Has not received a physical examination by GSSMS (n = 61)

An abnormality was detected in 77% of patients, charts to be added to display the findings to poster.

Most common findings were Hypertension (n = 9) and Abdominal Tenderness (n = 9).

ECG
Had an ECG (n = 37)
Did not have an ECG (n = 84)

BBV Screen
Had a BBV test in the last 6 months (n = 62)
Did not have a BBV Test in the last 6 months (n = 59)

Conclusion. Areas of Good Practice

1. As opposed to previous practice, physical examination rates have risen from 0% to 50%. The 50% rate also likely underestimates true practice as patients were included in these numbers if they: a. Disengaged prior to a medical examination but after a nursing assessment. b. Refused a physical examination

2. The vast majority of physical examinations elicited positive findings, identifying health needs and risks

3. ECG completion rate of 31%, despite being low, represents a significant improvement as the team did not have an ECG machine prior to the audit. Establishing a baseline ECG would also be of clinical value even if normal, as it would allow for future comparisons of QTc intervals compared to pre-treatment baselines. Patients may have had an ECG on mental health wards or in general hospital with the results/ECG being communicated to GSSMS staff, although it would not have been included in the audit as a completed ECG unless a copy was filed in the notes.

4. As previous BBV screen completion rate had not been quantified to obtain a baseline, it is difficult to compare current BBV screen completion rate. 66% of patients had had a BBV screen in the last year. This audit did not account for patients who disengaged prior to their BBV screen or patients who refused a BBV screen. This audit also includes all patients under GSSMS and BBV completion rates included alcohol dependent/neverinjecting patients which would be of lower risk as opposed to Injecting Drug Users. With that context in mind, a completion rate of 66% likely reflects good practice.

Areas for Improvement/Recommendations

1. Development of a checklist which can be placed on the front of a patients notes with dates that can be documented for ECG, Physical Examination, etc. as well as non-physical health documents such as risk assessments and care plans to ensure documents stay in date.

2. Further audits with more data would reveal further information with regards to the needs of patients under GSSMS. If current trends continue with improvements in detection, a larger pool of analysable data would be available. Based on current limitations of this audit a re-audit would benefit from: a. Quantifying BBV screen results to identify percentage of patients who are antibody and PCR positive; this can be done as a standalone project. b. Quantifying actions taken as a result of physical examination findings as that would indicate what additional service requirements (if any) need to be highlighted. The current method of auditing does not comment on severity or chronicity and does not account for the actions taken as a follow-up to the physical examination which may indicate acuity.

3. Further audits may require alterations to data collection may be allow for more specific measurement of health risks and needs. Eg. Highlighting if a patient is injecting substances or on a QTc prolonging medication. This would allow for more specific analysis of patients at risk of adverse outcomes. It is unclear if the improvement in monitoring is targeting GSSMS patients at higher or lower risk of adverse health outcomes.

Lessons Learnt

- Patients under GSSMS commonly were found to have physical examination findings, most commonly abdominal tenderness, potentially highlighting a significant pathology of the abdominal organs. ECG and physical examination completion rates are improving
- BBVs are being done frequently for the majority of patients
- Further recommendations for yearly re-audit would allow for targeting specific questions such as what percentage of patients require hepatology interventions or what percentage of patients are of high risk of cardiac events on Methadone

Audit of the use of the physical health improvement (PHIT) to document physical health examination on an electronic health record at a mental health trust in Manchester

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Aims. The audit aimed to identify: The percentage of patients with Initial Physical Examination (IPE), ECG and bloods on admission being completed; If IPE, bloods and ECG result are documented on PHIT; To identify reasons for these interventions not being completed and review if refusal is being appropriately documented.

Background. "The Five Year Forward View for Mental Health NHS" report highlighted the poor physical health of those with mental health problems when compared to those without. In order to improve the identification and treatment of physical health problems within mental health inpatients, blood test results, physical examination and ECG results should be recorded and reviewed regularly. Within Greater Manchester Mental Health trust, the electronic records system PARIS contains a specific care document to record physical health interventions, known as the PHIT tool. The inpatient unit Park House, had recently changed to the PARIS system prior to this audit and the use of PHIT tool to monitor physical health parameters was considered a priority by the management team.

Method. All admissions to Park House inpatient unit, Manchester in April 2019 were audited. Patients were identified using a report prepared by Business Intelligence. Electronic notes were reviewed for evidence of physical interventions on admission and input of these data to the PHIT tool. Using a retrospective review of electronic notes, relevant information was anonymised and collected to a spreadsheet for further analysis. Inclusion/exclusion criteria was based on local conditions and practical consideration.

Result. An initial sample of 140 was reduced to 89 patients following application of inclusion/exclusion criteria. Of the 89 patients included, 73% had an IPE, 84% of patients had admission blood tests and 74% had an admission ECG. Recording of parameters on the PHIT tool was lower than expected with information recorded in 33–42% of patients. Where patients had refused IPE, ECG or bloods, a valid reason for refusal was documented between 63–91% of patients.

Conclusion. The initial audit identified that most patients had IPE, ECG and bloods but this was documented appropriately in less than 42% had this appropriately documented.

Interventions to improve this rate were developed, focussing on increasing completion of IPE, ECG and bloods as well as improving documentation. The completion of PHIT document is now monitored regularly. The re-audit to identify the magnitude of improvements from these interventions is currently underway.

How can automated linguistic analysis help to discern functional cognitive disorder from healthy controls and mild cognitive impairment?

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Aims. The disease burden of cognitive impairment is significant and increasing. The aetiology of cognitive impairment can be structural, such as in mild cognitive impairment (MCI) due to early Alzheimer's disease (AD), or in functional cognitive disorder (FCD), where there is no structural pathology. Many people with FCD receive a delayed diagnosis following invasive or costly investigations. Accurate, timely diagnosis improves outcomes across all patients with cognitive impairment. Research suggests that analysis of linguistic features of speech may provide a non-invasive diagnostic tool. This study aimed to investigate the linguistic differences in conversations between people with early signs of cognitive impairment with and without structural pathology, with a view to developing a screening tool using linguistic analysis of conversations.
Method. In this explorative, cross-sectional study, we recruited 25 people with MCI considered likely due to AD, (diagnosed according to Petersen's criteria and referred to as PwMCI), 25 healthy controls (HCs) and 15 people with FCD (PwFCD). Participants' responses to a standard questionnaire asked by an interactional virtual agent (Digital Doctor) were quantified using previously identified parameters. This paper presents statistical analyses of the responses and a discussion of the results.
Result. PwMCI produced fewer words than PwFCD and HCs. The ratio of pauses to speech was generally lower for PwMCI and PwFCD than for HCs. PwMCI showed a greater pause to speech ratio for recent questions (such as 'what did you do at the weekend?') compared with the HCs. Those with FCD showed the greatest pause to speech ratio in remote memory questions (such as 'what was your first job?'). The average age of acquisition of answers for verbal fluency questions was lower in the MCI group than HCs.
Conclusion. The results and qualitative observations support the relative preservation of remote memory compared to recent memory in MCI due to AD and decreased spontaneous elaboration in MCI compared with healthy controls and patients with FCD. Word count, age of acquisition and pause to speech ratio could form part of a diagnostic toolkit in identifying those with structural and functional causes of cognitive impairment. Further investigation is required using a large sample.

N-Methyl-D-Aspartate Receptor binding in First-Episode Psychosis: A PET brain imaging study

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Aims. Evidence from genetics, post mortem and animal studies suggest that N-Methyl-D-Aspartate Receptor (NMDAR) hypofunction has an important role in the pathophysiology of psychosis. However, it is not known if NMDAR activity is altered in the early stages of psychosis or if this links to symptom severity. Our aim was to investigate NMDAR availability in first-episode psychosis (FEP) and determine if it links to symptom severity. The NMDAR hypofunction hypothesis of schizophrenia was initially proposed in the 1990s on the basis of observations that ketamine and phencyclidine (PCP) induced the full range of schizophrenia-like symptoms (positive, negative and cognitive) when given to healthy participants and also that they worsen symptoms in patients with schizophrenia.
Method. We recruited 40 volunteers, including 21 patients with schizophrenia from early intervention services in London (12 antipsychotic-free and 9 receiving antipsychotic medication) and 19 matched healthy controls. The uptake of an NMDAR selective ligand, [18F]GE179, was measured using positron emission tomography (PET) and indexed using the distribution volume ratio (DVR) and volume of distribution (VT, in millilitres per cubic centimetre) of [18F]GE179 in the hippocampus and additional exploratory regions (anterior cingulate cortex (ACC), thalamus, striatum and temporal lobe). Symptom severity was measured using the Positive and Negative Syndrome Scale (PANSS).
Result. A total of 37 individuals were included in the analyses (mean [SD] age of controls, 26.7 [4.5] years; mean [SD] age of patients, 25.3 [4.9] years). There was a significant reduction in hippocampal DVR in the patients with schizophrenia relative to healthy controls ($p = 0.02$, Cohen's $d = 0.81$). Although the VT of [18F]GE179 was lower in absolute terms in patients, there was no significant effect of group on VT in the hippocampus ($p = 0.15$, Cohen's $d = 0.49$) or the exploratory brain regions. There was a negative association between hippocampal DVR and total PANSS symptoms ($rho = -0.47$, $p = 0.04$), depressive symptoms ($rho = -0.67$, $p = 0.002$), and general PANSS symptoms ($rho = -0.74$, $p = 0.001$).
Conclusion. These results indicate lower hippocampal NMDAR levels in schizophrenia relative to controls with a large effect size, and that lower NMDAR levels are associated with greater levels of symptom severity. These findings are consistent with the role of NMDAR hypofunction in the pathophysiology of schizophrenia; however, further work is required to test specificity and causal relationships.

Psychosomatic aspects of psoriasis and atopic dermatitis

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Aims. The aim of this study is to assess the level of alexithymia, coping strategies and stress contribution to illness in patients with