sectable osteosarcoma using national guideline recommendations. METHODS: An economic model was developed based on recommendations of the 2013 NCCN Clinical Practice Guidelines in Oncology for bone cancer. The model quantified resource use for diagnosis, 12 months of treatment, and 12 months of surveillance of a metastatic unresectable osteosarcoma patient. Costs in 2014 dollars were derived from publically available sources for reimbursement of CPT codes, HCPCS codes, and generic WAC prices for medications. Chemotherapy dosing was based on NCCN recommended treatment regimens. RESULTS: The diagnostic costs, consisting of stereotactic radiosurgery and chemotherapy with drug monitoring, varied widely across the four NCCN recommended regimens due to differences in the price of chemotherapy. The chemotherapy regimens were estimated to be the major cost component associated with this disease, followed by hospitalization and high-dose methotrexate cost $103,051 per patient; doxorubicin and cisplatin cost $17,549 per patient; doxorubicin, cisplatin, high-dose methotrexate, and ifosfamide cost $22,270 per patient. The second most costly regimen, containing cisplatin, ifosfamide and high dose methotrexate, cost $27,705 per patient. Additionally, stereotactic radiosurgery was estimated at $2,755 per patient, and the cost of drug monitoring during the one year of chemotherapy averaged to $5,859 per patient. Additionally, one year of disease surveillance cost $4,264 per patient. The model showed that an additional year of health plans to better understand and anticipate the expected diagnosis, treatment, and surveillance resources and costs for unresectable metastatic osteosarcoma patients.

PCN92 RESOURCE USE AND HEALTH CARE COSTS OF METASTATIC MALIGNANT MELANOMA IN SLOVAKIA

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OBJECTIVES: The aim was to determine the cost-effectiveness of oncologic stent insertion for the management of malignant bowel obstructions. Colonic stents are a minimally invasive alternative to open surgery for patients medically unfit for single-stage surgery. METHODS: Two economic models were developed. The first compared patients who received palliative or definitive stents and were not medically fit for a second-stage surgery and were medically fit for a second-stage of two-stage surgery, this included colostomy or Hartmann’s procedure. Results: For patients requiring palliation, the cost of colonic stent insertion was estimated to be $17,809 compared to $20,516 for patients requiring two-stage surgery. The benefits associated with both procedures were 0.097 QALYs and 0.089 QALYs gained, respectively, an incremental benefit of 0.01 QALYs per patient. For patients requiring bridge-to-surgery, the cost of colonic stent insertion was estimated to be $29,729, compared to $30,160 for patients that received multi-stage surgery (either a colostomy or a Hartmann’s procedure). This presented a cost savings of $440. The estimated average patient would gain 0.510 QALYs compared to 0.458 QALYs in the multi-stage surgery group. This yields in lifetime net benefit of $0.555 per patient. The main drivers of both models were the technical and clinical success of the stent insertion, and length of hospital stay following the procedures. The probability of a resection with primary anastomosis or insertion of a stoma and the cost of stenting were also drivers in the bridge-to-surgery model. CONCLUSIONS: In terms of cost-effectiveness, colonic stent insertion for malignant bowel obstruction in patients requiring palliation or a bridge-to-surgery dominated the current alternative surgical procedures.

PCN93 A MULTISTATE MODEL OF METASTATIC COLORECTAL CANCER

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OBJECTIVES: The aim of this study is to develop and validate a decision-analytic model for estimating the current course of disease, including treatment, in metastatic colorectal cancer. This baseline model will serve as the comparator in analyses of the (cost-) effectiveness of new treatment strategies. METHODS: An individual-based micro-simulation model was constructed based on the disease states a patient may experience after a diagnosis of metastatic colorectal cancer. The states include first-line second-line and third-line treatment, as well as states of progression of disease after first-, second- or third-line, finally a death state is included. Time spent in each disease state was predicted using log-logistic, log-normal or weibull survival models, each dependent on a number of patient characteristics. All survival models and patient characteristics were based on patient-level data, provided by the CAIRO trial (NCT00365221). Two oncologists evaluated the model, and the final model was further validated by comparing various model outcomes with the original data, the national cancer registry and a population based study. RESULTS: There were no significant differences in patient and treatment characteristics, not even the intermediate and overall survival estimates derived from the simulated and original patient-level data. External validation with national cancer registry data showed few differences in survival with the simulated data. Additionally the simulated survival did not substantially differ from the survival as recorded in a pilot oxaliplatin study of 119 patients who were observed in the same timeframe as the RCT. CONCLUSIONS: The micro-simulation decision model described in this article underwent an internal and external validation and can be used to evaluate new possibilities for research and treatment in metastatic colorectal cancer.