OBJECTIVES: This study compares socio-demographic characteristics, comorbidity profiles, and functional impairments affecting adults diagnosed with attention deficit hyperactive disorder (ADHD) to their non-ADHD counterparts in Europe. **METHODS:** Data are from the 2011 National Health and Wellness Survey (NHWS), conducted annually by Kantar Health. The NHWS has been administered annually since 2002 among samples of adults drawn from an international consumer panel recruited and maintained by Lightspeed research. Data reported in this study were gathered between September and December 2011 in Germany, UK, France, Spain, and Italy. T-tests of means and proportions were used to test for significant differences between adults with diagnosed ADHD and a non-ADHD control group from the NHWS sample. All differences reported below were significant at the $p<0.05$ level. **RESULTS:** A total of 235 NHWS participants reported having received a diagnosis for ADHD from a physician. Diagnosed ADHD respondents were more frequently male (59% vs. 49%) and less likely married (38% vs. 50%) than non-ADHD controls. Diagnosed ADHD respondents were more likely to report sleep difficulties (67% vs. 25%), anxiety (61% vs. 16%), depression (59% vs. 12%), or headaches (57% vs. 39%). Likelihoods of a general practitioner visit (77% vs. 65%), an emergency room visit (34% vs. 11%), or a hospitalization (32% vs. 8%) within the past 6 months were greater among diagnosed ADHD respondents than non-ADHD controls. Diagnosed ADHD respondents were also less likely employed full-time (27% vs. 39%), and more likely to report health-related work productivity loss (55% vs. 20%). **CONCLUSIONS:** Adults from 5 western European nations with self-reported diagnoses of ADHD reported higher rates of comorbidity with a variety of mental, emotional, or physical disorders, higher rates of health resource utilization, lower rates of full-time employment and higher rates of health-related work productivity impairment than adults without ADHD.

PMH55
PAYER VALUE IN ALTERNATIVE TREATMENT FORMULATIONS: ACCESS TO NEW MEDICINES IN SCHIZOPHRENIA

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OBJECTIVES: To gain insights into the perceived value of alternative treatment formulations in the management of schizophrenia. **METHODS:** A search of 75 health technology assessment (HTA) agencies was performed to identify single technology appraisals published between January 2010 and June 2012 on pharmaceutical treatments for schizophrenia. Per agency, only the most recent appraisal for each drug identified was selected for analysis. Reasons for recommendation and non-recommendation were evaluated in-depth for each appraisal. **RESULTS:** In total 32 appraisals (9 rejections; 23 recommendations) were identified across 12 agencies. These appraisals represent the most recent decision made for a specific drug by a particular agency. Overall 5 different formulations were assessed including long-acting depot formulations (14 appraisals), oral immediate release (IR) tablets (13), orodispersible tablets (3), an oral long release (LR) tablet (1), and an oral solution (1). Non-recommendations were only identified for depot, oral IR and oral LR formulations. In most cases high drug costs, lack of head-to-head and long-term clinical data were the main reasons for rejection. Submissions resulting in a recommendation were identified for all but the LR tablet formulation. Reasons for recommendation included proven clinical non-inferiority to direct comparators, cost savings and a better dosing schedule. As most new formulations did not offer a benefit in efficacy, decisions were weighted on cost. In all long-acting formulation submissions, manufacturers stated that use of the drug would lead to improved patient compliance. Only one submission (HAS) provided data to support this claim. SMC and AWMSG were the only agencies to criticise the absence of compliance data. **CONCLUSIONS:** A higher drug price for a new formulation is only warranted when clear clinical advantages are presented. This is particularly evident for long-acting formulations where a higher price, on grounds of improved compliance, is not favourable. There was very little disparity between agencies in their decision making approach.

PMH56
MOST FREQUENTLY DIAGNOSED MENTAL HEALTH PROBLEMS IN A GERMAN POPULATION

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OBJECTIVES: To put the apparent rise of the administrative prevalence of attention-deficit/hyperactivity disorder (ADHD) in the region of Nordbaden in Southwestern Germany into context by analyzing the most frequently diagnosed mental health problems in this population. **METHODS:** The complete claims database of the organization of physicians registered with statutory health insurance [SHI] (*Kassenaerztliche Vereinigung*, KV) in Nordbaden/Germany was available for analysis, covering the total regional population enrolled in SHI (>2.2 million). The dataset for years 2003 to 2009 was reorganized as to allow patient-centered evaluation. **RESULTS:** Most frequently diagnosed mental health problems in 2009 were depressive episodes (ICD-10 code F32.9), with an overall administrative 12-months prevalence rate of 8.3%; unspecified somatoform disorders (F45.9), 4.8%; harmful use of tobacco (F17.1), 3.4%; neurasthenia (F48.0), 2.3%; and adjustment disorders (F43.2), 2.2%. Uncomplicated hyperkinetic disorder (HKD, F90.0) was the number one reason for contacts with health care providers in children (age group 6-12 years, 7.2%) and adolescents (13-17 years, 3.7%), reported more than twice as often as the next frequently diagnosed mental health problems, namely various developmental, speech, and adjustment disorders. In preschoolers, speech and developmental problems were diagnosed more frequently than HKD (1.0%). From 2003 to 2009, the administrative prevalence of ADHD (HKD/F90.0 and hyperkinetic conduct disorder, HKCD/F90.1, combined) increased by 79%, i.e., from 0.53% in 2003 to 0.95% (overall; 6-12 years, 8.0%; 13-17 years, 4.2%) in 2009. Notwithstanding lower absolute numbers, ADHD prevalence in adults increased more than fourfold, from 0.04% (2003) to 0.17% (2009). **CONCLUSIONS:** By 2009, ADHD represented the leading mental health related cause of service utilization among children and adolescents in Nordbaden. The present analysis underscores the need for in-depth research addressing the quality, cost, cost effectiveness, and broader economic implications of health and social service provision for children, adolescents, and adults with a diagnosis of ADHD.

PMH57
HTA LANDSCAPE OF TREATMENTS AVAILABLE FOR ALCOHOL-RELATED DISORDERS

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OBJECTIVES: To gain insight into the reimbursement landscape of pharmacological treatments against alcohol dependency. **METHODS:** We have conducted a manual search of 75 Health Technology Assessment (HTA) agencies' websites for alcohol-related assessments published worldwide since 2001. All reports were categorized by HTA type, scope and outcome. Using a standardized set of categorical criteria, we investigated the recommendations for pharmacological treatments of alcohol disorders to identify common patterns in key decision drivers in this therapeutic area. **RESULTS:** We identified a total of 81 HTA reports dedicated to treatment of alcohol-related disorders. By the time of this study, 70% of the HTA reports were completed and therefore included into the analysis. The 57 published reports comprised 13 Single Technology Assessments (STA), 1 Multiple Technology Assessment (MTA), 6 Clinical Guidelines (CG), 14 Public Health Reviews, 6 Procedure / Intervention Assessments and 17 Literature Reviews. While 40 HTAs were mostly focused on public health impact of alcohol disorders and general organization of treatment, pharmacological treatment of alcohol dependence was assessed in 17 reports (within the scope of STAs, MTAs or CGs). Medications assessed the most were acamprosate and naltrexone. The vast majority of agencies have issued positive recommendations for these drugs, assuming they are used as second-line options and/or in combination with psychosocial interventions. Naltrexone was rejected by several agencies (e.g. AHTAPol, SIGN), partially justified by high risks/major adverse events and poor data supporting the benefits of the drug. **CONCLUSIONS:** Alcohol-related disorders attract attention of HTA agencies worldwide. Current research however shows that only a limited number of reports assess medications. One of the main decision drivers for approvals was the mere necessity of a pharmacological treatment which emphasizes a high unmet need in the management of alcohol dependence.

PMH58
THE IMPACT OF ADHD MEDICATION ATTRIBUTES ON PHYSICIAN PRESCRIBING BEHAVIOR IN THE EU: RESULTS FROM CHART-REVIEWED DATA

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OBJECTIVES: Research has been conducted on parent and patient preferences for ADHD medication, yet medication attributes that may influence the physician's prescribing behavior are not well understood. The aim of this study was to identify the primary attributes of ADHD medications that influence the prescribing behavior of physicians treating ADHD, and to explore country variation in these factors across Europe. **METHODS:** A retrospective chart review of ADHD patients aged 6-17 was conducted in six European countries. Charts of 779 patients diagnosed between 2004-2007 were reviewed by 361 physicians. Physicians were asked to select three main medication attributes influencing their selection of ADHD medication for newly treated patients. The 19 total attributes were grouped by the researchers into 6 domains: efficacy, duration of action (DOA), convenient dosing, prior experience, safety, and cost/other. Descriptive statistics were used to compare prescribing behavior by medication attributes, and chi-square tests assessed country differences. **RESULTS:** Efficacy (33%), convenience (19.6%) and DOA (17.3%) were the 3 most frequently selected attributes that influenced ADHD medication selection, followed by prior experience (13.3%), safety (11.4%) and cost/other (5.3%). DOA was particularly important in France (23.0%) relative to its importance in the Netherlands (13.9%), while convenient dosing was equally important across all countries except Italy (11.6%). Medication cost was significantly more important in the Netherlands (13.9%) and Spain (8.0%) relative to France and the UK (1.6% and 2.3%, respectively; $p<0.0001$); while safety was rated highest among physicians in Italy (22.7%) relative to those in the Netherlands (4.8%; $p<0.0001$). **CONCLUSIONS:** Efficacy, convenience, and duration were the most frequently selected medication attributes influencing physician prescribing behavior; but there were differences in selected attributes by country. Further research is needed to better understand the environmental context influencing physician prescription behavior, and the impact that market-level factors may have on treatment choices and patient outcomes in Europe.

RESEARCH POSTER PRESENTATIONS – SESSION II
SELECTED HEALTH CARE TREATMENTS STUDIES

MEDICAL DEVICE/DIAGNOSTICS - Clinical Outcomes Studies

PMD1
ECONOMIC VALUE OF SCREENING FOR EARLY PARKINSON'S DISEASE IN A EUROPEAN SETTING

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OBJECTIVES: A model assessing sequential olfactory testing and dopamine transporter (DAT) imaging for screening pre-motor Parkinson's Disease (PD) was adapted to a European setting with German cost and health utility data. **METHODS:** PD Associated Risk Study (PARS) data were used to parameterize screening efficacy. Screening strategies in persons 1) in a general population, 2) with a relative with PD, 3) with LRRK2+ genotype, and 4) with REM sleep disorder were evaluated. PD prevalence per 100 at screening was 0.5, 2, 10 and 20 for these groups. Olfactory test and DAT costs were €11 and €1500, respectively. We assumed disease modifying (DM) therapy was available that slowed disease progression by 20% at a cost of €30,000. Economic value was measured in net monetary benefits (NMB), valuing a quality-adjusted life-year at €50,000. **RESULTS:** Screening sensitivity and specificity were 64% and 99%, respectively. 13.4% had positive results on the olfactory test and also took the DAT. NMB for the four groups was €-169, €269, €2,603, and €5,521, indicating that screening has positive economic value in persons with a close relative with PD, persons with LRRK2+ genotype, and persons with REM sleep disorder. Screening value was positively correlated with rate of progression from preclinical to clinical PD, efficacy of DM therapy, and QALY monetization. Screening value was negatively correlated with costs of false positives, screening cost, age at onset, Hoehn and Yahr stage at which the unscreened diagnosis is made, and cost of DM therapy. **CONCLUSIONS:** Screening for early PD may be a cost-effective strategy for certain risk groups.

PMD2

HEMATOLOGIC CANCERS: DIAGNOSTIC TESTING PATTERNS AND THE ROLE OF SPECIALTY LABORATORIES IN THE AGE OF PERSONALIZED MEDICINE

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OBJECTIVES: New diagnostic approaches, including molecular profiling, have improved the ability to establish accurate diagnoses of hematologic cancers, but have also increased the complexity of test ordering, information integration and interpretation. This study examined the role of specialty and other laboratory providers, the types of diagnostic tests provided for patients with suspected hematologic cancers, and subsequent health care costs. **METHODS:** Patients with bone marrow biopsies and suspected hematologic cancer/condition (2005-2011) were identified from claims data from a large US health plan. Included patients had ≥6 pre- & ≥3-months post-biopsy health plan coverage. Lab tests in the 30 days post-biopsy were identified. Patient cohorts were based upon laboratories performing marrow morphologic assessment/directing testing sequence: Genoptix (GX, a specialty hematology-testing laboratory); large commercial laboratories (LL), other laboratories (OL); academic labs were excluded. Diagnostic/treatment medical costs (per-patient-per-month) during the 30-days & 1 year post-biopsy were examined (ANOVA). **RESULTS:** Of 30,393 patients with suspected hematologic malignancy/condition, 94.25% had marrow morphology reviewed. OL patients were slightly younger (58.19 OL vs. , 59.88 GX, 59.39 LL, $P<0.001$). More flow cytometry was done at GX (96.68%) vs 87.68% in LL and 69.78% in OL. Cytogenetics/FISH analysis rates were: 95.96% GX, 80.78% LL, 51.68% OL. Use of molecular diagnostics was less common (26.03% in GX, 14.27% in LL and 9.31% in OL). 1-year PPPM costs were $4487 GX, $4325 LL, and $5407 OL ($P<0.001$)); costs PPPM excluding the testing period were $2132 GX, $2686 LL, and $3341 OL ($P<0.001$). **CONCLUSIONS:** Frequency of diagnostic tests in the 30-days post-biopsy varied, with complex tests conducted more frequently in the hematology specialty laboratory. However, disease-related costs with the specialty laboratory were lower than costs for some laboratories with lower use of these tests. Further exploration of the impact of alternative diagnostic testing approaches on costs and clinical outcomes is warranted.

PMD3

PRE-SCREENING TOOLS: A NEGLECTED APPROACH TO DIAGNOSE AND CUT COST ASSOCIATED WITH OSTEOPOROSIS

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OBJECTIVES: Due to high cost and limited availability of dual-energy x-ray absorptiometry (DXA), 77 percent of high risk population remains undiagnosed and therefore untreated for osteoporosis. To cope up with current scenario, pre-screening tools have become apparent as pragmatic tool for extensive screening of osteoporosis. Use of such tools would help health care professionals to make better use of bone densitometry and to cut billions of dollars cost associated with DXA. This study attempts to evaluate possible reasons that pose hindrance in implementation of such tools despite of reliability and cost effective nature of such tools. **METHODS:** Using convenience sampling method, a pre-validated questionnaire was used to conduct a cross-sectional survey among health care professionals in Malaysia. 5 endocrinologists, 10 orthopedic specialists, 25 medical officers, 30 hospital pharmacists participated from Hospital Pulau Penang while 33 community pharmacists and 27 general practitioners from Penang participated in survey(total 130). **RESULTS:** There was no statistically significant difference regarding knowledge of pre-screening tools among health care professionals belonging to different specialties. Although, 77% of participants have heard about pre-screening tools but only 53 % were able to identify the purpose of such tools. Out of list of 8 pre-screening tools, majority 36 % identified SCORE followed by MOST (22 %) as pre-screening tools while other tools were not identified. Only 5 % of participants have used such tools while 94 % showed willingness to use such tools and to encourage patients to undergo screening by such tools. Majority 61 % preferred leaflets/ brochures to gain information regarding availability and utility of such tools while least 13 % preferred continuous education programs. **CONCLUSIONS:** Proper awareness regarding availability and utility of such tools would not only help to improve patient's quality of life also it would help to reduce global economic burden associated with osteoporosis.

PMD4

CARDIOVASCULAR RISK PREVALENCE IN HIGH RISK PRIMARY CARE PATIENTS NOT TREATED WITH LIPID-LOWERING TREATMENT IN FRANCE, RESULTS OF AN ONLINE STUDY

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OBJECTIVES: Few data exists on high cardiovascular risk (HCVR) prevalence within a primary prevention population. The goal of the study was to assess HCVR distribution, according to the European SCORE risk assessment scale, in France in high-risk primary care patients not treated with lipid-lowering drug. **METHODS:** This observational study was conducted over a week on a representative sample of French general practitioners (GP). All consulting primary care men/women ≥50/60 y, with at least one other CVR factor (smoking, high blood pressure (HBP), type 2 diabetes, HDL-c<0.40 g/L), not treated for dyslipidemia were included in the study. GP filled-in an on line questionnaire that enabled SCORE calculation. **RESULTS:** GPs (n=1147) included 9049 patients (mean age: 68 y; male: 57%; LDLc>1.3 g/L: 57%; smoking: 21%; HBP: 44%; type 2 diabetes: 21% HDL-c<0.4 g/L: 16%). According to SCORE, HCVR prevalence reached 50% in total population (male: 49%, female: 51%). 50% of HCVR men/women were older than >72.4/78.8 y. HCVR patients were older by 7.7/6.8 y for male/female ($p<0.01$) than non-HCVR patients. Other significantly more frequent characteristics in high CVR population are: HDL≥0.6 g/L (38%), untreated or uncontrolled HBP (53%) and left ventricular hypertrophy (8%). Obesity is less frequent (15%) in high CVR population. Highest HCVR prevalence was observed in the Mediterranean population (54%), and lowest (47%) in the Northeast population ($p<0.01$). Adjustment by age and gender reduces regional disparities (52% vs 48%). **CONCLUSIONS:** Half consulting primary care patients aged ≥50/60 y for men/women with at least 1 risk factor on top of age and no lipid-lowering treatment are at HCVR according to SCORE risk equation. Assessing cardiovascular risk with risk equations appears particularly useful in this group of patients. Besides age, which has the strongest impact on risk estimation, other RF may be screened to improve HCVR management.

PMD5

CLINICAL AND COST-EFFECTIVENESS OF THIRD-GENERATION, IMPLANTABLE LEFT VENTRICULAR ASSIST DEVICES FOR PEOPLE WITH END-STAGE HEART FAILURE: A SYSTEMATIC REVIEW

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OBJECTIVES: To systematically review the current clinical and cost-effectiveness literature of third-generation, implantable left ventricular assist devices (LVADs) for people with end-stage heart failure (ESHF). **METHODS:** Three implantable, third-generation LVADs were identified as available in the EU. A systematic literature review was conducted of published and unpublished cost-effectiveness and clinical data (comparative studies) in the ESHF population, since their inception till April 2012, using a number of medical databases. **RESULTS:** One relevant economic evaluation and four comparative clinical studies (1 vs. virtual control arm & 3 vs. older-generation LVADs) met the inclusion criteria. Therapy success defined as survival LVAD or explant to receive a heart transplant or for recovery, occurred in approx. 92.0% of patients with third-generation LVADs and 90.1% of control patients (second-generation LVAD) in a 6-months period. The 1-year survival of patients who were implanted with third-generation LVADs ranged from 82% to 91%. The most frequently reported adverse events were arrhythmias, bleeding, infection, respiratory and renal failure, right heart failure, and stroke. One included study evaluates the cost-effectiveness of the implantable, third-generation LVADs as destination therapy for patients with ESHF as compared to patients on medical management in the UK. Results showed that at 5ys LVADs had an additional cost of about £20,500 per patient and QALY gain of 1.05, giving an incremental cost per QALY of £19 500, which is below the commonly adopted threshold of £25,000 per QALY. However, this finding seems unreliable due to controversial assumptions. **CONCLUSIONS:** Despite the poor methodological quality of included studies, third-generation of implantable LVADs seems beneficial due to improving survival, therapy success and functional status. Adverse events serious concern. No prospective controlled data are available as bridge to recovery, nor destination therapy. There is an urgent need for additional, reliable cost-effectiveness studies evaluating third-generation pumps versus previous generations of LVADs.

PMD6

EXTRACORPOREAL PHOTOPHERESIS FOR THE TREATMENT OF PATIENTS WITH ACUTE OR CHRONIC GRAFT VERSUS HOST DISEASE (GVHD), REFRACTORY TO CORTICOSTEROIDS – A SYTEMATIC REVIEW

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OBJECTIVES: To assess the clinical effectiveness of extracorporeal photopheresis (ECP) in the treatment of acute or chronic steroid-refractory graft versus host disease (GvHD). **METHODS:** Clinical effectiveness of the analysed intervention was evaluated in accordance with the principles of systematic review based on the Cochrane Collaboration guidelines (*Cochrane Reviewer's Handbook*) and the guide-