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The cure of cancer: a European perspective.

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Cancer survival analyses based on cancer registry data do not provide direct information on the main aim of cancer treatment, the cure of the patient. In fact, classic survival indicators do not distinguish between patients who are cured, and patients who will die of their disease and in whom prolongation of survival is the main objective of treatment. In this study, we applied parametric cure models to the cancer incidence and follow-up data provided by 49 EUROCARE-4 (European Cancer Registry-based study, fourth edition) cancer registries, with the aims of providing additional insights into the survival of European cancer patients diagnosed from 1988 to 1999, and of investigating between-population differences. Betweencountry estimates the proportion of cured patients varied from about 4-13% for lung cancer, from 9% to 30% for stomach cancer, from 25% to 49% for colon and rectum cancer, and from 55% to 73% for breast cancer. For all cancers combined, estimates varied between 21% and 47% in men, and 38% and 59% in women and were influenced by the distribution of cases by cancer site. Countries with high proportions of cured and long fatal case survival times for all cancers combined were characterised by generally favourable case mix. For the European pool of cases both the proportion of cured and the survival time of fatal cases were associated with age, and increased from the early to the latest diagnosis period. The increases over time in the proportions of Europeans estimated cured of lung, stomach and colon and rectum cancers are noteworthy and suggest genuine progress in cancer control. The proportion of cured of all cancers combined is a useful general indicator of cancer control as it reflects progress in diagnosis and treatment, as well as success in the prevention of rapidly fatal cancers.