in THIN from 2% to 13%. This work shows the potential for under-reporting of PSS in primary care data, and provides a method for improved identification of cases and control records for future studies.

PRM2

PANGAEA 2.0: STATE OF THE ART MULTIPLE SCLEROSIS PATIENT MANAGEMENT IN DAILY CLINICAL PRACTICE. A NEW 3-YEAR OBSERVATIONAL STUDY OF PATIENTS RECEIVING FINGOLIMOD

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OBJECTIVES: Therapeutic options for Multiple Sclerosis (MS) improved over the past years with the approval of new substances. Therapeutic optimization must be taken into account an individualized assessment of clinical and imaging disease activity, treatment response as well as identifying early risk factors for treatment failure. This study aims to assess this issue in a phase III trial that assesses the utility of a tool that helps to identify patients with ongoing disease activity 2. The systematic collection of a broader set of functional domains to explore their potential to be used as a predictive measure of future disease activity or treatment response. 3. Evaluate the clinical utility of the tool when yielded different results. 4. Assess the therapeutic effectiveness of switching to fingolimod if the patients are assessed to be failing their current first line therapy. METHODS: 1500 patients are planned to be included in this observational study All patients with active disease as defined by Lublin et al., 2014, under a first evaluation of the patient status. Patients switching to fingolimod are followed for 3 years. The study set up and documentation parameters are based on 3 bullets: 1. Optimal patient management in daily clinical practice using the patient management system MSDDS2. 2. State of the art evaluation of the patient status using the MS-disease activity measurement tool 3. Multiple sclerosis related parameters and analysis and by central MR reading. RESULTS: and CONCLUSIONS: PANGAEA 2.0 will give important insights on the predictive value of proposed treatment algorithms like the Lublin criteria and the modified Risco Scoring System to predict OS or, indeed, quality of life phenomena. Only in the most aggressive forms of MS is quality of life a useful measure of OS as OS itself justifies as the primary endpoint.

PRM21

TIME RATIOS OR HAZARD RATIOS: ACCELERATING TOWARD A NEW APPROACH?

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OBJECTIVES: Syntheses of time-to-event data often rely on published hazard ratios (HR) therefore assuming proportional hazards (PH). Methods now exist to reconstruct individual patient data (IPD) from published Kaplan-Meier (KM) plots. This enables the PH assumption to be formally tested, and a time ratio (TR) to be estimated as an alternative measure of relative treatment effect. While TRs do not represent the PH assumption, these are rarely used in evidence syntheses. We compared TRs with HRs to demonstrate their ease of interpretation and transparency.

METHODS: Relative treatment effect measures HRs and TRs were compared in terms of: scale, underlying assumptions, interpretation, availability in published literature and derivation. RESULTS: HRs act on the log-failure time scale, representing the ratio of hazards for treatment vs. control. TRs act on the log-failure time scale, representing the ratio of failure times for treatment vs. control. A HR<1 represents a decrease in the event hazard whilst a TR<1 represents acceleration in time-to-event. The inverse of the TR, referred to as the acceleration factor (AF), therefore represents the same direction of benefit as for HRs. For TR<0, the treatment hazard decreases over time whilst the control hazard increases over time. For TR=0, the hazard rates are constant over time. CONCLUSIONS: With the capacity to predict OS (or, indeed, quality of life) phenomena, TRs are required to compute a broader set of functional domains to explore their potential to be used as a predictive measure of future disease activity or treatment response.

PRM22

THE USE OF REAL WORLD EVIDENCE (RWE) TO INVESTIGATE THE OVERALL TREATMENT EFFECTS OF DIFFERENT TYPES OF THERAPY IN RHEUMATOID ARTHRITIS

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OBJECTIVES: Due to high costs, randomised clinical trials (RCTs) typically do not include a wide variety of doses and treatment combinations within a single trial. Real-world evidence (RWE) can be used to fill the gaps left by treatment arms or doses not studied in first or second line RCTs. This is illustrated in rheumatoid arthritis (RA). The combined evidence can allow for investigating the area of dosing that can only be studied when a single trial is performed. This study aims to assess future dosing strategies that could result in approval of treatment (combinations) that may not have been studied otherwise but could substantially benefit patients with RA. METHODS: RCT arms RWE data was combined in a network meta-analysis (NMA) to investigate treatment effects in patients with RA. Response surface methods were used to investigate the three dimensional surface of the observed effects as a function of doses for each pair of treatments. Optimization methods were used to establish the optimal combinations of doses for posterior in patients with RA. RESULTS: RWE data including RWE has increased the total evidence of with reduced uncertainty in first and second line treatment effects in patients with RA. The greatest evidence of effects was observed in a treatment/dose combination region not yet studied in RCTs CONCLUSIONS: The optimal treatment regimen for patients with RA can be investigated by pooling RCT and RWE data in a response surface analysis. The maximum effect may be established in a region of treatment/dose combination not yet studied in a randomised setting. This methodology can also be used to determine which combination of patient's characteristics will result in the most optimal effect for each (line) of therapy and as a result, provide targeted treatment for (groups of) patients baseline characteristics. Further work could involve optimizing the response in higher dimensions.

PRM23

OUTCOMES USED IN CLINICAL STUDIES IN ADULT HEMATOLOGY: TEN YEARS OF PUBLICATIONS IN PUBMED

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OBJECTIVES: To determine which clinical outcomes, both "soft" and "hard", are currently being assessed in phase III trials and to what proportion of them use overall survival (OS) as the primary outcome. METHODS: Through a search in PubMed, we identified and analyzed all randomized clinical trials published in the last 10 years, for de novo treatments in adults. RESULTS: The capacity to predict OS, however, is not high enough to be used as the primary outcome in many cases. In many cases, the outcomes evaluated were the proportion of overall survival (OS) as the primary outcome. Only in the most aggressive forms of cancer is cancer risk routine use of OS still justified as the primary endpoint.

PRM24

PATIENT VERSUS GENERAL POPULATION HEALTH STATE VALUATIONS: A CASE STUDY OF LOW BACK PAIN

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OBJECTIVE: The objectives of this study were: 1) to compare low back pain (LBP) patients’ and general population health state valuations, focusing on more holistic aspects of health-related quality of life as measured by the EQ-5D-3L, impact LBP patient valuations, and 3) to explore the implications of the choice of valuation method for cost-utility analyses (CUAs). METHODS: Data of 483 LBP patients who most studied disease was multiple myeloma, with 29 studies, followed by non-Hodgkin lymphoma with 26. The others were acute myeloid leukemia 12, chronic lymphocytic leukemia 10, chronic myeloid leukemia 8, myelodysplastic syndromes 3 and Hodgkin lymphoma 2. The 90 studies had a total of 108 "primary" and 252 "secondary" outcomes; 20 studies (22%) had OS as primary endpoint (though only 3 of them reached statistical significance), in over 37 (41%) OS was grouped with other outcomes to form a composite endpoint. In 55 studies (61%) overall survival was a secondary outcome. Quality of life was a "secondary" outcome in 10 studies. CONCLUSIONS: Although OS is the gold standard in cancer therapy, grouped outcomes in combinations, such as progression-free survival or paracnial indicators of disease activity are more frequently used and may be good predictors. Intermediate outcomes require smaller sample sizes and less follow-up. Their capacity to predict OS, however, is not high enough to be used as the primary outcome in many cases. In many cases, the outcomes evaluated were the proportion of overall survival (OS) as the primary outcome. Only in the most aggressive forms of cancer is cancer risk routine use of OS still justified as the primary endpoint.

PRM25

STOCHASTIC MULTICRITERIA ACCEPTABILITY ANALYSIS IN A BAYESIAN FRAMEWORK

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OBJECTIVE: Stochastic multicriteria acceptability analysis (SMAA) is a powerful tool for health technology benefit-risk assessment when health outcomes are assessed according to multicriteria and both the outcomes and preference weights are subject to uncertainty, in particular with missing weight information. We propose using a Bayesian approach for SMAA to provide an alternative or supplement to the standard SMAA. It can estimate the posterior distributions of decision maker’s weights on multicriteria, had he/she prefer treatment A over B. Given the evidence on previous treatments and safety and efficacy profiles, it can also predict the decision maker’s preference on a new treatment. METHODS: The SMAA method was adapted to fit into the Bayesian framework, assuming that the weights follow a Dirichlet prior distribution. A simple Monte-Carlo procedure was developed to conduct simulations for the sample. This study demonstrated that the acceptance rates of major outcomes in standard SMAA were derived. An algorithm was also developed to predict future rankings. The method allows using informative, non-informative or hierarchical priors, and can be extended to other SMAA methods such as the prospect theory (SMAA-P). This method is applied to the assessment of

A686
efficacy and safety profiles for published data on antidepressants fluoxetine and venlafaxine. The meta-analysis is compared to the standard SMAA results. RESULTS: The
results showed that, with a non-informative Dirichlet prior, the posterior mean
weights for given rankings were similar to the central weight vectors of the standard
SMAA, so were some other comparable measures such as the rank acceptability
index and partial mean ranks. CONCLUSIONS: The Bayesian SMAA has a number of
advantages inherited from Bayesian decision analysis. The Bayesian estimates for
each SMAA measure are similar to those of the standard SMAA. But it offers more
options and flexibilities than the standard SMAA, and its implementation is easier.

PMG24
MULTIVARIATE NETWORK META-ANALYSIS: AN EXAMPLE IN TYPE 2 DIABETES FOR THE
ANALYSIS OF GLYCAEMIC CONTROL
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OBJECTIVES: The objective was to conduct a Bayesian multivariate network meta-
analysis (NMA) to take into account the correlation between three outcome
measures assessing glycaemic control for the monotherapy treatments of type 2 diabetes
mellitus (T2DM). METHODS: A systematic literature review was conducted to iden-
tify reports of two or more treatments, and were usually obtained in the absence of
head-to-head information. However, these indirect comparisons are less effective
in situations where baseline patient characteristics (e.g. age, disease duration) dif-
fer between studies. Any clinically meaningful variation in these characteristics
between studies must be adjusted for in order to arrive at less biased estimates of the
treatment differences. At present, many ICTCs use a comparison of a sponsor’s Individual Patient Data (IPD) with study-level summary variability is critical in
arriving at less biased estimates of the treatment differences. At present, many ICTCs
use a comparison of a sponsor’s Individual Patient Data (IPD) with study-level summary variability. Various methods currently exist which allow for the matching between studies of the
multivariate NMA that were overall consistent with the three univariate NMAs in terms of
ranking of treatments based on the
SUCRA and point estimates were comparable. Using the multivariate NMA, results
for the three treatments reaching HbA1c < 7% were estimated based on general population weight and body surface area data from the Health Survey for England, using the most efficient combinations of the two
available vial sizes. The sizes of the two vials were varied simultaneously to identify the
lowest average costs and tariffs. However, cost data are often incomplete due to loss of follow-up or admin-
istrative termination. Ignoring censored data could lead to biased cost results. Over the decades, many statistical methods for censored cost data have been pro-
posed. However, studies on the comparison of methods with censored cost association in
clinical settings are limited. The aim of this study is to compare such methods and
assess their accuracies in a population of patients with acute myeloid leukaemia
(AML) who were treated with Cytarabine/Idarubicin (HiDAC) chemotherapy. RESULTS: Data were derived from linked Hospital Episode Statistics (HES). All adults (>18) in
the treatment period were included in the analysis. To interpret cost outcomes cautiously, taking account of the assumptions made.

PMG28
COMPARISON OF DIFFERENT COSTING METHODS
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OBJECTIVES: Cost is an essential part of health economic evaluation. However, no
set standard for costing has been suggested/proposed yet, and the impact of
unusual methods remains unclear. Aim of this study is to compare cost estimates from
different costing methods and assess their impacts. METHODS: All adults (>18) newly diagnosed with acute myeloid leukaemia between September 2004 and August 2007 in the Haematological Malignancy Research Network (HMRRN, www.hmrrn.org, an established UK population-based registry) were included and
followed until August 2014. Three costing methods were applied to the treatment
pathways. One was a bottom-up costing, for which cost data were obtained directly
from treating hospitals or other sources (the parent summation model). A second costing that used estimates from VIEWS in England, using the most efficient combination of the two
available vial sizes. The sizes of the two vials were varied simultaneously to identify the
lowest average costs and tariffs. However, cost data are often incomplete due to loss of follow-up or admin-
istrative termination. Ignoring censored data could lead to biased cost results. Over the decades, many statistical methods for censored cost data have been pro-
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clinical settings are limited. The aim of this study is to compare such methods and
assess their accuracies in a population of patients with acute myeloid leukaemia
(AML) who were treated with Cytarabine/Idarubicin (HiDAC) chemotherapy. RESULTS: Data were derived from linked Hospital Episode Statistics (HES). All adults (>18) in
the treatment period were included in the analysis. To interpret cost outcomes cautiously, taking account of the assumptions made.

PMG31
AN APPRAISAL OF FAT GRAFTING METHODS ON OPERATING ROOM EFFICIENCY AND COST
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OBJECTIVES: Centrifugation (CF) is the standard method of fat processing but is
susceptible to post-processing errors and time consuming. A new method called the
Autologous Fat Fat Preparation System (Rv) incorporates fat harvesting and pro-
cessing in a single unit offers a simple, more efficient system. This study compared
the efficiency and economics of using Rv with CF in terms of fat grafting and operat-
ing room costs. METHODS: A comprehensive review of the literature and a survey
of breast surgery patients undergoing autologous fat grafting was completed. A687
January to December 2012 with the CF method and January to December 2013 with Rv method. The volume of fat harvested, volume of fat injected after processing, and vials are shown. A687
complete fat grafting (from harvest to injection) were determined. Standard OR costs ($15-$20