Objectives: There is recurrence at some point following initial resection or radiosurgery in about 50% of patients previously treated for brain metastases (BMs); yet, little is known about the optimal management of recurrent BMs. To better understand the management of recurrent brain metastases, we carried out a systematic review and meta-analysis to describe outcomes of craniotomy for recurrent BMs after resection or stereotactic radiosurgery, with particular attention to recurrence in the previous resection cavity. ***Methods:*** A literature search in the Pubmed, Embase and Cochrane databases was conducted on November 1st, 2018. The resulting literature and relevant references were screened, and data were extracted on study, patient, disease and treatment characteristics. Studies were grouped by initial local treatment strategy to compare resection after resection (RAR) vs. resection after stereotactic radiosurgery (RAS). Pooled analysis using random effects model was performed in R version 3.4.1 using the meta package. ***Results:*** Of 4429 references screened, 13 retrospective analyses (605 patients) were included in this study (7 studies reported on RAR, 5 on RAS, while one study reported a stratified analysis on both treatments). Stratifying by initial treatment (RAR vs RAS), the pooled incidence comparing RAR to RAS were; gross total resection (GTR) (69% vs 74% p- interaction <0.01, complication (11% vs 16%, p-interaction <0.04), local failure (37% vs 28%, p-interaction =0.11), intracranial failure (54% vs 56%, p- interaction=0.03), six-months survival (83% vs 67%, p- interaction <0.01), and one-year survival (50% vs 36%, p-interaction <0.01), respectively. ***Conclusions:*** Resection of recurrent BMs following initial resection or radiosurgery was associated with relatively favorable outcomes that were comparable irrespective of initial treatment, offering compelling evidence for consideration of a more aggressive treatment of recurrent BMs.

PCN17
STABILITY OF HOSPITAL COST FOR US INPATIENT CANCER CARE FROM 2012-2016

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Objectives: In 2011, NIH projections suggested the cost of cancer care would rise from $158bn to as much as $207bn by 2020. As a third of all US health expenditures are on hospital care, we investigated the extent to which inpatient costs for the most common cancers have changed in recent years. ***Methods:*** Using data from the National Inpatient Sample 2012-2016, admissions with a diagnosis of cancer (single-level CCS – category 11-44) were identified. Total hospital cost was reported, stratified by the 10 most frequent cancers for males or females, by all remaining cancers, and by year. Costs were inflation adjusted to 2016 using the medical component of the consumer price index. Discharge-level weights were applied to represent national estimates, and domain analysis was used to account for the use of subpopulations rather than the entire sample. ***Results:*** Mean (95% confidence interval) cost of hospitalization in 2016 ranged from $13,046 ($12,794 - $13,298) for breast cancer to $25,095 ($23,396 - $26,795) for leukemia, with no statistically significant change for any cancer type except pancreas from 2012. There were 6,337,545 hospital admissions of patients with cancer in 2012 and 6,599,259 in 2016. Total expenditures on hospitalization for cancer were $100bn in 2012 and $103bn in 2016 for all cancers, an average annual change of 1% above inflation. ***Conclusions:*** Neither the overall cost of inpatient cancer treatment nor the cost per admission for the most common individual cancer sites increased more than overall medical inflation rate, (approximately 2.8%/year). Our analysis was limited to the hospital setting and does not include the cost of chemotherapy administered in the outpatient setting.

PCN18
IN-HOSPITAL MORTALITY FOR BREAST CANCER IN THE UNITED STATES, 2012-2016

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Objectives: Breast cancer is the most common cancer in women. The risk of breast cancer has increased slightly over time, while the death rate has declined steadily. This decline may be due to improvements in diagnosis, outpatient, or inpatient treatment. We investigated whether in-hospital death rates among patients admitted with a diagnosis of breast cancer declined in the US over the most recent period of data availability. ***Methods:*** Using the National Inpatient Sample 2012-2016, admissions with a diagnosis of breast cancer (single-level CCS – category 24) were identified. Descriptive measures including demographics, length of stay (LOS), discharge disposition, and total cost (adjusted for inflation using medical care component), stratified by year. Discharge-level weights were applied to represent national estimates, and domain analysis was used to account for the use of subpopulations. ***Results:*** In 2016, there were 751,185 admissions of patients with a diagnosis of breast cancer to US hospitals. Mean (95% confidence interval) age was 70.3 (70.1-70.5) years, 68.9% (68.3%-69.6%) had Medicare as their primary payer, and 73.3% (72.1%-74.4%) were White. Age slightly increased over the years studied, with the lowest mean of 69.8 (69.6-70.1) years in 2012 and 2013 (p=0.002). Mean LOS was 4.6 (4.6-4.7) days in 2012 and 2013 and 4.7 (4.7-4.8) days in 2016 (p<0.001). In-hospital death occurred in 2.8% (2.7%-2.9%) in 2012 and 2.9% (2.8%-3.0%) of admissions in 2016 (p=0.507). Mean cost of admission was $13,032 ($12,788-$13,276) in 2012 and $13,046 ($12,794-$13,298) in 2016 (p=0.940). ***Conclusions:*** Among the three-quarters of a million US admissions per year with a diagnosis of breast cancer, the in-hospital death rate was stable from 2012-2016, despite a small increase in the age of admitted patients. Breast cancer mortality dropped 1.3% per year over a similar period, suggesting improved treatment and care in the outpatient setting may be responsible for the decrease.

PCN19
PATIENT CHARACTERISTICS AND FIRST LINE TREATMENTS AMONG MEDICARE PATIENTS WITH METASTATIC NON-SMALL CELL LUNG CANCER (MNSCLC)

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Objectives: Pembrolizumab was the first programmed cell death receptor ligand 1 (PD-L1) inhibitor approved 10/2016 for first line monotherapy in mNSCLC patients with high PD-L1 expression (Tumor Proportion Score (TPS) ≥ 50%). Pembrolizumab with pemetrexed and carboplatin (immuno-oncology (IO) + chemotherapy) was approved 5/2017 for nonsquamous disease. The primary study objective is to describe patient characteristics and treatment patterns of Medicare Fee-for-Service (FFS) patients with mNSCLC. ***Methods:*** A retrospective cohort analysis was conducted among Medicare FFS beneficiaries diagnosed with mNSCLC 10/2015-6/2017 and treated with regimens classified as an NCCN Guideline Category 1 or 2A recommendation. Patients were followed from date of metastatic disease to: death, loss of Medicare coverage, or end of follow-up. PD-L1 expression was available for a subset of patients using linked diagnostic testing results from Prognos. Baseline characteristics, 1LoT, and PD-L1 expression level were measured (PD-L1 negative = TPS <1.0%; PD-L1 positive = TPS ≥1%). ***Results:*** A total of 41,431 patients were included (51.1% female; mean age: 74.3 years; mean follow up: 12 months). Of the 2,476 patients with confirmed PD-L1 expression, 66.3% were PD-L1 positive. Patients with positive/negative PD-L1 expression were similar in age, sex and comorbidities. Across the full study sample (n=41,431), the most common 1LoT included: doublet chemotherapy (43.4%), IO monotherapy (19.7%), single agent chemotherapy (14.6%), tyrosine kinase inhibitors (TKI) (10.7%), IO + chemotherapy (1.0%), or other regimens (10.3%). Among patients with PD-L1 positive tumors, the most common 1LoT were doublet chemotherapy (42.6%), pembrolizumab monotherapy (25.5%) or TKI (9.5%); patients with PD-L1 negative tumors commonly received doublet chemotherapy (54.9%) or TKI (14.0%). ***Conclusions:*** Treatments in Medicare population were largely in line with NSCLC treatment guidelines. As expected, doublet chemotherapy was the most commonly prescribed 1LoT. Additional research will explore economic outcomes associated with 1LoT selection by PD-L1 status.

PCN20
OVERALL RESPONSE AND COMPLETE RESPONSE WITH ANTI-BCMA CHIMERIC ANTIGEN RECEPTOR (CAR) T-CELL THERAPY FOR RELAPSED AND REFRACTORY MULTIPLE MYELOMA (RRMM) : A SYSTEMATIC REVIEW AND META-ANALYSIS

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Objectives: To conduct a systematic literature review and meta-analysis to summarize the efficacy of anti-BCMA CAR T-cell therapy for RRMM. ***Methods:*** The PubMed and Embase databases were searched for English language papers and conference abstracts published through 31 December 2019. Studies were selected for inclusion if RRMM patients were treated with Anti-BCMA CAR T-cell therapy. Random-effects meta-analyses were conducted to estimated the pooled overall response rate (ORR) and complete response rate (CR). Quality appraisal was conducted using the newcastle ottawa scale. ***Results:*** A total of 2,061 records were identified, of which 17 references met the selection criteria for systematic review and meta-analysis. The median age of patients was 58 years. Median follow-up duration ranged from 4 to 48 weeks. All studies were conducted using a single arm trial design. The median trial size was 14 patients (Range: 6-57). The pooled overall response rate was 87% (N=17 studies, n=309, 95% CI: 80%-92%; measure of heterogeneity I^2 estimate was 49.8%). The pooled complete response rate was 32% (N=14 studies, n=278, 95% CI: 20%-46%; measure of heterogeneity I^2 estimate was 78.0%). Due to small sample sizes, open label and non-comparative design majority of the studies ranked low in quality appraisal. ***Conclusions:*** Anti-BCMA CAR T-Cell therapy is a promising option for relapsed and refractory multiple myeloma patients, though there is a need for higher quality studies to confirm the safety and efficacy.

PCN21
AFRICAN AMERICAN MEN WITH LOW RISK PROSTATE CANCER IN MIDLIFE ARE ASSOCIATED WITH HIGHER RISK OF GLEASON UPGRADING

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Objectives: Low risk prostate cancer (PCa) offers a favorable prognosis, which is associated with minimal risk of adverse oncologic outcomes. However, African