

THERAPY  
BISPHOSPHONATE  
USERS: CANCER RISK

In 2009, the FDA published case reports of esophageal cancer in bisphosphonate users. Taken—increasingly widely—to prevent and treat osteoporosis, oral bisphosphonates can cause esophageal irritation, which is a risk factor for cancer. These anecdotal data are insufficient to prove a causal link. Now, two analyses designed to quantify the risk of cancer associated with bisphosphonates have established only that more research is needed. Whereas Jane Green and colleagues report that the risk of esophageal cancer doubled with ~5 years of bisphosphonate use, a separate study led by Chris Cardwell found no evidence of increased risk.

Both analyses used the UK General Practice Research Database, but employed different methodology, exclusion criteria and follow-up durations. Green *et al.*'s case-control approach included more patients with cancer than did the matched cohort design used by Cardwell's team.

Green *et al.* found an increased risk of esophageal cancer in people prescribed oral bisphosphonates, which was greatest in those with  $\geq 10$  prescriptions and in those prescribed the drugs for  $>3$  years. The risk of other gastrointestinal cancers was not increased in bisphosphonate users. However, as Green notes, the baseline risk of esophageal cancer is low. "Even if our results are confirmed, relatively few extra cancers would be caused—no-one is suggesting this report would by itself be a reason for changes in prescribing," she comments.

"It is important for our finding to be replicated in an independent data source," says Cardwell. Green echoes the sentiment, and adds, "We are collecting information on bisphosphonate use in our large Million Women Study cohort and hope to look at various outcomes in a few years' time".

Emma Leah

**Original articles** Green, J. *et al.* Oral bisphosphonates and risk of cancer of oesophagus, stomach, and colorectum: case-control analysis within a UK primary care cohort. *BMJ* doi:10.1136/bmj.c4444 | Cardwell, C. R. *et al.* Exposure to oral bisphosphonates and risk of esophageal cancer. *JAMA* 304, 657–663 (2010)