we compared the whole group with BA to TD; then we compared children with BA on their native liver to those with a transplant.
Results. Across the cohort with BA, infants scored significantly lower on the Vineland Summary T-Score compared to age-matched TD control children ($t(82) = -5.05$, $p < .001$) and across all domains of the Vineland. They also scored significantly lower than TD children on the Mullens Development Assessment ($t(66) = -6.52$, $p < .001$), and this was also across all domains. BA children on their native liver scored lower on both instruments than children who had received a liver transplant, however, this difference did not reach significance.
Conclusion. Individuals with Biliary Atresia, regardless of their transplant status, show lower levels of development across all aspects, suggesting a global delay. These findings suggest that all of these young children remain at significant risk for neurodevelopmental difficulties. These findings emphasize that special attention to neurodevelopment needs to be given as part of a holistic approach to care in a serious life-long illness. Work is ongoing to understand the trajectory of brain maturation in these children to ensure neurodevelopmental needs are addressed alongside physical health.

Using Qualitative-Electroencephalogram (Q-EEG) Mapping to Aid the Selection of Suitable Areas to Target Repetitive Transcranial Magnetic Stimulation (rTMS) Treatment in a Case of Depression With Comorbid Obsessive Compulsive Disorder (OCD)

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Aims. We present the case of SN, a 25-year-old woman with diagnosis of anorexia nervosa, OCD, Generalized Anxiety Disorder (GAD) and depression. She has extensive history of contact with mental health services spanning more than 10 years. She has had 1 inpatient stay in an eating disorders unit lasting more than 6 months. Her treatment included various classes of medications, psychological therapy and social prescribing with little or no benefit. She has been referred to rTMS. The aims of the study are to determine the effect of rTMS in treatment of a patient with depression comorbid with OCD, understand the value of q-EEG in rTMS treatment and to treat OCD symptoms using rTMS guided by QEEG.
Methods. SN had a total of 56 rTMS sessions targeting standard depression and anxiety areas; F3 (left sided excitatory) and F4 (right sided inhibitory). Following this her depression and anxiety improved but her OCD worsened. She then underwent a Q-EEG to be able to understand the physiological cause of her symptoms and suggest meaningful further neuromodulation that is tailored to her. This indicated dysregulation within the default mode network. Spindling beta waves were detected over the posterior electrode suggesting a tendency towards ruminations. There was clear hyperactivity in the supplementary motor area. SN had further 30 rTMS sessions targeting the OCD circuit (FC1 and FC2).
Results. Rating scales showed a reduction in Patient Health Questionnaire-9 (PHQ-9) score from 22 to 14 (36%) in second course compared to an increase of PHQ-9 score from 9 to 15 (66.6%) in first course; indicating an overall 102% improvement in PHQ-9. It also showed reduction of Yale-Brown Obsessive Compulsive Scale (Y-BOCS) in second course from 34 to 8. It was not done in the first course but there was a clinical increase in OCD symptoms following the end of the first course. These results were corroborated clinically.

A repeat q-EEG showed that the areas previously highlighted in red at FC1 and FC2 had now all reverted to green, indicating normal neuronal connectivity.
Conclusion. rTMS can provide timely and adequate response to depression and anxiety especially one that has not responded adequately to medications and psychotherapy. Q-EEG is useful to direct the plan, create a personalized plan and achieve accurate results. The use of q-EEG, whilst useful, should be balanced with other considerations as financial constraints. It should be reserved to patients who have not responded favorably to standard rTMS treatment.

Clinical Audit of Clozapine Prescribing Practice and Monitoring Process in an Australian Community Mental Health Service

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Aims. Clozapine, a well-established treatment of choice for treatment-resistant schizophrenia is known to reduce suicidality, lessen the risk of tardive dyskinesia and reduce relapse risk. It contributes to a higher quality of life by reducing cognitive clouding. Patients taking Clozapine have improved social and work functioning. But Clozapine's significant side effects require regular, intense monitoring to minimize mortality and morbidity. To improve current practice of clozapine prescribing and monitoring, a systematic audit of service practices against guidelines of local hospital / Monash Health Clozapine patient management guidelines and the Royal Australian and New Zealand College of Psychiatrists (RANZCP) clinical practice guidelines will identify any deficits and inform measures to overcome them.
Methods. An audit was conducted to compare the current clozapine prescribing practice and monitoring process compared with local hospital / Monash Health Clozapine patient management guidelines and RANZCP clinical practice guidelines among clozapine prescribed patients in an Australian community mental health service.
Results. Medical records of thirty-three eligible adult patients on clozapine were audited. All the patients were prescribed dosages within the recommended daily clozapine range. Clozapine was used for appropriate indications (treatment of treatment resistant-schizophrenia or schizoaffective disorder). Of the 33 patients, clozapine level was subtherapeutic on 54.5% of patients. 54.5% of patients were on an adjunct psychotropic with clozapine. Aripiprazole and sodium valproate were used by eight patients each, and nine patients were identified using selective serotonin reuptake inhibitors. The most common side effect was hypersalivation (57.6%), followed by weight gain (39.4%), sedation (21.2%) and constipation (12.1%). Monthly weight monitoring, physical examination, medical officer monthly review and full blood examination, at 97% compliance met these standards. However, monitoring of Body Mass Index (BMI) (66.7%) and six-monthly consultant reviews (42.4%) showed poor compliance (<70%) with the standards. Most metabolic blood investigations were in moderate compliance (70–90%) except for relatively high compliance

for lipid profile (90.1%). Monitoring cardiac functions by echocardiogram were only 75.8% met the standard.
Conclusion. Most patients in this clinic receive recommended monthly monitoring practice but for BMI monitoring, six-monthly consultant review, most blood investigations and annual or 2 yearly echocardiogram findings indicated need for improvement. Polypharmacy of psychotropics increases the side effect burden and further increases the need to closely monitor the physical health and prescriptions of this cohort of patients. The next stage of this project will involve a codesign approach to developing a response to these findings that will be outlined here.

Primary Care Referrals of Suspected Eating Disorders in Children and Young People in Greater Manchester Audit

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Aims. Current NICE guidance states that Children and Young People (CYP) with suspected Eating Disorders (EDs) should be immediately referred to specialist services on their first presentation to primary care. This audit assessed whether these standards were being met across Greater Manchester and what general practitioners felt would be helpful in supporting them to correctly refer patients. *Aim 1:* Analyse information from referral forms on all patients referred to Manchester Foundation Trust Community Eating Disorders Service (MFT-CEDS) from primary care between 17th December 2020 – 17th June 2021. *Aim 2:* Gain insight into how confident GPs in Greater Manchester feel identifying suspected EDs in CYP, their knowledge of guidelines regarding referral, and how they would like to be supported to improve referrals of suspected CYP-ED.
Methods. Quantitative data on all primary care referrals made between 17th December 2020–17th June 2021 were analysed. Referrals were classified as correct if they were made both immediately and directly to the correct service. Subgroup analysis of data by geographic region of Greater Manchester was also undertaken. Qualitative data were collected through a survey which was sent to General Practitioners across Greater Manchester. The survey assessed knowledge of current guidelines and views on what training materials could be helpful to improve the referral process.
Results. A total of 69 patients were referred to MFT-CEDS by their GP between 17th December 2020 and 17th June 2021. 35% of GP referrals to MFT-CEDS were documented as being made correctly as per current guidelines. 43.5% of all referrals were not initially made to MFT-CEDS. 58% of referrals were documented as being made immediately. North and South Manchester had the lowest rates of correct referrals of 10% and 8% respectively. There were 10 survey respondents, of which the majority did not know current referral guidelines and did not feel confident in identifying suspected Eating Disorders in CYP.
Conclusion. The majority of primary care referrals of CYP with suspected eating disorders to MFT-CEDS were not made in line with current NICE guidance.

The following recommendations were made based on the findings of this audit:

1) Create an information document and video regarding identification and referral guidelines for suspected EDs in CYP, 2) Design an easy-to-use referral template for GPs, 3) Conduct interviews with GPs working in North and South Manchester to help identify what additional support they need, 4) Re-audit referral data once quality improvement measures have been in place for 6 months.

PREVENT: Assessing and Improving Knowledge of the Sodium Valproate Pregnancy Prevention Programme in Psychiatric Prescribing

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Aims. The sodium valproate PREVENT programme was introduced by the Medicines and Healthcare products Regulatory Agency (MHRA) in March 2018, and is now a legal requirement due to valproate's risks in pregnancy. This project had two main aims: 1) To assess clinician knowledge of PREVENT, and identify deficiencies in current education. 2) To assess the barriers psychiatrists face in achieving compliance with PREVENT.
Methods. Knowledge and awareness of PREVENT was assessed through an online survey sent to local consultants and specialty doctors in February 2021. The survey included ten questions, four were Likert style to assess attitudes, two assessed local arrangements and four were knowledge based. A free-text section allowed respondents to describe challenges faced implementing PREVENT. Results were analysed, an educational presentation given at local teaching and a poster was created and distributed - both targeting areas of weakest knowledge. A repeat survey was sent out in June 2021, and results collected to reassess.
Results. The pre-teaching survey received twelve responses, the post teaching survey received eleven. In both, 75% of respondents represented general adult services, and 25% represented intellectual disability services.

There was an improvement in confidence of knowledge with all respondents being either "somewhat" (55%) or "very confident" (45%) post-teaching compared to 75% being "somewhat" confident, 10% "unsure" and 17% "very confident" prior to intervention. Pre-teaching, 10% of respondents were unaware that a risk acknowledgement form must be signed annually, while post-teaching 100% correctly identified this should be annual.

Respondents correctly identifying "highly effective" forms of contraception rose from 83% to 100% following teaching. Post-teaching there was an increase of 31% in the number of respondents correctly identifying the necessary documentation where a patient declines the PREVENT programme.

Pre-teaching, half of respondents were unsure if their team had a reminder system for risk acknowledgement forms, and 42% reported having no system. Post-teaching, 27% of respondents reported now having a reminder system in place, and 27% had plans to implement one.
Conclusion. Initial results showed variable knowledge of the PREVENT programme, and a lack of awareness of the administrative requirements including risk acknowledgement forms. Results demonstrated an improvement in knowledge and organisation to help support compliance with the PREVENT programme. Respondents highlighted that knowledge of the PREVENT programme quickly deteriorates given how rarely it is used. Further work includes a full audit of compliance with PREVENT across the health board, as well as considering "refresher" sessions to prevent atrophy of knowledge.