Kernel Density Estimation was used to examine the lung disease by Age, Length of Stay and Total Charges by patient conditions. Text Miner in Enterprise Miner was used to examine the data according to text strings of treatment procedures. Then we predict the occurrence of lung cancer according to patient age, gender, days of stay and total charges with the predictive modeling in the Enterprise Miner. There were 4718 observations related to lung cancer. There are more inpatient events starting at age 40, accelerating at age 50 and 55, and decreasing at 65. Patients with lung cancer had a higher probability of a stay of five days, which indicates that there was a higher probability of higher cost. We defined clusters of procedures with a frequency showing the effectiveness of treatment for patients. The Decision Tree is optimal with a 22.9% misclassification rate in the testing set compared with other models in Enterprise Miner. CONCLUSIONS: Older patients are more likely to have lung cancers that lead to a higher probability of longer stay and higher costs for the treatment procedure. With text analysis on the procedure codes and KDE, it shows that Levels IV and VI Surgical pathology, gross and microscopic examination are used for patients of higher risk with a higher cost compared to other procedures to diagnose lung cancer.

OBJECTIVES: Recent changes to ESA prescribing information recommend initiation at Hb levels < 10 g/dL in cancer chemotherapy patients. Real world clinical and economic outcomes data associated with this initiation range for the two FDA-approved EPOs for the treatment of anemia (epoetin alfa (EPO) and darbepoetin alfa (Darbepoetin)).

METHODS: Data collected between December 2003 and September 2008 from 61 U.S. oncology clinics from the Dosing and Outcomes Study of Erythropoiesis Stimulating Agents (D.O.S.E.) registry were assessed. Patients were included if they were initiated on ESAs at baseline (BL) Hb < 10 g/dL, age > 18 years, and received > 2 doses of either EPO or Darbepoetin. Outcomes assessed included transfusion utilization, cumulative ESA doses, dose ratio (cumulative dose EPO:Darbepoetin) and ESA cost (based on cumulative ESA dose and December 2008 wholesale acquisition cost: EPO: $13.77/100 Units, Darbepoetin: $4.818/mcg). RESULTS: A total of 545 patients (237 EPO, 308 Darbepoetin) were included. BL characteristics were similar between treatment groups with regard to age, weight, cancer type and Hb. The mean administered dose was 42.610 Units in the EPO group and 25.9 mcg in the Darbepoetin group with a treatment initiation on ESAs at baseline (BL) Hb < 10 g/dL, age > 18 years, and received > 2 doses of either EPO or Darbepoetin. Outcomes assessed included transfusion utilization, cumulative ESA doses, dose ratio (cumulative dose EPO:Darbepoetin) and ESA cost (based on cumulative ESA dose and December 2008 wholesale acquisition cost: EPO: $13.77/100 Units, Darbepoetin: $4.818/mcg).

RESULTS: A total of 907 citations were included, of which, 32% were excluded as “not relevant”; 27.1% were considered likely to be “relevant”; 5.5% were coded “peripherally relevant”; and 6.0% were “unknown”. All relevant articles (516) coming from 60 LMCs met the inclusion criteria and were abstracted. We found 80 articles on East Asia/Pacific countries; 82 on Europe/Central Asia countries; 76 on Latin American/Caribbean countries; 64 on East and North Africa countries; 100 on South Asia countries; 71 on Sub-Saharan Africa countries; and 43 articles with no region-specific focus. We identified three articles on palliation and end-of-life care and a small number of articles reported cost data or economic analyses. CONCLUSIONS: The review contains a wealth of practical information that would be extremely useful to the myriad of clinicians and public health professionals working to prevent and treat breast cancer in LMCs.

OBJECTIVES: Worldwide, the association of passive smoking with development of lung cancer has been ascertained. However, it remains unknown of the magnitude of the association in the Chinese population. We thus systematically reviewed the published studies worldwide. METHODS: We searched Medline and other Chinese databases from their inception to June 30, 2008. We included case-control and cohort studies that investigated the association of passive smoking with lung cancer, and that provided data on the magnitude of the association. Two reviewers screened the eligibility, assessed the extent of the bias, and extracted data independently. We obtained the unadjusted and adjusted estimates of studies. We pooled the trial data using the random-effect model and explored the heterogeneity by the pre-specified variables. RESULTS: We included 20 studies (n = 88,379) and 19 case-control studies (cumulative cases: 3977, and controls: 9573). Passive smoking increase the risk of lung cancer by 25% (OR = 1.25, 95%CI = 1.03 to 1.47). Pooling of adjusted estimates of 10 case-control studies (2704 cases and 3495 controls) showed that the risk of lung cancer increased by 93% (1.95, 1.49 to 2.55). In female life-long non-smokers, the passive smoking increased the risk of lung cancer by 77% (1.71, 1.22 to 2.58, n = 5685), and increased the risk of squamous cell carcinoma and adenocarcinoma of female non-smokers by 99% (1.99, 1.19 to 3.33) and 7% (1.05, 0.45 to 2.51). Because of the limited data, no significant dose-response relationship was found between the risk of lung cancer and the exposure amounts, durations and the initiating age. CONCLUSIONS: The increased risk of lung cancer associated with passive smoking in the Chinese population has been ascertained. Passive smoking has a strong association with squamous cell carcinoma.

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