

## When is a cancer patient cured? (Results from the EUROCORE-5 study)

Luigino Dal Maso

*L Dal Maso<sup>1</sup>, C Panato<sup>1</sup>, A Tavilla<sup>2</sup>, S Guzzinati<sup>3</sup>, D Serraino<sup>1</sup>, R De Angelis<sup>4</sup>, S Francisci<sup>2</sup>*

<sup>1</sup>Cancer Epidemiology Unit, Centro di Riferimento Oncologico di Aviano IRCCS, Aviano, Italy

<sup>2</sup>National Center for Prevention and Health Promotion, Italian National Institute of Health, Rome, Italy

<sup>3</sup>Veneto Tumor Registry, Azienda Zero, Padua, Italy

<sup>4</sup>Department Oncology and Molecular Medicine, Italian National Institute of Health, Rome, Italy

Contact: [dalmaso@cro.it](mailto:dalmaso@cro.it)

### Background:

Although heterogeneous risks of recurrence or late effects according to cancer type and host factors exist, increasing evidence of cure has emerged for some cancers. This leads, among other important topics, to the so-called “right to be forgotten” law, adopted in France and Belgium to help cancer survivors access loans and insurance. The aim of the study was to estimate population-based indicators of cancer cure in Europe by type, sex, age, and period.

### Methods:

Data from 7.2 million cancer patients, aged 15–74 years, from 42 population-based cancer registries in 17 countries were extracted from the EUROCORE-5 dataset. Mixture-cure models were used to estimate: a) median life expectancy of fatal cases (LEF); b) cure fraction (CF) as a proportion of patients with death rates similar to the general population; and c) time to cure (TTC) as the time to reach five-year conditional relative survival (CRS) >95%.

### Results:

LEF ranged from 10 years for patients with chronic lymphocytic leukemia to <6 months for those with liver, pancreas, brain, gallbladder, and lung cancers. The CF was 94% for testis, 87% for thyroid cancer in women (70% in men), 86% for skin melanoma in women (76% in men), 66% for breast, 63% for prostate, and <10% for liver, lung, and pancreatic cancers. TTC was <5 years for testis and thyroid cancer patients diagnosed below age 55 years, and <10 years for stomach, colorectal, corpus uteri, and melanoma patients of all ages. For breast and prostate cancers, a small excess remained for at least 15 years.

### Conclusions:

In a context of increasing number of people living after a cancer diagnosis, these results may help to reduce unneeded medicalization (e.g., follow-up) and resources needed for their care, and they further document that there is already a cure for some cancers.

**Fundings:**

This work was supported by the Italian Association of Cancer Research (AIRC) and the European Commission (IPAAC).

**Key messages:**

- Cancer cure indicators are provided for European patients and 32 cancer type.
- Recognizing cancer patients as cured has relevant clinical and social implications.