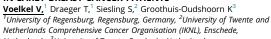
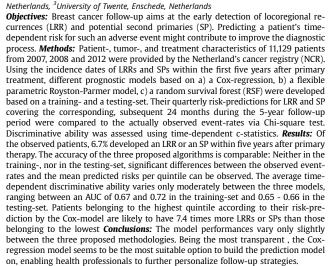
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method to data from randomised controlled trials (RCTs) in aCRC. Data were obtained from four systematic reviews of RCTs investigating a range of pharmacological treatments in aCRC, categorised into classes with respect to their mechanism of action. Results: Applying bvNMA to evaluate surrogate endpoints in aCRC resulted in varying correlations between treatment effects on surrogate and final outcome across treatment contrasts. For example overall, for all treatments, correlation between treatment effect on TR and PFS was -0.67 (95% CrI: -0.85, -0.41), whilst the correlation for trials of EGFRi with chemotherapy vs. chemotherapy alone was higher; 0.79 (-0.95, -0.5) and lower for anti-VEGF therapies with chemotherapy vs. chemotherapy alone; -0.43 (-0.84, 0.16). Conclusions: Network meta-analysis allowed us to disentangle information on a relatively strong study-level surrogate relationship between treatment effects on TR and PFS for EGFRi with chemotherapy vs. chemotherapy alone from a set of treatments with suboptimal overall surrogacy relationship. This novel methodology can be used to model surrogate relationships in greater detail compared to methods that do not differentiate between treatment classes.

#### PCN417

#### **INFLUENCE 2.0: A TIME-DEPENDENT MODEL TO PREDICT** LOCOREGIONAL RECURRENCE AND SECOND PRIMARIES IN EARLY BREAST CANCER PATIENTS





# **PCN418**

# ASSESSMENT OF STUDIES EVALUATING INCREMENTAL COSTS, EFFECTIVENESS OR COST-EFFECTIVENESS OF SYSTEMIC THERAPIES IN BREAST CANCER BASED ON **CLAIMS DATA: A SYSTEMATIC REVIEW**

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**Objectives:** Large secondary databases, such as claims data, are increasingly used to compare effects and costs of treatments in clinical practice. Although appealing, such large databases also impose challenges. This research aims to identify and assess the methodological quality of studies calculating incremental (costs-)effectiveness of systemic therapies for breast cancer based on claims data. Methods: Embase, Cochrane Library, Medline, Web of Science, and Google Scholar were searched for English-language publications based on patient level data. Methodological quality was assessed using the Good ReseArch for Comparative Effectiveness (GRACE) principles. Results: The search retrieved 1251 citations from which 106 met the inclusion criteria. Most studies were conducted in the US and Taiwan and were based on claims datasets or claims data linked to cancer registries. The sample sizes of the studies were generally large, many studies included elderly patients and various outcomes were studied. Methodological shortcomings included: insufficient information on treatment, confounders, and validity of the outcomes. Furthermore, some of the studies were at high risk of immortal time bias and few studies performed sensitivity analyses. Conclusions: These results demonstrate that, despite the availability of different guidelines and checklists for good research and reporting of comparative (cost)effectiveness studies, many methodological issues are not appropriately addressed or reported.

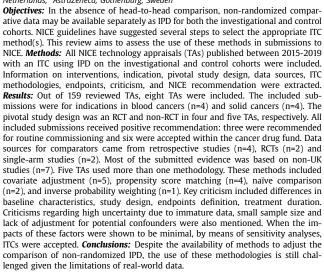


# THE USE OF INDIVIDUAL PATIENT-LEVEL DATA (IPD) TO CONDUCT INDIRECT TREATMENT COMPARISONS (ITCS) IN SUBMISSIONS TO THE NATIONAL INSTITUTE FOR **HEALTH AND CARE EXCELLENCE (NICE)**

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#### PCN420

### NEW METHODOLOGIES IN PARAMETRIC NETWORK META-ANALYSIS: ACCOUNTING FOR POPULATION AGE **DIFFERENCES BETWEEN TRIALS**

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Objectives: To compare the long-term survival benefit of treatments that have not been investigated head-to-head, a parametric network meta-analysis (PNMA) can be conducted. PNMAs may predict clinically implausible hazards over time that are lower than general population mortality (GPM) hazards. This can be corrected retrospectively. Alternatively, one can consider GPM in the likelihood function of the PNMA to warrant more clinically plausible survival predictions. This study investigated the impact of accounting for trial-specific age-adjusted GPM in a PNMA and the impact of varying ages across trials in the network. Methods: Five treatment regimens (VMP/MP/MPT/Rdcont/Rd18) investigated in four different multiple myeloma trials (median age varying from 71-79 years) were included in the analysis. Four Weibull PNMAs methods were applied to investigate the impact on predicted survival: 1) standard PNMA; 2) standard PNMA using GPM hazards when PNMA predicted hazards are below GPM hazards; 3) PNMA which considers a single GPM for all trials in the likelihood function (age 71 based on reference trial comparing VMP and MP 1); and 4) PNMA which considers a trial-specific age-adjusted GPM in the likelihood function. Results: All PNMAs fitted the data well. Predicted mean survival (years) by PNMA method were for VMP) 13.9/10.1/8.7/8.8; MP) 4.7/4.6/4.5/ 4.5; MPT) 8.4/7.7/6.9/7.5; Rdcont) 10.2/8.9/7.8/8.5; and Rd18) 10.4/9.0/7.9/8.5. The impact of considering trial-based ages (method 3 vs 4) resulted in longer survival predictions for MPT (6.9 vs 7.5), Rdcont (7.8 vs 8.5) and Rd18 (7.9 vs 8.5). The impact of method 3 vs 4 is more pronounced for these three treatments as these were investigated in other trials with older patients than the reference trial. Conclusions: Choice of PNMA method considering GPM has an impact on the predicted survival. Age differences between trials could be an important consideration when conducting a PNMA, especially when substantial heterogeneity in age is observed over trials in the network.



# PCN421

### STABILITY OF LIFETIME OVERALL SURVIVAL ESTIMATES OF NIVOLUMAB+IPILIMUMAB IN FIRST-LINE ADVANCED/ METASTATIC INTERMEDIATE- OR POOR-RISK RENAL CELL **CARCINOMA**

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Objectives: Multiple database locks (DBLs) with different levels of data maturity have become available for CheckMate-214 (NCT02231749), a phase 3 trial comparing nivolumab+ipilimumab to sunitinib in first-line advanced/metastatic intermediate-





