ESTIMATING COST OF TREATMENT IN ELDERLY PATIENTS WITH COLORECTAL CANCER USING MEDICARE DATA

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Abstract

Background: Colorectal cancer (CRC) is one of the most common and deadly types of cancer in the United States. About 70% of CRC patients are diagnosed age 65 years or older. The number of elderly patients with colorectal cancer is expected to be growing as a result of the increased in the aging population. Previous studies showed that the treatment cost for colorectal cancer has increased tremendously over the last 10 years [1].

Methods: An analysis of longitudinal medical claims using the Medicare 100% Inpatient and Outpatient Institutional Database was performed to model colorectal cancer treated from 2005 to 2008. All CRC Medicare patients (identified by ICD-9-CM code 153.8x and/or 154.x) in the institutional setting in 2008 were included (n = 207,185). The Medicare 100% institutional database includes Complete medical claims for services and administrations in the institutional setting.

Results: The study population consisted of 207,185 Medicare institutional patients with 80.8% being female. Mean CCI score was 2.30 (± 3.26). 38% of CRC patients had surgery, 6.0% conducted radiotherapy and 45.8% chemotherapy. Patients on 5-FU, Oxaliplatin and Bevacizumab (5-FU/Beva) received the highest number of treatments, followed by 5-FU, Oxaliplatin and Leucovorin (5-FU/Leuc/Beva), and 5-FU, Oxaliplatin, Leucovorin and Bevacizumab (5-FU/Leuc/Beva/Beva) in the subsequent therapy. The combination of 5-FU, Leucovorin and Oxaliplatin is the least expensive regimen in 5-FU/Beva/Beva, which includes 5-FU and Oxaliplatin are administered at a slightly lower dose than used in combination with Leucovorin or Bevacizumab.

Limitations

• Orally administered drugs in the CRC population are not captured by the Medicare institutional data
• Stages of colorectal cancer were not clearly distinguished within the Medicare institutional data
• Physician office data were not included in the analysis

Conclusions

Most CRC cancer patients (2,761 patients) used the drug combination of 5-FU, Leucovorin and Oxaliplatin (5-FU/Leuc/Beva), the second commonly seen combination among the elderly in the treatment costs of colorectal cancer: how important is race?" [2]. The combination of 5-FU, Leucovorin and Oxaliplatin (5-FU/Leuc/Beva) is the least expensive treatment ($17,685/patient).

Methods & Materials

DEFINITION OF TREATMENT

• Chemotherapy
• Radiotherapy
• Surgery

OUTCOME MEASURES

• Cost per Administration: Total dollar cost of administration
• Mean ASP Allowance per Patient: Total dollar cost of administration per patient

CONCEPTUAL FRAMEWORK

5-FU with Leucovorin and Oxaliplatin is the most popular drug combination among CRC patients. Leucovorin and Oxaliplatin are administered at a slightly lower dose than used in combination with Leucovorin or Bevacizumab.

References

6. CMS Manufacturer reporting of Average Sales Price (ASP) data. Available at http://www.cms.hhs.gov/MedicareDrugPrices/ASP/