of ibrutinib to available treatments for R/R MCL patients. METHODS: A systematic literature search was conducted to identify randomized controlled trials containing ibrutinib or a R/R MCL. Matching adjusted indirect comparison (MAC), described by Signorovitch et al, 2012, was utilized to obtain indirect relative treatment effect for ibrutinib compared to other treatments. Using individual patient level data (IPD), baseline characteristics of individual trial patients were matched with the patients in the published studies to obtain overall response (ORR) and complete response (CR) rates based on balanced population between the ibrutinib and published studies. Kaplan-Meier survival curves for overall survival and PFS of comparators were weighted alongside those of the matched ibrutinib patients. RESULTS: Nineteen studies evaluating various treatments were identified. Five trials evaluating bortezomib, BR (bendamustine, rituximab), FCM (fludarabine, cyclophosphamide, mitoxantrone), FCM-R (fludarabine, cyclophosphamide, mitoxantrone, rituximab), and rituximab-hyper-CVAD were considered for matching. Complete matching of the IPD was possible for the ibrutinib patients. Complete matching of the IPD was possible for Loiselle M., MA, USA estimated from Kaplan-Meier plots. OBJECTIVES: To assess the relative efficacy of first-line treatments in chronic myeloid leukaemia (CML), an updated systematic literature review (SLR) and indirect analysis of trastuzumab and treated continuously with trastuzumab for a median of 12 months. Of these 3,188 women, 13.8% received neo-adjuvant therapy prior to surgery, 17.7% relapsed, and 7.9% died during the follow-up. The OS rates at 3 and 4 years were 93.2% (95% CI 92.1%-94.2%) and 90.0% (88.6%-91.2%), respectively. The corresponding RFS rates were 78.8% (77.1%-80.3%) and 75.8% (74.0%-77.5%), respectively.

CONCLUSIONS: The findings suggest that most HER2+ cancers in BC patients in the USA Department of Defense (DOD) practice setting. METHODS: Adult women initiating adjuvant trastuzumab within 1 year of BC surgery were identified in the DOD health claims database (01/2003-12/2012). An algorithm based on secondary neoplasms ICD codes and treatment gaps and initiations was used to identify relapses. OS and RFS unadjusted rates at 3 and 4 years after the initiation of the adjuvant trastuzumab treatment were estimated from Kaplan-Meier plots. RESULTS: The study sample included 3,188 women (median age 63 years), followed for a median of 3.3 years after the initiation of trastuzumab and treated continuously with trastuzumab for a median of 12 months. Of these 3,188 women, 13.8% received neo-adjuvant therapy prior to the surgery, 17.7% relapsed, and 7.9% died during the follow-up. The OS rates at 3 and 4 years were 93.2% (95% CI 92.1%-94.2%) and 90.0% (88.6%-91.2%), respectively. The corresponding RFS rates were 78.8% (77.1%-80.3%) and 75.8% (74.0%-77.5%), respectively.

CONCLUSIONS: The findings suggest that most HER2+ BC patients in the DOD practice setting received per-label trastuzumab treatment for (52 weeks) and had OS rates that are similar to the OS rates that were previously observed in the NSABP/NCTCG clinical trial (90.0% vs. 93% at four years). The lower RFS rates are expected due to a small study versus the NSABP/NCTCG trial (75.8% vs. 85.7% at 4 years), may be partially explained by differences in the characteristics of the patients, including age.

PCN7 THE RELATIVE EFFICACY OF TREATMENTS IN FIRST-LINE MANAGEMENT OF NEWLY DIAGNOSED CHRONIC MYELOID LEUKAEMIA: SYSTEMATIC LITERATURE REVIEW AND INDIRECT COMPARISON Kroes M a, Zaporozka A, Osei-Assibey G, Puine A

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OBJECTIVES: To assess the relative efficacy of first-line treatments in chronic myeloid leukaemia (CML), an updated systematic literature review (SLR) and indirect comparison (IC) were conducted with follow-up period up to 48 months. METHODS: We updated a SLR initially conducted in 2011. Medical databases were interrogated systematically in January 2014 to identify trials comparing first-line treatments for CML. Using a fixed-effect Bayesian model implemented in WinBUGS, ICs were made to calculate relative efficacy (cumulative complete cytogenetic response (CCyR) and major molecular response (MMR)) for dasatinib, nilotinib and imatinib. RESULTS: Nineteen randomised controlled trials (RCTs) were included in the SLR, 10 were eligible for inclusion in the IC. Compared with imatinib 400mg by 12 months, odds of cumulative CCyR were significantly greater for dasatinib 100mg [odds ratio (OR) 2.25, 95% credible interval (CrI) 1.55-3.15], nilotinib 600mg [OR 2.23 (95% CrI 1.50-3.21)] and 800mg [OR 1.94 (95% CrI 1.31-2.79)] by 24 months compared with imatinib 400mg. The IC results, conducted with imatinib 400mg, the odds of a MMR for dasatinib 100mg, nilotinib 600mg, nilotinib 800mg, imatinib 100mg or IV Cr 1.28-1.30) and 800mg [OR 1.70 (95% CrI 1.08-2.50)] and higher, but not significant differences in dasatinib 100mg [OR 1.41 (95% CI 0.85-2.27)], by 12,24,36 and 48 months respectively. This comparison showed that imatinib 400mg, the odds of a MMR for dasatinib 100mg, nilotinib 600mg, nilotinib 800mg, imatinib 100mg or IV Cr 1.28-1.30) and 800mg [OR 1.70 (95% CrI 1.08-2.50)] and higher, but not signiﬁcant differences in dasatinib 100mg [OR 1.41 (95% CI 0.85-2.27)], by 12,24,36 and 48 months respectively. This comparison showed that imatinib 400mg, the odds of a MMR for dasatinib 100mg, nilotinib 600mg, nilotinib 800mg, imatinib 100mg or IV Cr 1.28-1.30) and 800mg [OR 1.70 (95% CrI 1.08-2.50)] and higher, but not signiﬁcant differences in dasatinib 100mg [OR 1.41 (95% CI 0.85-2.27)], by 12,24,36 and 48 months respectively.

CONCLUSIONS: Analysis including all available RCTs suggests that second-generation tyrosine kinase inhibitors dasatinib and nilotinib provide more efﬁcacy than imatinib 400mg and should be treatments of choice in newly diagnosed CML.
PCN1
THE EFFICACY OF CURRENT TREATMENT OPTIONS FOR METASTATIC CERVICAL CANCER
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OBJECTIVES: The prognosis of patients with metastatic cervical cancer (CC) remains poor, and treatment options are limited, with no single agent or combination of agents recognised as standard of care. Cisplatin/paclitaxel is the therapy most cited by patients. The aim of this study was to assess the frequency of use of chemotherapy in patients with metastatic CC. METHODS: Searches of PubMed were conducted, with no date restrictions, to identify published randomized controlled Phase III/II clinical trials (RCTs) of chemotherapy recommended by treatment guidelines, and radiotherapy and/or surgery, that reported overall survival (OS) in patients with metastatic (systemic recurrent, persistent or de novo metastatic) CC. Treatment guidelines and the Cochrane Library were also explored to identify additional citations. RESULTS: A total of 65 articles identified, 10 articles published between 1987 and 2014 proceeded to data extraction. Evidence supporting the use of chemotherapy was limited to cisplatin-monotherapy or platinum-based combination therapy. Overall OS of RCTs of these agents ranged from 29.0 to 29.6 months and 79.0% of patients received radiotherapy. For radiotherapy, HR for OS of lower-dose irradiation was 1.32 for hazard ratio (HR). The latest innovation, bevacizumab plus chemotherapy, demonstrated the greatest significant gain in OS versus chemotherapy (OS gain 3.7 months; 95% CI: 1.8-5.6 months). The study also identified studies that suggest the use of surgery and/or radiotherapy in this setting; the evidence was limited to seven retrospective hospital based studies. CONCLUSIONS: This study highlighted an unmet need for additional treatment options for metastatic CC. Use of cisplatin monotherapy or platinum-based combination therapy has provided limited survival benefits for many decades. The novel combination of bevacizumab plus chemotherapy has demonstrated an increase in survival in these patients. However, since there is no RCT evidence supporting the use of surgery and/or radiotherapy, a health technology appraisal of these alternative interventions is not currently feasible. Additional clinical research is urgently needed to assess the comparative clinical value of these therapies.

PCN12
COMPARISON OF MEAN OVERALL SURVIVAL (OS) AND RADIOGRAPHIC PROGRESSION FREE SURVIVAL (RFS) BASED ON MAPPING ADJUSTED INDIRECT COMPARISON OF ABIRATERONE ACETATE AND ENZALUTAMIDE FOR THE TREATMENT OF CASTRATION-RESISTANT PROSTATE CANCER IN CHEMOTHERAPY NAIVE PATIENTS
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OBJECTIVES: A systematic review and targeted literature search of clinical trials and non-linear models was conducted to evaluate comparator effects for abiraterone acetate and enzalutamide for the treatment of hormone refractory (HR) metastatic prostate cancer (mCPC). The objectives were to: 1. map and aggregate data from abiraterone acetate (ATA), enzalutamide (E) and placebo arms to generate survival and RFS estimates for both novel agents; 2. compare the risk of death in mCPC patients; 3. assess the consistency of the mapping approach. METHODS: Literature searches were conducted in PubMed, EMBASE, and Conference proceedings. Literature searching was conducted from 1966 to August 2014. Inclusion criteria were 18 years and older with mCPC and randomized controlled trials (RCTs). The RFS was defined as the time to progression. Analysis was based on a previously published methodology. The assumption of non-linearity was determined using the Weibull model. RESULTS: Two RCTs met the inclusion criteria. The adjusted indirect estimates were: 7.9 months for OS (ATA vs. E, HR 0.77, 95% CI 0.59-1.0) and 13.1 months for RFS (ATA vs. E, HR 0.57, 95% CI 0.47-0.68). CONCLUSIONS: This indirect comparison of abiraterone acetate and enzalutamide suggests that abiraterone acetate is superior to enzalutamide in terms of OS and RFS in patients with mCPC. Further research is required to confirm these findings.

PCN14
ANALYSIS OF TREATMENT OPTIONS FOR RELAPSED OR REFRACTORY CHRONIC LYMPHOCYTIC LEUKEMIA (CLL)
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OBJECTIVES: For patients with relapsed or refractory (R/R) chronic lymphocytic leukemia (CLL), drug options are limited and patient outcomes are highly heterogeneous in methods, patients characteristics and outcomes but suggest that CytoBank may be beneficial in local tumor control. There is a need of well-designed comparative studies.

PCN15
AN INDIRECT TREATMENT COMPARISON OF CABOZANTINIB VERSE VANDETANIB IN PROGRESSIVE MEDULLARY THYROID CANCER (MTC)
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OBJECTIVES: MTC is a rare form of thyroid cancer with prevalence of less than 7 per 100,000. A majority of MTC patients have RET mutations, and RET M918T mutations are associated with especially poor prognosis. In 2012, EMA approved the first tyrosine-kinase inhibitor (TKI) CAPRELSA® (vandetanib, VDB) for the treatment of MTC. In March 2014, the EMA approved another TKI -COMETRIQ® (cabozantinib, CBZ) for the treatment of adult patients with progressive, unresectable locally advanced or metastatic MTC, with orphan drug status. The objective of this study was to assess the relative efficacy in PFS and OS of CBZ vs VDB. METHODS: Since there are no clinical trials directly comparing the two treatments, an adjusted indirect comparison (Bucher et al. method) was used. Evidence on PFS for the two treatments was collected from the previous clinical trials in MTC. The analysis considered a large group of RET M918T mutation positive (RET+?) patients. Our analysis focused on PFS due to lack of evidence for the VDB OS in the RET M918T mutation subgroup. In all analyses, this three different indirect comparison AA analysis were explored a) Single-treaty indirect comparison of PFS using VDB and CBZ, a Cox model stratified on age at randomization and prior TKI status, and a Cox model without stratifications. RESULTS: In the subgroup analysis (logrank model) PFS was estimated to increase by 65% with CBZ comparing to VDB with HR of 0.35 (95% CI: 0.14-0.81), CBZ was better than VDB with HR of 0.35. The less conclusive: logrank model (HR 0.72; 0.40-1.28), Cox model with stratifications (HR 0.61; 0.35-1.04), Cox model without stratifications (HR 0.66; 0.39-1.13). CONCLUSIONS: The results showed a positive trend in favour of CBZ in PFS (Given the limited evidence a direct head-to-head comparison is necessary to validate the study findings.)