Aims. Low birth weight is associated with adult mental health, cognitive, and socioeconomic problems. However, the causal nature of these associations remains difficult to establish due to confounding. We aimed to estimate the contribution of birth weight to adult mental health, cognitive, and socioeconomic outcomes using two-sample Mendelian randomisation, an instrumental variable approach strengthening causal inference.
Method. We used 48 independent single-nucleotide polymorphisms as genetic instruments for birth weight (N of the genome-wide association study, 264 498), and considered mental health (attention-deficit hyperactivity disorder [ADHD], autism spectrum disorders, bipolar disorder, major depressive disorders, obsessive-compulsive disorder, post-traumatic stress disorder [PTSD], schizophrenia, suicide attempt), cognitive (intelligence), and socioeconomic (educational attainment, income, social deprivation) outcomes. We performed a two-sample Mendelian randomisation using the random-effect Inverse Variance Weighing method as primary analysis, supplemented by a wide range of sensitivity analyses, including Egger regression, weighted median, and Pleiotropy Residual Sum and Outlier. Results were considered statistically significant after accounting for multiple testing using False Discovery Rate (q = 0.05).
Result. After correction for multiple testing, we found evidence for a contribution of birth weight to ADHD (OR for 1 SD-unit decrease [~464 grams] in birth weight, 1.29; CI, 1.03–1.62), PTSD (OR = 1.69; CI = 1.06–2.71), and suicide attempt (OR = 1.39; CI = 1.05–1.84), as well as for intelligence (β= −0.07; CI= −0.13; −0.02), and socioeconomic outcomes, ie, educational attainment (β=−0.05; CI= −0.09; −0.01), income (β=−0.08; CI= −0.15; −0.02), and social deprivation (β=0.08; CI = 0.03; 0.13). However, no evidence was found for a contribution of birth weight to the other examined mental health outcomes. Results were consistent across main and sensitivity analyses.
Conclusion. These findings support that birthweight could be an important element on the causal pathway to mental health, cognitive and socioeconomic outcomes. Early interventions targeting birth weight may therefore have a positive impact on promoting mental health and improving socioeconomic outcomes.

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Clinical audit of prescribing for attention deficit hyperactivity disorder (ADHD) in children and young people services (CYPS)

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Background. The audit aimed to assess, when 3rd and 4th line medications were prescribed for ADHD, if practice was compliant with Tees, Esk and Wear Valleys NHS Foundation Trust (TEWV) prescribing guidelines and the updated NICE Guideline NG87: Attention deficit hyperactivity disorder: diagnosis and management 2018.
Method. The audit was conducted in the four Teesside Child & Adolescent community teams during April/May 2018. Each team identified all patients prescribed 3rd and 4th line ADHD medications leading to 30 responses (n = 30).

Information was collected from electronic and paper medical records using a designated audit tool compiled from the above evidence based guidelines. The data were analysed for compliance against standards using an excel spreadsheet and reviewed by the audit lead.
Result. There were many areas of good practice demonstrated in the audit including diagnostic recording, pre-treatment non-medical interventions where ADHD was not severe, and use of Methylphenidate as first line medication in accordance with BNF limits. In the majority of records reviewed, there was good evidence of a variety of NICE recommended non-medication interventions which were often continued post medication initiation.

There was also very good evidence of comprehensive verbal and written information and psychoeducation including benefits and potential side effects of medication (92% verbal and 58% written).

A pre-treatment assessment was completed in all but 3 cases, 1 of which had no assessment documented and 2 cases were transferred from out of area.

Issues identified by the audit, where there was deviation from guidelines, included 4 cases where Methylphenidate was not prescribed as first line, of these, 3 were prescribed Atomoxetine due to parental choice and one was due to contraindications, suggesting patient choice was an important factor in selection of 2nd line medication.

The audit demonstrates that clinical practice had moved away from the previous guidance in NICE CG72 (to prescribe atomoxetine 2nd line) towards the prescription of Lisdexamfetamine 2nd line (75%) as reflected in the new NICE guidelines: NG87, 2018 (updated 2019).
Conclusion. This audit cycle has demonstrated that use of an evidence based approach has been instrumental in improving patient care. The Audit evidenced good practice in areas such as pre-assessment, information and psychological education, initial use of Methylphenidate, use of Lisdexamfetamine 2nd line, as well as consideration of patient choice. Importantly the audit highlighted that implementation of updated NICE compliant trust guidance, followed by a planned trust-wide audit will promote continuous improvement in patient care.

Pregnancy and contraceptive questioning within acute inpatient psychiatric admissions: are we asking enough?

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Aims. This audit explored how regularly women of childbearing age on an acute psychiatric inpatient ward are asked about pregnancy and contraception.
Background. Unplanned pregnancies and poor compliance with contraception are common in women with severe mental illness, with a significant number seeking abortions or losing custody of their children. As these women are also less likely to consult medical professionals, an admission is an essential point for intervention and support.

Additionally, there are risks associated with prescribing psychotropic medications during pregnancy. Because of this, The Royal College of Psychiatrists and local guidelines state that all female patients admitted onto psychiatric inpatient wards should be asked about their sexual health within seven days of admission.
Method. Data was collected from all 51 women of childbearing age admitted to a mixed-sex, acute adult inpatient psychiatry ward over one year, from January 2019 until the end of December 2019.

Women of childbearing age were deemed to be those between the ages of 15 and 45, based on the World Health Organization's definition. However, the sample for this audit includes females aged 18–45 years due to the minimum age restrictions of the ward.

All eligible female inpatients had their physical health forms and progress notes screened for documentation of whether a) the possibility of them being pregnant was explored b) if a pregnancy test was done and c) if a contraceptive history was taken.

Result. Only 57% of female patients admitted during this period were asked about their contraceptive habits. Furthermore, exploration into the possibility of pregnancy occurred in less than half of admitted patients.

Further analysis was done by age; 18-26, 27-35 and 36-45, but showed minimal variation.

Conclusion. This audit revealed that Royal College of Psychiatrists and local guidelines are not being met, with women not receiving the recommended assessment and counselling in regard to pregnancy and contraception.

Inpatient admissions provide a valuable opportunity for identifying and preventing potential harm in the case of unplanned and undetected pregnancies. All health care professionals need to be aware of the importance of asking the above questions and ensure they are explored at some point during a patient's admission.

The audit will be discussed at forthcoming Clinical Governance meeting for further recommendations followed by re-audit.

It's a risky business: use of the QCovid risk calculator in a psychiatric rehabilitation population to enhance prevention

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Aims. Serious mental illness (SMI) is now accepted as a significant risk factor for contracting COVID-19, increasing the rates of adverse outcomes, including hospitalisation and mortality. Risk assessments are the cornerstone of protecting vulnerable groups of individuals. The QCovid risk calculator is a newly developed tool to predict the risk of death or hospitalisation from COVID-19. It has not been applied in SMI populations. We aimed to use the QCovid risk calculator in an inpatient rehabilitation setting to identify and mitigate risk for people with SMI with personalised COVID-19 prevention plans.

Method. Clinical and sociodemographic characteristics were obtained for 22 inpatients. Firstly, the QCovid risk calculator was used to ascertain the absolute and relative risks to patients (Odds Ratios (OR) of mortality and/or hospitalisation) from COVID-19. Patients were stratified as high (OR > 10), moderate (OR 5-10) and low (OR < 5) risk. Secondly, personalised COVID-19 prevention plans were coproduced by patients and clinicians addressing 1) risk factors contributing to increased QCovid risk, 2) patient's personal goals, concerns, and preferences 3) maximizing patient engagement in COVID-19 infection prevention strategies. Finally, uptake of personalised COVID-19 prevention plans was evaluated after four weeks using a customised patient feedback questionnaire.

Result. Of the 22 inpatients (68% male), 14 patients (64%) had schizophrenia and 3 patients (14%) had schizoaffective disorder as primary diagnosis. 13 (59%) patients were prescribed clozapine. QCovid risk stratification showed 10% of patients as high risk, 29% as moderate risk, and 61% as low risk. Apart from SMI in all 22 inpatients, the most common QCovid risk factors were increased body mass index (64%, n = 14; 23% overweight and 41% obese), diabetes mellitus type 1 or 2 (27%, n = 6) and epilepsy (n = 4, 18%). 19 of the 22 patients provided feedback on their personalised COVID-19 prevention plans. Most patients (79%) felt they had "contributed significantly" to their COVID-19 prevention plans, and their individual goals and concerns were valued. 79% were "satisfied" with their COVID-19 prevention plans. Subjective perception of safety from COVID-19 was high, with 95% of patients feeling "safe and well-protected from COVID-19".

Conclusion. Comprehensive assessment of COVID-19 risks in vulnerable groups enables personalised risk mitigation, both at an individual and service level. Our findings show the importance of applying current knowledge to protect vulnerable patients with SMI through personalised prevention plans. This approach can be scaled up to understand risks for services and teams, while allowing clinicians to adapt their use for individualised COVID-19 prevention.

The impact of the COVID-19 pandemic on referrals to liaison psychiatry services at University Hospital Hairmyres, NHS Lanarkshire

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Aims. The COVID-19 pandemic has led to sweeping public health restrictions with predictable impact on mental health. In Scotland, lockdown measures during the first wave of the pandemic commenced on 23rd March 2020 and only began to ease after 29th May 2020. The aim of this study was to evaluate the impact of the first wave of the COVID-19 pandemic on the number and type of referrals made to the adult psychiatric liaison nursing service (PLNS) at University Hospital Hairmyres, NHS Lanarkshire.

Method. We collated all of the archived referrals made by our local emergency department to the PLNS at University Hospital Hairmyres for adults (aged 18–65 years) during the period of the first COVID-19 national lockdown (April-July 2020) and the corresponding period one-year prior (April-July 2019) to analyse differences in referral numbers and demographics. Additionally, for referrals made during 2020, we conducted a qualitative review of electronic records to determine the reason for referral, contributory stressors to presentation, and in particular any effect from COVID-19.

Result. A total of 549 referrals were made over the study period, with 320 in 2019 and 229 in 2020, a decrease of almost 30%. In 2019, referrals fell each month from April (n = 89) to July (n = 74), while this trend was reversed in 2020, rising from April (n = 45) to near-usual levels by July (n = 68). Compared to baseline, referrals in April 2020 were for a higher proportion of men (62.2%). On qualitative analysis, 26 records (11.3%) could not be found. Otherwise, the most common reasons for referral were suicidal ideation (43.3%) and/or deliberate self-harm (39.9%). Many patients presented with comorbid substance misuse (54.2%) and the majority were not known to community services (64.5%). COVID-19 was implicated in 48 referrals (23.6%), but only 2 of these arose as a direct result of infection.