PMH3
ADAPTIVE VIDEO GAMES CAN ASSESS AND ENHANCE COGNITIVE HEALTH
Sparrowhawk K[1], Kumar R[1], Harrison J[2]
[1]MyCognition, London, UK, [2]Metis Cognition, London, UK
**OBJECTIVES:** MyCognition has already demonstrated that its adaptive video game programmes are able to enhance cognitive health in healthy volunteers (FENS, July 2014). It is now using the same technology to assess and train cognitive health in psychiatric and neurological patient populations that have cognitive impairment. **METHODS:** In both the psychiatric and neurological patient population it is planned that all with have their cognitive health assessed prior to commencement of the study to provide a baseline score. This will be for the 5 key cognitive domains (attention, psychomotor speed, episodic memory, working memory and executive functioning). All will then be randomised to either active or control group. The active group comprises adaptive video training of at least one hour per week over a 12-week period on top of standard care. The control group receives standard care alone. All the subjects will have their cognitive health assessed at 0, 4, 8 and 12 weeks. They will also have their condition assessed via a specific scale, e. g., PANS for Schizophrenia, UPDRS for Parkinson's. The results will be calculated as change from baseline for both groups at 4, 8 and 12 weeks. **RESULTS:** In previous tests in healthy volunteers a significant improvement in cognitive health was seen after 4 weeks of training. By 8 weeks it was possible to see a dose response to the duration of training, with longer training showing a greater effect. **CONCLUSIONS:** Detrimental cognitive health is seen in many neuropsychiatric conditions. To date, drug therapies have had a poor impact on cognitive disorders. This adaptive video training programme presents a potential therapeutic intervention that is safe and effective. The online assessment can be used to profile at risk subjects and the training could be used to prevent as well as treat cognitive decline.

PMH4
SELECTING PATIENTS WITH SEVERE PERSONALITY DISORDERS USING CONCEPT MAPPING
Goorden M
Institute for Medical Technology Assessment, Rotterdam, Zuid Holland, The Netherlands
**OBJECTIVES:** The costs of mental health care for patients with severe and complex personality disorders are high. It is likely that currently, these patients are not treated effectively due to limited early recognition. The aim of this study is to develop a set of criteria to match patients with severe and complex personality disorders to effective treatment in highly specialized treatment programs. **METHODS:** The subsequent steps consisted of conducting a literature search, applying concept mapping, arranging an expert-meeting and validating the set of criteria. After the literature search, concept mapping, using cluster analysis and multidimensional scaling, was conducted. Goodness of fit and reliability were tested. A consensus meeting was arranged to determine cut-off points and operationalize the clusters. In this way, the definite set of criteria for matching patients with severe and complex personality disorder was developed. A pilot study on the checklist was conducted, including 20 therapists evaluating 45 patients and subsequently a validation study at 8 mental health institutes was performed. Additionally, a methodology to obtain sets of criteria for other psychiatric diagnoses was developed. **RESULTS:** After the literature search and concept mapping, 6 different categories of criteria were defined. The concept mapping model provided a good fit (stress value=0.30) and reliability ($\rho$=0.49) was reasonably high. The bridging values were on general low, indicating homogeneity. The pilot study indicated that clinical judgment and the outcome of the checklist correlated high (0.8). The validation study has been accomplished at 8 mental health institutes in the Netherlands. The analysis concerning the validation study is now being conducted and the first results will be available in August 2014. **CONCLUSIONS:** The method is systematic, structured and repeatable and the results of the pilot study are promising. The protocol will provide an instrument to develop sets of criteria for other disorders to increase matching of patients in mental health care to (cost) effective interventions.

PMH5
SYSTEMATIC LITERATURE REVIEW AND MIXED TREATMENT COMPARISON OF GXR VERSUS OTHER TREATMENTS IN CHILDREN AND ADOLESCENTS WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD)
Joseph A[1], Ayyagari R[2], Bischof M[3], Cai S[4], Xie M[2], Zhanabekova Z[2], Sikirica V[5]
[1]Shire, Zug, Switzerland, [2]Analysis Group Inc., Boston, MA, USA, [3]Shire, Eysins, Switzerland, [4]Analysis Group Inc., New York, NY, USA, [5]Shire Development, LLC, Wayne, PA, USA
**OBJECTIVES:** This study compared the clinical efficacy of ADHD treatments in children and adolescents. **METHODS:** A systematic literature review was conducted, according to National Institute for Health and Care Excellence guidelines, to identify randomized controlled trials (RCTs) of guanfacine (GXR), atomoxetine (ATX), lisdexamfetamine (LDX), and methylphenidate (MPH) extended release (ER) and immediate release (IR) in children and adolescents with ADHD. A Bayesian mixed treatment comparison was conducted to compare baseline-to-endpoint change in ADHD-RS-IV score, response (defined as a clinician global impressions – improvement [CGI-I] score ≤2), with meta-regression adjustments permitted by data availability (age and percent female). 95% credible intervals (CrIs) for treatment effects and the posterior probability that GXR was more efficacious than each treatment were estimated. **RESULTS:** Of 5,619 records retrieved, 29 RCTs met the inclusion criteria. Five trials included GXR, 4 included LDX, 16 included ATX, 7 included MPH-ER, and 5 included MPH-IR. Per-arm patient sample size ranged from 29 to 222. The mean ADHD-RS-IV score change from baseline and 95% CrI (active minus placebo) were -8.68 (-10.63, -6.72) for GXR, -14.98 (-17.14, -12.80) for LDX, -6.88 (-8.22, -5.49) for ATX, and -9.33 (-11.63, -7.04) for MPH-ER. The relative risk and 95% CrI for CGI-I response (drug vs placebo) were 2.13 (1.68, 2.59) for GXR, 2.93 (2.47, 3.40) for LDX, 2.30 (1.79, 2.81) for MPH-ER, 1.97 (1.43, 2.58) for ATX, and 1.66 (1.02, 2.32) for MPH-IR. Among non-stimulants, GXR was more effective than ATX when comparing ADHD-RS-IV change (with a posterior probability of 93.91%) and CGI-I response (posterior probability 71.01%). **CONCLUSIONS:** This review found that LDX had greater efficacy compared with GXR, ATX, and MPH in the treatment of children and adolescents with ADHD with no overlap in CrIs. Among non-stimulants, although GXR had a higher probability of being more efficacious than ATX, their CrIs overlapped.

PMH6
AN EVALUATION OF THE COMPARATIVE EFFECTIVENESS OF CLOMETHIAZOLE AGAINST DIAZEPAM IN THE TREATMENT OF ALCOHOL WITHDRAWAL SYNDROME IN ROUTINE CLINICAL PRACTICE
Kamudoni P[1], Gründer G[2], Sychla H[2], Juha B[3]
[1]Cardiff University, Cardiff, UK, [2]RWTH Aachen University, Aachen, Germany, [3]Cheplapharm Arzneimittel GmbH, Greifswald - Insel Riems, Germany
**OBJECTIVES:** The objective of this study was to assess the comparative effectiveness of clomethiazole against diazepam in the treatment of alcohol withdrawal syndrome (AWS) in the real-world. **METHODS:** Following a retrospective design, this study is based on case report notes of patients consecutively treated for AWS at a University Clinic in Germany (Aachen), from 2008 to 2013. The primary outcomes were: scores of German version of the revised clinical institute withdrawal assessment for alcohol scale (CIWA-Ar) in the first four days of therapy; duration of therapy; duration of hospital stay and rates of complications. Patients in the two groups (diazepam and clomethiazole) were matched for demographic factors and severity of withdrawal using propensity scores. **RESULTS:** Seventy nine patients (Diazepam = 42; Clomethiazole = 37) were included. Mean age of patients (M = 69%, F = 30.4%) was 45±15 years. Duration of excessive alcohol use was 16 ± 12 years. On admission mean systolic and diastolic blood pressure was 139±20 and 88±13, respectively. Pulse rate was 100 ±18 per minute. CIWA-Ar scores at the end of each of the first four days of therapy were not statistically significantly different (ANOVA, $p < 0.5$) for the two therapies. Average duration of therapy was 3.81±2.9 days vs. 5.8 ±3.2 days (ANOVA - $F = 8.6$, $p = 0.004$), for clomethiazole and diazepam groups, respectively. Duration of hospital stay was 14.92±10.1 vs. 15±13 (ANOVA – $F$, $p > 0.2$), respectively. There was no difference in complication rates, except for seizures (higher in Diazepam group, Chi-square test, $p = 0.023$). **CONCLUSIONS:** Clomethiazole and Diazepam seem to offer comparable effectiveness in resolving symptoms of AWS. Otherwise the notably shorter therapy duration and lower rates of complications for clomethiazole hints at some advantages such as faster recovery and lower costs of treatment, although this would have to be confirmed in future.

PMH7
PREDICTORS PF REMISSION IN THE TREATMENT OF DEPRESSION IN THE MIDDLE EAST: REAL-WORLD EVIDENCE FROM A 6-MONTH PROSPECTIVE OBSERVATIONAL STUDY
Novick D[1], Jihyung Hong J[1], Montgomery W[2], Dueñas H[3], Elfatarany G[4], Haro JM[5]
[1]Eli Lilly Holdings Limited, Windlesham, UK, [2]Eli Lilly Australia, Sydney, Australia, [3]Eli Lilly de Mexico, Mexico City, Mexico, [4]Eli Lilly & Company, Saudi, Riyadh, Saudi Arabia, [5]Parc Sanitari Sant Joan de Déu, CIBERSAM, Universitat de Barcelona, Barcelona, Spain
**OBJECTIVES:** To understand the potential predictors of remission among patients treated for major depressive disorder (MDD) in a naturalistic clinical setting in the Middle East. **METHODS:** Data for this *post-hoc* analysis were taken from a 6-month prospective, non-interventional, observational study that involved 1,549 MDD patients without sexual dysfunction at baseline in twelve countries worldwide (n=314 in the Middle East). Depression severity was measured using Clinical Global Impression of Severity (CGI-S) and 16-item Quick Inventory of Depressive Symptomatology Self-Report (QIDS-$SR_{16}$). Depression-related pain was measured using the pain-related-items of Somatic Symptom Inventory (SSI). Remission was defined as a QIDS-$SR_{16}$ score ≤5. Generalised estimating equation (GEE) regression model was used to examine baseline factors associated with remission at each follow-up visit. The model included age, sex, region, CGI-S score, QIDS-$SR_{16}$ total score, SSI pain total score, and treatment (duloxetine vs. a selective serotonin reuptake inhibitor [SSRI] ) at baseline. Other baseline factors were also included if they appeared to be significant at $p<0.1$ in simple GEE models. The model analysed the patient observations up to the point where their initial medications were maintained. **RESULTS:** Of the 240 patients analysed, 133 (55.4%) initiated duloxetine and 107 (44.6%) initiated an SSRI at baseline. Of these, 199 patients achieved remission at any visit during follow-up (91.0% in the duloxetine group and 72.9% in the SSRI group, $p<0.001$). The GEE results showed that higher QIDS-$SR_{16}$ scores at baseline (odds ratio [OR]=0.88, p=0.002) and more MDD episodes in the past 24 months (OR=0.77, $p<0.001$) were negatively associated with remission, whereas treatment with duloxetine (vs. SSRIs) was positively associated with remission (OR=2.78, $p<0.001$). **CONCLUSIONS:** Treatment with duloxetine (vs. SSRIs), a lower level of depression severity and fewer previous MDD episodes appeared to be strong predictors of achieving remission in the treatment of MDD in the Middle East.

PMH8
A NETWORK META-ANALYSIS OF THE RELATIVE EFFICACY OF PHARMACOLOGICAL AND PSYCHOLOGICAL INTERVENTIONS IN ADULTS WITH OBSESSIVE COMPULSIVE DISORDER
Bryden PA[1], Caldwell DM[1], Welton N[1], Churchill R[1], Baxter H[1], Lewis G[2], Skapinakis P[2]
[1]University of Bristol, Bristol, UK, [2]University College London, London, UK
**OBJECTIVES:** Obsessive compulsive disorder (OCD) is the fourth most common mental disorder in the UK with a prevalence of 1.5%. Both pharmacological and psychological interventions are used in the treatment with the treatment course usually chronic. This study estimates the relative efficacy of pharmacological and psychological treatments or combinations of both. **METHODS:** A systematic review was conducted to identify RCTs of clomipramine, SSRIs, venlafaxine, and psychological interventions with a behavioural, cognitive or cognitive behavioural component. A Bayesian random effects network meta-analyses (NMA) was used to obtain coherent estimates of relative efficacy of every pair of the different interventions, even when direct evidence was not available. The primary endpoint was mean change in Yale-Brown obsessive compulsive scale (YBOCS). We assumed that treatment effects for the different SSRIs were similar in the sense that they came