A COMPARISON OF MEDICAL COMPUTED TOMOGRAPHIC UTILIZATION AND POTENTIAL RELATED CANCER RISKS IN THE UNITED STATES AND IN CANADA
Zowall H1, Brewer C2, Deutsch AI
IMCILL University, Montreal, QC, Canada, 2Zowall Consulting Inc., Montreal, QC, Canada

OBJECTIVES: To compare Computed Tomographic (CT) utilization and poten-
tially related cancer risks in the United States and in Canada. METHODS: While
CT scans can provide great medical benefits, there is growing concern about
potential adverse effects because they deliver higher radiation doses than do
conventional diagnostic x-rays. Using epidemiological databases, we developed a
risk projection model to assess radiation exposure from CT use, to estimate the
number of incident cancer cases, and to assess age, gender, and cancer type in Canada. 95% uncertainty limits (UL) using Monte Carlo simulations were
estimated. These results were compared to projected cancer risks from CT scans
performed in the United States. RESULTS: In 2007, there were 240,000 and
134,000 CT examinations per million population in the United States and
Canada, respectively. Scans of the abdomen/pelvis, brain, and thorax accounted
for 88% and 78% of all CT scans in Canada and the United States. We estimated
46 (98% CI = 20 - 81) and 11 (98% CI = 6 - 18) per 100,000 population for new
ct scan cases compared to 98 (51 - 152) in the United States. In the United States, 48% of
potential cancers might be attributed to abdomen/pelvis CT scans, while in
Canada, 81% and 12% might be attributed to abdomen/pelvis and chest CT scans,
respectively. In both countries, the incidence of radiation induced cancer was
higher among females than males. CONCLUSIONS: CT scans pose little radiation
risk compared to other diagnostic procedures, with annual costs estimated to
be $3.5 million in Canada (not including costs of diagnosis).

USE OF SMOKING CESSATION AGENTS IN PATIENTS WITH LUNG CANCER:
AN EXPLORATORY STUDY
Ganem 1* , Gangal N1, Bechtel R1, Vaudya V2
1University of Toledo, Toledo, OH, USA, 2University of Toledo, College of Pharmacy and
Pharmaceutical Sciences, Toledo, OH, USA

OBJECTIVES: Lung cancer is the most frequent cause of cancer death with
smoking being the number one risk factor. Nearly 90% of lung cancer deaths are
attributable to smoking. Smoking in patients diagnosed with lung cancer
decreases the rate of survival, quality of life, and reduces the effectiveness of
treatment medical in these patients. One of the ways to stop smoking is through
the use of smoking cessation agents. The purpose of this
study is to explore the prevalence of smoking among lung cancer patients and
patient reported use of smoking cessation agents using a national dataset.

METHODS: A retrospective study was done to identify lung cancer patients (ICD-9
= 162) who smoke and those who use smoking cessation agents from 2006-2010
using Medical Expenditure Panel Survey (MEPS) data. Number of patients who
smoke and those who use smoking cessation agents were described. RESULTS: Of
data from five years identified nearly 260 lung cancer patients. Out of these, 48
patients, accounting for 18.4% prevalence, reported smoking even after
diagnosed with lung cancer. Percentage of female smokers was 58.33% while that
of males was 41.66%. Medication history for these patients might not be accurate,
likely underestimating number as this was patient reported information. There may
be more patients that have not reported smoking because of social stigma. This
shows that the non-medical efforts to quit smoking might have been unsuccessful.

To explore the use of smoking cessation agents among these patients is
extremely low. This is an alarming matter and future research should focus on
identifying barriers to use of smoking cessation agents and approaches to
address those barriers.

BEVACIZUMAB AMONG MEDICARE PATIENTS WITH METASTATIC
COLORECTAL CANCER RECEIVING ChemOTHERAPY
Fu AZ, Tsai HT, Potosky AL
Georgetown University, Washington, DC, USA

OBJECTIVES: Bevacizumab (Bev, Avastin®), the first FDA-approved anti-
growth hormone agent, has been used as adjuvant therapy for the treatment of
metastatic colorectal cancer (mCRC) since 2004. This study aimed to evaluate
the utilization of Bev among elderly mCRC patients aged 65 and older within the
UMs. METHODS: This retrospective cohort study used the SEER-Medicare data.
Our cohort included individuals aged 65 years or older who were incident CRC
cancer patients diagnosed in 2005-2007 and received chemotherapy at any time
during December 2005 (date of first chemotherapy – index date). This included patients
with pathologically diagnosed metastatic colorectal cancer, as well as patients who
progressed from initially diagnosed localized/regional disease (reurrence).
We ascertained comorbidity using ICD-9 codes from inpatient, outpatient,
and pharmacy claims within 180 days of the index date. Logistic regression was
adjusted for patient characteristics was conducted to assess the likelihood of
Bev use. RESULTS: A total of 6,804 patients were identified. The mean age at index
date was 74 years of age. There were 2,787 (41.7%) patients received Bev, among which
the average number of Bev cycles was 11.9 (median=9). Bev was used in 64% of patients with metastatic CRC and 26% of patients with recurrent disease. After adjustment for all other variables, we found
that patients were less likely to receive Bev if they were with age=80 compared
with those aged 65-69 (adjusted odds ratio [OR] = 0.81 [95% CI: 0.69-0.94]; p=0.01),
or had evidence of arterial thromboembolism (OR = 0.70 [0.54-0.90]; p=0.0001)
prior to chemo initiation. We also observed a trend of increasing Bev use over
calendar time as well as substantial geographic variation in its use.
CONCLUSIONS: Less than half of Bev-indicated patients received Bev in US
Medicare population. Patients’ age and history of arterial thromboembolism
significantly contribute to the low utilization of Bev.

COMMENTS ASSOCIATE WITH UTILIZATION OF TRADITIONAL CHINESE HERBAL
MEDICINE: EVIDENCE FROM 5 YEARS INPATIENT RECORDS IN TCM HOSPITALS
IN CHINA
Liu C1, Xu J2
1University of Macau, Macau, China, 2Southwestern University of Finance and Economics,
Chongyu, China

OBJECTIVES: To analyzed the pattern and factors associate with the utilization
and effectiveness of medical treatment in these patients. One of the ways to stop
smoking is through the use of smoking cessation agents. The purpose of this
study is to explore the prevalence of smoking among lung cancer patients and
patient reported use of smoking cessation agents using a national dataset.

METHODS: A retrospective study was done to identify lung cancer patients (ICD-9
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using Medical Expenditure Panel Survey (MEPS) data. Number of patients who
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