understand the use of QRISK-3 in an ID clinic and to quantify individual CVD risks to recommend appropriate management options.
Method. A cross sectional study was performed on 143 patients open to an ID psychiatry clinic. Patients and carers were sent an accessible information leaflet on this study. Basic demographic data and information on psychiatric diagnoses were collected. Patients were grouped according to the presence of severe mental illness (SMI) defined as schizophrenia, bipolar disorder and other psychotic illnesses. QRISK-3 $\geq$ 10% was defined as elevated risk in accordance with NICE guidelines. Patients who had a high QRISK-3 score were advised to contact their GP.
Result. Of 143 patients, 73 (51.0%) had a mild ID and the remaining had a moderate to severe ID. The mean age was 43.3 years, 53.1% were male. Overall, 28 (19.6%) participants had an elevated CVD risk, of whom 16 (57.1%) were not on statins, which is the recommended treatment. The mean QRISK-3 score was 6.31 (standard deviation [SD] 8.95), and the relative risk is 3.50 (SD 7.13). The proportion of QRISK-3 $\geq$ 10% and mean score were not significantly different in those with SMI, but those with SMI were more likely to be prescribed statins than those without (14 [31.1%] vs 10 [10.2%], $p = 0.002$). Statins were given to 24 (16.8%) participants, of whom 12 (50%) had elevated CVD risk. 89% had a blood pressure recording within the past 5 years, 87% had height and 88% had weight recorded. 73% had lipid serology results recorded.
Conclusion. Elevated CVD risk was common in this ID study population, and more than half with elevated QRISK-3 were not on the medical treatment recommended by national guidelines. QRISK-3 could feasibly be implemented in the outpatient setting. Increased routine CVD risk assessment and management should be considered as another measure to reduce morbidity and mortality.

A case of olanzapine-associated rhabdomyolysis

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doi: 10.1192/bjo.2021.188

Aims. To describe the case of olanzapine-associated rhabdomyolysis in a 20-year-old patient with a suspected diagnosis of paranoid schizophrenia.
Method. A 20-year-old male Caucasian patient was admitted to the Psychiatric Department with a one-month history of irrational behavior, talking to himself, persecutory delusions, and poor sleep. He was prescribed oral olanzapine at a dose of 10 mg per day. After two days of olanzapine monotherapy, the patient experienced muscle jerks in the legs. Four days after the initiation of olanzapine treatment, he complained about fatigue and weakness in the lower extremities along with myalgia. Physical examination revealed decreased muscle power with no extrapyramidal symptoms. Blood chemistry showed serum creatine kinase (CK) and serum lactate dehydrogenase (LDH) of 9,725 U/L and 843 U/L, respectively, on day four of the therapy. The Naranjo algorithm score of 6 suggested that olanzapine was the probable cause of rhabdomyolysis. A diagnosis of drug-induced rhabdomyolysis was established from the background of blood tests (increased serum CK and LDH levels), clinical presentation (fatigue and weakness in the lower extremities, muscle jerks, and myalgia), and Naranjo algorithm score of 6 for olanzapine. On suspicion of its contribution to rhabdomyolysis, olanzapine was immediately withdrawn. The patient was referred to the intensive care unit. To prevent acute renal failure, high-volume alkaline diuresis was initiated. After consulting a clinical pharmacologist, the patient's primary physician decided to perform a pharmacogenetic test to develop an individualized treatment regimen. Pharmacogenetic test results were interpreted using the PGX2 software (Meditsina LLC, Moscow, Russia). The test revealed that the patient was a homozygous mutant for CYP2D6*4, which corresponds to CYP2D6 PM phenotype. With this in mind, trifluoperazine was prescribed at a daily dose of 10 mg instead of olanzapine as recent data indicate that trifluoperazine is metabolized by CYP1A2 and UGT1A4 instead of CYP2D6. Subsequently, the patient recovered well and was discharged without any nephrological sequelae.
Result. Recent research demonstrates that CYP2D6 is one of the most important isoenzymes implicated in drug metabolism because the CYP2D6 gene is highly polymorphic. Few reports on the association between olanzapine use and rhabdomyolysis have been published to date, and the present case report draws attention to pharmacogenetic testing which allowed the psychiatrist to prescribe another antipsychotic with no risk of rhabdomyolysis.
Conclusion. The presented case demonstrates that pharmacogenetic-guided personalization of treatment may allow selecting the best medication and determining the right dosage, resulting in the reduced risk of adverse drug reactions and pharmacoresistance.

Effects of tailored quality improvement programme for effective medication management in high dependency in-patient psychiatry rehabilitation unit

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doi: 10.1192/bjo.2021.190

Aims. To determine the effects of a tailored quality improvement programme for effective medication management including a reduction in prescription and administration errors in oral and depot psychotropic medication, patient education on medication and implementation of policies and guidelines.
Background. Medication errors are common in hospital admissions and pose a threat to patient safety (Buckley et al. 2013). Medication errors may occur in different stages of the patient treatment process such as during prescribing, transcribing, preparing, dispensing, administration, and monitoring (Wang et al. 2015). In addition to these, for the detained mental health patients, the Mental Health Act 1983 legislation requires up-to-date treatment certificate compliance (Wales. Welsh Assembly 2008). A Quality Improvement programme to improve safe medication prescription and administration was designed for the patients admitted in Delfryn House, a mental health high dependency rehabilitation unit.
Method. Using Plan-Do-Study-Act (PDSA) quality improvement methodology, a medication management committee was created under the leadership of Specialty doctor and Head of Care (HOC), and comprising of the consultant psychiatrists, specialty doctor, heads of care (ward managers), senior nurses,