NEWS

Awareness of symptoms could eliminate 5600 late cancer diagnoses in England each year

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Age, sex, and income as well as the type of cancer influence the stage at which patients' cancer is diagnosed, a study has found.

Eliminating these demographic inequalities would help improve the chances of a cure for up to 5600 patients in England with seven common cancers each year, the researchers have estimated.

For the study, published in the *Annals of Oncology*, researchers from the University of Cambridge and the Eastern Cancer Registration and Information Centre examined data on the stage at diagnosis of nearly 100 000 patients with any of 10 different cancers, including the five most common (lung, breast, prostate, colon, and rectal cancers) and also bladder, kidney, ovarian, and endometrial cancers and melanoma.[1]

They found that melanoma and prostate, endometrial, and breast cancers in patients in the most deprived socioeconomic groups were more likely than those in the least deprived to be diagnosed in advanced stages. The increase in risk of late diagnosis according to deprivation ranged from more than double for melanoma (odds ratio 2.24 (1.66 to 3.03) to a third more for breast cancer (1.31 (1.15 to 1.49)).

For other cancers age and sex were important determinants of late diagnosis. Men with melanoma and those with lung cancer were more likely to have their cancer diagnosed at an advanced stage than were women with the same cancer.

The researchers also found that for melanoma and breast, prostate, and endometrial cancers older patients were more likely to be given a diagnosis at an advanced stage. But for lung, bladder, and renal cancers the opposite was true, with diagnosis at an advanced stage being less likely among older patients.

This may be because older patients had more tests than younger patients, say the researchers.

During the study period, 2006-10, there were no notable social inequalities in the risk of diagnosis at an advanced stage among patients with bowel cancer and among women with ovarian cancer.

Because melanoma and breast and endometrial cancers are easy to diagnose, delays in detecting these cancers are probably because of patients' lack of awareness of symptoms, say the researchers.

The lead author, Georgios Lyratzopoulos, a researcher at the University of Cambridge, said, "We know that earlier stage diagnosis of cancer is important: it dramatically improves the effectiveness of treatment and survival for many cancers. This study documents the importance of awareness of cancer symptoms and signs by patients of all social groups. It provides clear evidence about which patient groups would benefit most from targeted campaigns to raise awareness of different cancers."

The findings could help target publicity about cancer at groups at high risk of late diagnosis, say the researchers. For example, older men from deprived groups would benefit from information about melanoma, while older women could be targeted with material on breast and endometrial cancers.

1   Lyratzopoulos G, Abel GA, Brown CH, Rous BA, Vernon SA, Roland M, et al. Socio-demographic inequalities in stage of cancer diagnosis: evidence from patients with female breast, lung, colon, rectal, prostate, renal, bladder, melanoma, ovarian and endometrial cancer. *Ann Oncol* 2012, doi:10.1093/annonc/mds526.