

## Resource use and costs of newly diagnosed cancer initial medical care

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**Summary.** *Aims:* Assessment of direct medical costs of cancer diagnosis and treatment for newly diagnosed cancer patients; analysis of patterns of medical service utilization; description of costs according to ICD-10 diagnosis, age and stage at diagnosis; identification of major cost drivers; description of cost of terminal stage patients at the end of life. *Material and methods:* A retrospective, bottom-up database analysis was conducted on insurance claims and cancer registries. A payer's perspective and six-month time span were adopted. *Results:* Duration of observation was 170+/-106 days (CI95%;164-176 ). A total of 1222 newly diagnosed cancer patients consumed on average € 6,837 (standard deviation [SD] € 24,523, range € 1-€ 438,042) per patient, in the first half year of treatment. Out of 151 deceased patients the mean survival time from diagnosis was 75+/-109 days (CI95%; 57-92). The mean cost of care was € 6,949 (SD € 36,414) per patient. Pharmaceuticals with monoclonal antibodies, in particular, were dominant among cost domains. The combined budget impact of this patient cohort was € 8,154,214 or € 6,837 per patient. *Conclusion:* The cost differentials of initial oncology diagnostics and treatment are substantial among major ICD-10 malignancy groups. The deceased - mostly late diagnosed, advanced stage patients - cost approximately twice in terms of terminal care compared to survivors, bearing in mind their short survival time. Evidence-based resource allocation in line with market demand for services will remain a key challenge in the provision of more effective and less costly oncology care in the Balkans.

**Key words:** cancer incidence and cost, newly diagnosed, resource use patterns, retrospective, database, oncology, Serbia

### «USO DI RISORSE E COSTI PER TERAPIE INIZIALI PER UN NUOVO CANCRO DIAGNOSTICATO»

**Riassunto.** *Scopo:* Valutazione dei costi medicali diretti per diagnosi e terapie di pazienti con nuove diagnosi di cancro; analisi dei tipi di servizi medici utilizzati; descrizione dei costi in base alla diagnosi ICD-10, all'età ed allo stadio al momento della diagnosi; identificazione dei principali fattori di costo; discriminazione dei costi

**Ethical Committee Approval:** The study was conducted in line with The Declaration of Helsinki and was approved by the regional Ethics Committee of the Kragujevac University Clinical Center, Serbia. Decision number 01-5978 issued on 28.05.2013.







































