treatment week ($p=0.001$) which persisted for three weeks ($p=0.001$). Group based trajectory modelling indicated that 15% of patients showed a temporary increase in white cell and neutrophil trajectories. Logistic regression revealed that treatment response was not associated with a 'spike' in cell count. However, females were 2.08 times more likely to respond to treatment (95% CI [1.09, 4.08], $p=0.017$) and 2.67 times more likely to exhibit a 'spike' in cell counts following Clozapine initiation (95% CI [1.14, 6.24], $p=0.023$).

Conclusions This is the first study to examine whether Clozapine's immunomodulatory properties contribute towards its unique efficacy. We found that clozapine was associated with an early 'spike' in all cell lines. Further analysis revealed a relatively small portion of patients were responsible for this transient increase. Increased cell counts did not predict Clozapine response at three months, but gender was implicated as a potential moderator variable.

40 A MULTI-SPECIALITY CONUNDRUM: NEUROPSYCHIATRIC SEQUELAE OF THYROTOXICOSIS

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A 51 year old man with bipolar affective disorder and an extensive forensic history was admitted informally to the forensic low secure inpatient unit for alcohol detoxification and to establish more effective long-term community management. 3 weeks into the admission his presentation abruptly changed. He would have prolonged periods of unresponsiveness, lasting hours to days, where he would lie in bed or stand rigidly with no vocal response to commands or questions. These were interspersed by periods where he would become agitated, pacing the wards, urinating and defecating in public spaces. This could last several hours and required rapid tranquilisation regularly.

On examination in his stupor, he was seen to be lying in bed with his eyes closed, opening them a fraction to voice. He was sometimes able to follow simple commands but this was slow and inconsistent. He was unable to communicate through head

movements or blinking and stared with a fixed expression. There was waxy flexibility of his limbs and arching on the back at regular intervals. Power was normal with flexor plantars. There were no ictal signs (i.e. no nystagmus/gaze deviation/twitching/dystonia). When agitated he was seen to have echopraxia. He consistently had hyperhidrosis and tachycardia.

Bloods showed an elevated T4 (22.7) with a suppressed TSH (<0.01) and a normal T3. TSH receptor and thyroid peroxidase antibodies were positive. A CT head was normal. Channel and receptor antibodies were normal.

It was felt that the patient had developed catatonia secondary to thyrotoxicosis due to his underlying neuropsychiatric susceptibility. He was treated effectively with high dose lorazepam as per the Maudsley Guidelines along with olanzapine (20 mg) and sodium valproate, which was used as an alternative to lithium. The thyrotoxicosis was effectively treated with carbimazole and the patient made a good recovery.

Hyperthyroidism is a rare but recognised cause of psychosis and multiple case reports have demonstrated an association between thyrotoxicosis and catatonic states. In this case report, it is probable that the patient's underlying bipolar affective disorder made him more susceptible to developing neuropsychiatric features as a consequence of his thyrotoxicosis. However, this is particularly pertinent given that lithium, the most evidence-based treatment for bipolar affective disorder, has potential to disrupt thyroid function.

41 KORSAKOFF'S SYNDROME: NEUROCOGNITIVE DOMAINS IMPAIRMENTS AND POTENTIAL THERAPEUTIC INTERVENTIONS

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Objectives/aims To explore the burden of neurocognitive impairments in a cohort of Individuals with Korsakoff's psychosis requiring current long stay psychiatric care. To consider additional therapeutic interventions to target the health care burden potentially created by these comorbidities.

Abstract 41 Table 1 DSM 5 Neurocognitive Domains

Patient Number	Complex Attention	Executive Function	Learning and Memory	Confabulation	Language	Perceptual Motor	Social Cognition
1	X	X	X	X		X	X
2*	X	X	X			X	X
3	X	X	X	X			
4	X	X	X			X	X
5*	X	X	X	X		X	X
6		X	X	X			
7	X	X	X				X
8*	X	X	X	X	X	X	X
9	X	X	X	X	X		
10			X		X		
11	X	X	X				
12		X	X	X			X
13**	X	X	X		X	X	

*TBI Co Morbidity

** Co Morbid Intellectual Disability

Methods As part of a comprehensive systematic review of Korsakoff's Psychosis, an audit was performed of 114 Individuals currently requiring long-term care in an approved psychiatric facility during the year of 2018. Medical and psychiatric diagnoses as well as pharmacological histories were examined. Alcoholic and non-alcoholic aetiologies were considered, the latter may be underdiagnosed (Nikolakaros et al, 2018).

Results Thirteen individuals were identified with a formal diagnosis of Korsakoff's syndrome (KS) and all continue to require structured Inpatient care due to their levels of neuro-cognitive impairment and psychiatric presentations. Episodic memory is severely affected, as is the learning of new semantic memories. Patients with Korsakoff's psychosis are capable of new learning in a calm, structured environment with cued new information (Kopelman et al, 2009).

Conclusions Individuals with Korsakoff's psychosis may have comorbid psychiatric symptoms including mood, anxiety, aggression or psychotic disorders that command therapeutic interventions. Specific memory targeting intervention may not be prioritized. Potential therapeutic interventions include Errorless learning (EL) which target levels of competence and independence (Rensen et al, 2017). EL is reported to improve symptoms of psychosis, aggression, apathy or mood disorders. Behavioural Interventions include environmental adaptations and cognitive remediation, which may be combined with pharmacological approaches such as donepezil or memantine to target cognition (Johnson and Fox, 2018). However, these approaches are not identical to those required by Alzheimer's disease or other dementing disorders. Epidemiological and genomic studies could be performed to identify those particularly at risk of developing this potentially life-altering condition.

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MULTI-AGENT ALLERGIES AS PREDICTOR OF FUNCTIONAL NEUROLOGICAL DISORDER

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Objectives/Aims Functional neurological disorders (FND) account for 20% of patients in neurology clinics and can lead to functional impairment, multiple re-attendances and significant cost. However, diagnosing FND remains challenging; identifying associated factors could aid earlier diagnosis. We aimed to determine the value of self-reported multi-allergies as predictor for FND.

Methods We retrospectively reviewed records of consecutive patients from two clinics (General Neurology and FND),

St George's Hospital, January 2015–June 2018. A logistic regression model was used in conditional fashion; statistically significant variables in univariate analysis were included.

Results Of 720 patients with definitive diagnosis, 243 (33.8%) had FND and 477 (66.3%) another neurological disorder. Mean age was 43 years (range 16–93), 63.9% (453) were female. 81 patients with FND (33%) had Non-epileptic attack disorder (NEAD).

In multivariate analysis, factors associated with FND were female sex (Odds Ratio [95% Confidence Intervals], OR=0.49 [0.33, 0.73], $p<0.001$), psychiatric comorbidity (OR=4.28 [2.89, 6.35], $p<0.001$), younger age (OR=0.97 [0.96, 0.98], $p<0.001$), coexisting fibromyalgia/chronic fatigue syndrome (OR=4.85 [1.26, 18.73], $p=0.02$) and allergies (OR=2.54 [1.79, 3.62], $p<0.001$). Polypharmacy, medical comorbidities, atopy and hypermobility were not significant.

Increased number of allergies increased the probability of FND: one allergy OR=4.53 [3.08, 6.65, $p<0.001$], two OR=9.09 [3.92, 21.09, $p<0.001$], three OR=16.74 [3.82, 73.43, $p<0.001$] and ≥ 4 allergies OR=42.94 [2.51, 736.02, $p=0.009$].

Conclusions Previous studies highlighted the increased prevalence of allergies in NEAD compared to epilepsy. Our study expands this to all FND, as only 1 in 3 FND patients had NEAD. Presence of allergies, particularly to multiple agents, should raise the suspicion of FND.

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EFFECT OF DOPAMINERGIC MEDICATION ON RISK PREFERENCE IN PARKINSON'S DISEASE

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Introduction Dopaminergic medication being the standard therapeutic treatment improves motor symptoms in Parkinson's disease (PD) but also implicated in the occurrence of impulse control disorders. Data driven computational models such as drift diffusion model utilize behavioural measures to explain subtle changes that are not sensitive to traditional analysis. Here, we aim to analyse risk preference in PD subjects in OFF and ON medication and the effect of dopamine on risk.

Methods Sixteen patients PD patients during OFF medication and 14 during ON were tested on the 2 step sequential learning task. We calculated the risk associated with each choice (variance of reward probability) and defined the choice with maximum variance as the risky one, for all 134 trials. With behavioural measures (selected choice- risky vs non-risky and response time) as inputs and risk as an independent factor, we extracted threshold (a), drift rate (v) and response bias (z) parameters using a hierarchical drift diffusion model (HDDM) for both groups during ON and OFF drug condition. Statistical analysis on the parameters was analysed using Bayesian factors.

Results Bayesian Independent sample t-test between the 2 groups (ON vs OFF) showed a strong evidence for differences in drift rate ($BF_{10}=34.28$) and response bias ($BF_{10}=1.5 \times 10^{13}$). We did not observe any evidence for correlation between RL parameters and z for both ON and OFF condition. Behaviourally, with respect to response time, independent sample t-test showed no significance difference