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People with cancer living in deprived areas of Wales are more likely to have another serious condition at diagnosis than those in the least deprived areas

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Background

People diagnosed with cancer are living longer and whilst cancer survival is improving for many cancers, there is not the same parity for all social groups - older people and people living in more deprived areas often have more chronic health conditions. We examined the association between those other health conditions and cancer incidence, prevalence and survival for all Welsh patients, for the four most common cancers and all malignant cancer cases (excluding non-melanoma skin cancer).

Methods

We extracted data on all malignant cancer cases from the WCISU's population-based cancer registry for diagnosis periods 1995-2015. Cases were linked to a Cluster Network and to Patient Episode Database for Wales hospital data for the preceding year to establish pre-existing health conditions. From this, a Charlson score was calculated for each case - this is a validated score to predict risk of death and disease burden.

For incidence and prevalence, we calculated the proportion of patients with Charlson score 0, 1 and 2+, and proportions with each health condition examined. We calculated one-year net survival by Charlson score or condition. Where possible, analysis was by cancer type, age-band, area deprivation, rurality, sex and stage at diagnosis.

Results

One in four people were already living with another serious condition. Patients diagnosed in more deprived areas of Wales were more likely to have an existing condition at diagnosis. Survival worsened as the severity or number of existing conditions increased.

Conclusions

Patients diagnosed with cancer in more deprived areas of Wales were more likely to be already living with another serious condition, showing a significant decrease in their projected survival at Charlson score 1 and 2+ compared to the least deprived areas.

This work will enable acute, primary and community care, and other organisations to understand the overall burden of ill health in the cancer population in Wales.

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