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March 2012 (n=424). Patients were assigned line of therapy for each treatment regimen received during their entire MBC treatment history. Distribution of patients by payer type (Medicare, Medicaid, Commercial) was also evaluated. Data was analyzed using Pearson chi-square. **RESULTS:** An analysis of patient distribution revealed the share of eribuilin treated patients that received treatment in first or second line in the 2015 study cohort (42.1%) was significantly higher than the share reported in the 2012 cohort (32.8%) (p=0.007). The share of Medicare patients among the first and second line treatment group increased from 2012 (32.5%) to 2015 (44.5%) (p=0.044). **CONCLUSIONS:** Eribulin mesylate utilization in earlier lines of treatment has increased over time possibly due to greater familiarity among MBC treating providers. In addition, this increase in earlier use of eribulin mesylate has come to a greater degree among Medicare patients, possibly highlighting more stringent controls among commercial payers.

#### PCN283

## PRIORITY ISSUES AND RECOMMENDATION SELECTION IN CANCER PAIN MANAGEMENT

Hyun M

Dongguk University, Gyeongju-si, South Korea

**OBJECTIVES:** Pain is one of the most common and painful symptoms in the cancer patients. This study aimed to provide the rationale for policy setting by the focus group interview of representative experts. METHODS: Priority issues and recommendation selection were conducted two times with 18 experts who are recommended from 12 academic associations to identify problems and resolution measures for cancer pain and narcotic analgesics management in clinical settings. During the 1st priority issues and recommendation selection, answered open-ended questions on obstacles and recommendations in cancer pain management. After questionnaires were completed, then the top 3 key issues were selected based on their response rate in each category, and its recommendations were provided. In the 2nd priority issues and recommendation selection, the Basic Priority Rating System (hereafter BPRS) and PEARL, basic priority selection tools, were used to set priority of recommendations and policy practicality was evaluated. RESULTS: The first selected key issue from the 1st priority issues and recommendation selection in a total of 12 respondents was the lack of systemic education and interests in cancer pain management by the medical professionals and pharmacists. Based only on BPRS scores, 'implementation and obligatory requirement of systemic and continuous cancer pain management education for medical professionals and pharmacists' was highly placed. The second key issue was the lack of understanding of patients and guardians in cancer pain management including narcotic analgesics. The highest ranked recommendation was 'education of patients and guardians on cancer pain management by dedicated personnel for patient education. The third key issue was the necessity of cancer pain management system improvement. **CONCLUSIONS:** We derived three priority issue and 21 recommendation for the cancer pain management using experts concensus meeting.

## PCN282

# CHEMOTHERAPY EXPOSURE AND OUTCOMES AMONG PATIENTS DIAGNOSED WITH CHRONIC LYMPHOID LEUKEMIA

Kuiper JG<sup>1</sup>, Musingarimi P<sup>2</sup>, Tapprich C<sup>3</sup>, Penning-van Beest FJ<sup>1</sup>, Gaudig M<sup>4</sup>

<sup>1</sup>PHARMO Institute for Drug Outcomes Research, Utrecht, The Netherlands, <sup>2</sup>Janssen Health

Economics & Market Access EMEA, High Wycombe, UK, <sup>3</sup>Janssen Medical Affairs EMEA, Neuss,

Germany, <sup>4</sup>Janssen Health Economics & Market Access EMEA, Neuss, Germany

OBJECTIVES: To describe chemotherapy exposure, healthcare utilization, overall survival (OS) and progression-free survival (PFS) among patients diagnosed with chronic lymphoid leukemia (CLL). METHODS: Newly diagnosed CLL patients who received chemotherapy were selected from the Eindhoven Cancer Registry between 1998-2011, linked on a patient-level to the PHARMO Database Network including data on in- and out-patient drug dispensings, hospitalizations and clinical laboratory measurements. Chemotherapy was classified in regimens of use based on chemotherapy combinations. OS and PFS were determined after diagnosis and after chemotherapy. Healthcare utilization was assessed in the year before diagnosis and in the year after chemotherapy. RESULTS: 125 CLL patients received chemotherapy: 52 patients (42%) started chemotherapy within 6 months and 73 patients (58%) started chemotherapy more than 6 months after diagnosis. Mean (±SD) age was 67(±10) years and 68% was male. About 50% had one treatment line and about 25% two lines of treatment. Chlorambucil was the most common type of first line chemotherapy (37 (71%) of patients starting chemotherapy within 6 months and 55 (75%) of patients starting chemotherapy more than 6 months after diagnosis). Among patients receiving chlorambucil as first line, 39% were hospitalized for any cause and 93% had at least one drug dispensing before diagnosis. After chlorambucil chemotherapy, all patients had at least one dispensing and 49% were hospitalized. One-year survival rate was 96% after diagnosis and 74% after chlorambucil chemotherapy. Five-year survival rate after diagnosis was 75%. Median PFS after first line chlorambucil was 19 months for patients starting within 6 months and 21 months for patients starting more than 6 months after diagnosis. **CONCLUSIONS:** Most CLL patients receiving chemotherapy were treated with chlorambucil. Among those, 96% were still alive one year after diagnosis. Median PFS after first line chlorambucil chemotherapy ranged from 19 to 21 months, depending on the timing of chemotherapy.

### PCN283

# DESCRIPTTIVE EVALUATION OF PATIENT CHARACTERISTICS AND HEALTH CARE RESOURCE UTILIZATION OF PATIENTS DIAGONSED WITH BREAST CANCER

Greene N<sup>1</sup>, Greene M<sup>2</sup>

<sup>1</sup>MCPHS University, Medford, MA, USA, <sup>2</sup>Georgia State University, Medford, MA, USA OBJECTIVES: The objective of this study is to assess characteristics and health care resource utilization of patients diagnosed with breast cancer. METHODS: A large

US administrative retrospective claims database was used to identify patients diagnosed with breast cancer and were taking treatment in the USA from January 2001 to December 2013 were included in the study. All patients were  $\geq$  18 years of age and continuously enrolled in the same health plan at least for a year. Descriptive statistics and chi-square tests were performed on the data. **RESULTS:** There were a total of 23,774 patients that met the study inclusion criteria. Of these, 16,745 (70.40%) were patients <65 years of age (adult) and 7,029 (29.60%) were ≥65 years of age (geriatric). There was a significant difference (p<0.01) in the mean ages of two groups (53.45 $\pm$ 7.74 vs 73.0 $\pm$ 5.41 years). There was no significant difference (p>0.05) in the mean length of stay between the groups (1.09 $\pm$ 3.10 vs 1.04 $\pm$ 1.18 days). There were more patients in adult group in the East (20.4% vs 19.4%), MidWest (29.5% vs 23.8%) and South (36.2% vs 35.7%) regions with a significant difference (p<0.05) between the groups. On average, patients were continuously enrolled in the same health plan for 65.01±36.18 vs 63.09±32.71 months and submitted 521.51±472.37 vs 555.74±484.09 claims with a significant difference (p<0.05) between the two groups. Patients on average were charged by the provider \$518.48±1831.53 vs \$426.12±1517.57, allowed amount by the health plan was \$248.97±906.85 vs \$208.44±1015.06 and the actual paid amount by the health plan was \$227.68 $\pm$ 850.93 vs \$105.53 $\pm$ 478.76 with a significant difference between the groups (p<0.05). **CONCLUSIONS:** The majority of the patients were adult and on average, these patients were charged more by the provider and actual paid amount by the health plan was more compared to geriatric patients for the treatment of breast cancer.

#### PCN284

# PATIENT CHARACTERISTICS AND HEALTH CARE RESOURCE UTILIZATION OF PATIENTS DIAGONSED WITH NEOPLASM OF COLON

Greene  $\mathrm{N}^1$ , Greene  $\mathrm{M}^2$ 

<sup>1</sup>MCPHS University, Medford, MA, USA, <sup>2</sup>Georgia State University, Medford, MA, USA

OBJECTIVES: The objective of this study is to assess the characteristics and health care resource utilization of patients diagnosed with neoplasm of colon. METHODS: A large US administrative retrospective claims database was used to identify patients diagnosed with neoplasm of colon and were taking treatment from January 2001 to December 2013 were included in the study. All patients were ≥ 18 years of age and continuously enrolled in the same health plan at least for a year. Descriptive statistics and chi-square tests were performed on the data. **RESULTS:** There were a total of 6,346 patients that met the study inclusion criteria. Of these, 3,713 (58.50%) patients were <65 years of age (adult) and 2,633 (41.50%) were ≥65 years of age (geriatric). The mean ages of patients in each group were (54.43±7.79 vs 74.41±5.59 years, p<0.05). There were no significant difference (p>0.05) in the distribution of males (52.1% vs 50.8%) and mean length of stay (1.14±1.56 vs 1.14±1.81 days) between the two age groups. There were more patients in a dult group in the MidWest (28.4%  $\,$ vs 22.9%) and South (40.6% vs 37.4%) regions compared to  $\geq$  65 years of age group (p<0.05). On average, patients were continuously enrolled in the same health plan for 64.55±36.48 vs 64.75±31.64 months and submitted 641.68±596.15 vs 657.84±568.94 claims with no difference (p>0.05) between the two groups. Patients on average were charged by the provider \$502.33 ± 1963.83 vs \$473.13 ± 1891.67 for their colon cancer treatment (p<0.05) during the study period. However, the paid amount by the health plan was  $\$226.33 \pm 1046.81$  vs  $\$129.95 \pm 612.63$  with a significant difference between the groups (p<0.05). CONCLUSIONS: The majority of the patients was adults and were charged higher amount by the provider for the treatment of neoplasm of colon.

### PCN285

# DESCRIPTIVE EVALUATION OF PATIENT CHARACTERISTICS AND HEALTH CARE RESOURCE UTILIZATION OF PATIENTS DIAGONSED WITH MALIGNANT NEOPLASM OF ANUS

Greene N<sup>1</sup>, Greene M<sup>2</sup>

<sup>1</sup>MCPHS University, Medford, MA, USA, <sup>2</sup>Georgia State University, Medford, MA, USA

OBJECTIVES: The objective of this study is to assess the characteristics and health care resource utilization of patients diagnosed with malignant neoplasm of anus. METHODS: A large US administrative retrospective claims database was used to identify patients diagnosed with malignant neoplasm of anus and were taking treatment in the USA from January 2001 to December 2013 were included in the study. All patients were  $\geq$  18 years of age and continuously enrolled in the same health plan at least for a year. Descriptive statistics and chi-square tests were performed on the data. **RESULTS:** There were a total of 485 patients that met the study inclusion criteria. Of these, 355 (73.2%) were <65 years of age (adult) and 130 (26.8%) were  $\ge65$  years of age (geriatric). There was a significant difference (p<0.01) between the mean ages of two groups (53.49 $\pm$ 7.50 vs 72.73 $\pm$ 5.26 years). There were more patients in adult group in the MidWest (30.1% vs 18.5%) and South (41.1% vs 40.8%) regions with a significant difference (p<0.05) between the groups. Adult patients had a longer length of stay (2.05±4.90 vs 1.81±4.24) with a significant difference between the groups (p<0.05).On average, patients were continuously enrolled in the same health plan for  $66.04\pm38.12$  vs  $61.45\pm30.08$  months and submitted  $690.22\pm548.30$  vs  $785.05\pm597.74$  claims with no significant difference (p>0.05) between the two groups. Patients on average were charged by the provider  $$485.67\pm1565.39$  vs  $$422.30\pm1348.80$  (p<0.05), allowed amount by the health plan was \$217.47±795.40 vs \$178.07±663.62 (p<0.05) and the actual paid amount by the health plan was \$203.48±784.93 vs \$108.38±399.73 (p<0.05). CONCLUSIONS: The majority of the patients was adult patients and were charged higher amount by the providers compared to geriatric patients for the treatment of neoplasms of anus.

### PCN286

# DESCRIPTIVE EVALUATION OF PATIENT CHARACTERISTICS AND HEALTH CARE RESOURCE UTILIZATION OF PATIENTS DIAGONSED WITH OVARIAN CANCER Greene $\rm M^{2}$

<sup>1</sup>MCPHS University, Medford, MA, USA, <sup>2</sup>Georgia State University, Medford, MA, USA
OBJECTIVES: The objective of this study is to assess descriptively the characteristics and health care resource utilization of patients diagnosed with ovarian cancer. METHODS: A large US administrative retrospective claims database was used

to identify patients diagnosed with ovarian cancer and were taking treatment from January 2001 to December 2013 were included in the study. All patients were  $\geq 18$ years of age and continuously enrolled in the same health plan at least for a year. Descriptive statistics and chi-square tests were performed on the data. **RESULTS:** There were a total of 2,562 patients that met the study inclusion criteria. There were 1,718 (67.10%) patients <65 years of age (adult) and 844 (32.90%) ≥65 years of age (geriatric). There was a significant difference (p<0.05) between the mean ages of two groups (52.48±9.76 vs 73.08±6.62 years). The mean length of stay of adult patients was lower than (p<0.05) geriatric patients (1.23±1.57 vs 1.45±2.67 days). There were more patients in adult group in the East (23.5% vs 21.0%) and MidWest (30.3% vs 27.6%) regions but no significant difference was found (p>0.05). On average, patients were continuously enrolled in the same health plan for 62.00±37.03 vs 66.64±35.21 months and submitted 567.10±574.49 vs 740.58±629.71 claims with a significant difference (p<0.05) between the two groups. Patients on average were charged by the provider \$533.62±2232.26 vs \$492.09±2123.24 for their ovarian cancer treatment (p<0.05) during the study period. However, the actual paid amount by the health plan was \$225.25±1215.97 vs \$136.79±962.99 with a significant difference between the groups (p<0.05).  $\boldsymbol{\text{CONCLUSIONS:}}$  The majority of the patients were <65 years of age and were paid higher amount by the health plan for the treatment of ovarian cancer.

#### PCN287

# PATIENT CHARACTERISTICS AND HEALTH CARE RESOURCE UTILIZATION OF PATIENTS DIAGONSED WITH PROSTATE CANCER

Greene N1, Greene M2

 $^1\mathrm{MCPHS}$  University, Medford, MA, USA,  $^2\mathrm{Georgia}$  State University, Medford, MA, USA

**OBJECTIVES:** The objective of this study is to assess the characteristics and health care resource utilization of patients diagnosed with prostate cancer. METHODS: A large US administrative retrospective claims database was used to identify patients diagnosed with prostate cancer and were taking treatment in the USA from January 2001 to December 2013 were included in the study. All patients were ≥ 18 years of age and continuously enrolled in the same health plan at least for a year. Descriptive statistics and chi-square tests were performed on the data. RESULTS: There were a total of 19,279 patients that met the study inclusion criteria. Of these, 6,359 (33.0%) patients were <65 years of age (adult) and 12,920 (67.0%) ≥65 years of age (geriatric). There was a significant difference (p<0.05) in the mean ages of two groups (59.02±4.99 vs 74.55±6.55 years). There were more patients in adult group in the MidWest (28.5% vs 23.6%) and South (38.3% vs 36.4%) regions with a significant difference between the groups (p<0.05). On average, patients were continuously enrolled in the same health plan for 65.37±35.91 vs 65.80±32.84 months (p>0.05) and submitted 366.85 $\pm$ 381.92 vs 492.37 $\pm$ 431.42 claims during the study period (p<0.05). Patients on average were charged by the provider \$763.84±3003.48 vs \$595.56±2207.71, the allowed amount by the health plan was \$343.75±1496.33 vs \$270.81±1380.54 and the actual paid amount by the health plan was \$309.67±1294.90 vs \$165.08±768.48 with a significant difference between the groups (p<0.05). CONCLUSIONS: The majority of the patients were geriatric. On average, geriatric patients were charged less by the provider and actual paid amount by the health plan was less compared to adult patients for the treatment of prostate cancer.

### PCN288

# ABSTRACT TITLE: DESCRIPTIVE EVALUATION OF PATIENT CHARACTERISTICS AND HEALTH CARE RESOURCE UTILIZATION OF PATIENTS DIAGONSED WITH MALIGNANT NEOPLASM OF RECTUM

Greene N1, Greene M2

<sup>1</sup>MCPHS University, Medford, MA, USA, <sup>2</sup>Georgia State University, Medford, MA, USA

OBJECTIVES: The objective of this study is to assess the characteristics and health care resource utilization of patients diagnosed with malignant neoplasm of rec $tum. \ \textbf{METHODS:} \ A \ large \ US \ administrative \ retrospective \ claims \ database \ was \ used$ to identify patients diagnosed with malignant neoplasm of rectum and were taking treatment in the USA from January 2001 to December 2013 were included in the study. All patients were ≥ 18 years of age and continuously enrolled in the same health plan at least for a year. Descriptive statistics and chi-square tests were performed on the data. RESULTS: There were a total of 2,461 patients that met the study inclusion criteria. Of these, 1,695 (68.87%) were <65 years of age (adult) and 766 (31.13%) were  $\geq$ 65 years of age (geriatric). There was no difference (p>0.05) in the distribution of males (57.2% vs 57.0%) and a significant difference (p<0.01) between the mean ages of two groups (53.49 $\pm$ 7.50 vs 72.73 $\pm$ 5.26 years) was found. The mean length of stay between the groups (1.96±4.37 vs 1.96±4.56 days) was almost same. There were more patients in adult group in the East (31.3% vs 22.7%) and South (38.3% vs 37.3%) regions with a significant difference (p<0.05) between the groups. On average, patients were continuously enrolled in the same health plan for 63.50±36.74 vs 64.43±32.40 months and submitted 640.33±580.25 vs  $680.26\pm598.82$  claims with no significant difference (p>0.05) between the two groups. Patients on average were charged by the provider \$611.69±2771.24 vs \$639.36±3554.90 (p>0.05), allowed amount by the health plan was \$284.71±1515.83 vs  $$287.31\pm1996.25$  (p>0.05) and the actual paid amount by the health plan was  $$268.84\pm1490.76$  vs  $$145.21\pm1068.87$  (p<0.05). **CONCLUSIONS:** The majority of the patients were adult and health plans paid higher amount for these patient groups compared to geriatric patients for the treatment of malignant neoplasms of rectum.

### PCN289

## INTERNATIONAL DIFFERENCES IN THE ROLE OF PAYER AND ADMINISTRATIVE CONTROLS IN PRESCRIBING DECISIONS

Silvey M, Rider A, Wellam HW, Piercy J

Adelphi Real World, Bollington, UK

OBJECTIVES: To assess the extent to which prescribing decisions are influenced by payer implemented controls. METHODS: Data were drawn from the Adelphi Disease Specific Programme (DSP) in Multiple Myeloma conducted in Q1 2015. DSPs are cross sectional surveys of physicians and their consulting patients. Fifty Haematologists/

Haematological-oncologists in each of France, Germany, Italy, Spain and the UK, actively managing patients with Multiple Myeloma, were asked to complete patient record forms (PRF) prospectively for the next eight patients who consulted their clinic. In addition to clinical considerations, prescribers were asked to record the impact of administrative controls on their prescribing decisions as well as being asked attitudinal and perceptual information on the influence of payer recommendations. RESULTS: We observed national variation of the influence of payers on prescribing decisions. Administrative controls were cited as influencing more than 70% of prescribing decisions in all markets except Germany, where the figure was 50%. Inclusion on formulary was a strong driver of prescriber decisions about therapy, cited as a driver in the majority of individual decision in all markets except Germany. We also observed that prescribers reported that they would have selected an alternative treatment in around 1 in 8 patients, had administrative controls not been in place. Germany was the exception, where this figure is closer to 1 in 20 individual prescribing decisions. CONCLUSIONS: This research demonstrates that prescribers' behavior is strongly influenced by administrative controls to which payers contribute, and that there are differences between Germany and the other 4 markets investigated. Further research will establish whether differences reflect actual differences in the nature and impact of controls, or simply greater alignment between prescribers' and payers' objectives or opinions in Germany. This has the potential to inform discussions between prescribers and payers about rational use of medicines and patients' access to medicines.

#### PCN290

# TIERED PRICING IN ONCOLOGY - DRIVERS FOR IMPROVED PATIENT ACCESS AND COMMERCIAL SUCCESS

Favaro A, Saraf S

ICON P&MA, London, UK

OBJECTIVES: Tiered pricing, also referred to as differential pricing or equitable pricing, involves adjusting drug prices to the purchasing power of consumers in different geographical or socio-economic segments. Traditionally, tiered pricing strategies have aimed to improve access to medicines in the developing world. There has been increasing interest from manufacturers and payers in employing such strategies for oncology agents, but improved patient access and commercial success has been variable. This research aims to understand the challenges and opportunities associated with implementing tiered pricing for oncology agents and the factors that may contribute to a successful strategy. METHODS: Systematically analyse a set of case studies in order to clearly identify current practice and trends in tiered pricing strategies for cancer drugs in key emerging markets. Evaluate various strategies based on publically available information and identify drivers for improved patient access and commercial success. RESULTS: Emerging markets represent a complex environment and a number of challenges such as physical and informational arbitrage impact a differential pricing strategy. Strategies driven by short-term profitability objectives have usually failed and those that have not addressed the inefficient distribution channels in emerging markets have also struggled to gain traction. Additionally, a poor knowledge of demand elasticity has often limited impact. CONCLUSIONS: Tiered pricing strategies represent a powerful tool for improving patient access to cancer drugs in emerging markets. Every tiered pricing strategy needs to be tailored to each product and market/ segment. A clear understanding of the objectives driving the strategy, the potential pricing tools applicable in a market, the distribution channels and methods to mitigate risk are key to improving patient access and supporting commercial success.

### PCN291

# BUILDING A REAL WORLD DATA NETWORK TO SUPPORT ACCESS TO ONCOLOGY MEDICINES IN FRANCE: THE PERSONALISED REIMBURSEMENT MODELS INITIATIVE

Cogez F, Rose M, Taraud O, Pinguet J

Roche SAS, Boulogne-Billancourt, France

**OBJECTIVES:** Oncology medicines reimbursed in France have a fixed price whereas the benefits vary across patient groups. Pricing models aligned to the benefit for patients open an interesting concept, but they need to be supported by reliable and standardised metrics aligned with heath authorities 'expectation. The Personalised Reimbursement Models (PRM) pilots aim to establish an infrastructure validated by the National Data Privacy Committee to collect existing data of metastatic breast cancer patients (mBC) taking trastuzumab and leverage preliminary analytics to evaluate the relevance of this approach. METHODS: mBC patients at 14 pilots central transfer of the second of the tres recorded in the Electronic Pharmacy Record (EPR) system with at least one trastuzumab claim between January 2011 to October 2014 that were not enrolled in a clinical trial were selected. Data related to demographics, disease description, drug usage and clinical outcomes were collected in the EPR. These data were controlled, cleaned and centralised in an anonymous and secure way through an accredited hosting provider. RESULTS: 510 mBC patients taking trastuzumab were identified. 21 of the 30 target variables were available in the EPR with a mean of 3.5% percent of missing data and results that were consistent with literature. Unavailable variables have been identified in other data sources within centres or could be added to the EPR by updating and enhancing the health information systems. The recruitment of around 100 additional centres began in January 2015 following a sampling method designed to ensure the representativeness of clinical practice. CONCLUSIONS: Pilot study has validated technical and legal feasibility of the PRM infrastructure implementation and the quality of the outputs. Over time, PRM will deliver robust and standardised real world evidence that could be used to implement models that will support more flexible pricing strategies and help ensure patient access to innovative treatments delivered in different indications.

### PCN292

# ASSESSING THE GAP BETWEEN EVIDENCE BASED INDICATIONS FOR RADIOTHERAPY AND ACTUAL PRACTICE IN EUROPEAN COUNTRIES

Borras  $JM^1$ , Dunscombe  $P^2$ , Barton  $M^3$ , Gasparotto  $C^4$ , Defourny  $N^4$ , Grau  $C^5$ , Lievens  $Y^6$