ASSOCIATION OF INSURANCE COVERAGE AND EPIDEMIOLOGICAL RISK FACTORS ON GASTRIC CANCER SURGERY

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OBJECTIVES: Document the association of insurance coverage and epidemiological risk factors on gastric cancer (GAC) surgery. There are approximately 23,000 Americans diagnosed with GAC annually. It is unknown whether there is an association between GAC treatment and type of insurance coverage in the US. In this study, we investigate the potential association of insurance coverage and epidemiological risk factors on GAC surgery.

METHODS: Healthcare Utilization Project (HCUP), a national representative sample of US hospital discharge records, data from 1993–1997, was used to identify GAC patient discharge through ICD-9 codes. Total of 33,594 patient discharges were identified. Multivariate logistic regression model used GAC surgery (yes, no) as the dependent variable. Independent variables included: insurance coverage status (private insurance (PI), Medicare (MC), Medicaid (MA), self-insure (SI), other); age, gender, race, disease site (Gastroesophageal Junction (GE), GE + stomach, stomach); income, hospital bedsize, ownership, location; and year.

RESULTS: The estimated parameters indicate that MC patients are 16% more likely to receive surgery than PI patients (p < 0.01), MA patients are 14% less likely to receive surgery than PI patients (p < 0.01), and SI patients are 28% more likely to receive surgery than PI patients (p < 0.01). GE + stomach patients are 2.17 times more likely to have surgery than GE-only patients (p < 0.01) and stomach-only patients are 23% more likely to receive surgery than GE-only patients (p < 0.01). Increase in age by one year increases the probability of surgery by 6.5% (p < 0.01).

CONCLUSIONS: Insurance coverage, disease site and age have significant influence on surgery for gastric cancer. MC patients have a higher likelihood for surgery. This could reflect MC’s coverage of elderly and age is a significant factor of surgery. Further research is warranted in understanding the association of GAC surgery and insurance coverage, specifically documenting why MA patients have a lower likelihood for surgery.