Weights (IPCW), and Iterative Parameter Estimation (IPE). To determine acceptance of these techniques in Australia, Public Summary Documents (PSDs) reporting on the Pharmaceutical Benefits Advisory Committee's (PBAC's) decision-making in oncology were reviewed. **METHODS:** Oncology PSDs were examined, and the method of adjustment (if any), PBAC concerns and outcome were assessed. **RESULTS:** Thirty-one submissions included trials allowing crossover; 16 (52%) presented adjusted estimates of OS. Common indications were: renal cell carcinoma, non-small cell lung cancer (NSCLC), melanoma, colorectal cancer (CRC), and pancreatic neuroendocrine tumour. The most common method was RPSFT (11 products), followed by IPCW (4 products). IPE, marginal structural modelling, and a two-stage Weibull approach were each reported once. The RPSFT approach appeared to raise fewer concerns than the IPCW, usually because the IPCW correction was considered less reliable when a high proportion of patients crossed-over. In NSCLC and CRC, the PBAC considered unadjusted crossover to be appropriate and reflect a relevant comparison between first- and second-line therapy. Only five PSDs reported results of more than one method. The PBAC expressed a preference to see a range of approaches and a clearly justified selection of the most appropriate method. **CONCLUSIONS:** A range of adjustment techniques were used to support submissions in Australia, with RPSFT being most common. It is important to clearly justify the need for adjustment and the selection of the most appropriate technique.

PCN60

SAFETY AND INSURANCE PREMIUM IMPLICATIONS FOR HOSPITALS BASED ON SUBCUTANEOUS VERSUS INTRAVENOUS ADMINISTRATION OF ONCOLOGY / HEMATOLOGY THERAPIES: CASE STUDIES WITH RITUXIMAB (MABTHERA) AND TRASTUZUMAB (HERCEPTIN)

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OBJECTIVES: In oncology an important parameter of safety is the potential treatment error in hospitals. The hypothesis which is being analyzed in the underlying work is the potential benefit of hospitals from a safety reduction through fix-dose ready to use subcutaneous therapies in comparison to intravenous therapies with trastuzumab and rituximab. **METHODS:** For the calculation of risk levels the Failure Mode and Effect Analysis (FMEA) approach was being applied. Within that approach the critical treatment path is followed and risk classification for each individual step is being estimated. For the oncology and hematology administration there were 35 different risk steps assessed. The study was executed in 17 hematology and 16 breast cancer centers in Italy. **RESULTS:** When the risk classes are calculated there were eight high risk areas identified for the administration of an intravenous therapy in hematology or oncology, 13 areas would be defined as having a median risk and 14 areas as having a low risk classification (total risk areas: n=35). When the new subcutaneous formulation would be applied 23 different risk levels could be completely eliminated (65% reduction). Including those eliminations important high risk classes such as the following were included: dose calculation, preparation and package labeling, preparation of the access to the vene and pump infusion preparation and infusion monitoring. The overall risk level for the intravenous administration was estimated to be 756 (ex-ante) and could be significantly reduced by 70% (ex-post). The potential harm compensation for errors related to the pharmacy would be decreased from 234'271 € for eight risk classes to only 3 risk classes. **CONCLUSIONS:** The use of a subcutaneous administration of trastuzumab (breast cancer) and rituximab (hematology) might lower the risk of administration and treatment errors for patients and could hence indirectly have a positive financial impact for hospitals.

PCN61

ASSOCIATIONS OF METFORMIN USE WITH MORTALITY AND DISEASE PROGRESSION AFTER CURATIVE HEPATIC RESECTION IN HEPATOCELLULAR CARCINOMA WITH TYPE 2 DIABETES MELLITUS: A NATIONWIDE POPULATION-BASED STUDY

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OBJECTIVES: There is a paucity of study to examine the relationship between metformin use and hepatocellular carcinoma (HCC) specific survival or recurrence. We, therefore, conducted a nationwide population-based study in the patients with HCC who underwent curative resection to investigate whether metformin use would reduce mortality and recurrence rate. **METHODS:** The study population initially included 105,367 adults who had a primary diagnosis of HCC (International Classification of Diseases, 10th revision, C22) from the Korea Center Cancer Registry between 1 January 2005 and 31 December 2011. The primary outcome was HCC-specific survival. We obtained HCC deaths from the National Population Registry of the Korea National Statistical Office through December 31, 2013, with the use of a unique personal identification number. The secondary outcome was tumor recurrence during follow-up periods from National Health Insurance Service. **RESULTS:** The HCC-related survival or recurrence-free was significantly higher in the metformin user group than in the metformin non-user group during the follow-up period. In unadjusted analyses, compared to non-metformin group, metformin group showed a significant lower risk of HCC-specific death (hazard ratio (HR), 0.40; 95% Confidence interval (CI), 0.32-0.51). After multivariable adjustments for clinical covariates, metformin group still had a significantly lower risk of events as compared with non-metformin group (HR, 0.38; 95% CI, 0.30-0.49). The adjusted risk for recurrence was also significantly lower in metformin group (HR, 0.41; 95% CI, 0.33-0.52) compared with that of non-metformin group. **CONCLUSIONS:** Among patients of HCC cohort treated with curative hepatic resection, metformin use was associated with improvement of HCC-specific mortality and recurrence risk.

PCN62

IMPROVED SURVIVAL WITH IPILIMUMAB IN PATIENTS WITH ADVANCED MELANOMA IN REAL-WORLD CLINICAL PRACTICE: FIRST RESULTS OF THE DUTCH MELANOMA TREATMENT REGISTRY

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OBJECTIVES: Ipilimumab improved the survival of advanced melanoma patients in phase III trials (MDX010-20 [previously treated patients] and CA184-024 [treatment naïve patients]). Uncertainty exists, however, whether this benefit can be translated to real-world clinical practice. We investigated the use and survival outcomes of ipilimumab in The Netherlands. **METHODS:** We retrieved data from the population-based Dutch Melanoma Treatment Registry (DMTR). The DMTR includes all Dutch patients with unresectable stage IIIc/IV melanoma. Detailed data were prospectively collected from start of diagnosis until death or loss to follow-up. Survival outcomes (overall survival [OS] and one-year survival) in patients receiving ipilimumab in clinical practice were assessed using Kaplan-Meier estimates, and were compared with outcomes of pivotal trials and outcomes of real-world patients diagnosed before the introduction of ipilimumab (2003-2011; stage IV only) using data from the Dutch Comprehensive Cancer Centres. **RESULTS:** From 2012-2015, 545 patients received at least one dose of ipilimumab in real-world practice (65% received four dosages; median follow-up 4.6 months; data cut-off March 9, 2015). Ipilimumab was most frequently prescribed in the second line (60%), followed by the first (31%), third (8%), and fourth line (2%), respectively. Median OS was 7.7 months (IQR:3.6-NR) and one-year survival was 40%. This is somewhat lower than in the pivotal trials, which may be due to differences in baseline characteristics and time of follow-up (MDX010-20: median follow-up 27.8 months, median OS 10.1 months, one-year survival 46%; CA184-024: median follow-up 11.0 months, median OS 11.2 months, one-year survival 48%). However, the survival was higher compared to the survival in the period before the introduction of ipilimumab (2003-2011: median OS 6.8 months [IQR:3.3-18.5], one-year survival 33%). **CONCLUSIONS:** Melanoma survival has improved since the introduction of ipilimumab. Although survival was somewhat lower in real-world compared to pivotal trials, a survival benefit was observed in Dutch real-world clinical practice.

PCN63

WHEN "ALIVE AFTER 5 YEARS" DOES NOT MEAN "CURED": INTERNATIONAL PATTERNS IN CANCER 10- TO 20- YEAR RELATIVE SURVIVAL RATES

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OBJECTIVES: Traditionally, patients who survive 5 years from diagnosis of cancer are considered to be cured. More recent analysis of adjusted mortality rates suggests this assumption may not be valid. We sought to identify data on relative survival at 10 to 20 years for common cancers to determine which showed a continuing increase in mortality beyond 5 years. **METHODS:** National or regional cancer databases reporting net or relative survival beyond 5 years from diagnosis were identified, with 5- and 10-year data available from England and Wales, Scotland, the USA, Switzerland and Slovakia; 5-, 10- and 15-year data from Norway; and 5-, 10-, 15- and 20-year data from Germany and Sweden. The percentage decrease in net survival at each 5-year step was calculated at 10, 15 and 20 years to identify where there was a persistent increase in all-cause mortality above expected for the age- and sex-adjusted cancer-free population. **RESULTS:** Regional setting had a large impact on relative survival for each type of cancer. However, oropharyngeal, head and neck, liver, lung, pancreatic and ovarian cancers, chronic lymphocytic leukaemia, mesothelioma, multiple myeloma, and Kaposi's sarcoma consistently showed between a 10% and 70% further decrease in relative survival at 10 compared with 5 years. A further 10% or greater decrease in relative survival was seen between 10 and 20 years from diagnosis for head and neck, lung, laryngeal and prostate cancer, and was around 40% lower than population norms at 20 years for people with multiple myeloma. **CONCLUSIONS:** When modelling the impact of treatments for cancer, it is important to consider the whole period of increased risk of mortality. For certain cancers, in particular multiple myeloma, lung, prostate and laryngeal cancer, this may require a time horizon of 20 years or longer.

PCN64

IMPROVED SURVIVAL IN PATIENTS WITH ADVANCED MELANOMA IN REAL-WORLD CLINICAL PRACTICE: FIRST RESULTS OF THE DUTCH MELANOMA TREATMENT REGISTRY

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OBJECTIVES: New drugs for advanced melanoma showed promising results in pivotal trials; however, uncertainty exists regarding their value in real-world clinical practice. We investigated real-world treatment patterns and outcomes of advanced melanoma in The Netherlands. **METHODS:** We retrieved data from the population-based Dutch Melanoma Treatment Registry (DMTR). The DMTR includes all Dutch patients with unresectable stage IIIc/IV melanoma. Detailed data were prospectively collected from start of diagnosis until death or loss to follow-up. Real-world treatment patterns and outcomes (overall survival [OS], one-year survival and time-to-next-treatment [TTNT]) were assessed in patients receiving systemic treatment