

Is Smoking as a Risk Factor for Bladder Cancer Poorly Represented on the World Wide Web?

Introduction and Objectives: While the media campaign for smoking as a risk factor lung cancer is well established, it is unclear whether the same is true for bladder cancer. This is despite bladder cancer being the 6th most common cause of cancer death in men in the UK and the most expensive cancer to manage on an individual patient basis. This study aims at determining whether online media coverage of smoking as a risk for bladder cancer is comparable to lung cancer when controlled for incidence and cancer risk.

Materials and Methods: One primary, three secondary and 19 tertiary keywords were used to search Google, Yahoo and Bing. Text, images and videos/audios related to smoking as a risk factor for bladder and lung cancer were searched on each Webpage. Results were analysed using descriptive statistics and chi-square tests.

Results: There were 377 unique Webpages examined across the search engines (118 for Google, 147 for Yahoo and 112 for Bing). There were 187 Webpages that displayed text details of lung cancer and smoking, in comparison to 29 for bladder cancer. Thirty-four images displayed the association of smoking and lung cancer, in comparison to 4 for bladder cancer. Thirty-four videos displayed the association of smoking and lung cancer, in comparison to 1 for bladder cancer. Using population-attributable risk; a ratio of 9:1 was calculated for lung vs. bladder cancer as a direct result of smoking. Across all Webpages, the ratio of the observed number of sites depicting lung vs. bladder cancer associated with smoking in the UK was not statistically different when adjusted for risk and incidence. Yahoo (on subanalysis) had a statistically higher ratio of hits for bladder cancer in smokers compared to lung cancer when adjusted for risk and incidence ($p=0.0043$)

Conclusions: Smoking as a risk factor for bladder cancer is represented in the online media in similar proportions to lung cancer when controlled for external factors. It, however, remains our impression that the media coverage for lifestyle modification to prevent bladder cancer is poor. Could it be related to where and how content is presented? More research and better campaigns are needed.