of 110.57 per 100 000 (95% CI 70.86–164.48).

Conclusions: The short-term risk of laboratory-confirmed liver injury was >5-fold higher after a flucloxacillin prescription than an oxytetracycline prescription. The risk of flucloxacillin-induced liver injury is particularly high within those aged >70 and those who receive multiple flucloxacillin prescriptions. The stratified risk estimates from this study could help guide clinical care.

Full Text
Reference:


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