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**Method.** This study is based on the data of 67 subjects recruited into a 12-week open-labelled trial looking at the effects of adjunctive Aripiprazole in atypical antipsychotics for weight reduction and improvement in metabolic profile. Metabolic profiles including weight, waist circumference, fasting blood glucose, HbA1c, serum total, HDL and LDL cholesterol levels and triglycerides were measured at baseline. The measurements were then compared across the different subgroups of atypical antipsychotics. The definition of metabolic syndrome proposed by the Third Report of the National Cholesterol Education Program Expert Panel (Adults Treatment Panel III) was used.

**Result.** The atypical antipsychotics were grouped into Olanzapine ( $n = 27$ ), Risperidone ( $n = 24$ ) and Clozapine ( $n = 16$ ). More than 50% of clozapine-treated and Olanzapine-treated overweight patients were demonstrated to have metabolic syndrome at baseline. There was a statistically significant difference in serum triglycerides ( $p = 0.012$ ), LDL ( $p = 0.046$ ) and HbA1c ( $p = 0.045$ ) across the three groups as demonstrated by one-way ANOVA. A Tukey post hoc test showed that both the Olanzapine ( $p = 0.032$ ) and Risperidone ( $p = 0.013$ ) groups demonstrated statistically significant lower serum triglycerides when compared to Clozapine. Interestingly, the mean serum HbA1c was significantly lower in Clozapine when compared to Olanzapine group ( $p = 0.045$ ), perhaps reflecting the closer monitoring of fasting blood sugar in clozapine patients. When controlled for age and BMI, the significant differences in serum triglycerides remain between Clozapine and Risperidone groups [but not for serum HbA1c]. There were no statistically significant differences across the groups with respect to other metabolic parameters.

**Conclusion.** At baseline, metabolic dysregulation was demonstrated in all subgroups of overweight patients. As hypothesized, patients on Olanzapine and Clozapine groups fared worse than Risperidone. Further studies examining long term effects of atypical antipsychotics in a larger sample of patients are warranted to confirm these findings. These findings have clinical significance in terms of choosing the first antipsychotic for drug naïve patients or where there is no clinically significant difference in efficacy.

### Metabolic profiles differences of overweight patients on olanzapine, clozapine and risperidone

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doi: 10.1192/bjo.2021.664

**Aims.** We set out to examine the differences in metabolic profiles of at risk (overweight) patients across commonly used atypical antipsychotics (Olanzapine, Risperidone, Clozapine). We hypothesized that Olanzapine and Clozapine group will have more metabolic abnormalities compared to Risperidone.

**Background.** Cardiovascular diseases remain the leading cause of morbidity and mortality among people with schizophrenia. Since the introduction of atypical antipsychotics, there is cumulative evidence of their association with metabolic abnormalities. Clozapine and Olanzapine are known to constitute the highest metabolic risks amongst atypical antipsychotics.

**Method.** This study is based on the data of 67 subjects recruited into a 12-week open-labelled trial looking at the effects of

adjunctive Aripiprazole in atypical antipsychotics for weight reduction and improvement in metabolic profile. Metabolic profiles including weight, waist circumference, fasting blood glucose, HbA1c, serum total, HDL and LDL cholesterol levels and triglycerides were measured at baseline. The measurements were then compared across the different subgroups of atypical antipsychotics. The definition of metabolic syndrome proposed by the Third Report of the National Cholesterol Education Program Expert Panel (Adults Treatment Panel III) was used.

**Result.** The atypical antipsychotics were grouped into Olanzapine ( $n = 27$ ), Risperidone ( $n = 24$ ) and Clozapine ( $n = 16$ ). More than 50% of clozapine-treated and Olanzapine-treated overweight patients were demonstrated to have metabolic syndrome at baseline. There was a statistically significant difference in serum triglycerides ( $p = 0.012$ ), LDL ( $p = 0.046$ ) and HbA1c ( $p = 0.045$ ) across the three groups as demonstrated by one-way ANOVA. A Tukey post hoc test showed that both the Olanzapine ( $p = 0.032$ ) and Risperidone ( $p = 0.013$ ) groups demonstrated statistically significant lower serum triglycerides when compared to Clozapine. Interestingly, the mean serum HbA1c was significantly lower in Clozapine when compared to Olanzapine group ( $p = 0.045$ ), perhaps reflecting the closer monitoring of fasting blood sugar in clozapine patients. When controlled for age and BMI, the significant differences in serum triglycerides remain between Clozapine and Risperidone groups [but not for serum HbA1c]. There were no statistically significant differences across the groups with respect to other metabolic parameters.

**Conclusion.** At baseline, metabolic dysregulation was demonstrated in all subgroups of overweight patients. As hypothesized, patients on Olanzapine and Clozapine groups fared worse than Risperidone. Further studies examining long term effects of atypical antipsychotics in a larger sample of patients are warranted to confirm these findings. These findings have clinical significance in terms of choosing the first antipsychotic for drug naïve patients or where there is no clinically significant difference in efficacy.

### The effect of schizophrenia-associated CNVs on other psychiatric disorders

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doi: 10.1192/bjo.2021.665

**Aims.** Schizophrenia is a highly heritable disorder, sharing genetic roots with other psychiatric disorders from both common and rare genetic variants. Copy number variants (CNVs) are one of the rare causes which increase the risk of a variety of psychiatric, medical and physical phenotypes. The role of schizophrenia-associated CNVs is becoming of increasingly scientific and clinical importance in the field of psychiatry, with new CNV-phenotype relationships opening perspectives for understanding the aetiology of psychiatric disorders. This paper aims to investigate whether 13 schizophrenia (SZ)-associated CNVs or any SZ-CNV-carrier status increase the risk for 9 psychiatric phenotypes, reduce levels of happiness, change duration of sleep, and increase the index of multiple deprivation.

**Method.** The study includes 421,268 participants of British or Irish descent (aged 40–69 years), containing 418,036 controls and 3232 schizophrenia-associated CNV carriers. The data are secondary from the UK Biobank, an online resource containing

data on array-genotyped participants with their specific phenotypic information. Prior to analysis, CNV selection led to the exclusion of any CNV with less than 5 hits in the UK Biobank population. Incidence of each phenotype was based on self-reported diagnoses, questionnaires or hospital ICD-10 diagnoses, with a minimum of 500 cases. Both binary logistic and linear regression were used to assess the incidence of these phenotypes in relation to the CNVs, adjusted for age, sex, and ethnicity as potential cofounders.

**Result.** Overall, 12/13 CNVs were nominally associated with at least one phenotype, including 114/168 possible associations and 54 undetectable associations as not every CNV carrier displayed one of the chosen phenotypes. 41 associations were statistically significant ( $p < 0.05$ ) and 13 survived Bonferroni Correction ( $p < 2.98 \times 10^{-4}$ ). All significant associations met the expected change except 15q11.2 deletion and any CNV carrier status which showed a decrease in likelihood of addiction.

**Conclusion.** These findings suggest schizophrenia-associated CNV can affect range of psychiatric phenotypes. By building on existing reports, understanding the widespread effects of CNVs in the aetiology and pathogenicity of psychiatric disorders may overtime aid in strengthening our search for more targeted, effective treatments.

Many thanks to Professor George Kirov for supervising and supporting this project.

### Length of stay in a home treatment team

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doi: 10.1192/bjo.2021.667

**Aims.** The aims were to establish the mean length of stay (LOS) in the Wandsworth home treatment team (HTT), and to identify which variables were associated with LOS. We hypothesised that the variables that are routinely collected via the electronic record system were associated with the LOS.

**Background.** Psychiatric HTT's have been set up in all NHS trusts in England. These 24-hour community health services exist to assess and manage patients during a crisis, who would otherwise be admitted to an acute psychiatric ward. HTT's also allow inpatients to be discharged sooner, as their treatment can continue in the community. Currently, research into predictors of LOS in HTT's is limited.

Researchers have been exploring whether LOS in psychiatric inpatients can be predicted, but no consistent pattern has emerged. This suggests that LOS is mainly determined by the local service organisation, and the individual circumstances of the patients.

**Method.** Routinely collected data about all patients under the care of the Wandsworth HTT during the financial year 2018/2019 were used. Only the first admission per individual was considered. Admissions lasting less than 2 days, or more than 42 days were excluded. This is on the basis that those with a very short LOS had not consented to being treated at home, and those with a very long LOS were due to administrative errors. This resulted in a total of 664 admissions being included in the study. The available data for analysis included age, gender, diagnosis, HoNOS cluster, ethnicity, nationality, religion, marital status, referral source, employment status, accommodation status, and accommodation type. The data were analysed in SPSS version 25 using ANOVA, independent samples T-test, and Pearson's correlation.

**Result.** The mean LOS in the Wandsworth HTT was 14.28 days (standard deviation: 8.57). LOS was positively skewed, with a median LOS of 13 days, but 46.5% of admissions had a LOS longer than this. None of the variables (age, gender, diagnosis, HoNOS cluster, ethnicity, nationality, religion, marital status, referral source, employment status, accommodation status, and accommodation type) had a significant association with LOS, but there was a trend for referral source and accommodation type.  
**Conclusion.** The results from this study suggest that LOS cannot be consistently predicted in the Wandsworth HTT from the routinely collected variables, and that it is the specific circumstances of individual patients that determine their LOS.

There was no external funding for this study.

### A preliminary study into the effects of the COVID-19 pandemic on Yale-Brown Obsessive Compulsive Scale (Y-BOCS) scores of patients with obsessive compulsive disorder

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doi: 10.1192/bjo.2021.668

**Aims.** The COVID-19 pandemic has presented a challenge for treating people with OCD and it could be postulated that those with OCD fearing contamination might be more affected in current circumstances. Although there have been some studies already published, results have been heterogeneous and conflicting; possibly because of different populations or geographical locations examined.

In this preliminary study we aim to identify the impact of the pandemic on the severity of OCD, as measured by Y-BOCS scores. To our knowledge, it is the first UK study of this kind and the only study that examines change in Y-BOCS scores over such a long time period.

**Method.** Patients were identified from national OCD unit referral databases at Springfield Hospital. Referrals from March 2019–March 2020 were examined and patients included if they had a diagnosis of OCD, were accepted by the service following initial assessment and sufficient data were available. This preliminary study focused only on Y-BOCS to assess clinician-rated severity of OCD. Y-BOCS scores were compared from different time periods correlating to the progression of COVID-19. 'Pre-pandemic' score was taken from Jan–Dec 2019 or, if not available, from Jan–23 March 2020 (prior to UK lockdown). 'Pandemic' score was taken as the most recent rating from April 2020 onwards.

**Result.** 21 patients were included. All treated as outpatients (although 9 had undergone previous inpatient treatment during the time period above). 81% showed improvement in Y-BOCS score between pre-pandemic and pandemic time periods, with an overall mean decrease in Y-BOCS of 10.3.

**Conclusion.** Overall, this study indicates that severity of OCD decreased during the pandemic compared to pre-pandemic. It may be that patients found it easier to access remote appointments, or perhaps the pandemic environment of being encouraged to stay at home and limiting unnecessary contact may have allowed limited opportunity for exposure. It might be that the pandemic provided a reason for patients to be avoidant of potential contamination thereby leading to a perceived rather than real improvement in Y-BOCS scores.