

Incidence of invasive cervical cancer and direct costs associated with its management in Italy

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ABSTRACT

Aim and background. Cervical cancer is the second most common cancer in European women aged 15-44 years. The aim of this study was to estimate the direct cost of managing invasive cervical cancer in Italy.

Methods. Data from the Italian Network of Cancer Registries were used to estimate the annual number of new cervical cancer cases. To assess the management costs, a typical management pathway for each FIGO (*Fédération Internationale de Gynécologie et d'Obstétrique*) cervical cancer stage was derived from published guidelines. Data from the Modena Cancer Registry were used to estimate the proportion of patients by FIGO stage. This algorithm was combined with tariffs for outpatient and inpatient procedures to obtain a mean cost for each FIGO stage.

Results. An estimated 2,927 new cases of cervical cancer occurred in Italy in 2005 (crude incidence 9.7/100,000; world age-standardized incidence 6.0/100,000). The estimated numbers of new cases by FIGO stage were: FIGO I, 1,927; FIGO II, 556; FIGO III, 259; and FIGO IV, 185. Costs for the most frequent procedures were estimated as: € 6,041 for radical hysterectomy or other surgery; € 4,901 for radio-chemotherapy; € 1,588 for brachytherapy; and € 3,795 for palliative chemotherapy. Mean management costs for incident cases (including 10 years of follow-up) were estimated at: FIGO I, € 6,024; FIGO II, € 10,572; FIGO III, € 11,367; FIGO IV, € 8707; and € 5,854 for the terminal phase (1 month). The total direct management cost was estimated at € 28.3 million per year.

Conclusions. This is one of the first studies to estimate the direct cost of treating patients newly diagnosed with invasive cervical cancer in Italy. Although according to current management pathways real treatment costs are likely to be underestimated, this information is necessary to design evidence-based vaccination policies able to harmonize primary and secondary prevention of cervical cancer.

Key words: cervical cancer, cost, human papillomavirus, Italy.

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Authors' contributions: AR and FP conducted the economic analysis and wrote the study report. PGR wrote the study protocol, conducted the epidemiologic analysis and wrote the study report. MR validated the typical management algorithms. CC and NL contributed to the study design and epidemiologic and economic analyses and to writing the manuscript. AF wrote the protocol. All authors have seen and approved the final version.

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