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

psoriasis and atopic dermatitis in order to increase effectiveness of dermatological treatment.

Method. 59 patients with atopic dermatitis, 67 with psoriasis and 65 healthy control group individuals were included in the cross-sectional study. Predominant complains of the patients: itching, widespread rashes and rashes on the open areas of the skin. In 85% patients with skin pathology onset of the disease and relapses were associated with stress, in 15% other factors.

"The 20-item Toronto Alexithymia Scale" was used to assess alexithymia. "The Ways of Coping Checklist, Lazarus" was used to assess coping-strategies. "The Holmes and Rage Stress Inventory" was used to assess stress contribution to illness. Significance level: $p < 0,05$.

Result. The levels of alexithymia ($p = 0.002$), difficulty identifying feelings subscale ($p = 0.02$) and externally-oriented thinking subscale ($p = 0.002$) in patients with skin pathology (especially in those with psoriasis) were higher than in the control group.

Patients with skin pathology turned out to be more susceptible to stress factors ($p = 0.025$) and less often use coping strategy "seeking social support" ($p = 0.037$).

Patients with skin pathology with high levels of alexithymia and difficulty identifying feelings subscale more likely to use maladaptive "escape-avoidance" coping ($p = 0.001$).

Patients with atopic dermatitis who find difficult to describe feelings are more likely to use maladaptive coping "distancing"($p = 0.002$).

In patients with psoriasis high levels of alexithymia and externally-oriented thinking subscale scores are associated with less common use of the adaptive coping "problem solving"($p = 0.001$). Moreover, in patients with psoriasis high levels of difficulty identifying feelings subscale are associated with more common use of maladaptive "escape-avoidance" coping ($p = 0.001$).

Conclusion. The results of the study confirm the need to include psychological assessment and psychotherapy in the treatment plan for patients with psoriasis and atopic dermatitis in order to improve emotional awareness and to develop more adaptive coping-strategies in patients.

Predicting risks of physical health deterioration in a place of safety

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Aims. Healthcare triage for those subject to section 136 powers (MHA 1983/2007) remains challenging. Camden and Islington NHS Foundation Trust opened a dedicated Health-Based Place of Safety (HBPOS) in 2020, situated separately from an emergency department (ED). There was concern that this may lead to physical health problems going unrecognised. We aimed to design a simple, efficient algorithm to be used by non-medically-trained staff to identify those who are subject to s.136 powers who would benefit from medical clearance before being admitted to the HBPOS

Method. We chaired a consensus meeting with nursing staff, police and emergency medicine consultants when designing the algorithm. Case notes of those presenting under s.136 to the POS over 1 calendar-month in 2019 were reviewed, and the proportion of those who the algorithm would have diverted for medical clearance was calculated. We then reviewed the proportion of cases sent for medical clearance during a single calendar month in 2020, after the HBPOS had opened, to see whether there was a significant difference.

Result. 37 patients were admitted to the ED-based POS in July 2019, of which 36 records were analysed. 9 patients (25%) were referred for medical clearance, with 2 (6%) requiring medical admission. 8.6% were identified as needing medical clearance when the algorithm was applied retrospectively (positive predictive value 66%, negative predictive value = 79%).

Review of records over 1 calendar-month after the HBPOS was established showed 30.6% of patients had been diverted for medical clearance prior to entering the HBPOS. Of the 65 patients, 1 (2%) required transfer to ED within 48 hours of entry. No statistical difference in the proportion of patients sent for medical clearance was observed since the formation of the HBPOS away from the ED (Chi-squared = 0.549, $p = 0.458$), suggesting the algorithm successfully identified those patients who needed medical clearance prior to admission.

We observed high rates of intoxication amongst those admitted (30–40%).

Conclusion. The algorithm showed high specificity and negative predictive value, allowing for a degree of confidence when admitting those deemed at low-risk of physical deterioration, though it does not eliminate the need for clinical judgement. Interpretation of the results is complicated by the COVID19 pandemic in 2020, which was not accounted for in the algorithm, which possibly led to deviations from the algorithm in real-world clinical practice.

Reflections on a person's experience of mental illness: an innovative teaching pilot for second-year medical students

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Aims. We sought to develop a teaching pilot to help year 2 medical students meet the following learning outcomes: Develop a better understanding of patient and carer experiences of mental illness; Recognise and challenge unhelpful attitudes towards people with mental illness; Promote a broader understanding of cultural issues surrounding mental illness, including stigma and discrimination.

Method. 337 medical students were invited to attend a lecture by author LQ, a documentary photographer who presented a narrative of his brother Justin's lived experience of schizophrenia (louisquail.com/big-brother-introduction). 197 students attended the session, which was recorded and made available online. Students were invited to enter a competition to win a signed copy of LQ's book, 'Big Brother' and asked to submit either a 500-word written reflective piece, or a creative work accompanied by a 200-word statement. 13 submissions were received, including paintings, drawings, collage, photography, and poetry, all of which were blind rated by authors SR and GB, based on originality and quality of reflection. Of the six shortlisted, three winning entries were chosen by author LQ.