TITLE: A cohort study of digoxin exposure and mortality in men with prostate cancer

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BACKGROUND: Digoxin is a drug which has been used since the eighteenth century to treat heart conditions. Recent laboratory studies have proposed that it may have anti-cancer activity, particularly in prostate cancer. A study in the United States has reported that men taking digoxin long-term were less likely to be diagnosed with prostate cancer compared to men who did not receive digoxin.

RESEARCH AIM: We aimed to investigate in a group of Irish men with prostate cancer, whether those men taking digoxin live longer than men who were not taking digoxin. To do this we used anonymised information about men with prostate cancer from the National Cancer Registry Ireland which was linked to information on the medications they received Irish Health Services Executive.

FINDINGS: We did not find that men with prostate cancer who were taking digoxin digoxin lived longer than those who were not. This may be because the doses of digoxin used to treat humans are lower than those tested in laboratory studies.

IMPORTANCE: Although we observed no benefit from taking digoxin in men with prostate cancer, our study provides useful information to guide future studies of digoxin, or drugs like digoxin, in cancer.