referring to a specialist diagnostic team was about 6 months. However, after a screening questionnaire had taken place, the time to referral was only around one month. We propose that screening is considered at an earlier opportunity; ideally during (or prior to) the first appointment with the CMHT in order to reduce the time before a referral to a specialist diagnostic team is made. This would enable treatment in a care pathway which incorporates the diagnosis of ASD at an earlier stage.

Development and validation of a non-remission risk prediction model in First Episode Psychosis: An analysis of two longitudinal studies

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Aims. Psychosis is a major mental illness with first onset in young adults. The prognosis is poor in around half of the people affected, and difficult to predict. The few tools available to predict prognosis have major weaknesses which limit their use in clinical practice. We aimed to develop and validate a risk prediction model of symptom non-remission in first-episode psychosis.
Method. Our development cohort consisted of 1027 patients with first-episode psychosis recruited between 2005 to 2010 from 14 early intervention services across the National Health Service in England. Our validation cohort consisted of 399 patients with first-episode psychosis recruited between 2006 to 2009 from a further 11 English early intervention services. The one-year non-remission rate was 52% and 54% in the development and validation cohorts, respectively. Multivariable logistic regression was used to develop a risk prediction model for non-remission, which was externally validated.
Result. The prediction model showed good discrimination (C-statistic of 0.74 (0.72, 0.76) and adequate calibration with intercept alpha of 0.13 (0.03, 0.23) and slope beta of 0.99 (0.87, 1.12). Our model improved the net-benefit by 16% at a risk threshold of 50%, equivalent to 16 more detected non-remitted first-episode psychosis individuals per 100 without incorrectly classifying remitted cases.
Conclusion. Once prospectively validated, our first episode psychosis prediction model could help identify patients at increased risk of non-remission at initial clinical contact.

Audit on resuscitation equipment in Carseview Centre (NHS Tayside)

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Aims. Psychiatric hospitals are well equipped to manage patients with complex psychiatric needs, however due to their community setting when a rare medical emergency occurs it is not unusual for a small delay whilst staff search for equipment on the ward or even go to other wards for equipment. The aim of this audit is to ensure that our psychiatric wards in Carseview Centre are well equipped to respond to patients becoming medically unwell and put our nurses and doctors in a position to safely stabilise the patient until furthur help arrives.
Method. We collected data from 3 inpatient adult wards, 1 intensive psychiatric care unit and 1 learning disability unit and compared their resuscitation trolley equipment with local NHS Tayside Emergency Equipment Protocol in January 2020. Following data collection we fed back to the wards about our results and discussions were held between doctors, charge nurses, pharmacists and resuscitation officers to determine whether missing equipment were neccesary in the community setting and to see if there were updates that required for our local protocol to better reflect current practices as it had not been reviewed since 2012. Following multiple meetings we amended our local protocol to better reflect what was . A list of recommendations was also made to improve patient safety.

We then collected data again in January 2021
Result. Folloing our first data collection we found that the resuscitation trolleys tended to not have ligature packs and masks were generally not by the oxygen cylinders. Hypoglycaemic dextro-tablets were also not readily available. The Learning disability units also did not have an emergency resuscitation trolley.

Following our discussions and amendment of the protocol this was finalised in November 2020 and was dissemindated towards the wards and we waited 2 months for the changes to take effects and recollected our data. There continued to be equipment that was incomplete/missing on each individual ward, but none that were consistent throughout the whole hospital site. All the recommendations that were made for the 1st data collection had been done.
Conclusion. Overall we felt that the emergency trolleys were better equipped in line with the updated protocol compared to the previous audit cycle. The overall pattern of missing equipment was inconsistent and the recommendation was for staff to copmlete checks to address missing/incomplete items when found. Our local protocol also recommends that all ward should stock 'additional items' (nebuliser masks and non-rebreather masks), which majority had however were difficult to locate, which could delay patient care.

We will continue to repeat data collection cycles and feedback to our wards to ensure patient safety is not compromised.

Psychopathology and cognitive deficits in young people exposed to complex trauma

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Aims. Complex traumas are traumatic experiences that involve multiple interpersonal threats during childhood or adolescence,

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such as repeated abuse. This type of trauma is hypothesized to lead to more severe psychopathology and poorer cognitive function than other non-complex traumas, such as road traffic accidents. However, empirical testing of this hypothesis has been limited to clinical or convenience samples and cross-sectional designs. To better understand this topic, we aimed to investigate psychopathology and cognitive function in young people exposed to complex, non-complex, or no trauma from a population-representative longitudinal cohort, and to consider the role of pre-existing vulnerabilities.

Method. Participants were from the Environmental Risk (E-Risk) Longitudinal Twin Study, a population-representative birth-cohort of 2,232 children born in England and Wales in 1994-95. At age 18 years (93% participation), we assessed lifetime exposure to complex and non-complex trauma. We also assessed past-year psychopathology including general psychopathology 'p' and several psychiatric disorders, as well as current cognitive function including IQ, executive function, and processing speed. Additionally, we prospectively assessed early childhood vulnerabilities including internalizing and externalizing symptoms at age 5, IQ at age 5, family history of mental illness, family socio-economic status, and sex.

Result. We found that participants who had been exposed to complex trauma had more severe psychopathology and poorer cognitive function across wide-ranging measures at age 18, compared to both trauma-unexposed participants and those exposed to non-complex trauma. Early childhood vulnerabilities had an important role in these presentations, as they predicted risk of later complex trauma exposure, and largely explained associations of complex trauma with cognitive deficits, but not with psychopathology.

Conclusion. By conflating complex and non-complex traumas, current research and clinical practice under-estimate the severity of psychopathology and cognitive deficits linked with complex trauma, as well as the role of pre-existing vulnerabilities. A better understanding of the mental health needs of people exposed to complex trauma and underlying mechanisms could inform the development of new effective interventions.

Training foundation doctors in mental health risk assessment as a tool in the fight against suicide

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Aims. To determine the perceptions of Junior Doctors on whether formal training in risk assessment could help to reduce the number of completed suicides following medical contact.

Method. Foundation trainees within the Great Western Trust were surveyed using a questionnaire. For those trainees that were not present on the acute hospital site, the same questionnaire was distributed by the postgraduate medical team to all trainees using survey monkey. The survey was left open for four weeks. The total response rate was 57/88 foundation trainees. Simple statistical analysis of the data was performed and outlined below.

Result. 87% of all the trainees have never done a rotation in psychiatry. 51% of foundation doctors have had between 1-5 patients with suicidal behaviour or ideations admitted under the care of a medical team on which they were the junior doctor and up to 26% have admitted to encountering greater than 10 such patients. Only 37% of foundation trainees who have managed patients with suicidal behaviours admitted to having had any formal training in mental health risk assessment. Foundation trainees report being only somewhat confident in the identifying of factors that make a person high risk of completing suicide. 63% of all foundation trainees would refer any patient who expressed suicidal ideation for formal psychiatric assessment. Majority of the trainees were 'not so confident' in their ability to assess a patient's risk of suicide and in offering any help to mitigate this risk. None of the trainees have the intention to pursue psychiatry as a medical specialty and majority (60%) intend to pursue medical specialties. 56% of the trainees felt that training foundation doctors formally to assess patient mental health risk, could reduce the percentage of patients with completed suicide following being seen for non-psychiatric reason.

Conclusion. The UK Foundation Program is a bridge that occupies that gap between undergraduate medical education and specialty training. It therefore an ideal opportunity for training clinicians in mental health risk assessment as one strategy to help reduce completed suicide following non-psychiatric health contact.

Beta-frequency electrophysiological bursts: BOLD correlates and relationships with psychotic illness

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Aims. To identify the BOLD (blood oxygenation level dependent) correlates of bursts of beta frequency band electrophysiological activity, and to compare BOLD responses between healthy controls and patients with psychotic illness.

The post movement beta rebound (PMBR) is a transient increase in power in the beta frequency band (13-30 Hz), recorded with methods such as electroencephalography (EEG), following the completion of a movement. PMBR size is reduced in patients with schizophrenia and inversely correlated with severity of illness. PMBR size is inversely correlated with measures of schizotypy in non-clinical groups. Therefore, beta-band activity may reflect a fundamental neural process whose disruption plays an important role in the pathophysiology of schizophrenia. Recent work has found that changes in beta power reflect changes in the probability-of-occurrence of transient bursts of beta-frequency activity. Understanding the generators of beta bursts could help unravel the pathophysiology of psychotic illness and thus identify novel treatment targets.

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