INCOME RATE AND BURDEN OF ILLNESS OF CERVICAL CANCER IN THE UNITED STATES

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OBJECTIVES: To review the incidence rate, mortality and burden of illness in cervical cancer in the United States (US). METHODS: The information was retrieved from the WHO, World Bank, US National Cancer Institute, American Cancer Society, cervical trials.gov, Medline and relevant grey literature from 1990 to 2008. We summarized epidemiological information such as numbers of diagnosed cases and deaths, and associated burden of illness was the outcome of interest. RESULTS: Cervical cancer is the second most frequent cancer in women worldwide and the leading cause of cancer deaths in the developing world, leading to up to 240,000 deaths per year (WHO, 2006). There were 11,070 new cases and 3870 estimated deaths in 2008 in the United States according to SEER data compared to 265,884 cases and 204,466 deaths in 1995 and 207,869 cases and 207,869 deaths in 2007 (WHO). The average economic burden of cervical cancer in the US has been estimated in 2004 as US$1.7 bn (National Cancer Institute) with direct medical costs estimated as $300–400 m (Linsinga et al 2005). The cost of treating a single case of localized (early-stage) cervical cancer was estimated in 2000 as US$20,255, while the cost of treating a single case of distant (late-stage) disease averaged US$36,912 (Chesson et al 2004). Overall annual cervical cancer prevention and treatment costs were $26,415 per 1,000 females, with routine cervical cancer screening costs were $16,746 per 1,000 females (Linsinga et al 2004). The total productivity loss in year 2000 due to cervical cancer mortality was estimated at US$1.1 billion (Linsinga et al 2004) and the average number of years of life lost per untreated case of cervical cancer in the United States was 26.3 years (SEER 2005). CONCLUSIONS: The incidence of cervical cancer has decreased in the US in recent years but it still poses a major challenge to the US and developing countries.

THE ECONOMIC BURDEN OF METASTATIC BREAST CANCER

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OBJECTIVES: Metastatic breast cancer (MBC) is incurable, but survival and quality of life may be prolonged for years with available therapies; however, costs associated with MBC and its treatment are not fully defined. We conducted this research to compile and synthesize the published research concerning the health economics of MBC. METHODS: We systematically reviewed MEDLINE-indexed, English-language literature, using keyword searches to identify articles published in the 5 years before October 2008. We excluded articles related to supportive therapy, early diagnosis, non-economic issues such as treatment guidelines, patient behavior or attitudes, quality of life, costs, economic models, cost-effectiveness modeling, economic modeling, or economic analysis. Additional articles were added from searches of non-MEDLINE-indexed sources such as organization and government websites. RESULTS: Of 43 articles identified from MEDLINE, 19 were included; an additional 13 articles and abstracts were added from non-MEDLINE-indexed sources, for a total of 32 articles and abstracts. No comprehensive study was found which included estimates of the total MBC economic burden across all treatment options. Most (70%–70%) analyses of the per-patient direct MBC costs originate from the US. The only published national MBC costs were derived from UK data. Thirteen economic models have been published showing that numerous treatments are cost-effective, yet generally provide only small improvements in survival. Nine published economic models evaluate hormonal therapies; 7 compare letrozole and tamoxifen and generally show letrozole to be cost-effective. In health technology assessments, trastuzumab, capetitabine, and gemcitabine have been judged cost-effective, with inconsistent results for vinorelbine. CONCLUSIONS: There is no known recent publication concerning the overall economic burden of MBC. However, many publications assess the costs and cost-effectiveness of available treatments. Models show that some of these treatments, most notably letrozole, are cost-effective. More MBC economic evaluations should be published to better inform the use of new treatment modalities in a variety of health care settings.

COSTS OF CARE FOR ELDERLY METASTATIC PROSTATE CANCER PATIENTS OVER TIME

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OBJECTIVES: Costs of all-stage prostate cancer management over time have previously examined and are described as U-shaped. There is less information specifically with regard to late-stage prostate cancer (PC), where patterns of care may differ. The objective of this study is to examine costs of management of regionally metastasized (i.e. M1) PC patients. METHODS: SEER-Medicare patients (pts) aged ≥65 and diagnosed with M1 PC between 1994–2002 were selected. The sample was refined to pts surviving 18 to 36 months post-diagnosis. Mean monthly service (physician, outpatient facility, hospital, DME, hospice, home health care, and skilled nursing facility (SNF))–specific costs were calculated using Medicare payments to providers. Cost patterns at 6-months post-diagnosis, at 12 months before death were plotted. Graphs were stratified by whether or not patients received treatment for PC (radiation, surgery, drug therapy). RESULTS: A total of 1678 pts were available for the analysis based on the inclusion criteria. Approximately 88% received treatment. A U-shaped cost accretion pattern was observed for treated patients, while patients managed by watchful waiting (WW) showed a peak in costs at 12 months and a higher peak at time of death. The magnitude of costs was higher among treated patients, with mean costs ranging approximately $7500 at death versus $4000 among patients under WW. Among cost components, hospital services contributed the most to cost accrual, more so in untreated patients. Treated patients cost more than untreated patients with regards to physician services, while untreated patients appeared to incur SNF costs more consistently across the observation period. CONCLUSIONS: In late-stage prostate cancer, costs of care assume a U-shape, with the highest costs being incurred at diagnosis and at the end of life. Patterns and components of care differed somewhat between treated and untreated patients while hospital services consistently accounted for the most spending.