

Management of metabolic syndrome on a psychiatric ward against current NICE guidance

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Aim

To gauge whether we are performing physical health assessments for new admissions as per NICE guidelines. This audit aims to identify if the risks of metabolic syndrome (MS) and cardiovascular disease (CVD) were assessed in patients during their admission and the actions taken in order to identify and avoid certain complications that could lead to a physical health deterioration. To identify strategies to improve and standardize physical health assessments while clerking patients on an inpatient unit.

Introduction

The metabolic syndrome (MS) is a term used to describe a combination of medical disorders that increase the risk of cardiovascular disease (CVD) and diabetes mellitus (DM). In order to be diagnosed the patient must present at least three of the following five medical conditions: obesity, high level of glycaemia, high blood pressure (BP), dyslipidaemia and low serum high-density lipoprotein (HDL). Convincing evidence shows that individuals suffering from mental health conditions have an increased risk of developing CVD and MS which can lead to a greater risk of mortality.

In individuals with serious mental illnesses, CVD, endocrine problems, and respiratory failure are the most common causes of death. Despite national awareness and guidelines early mortality rates for these individuals have not decreased, individuals being less likely to receive quality health promotion and physical health care.

Current standards

The National Institute for Health and Care Excellence (NICE) recommends annual physical health checks for mental health patients.

All patients need to have a physical health review when admitted, including blood tests, ECG, BMI, BP and Q-Risk assessments.

All patients with Q-Risk above 10% should be considered for treatment with a statin.

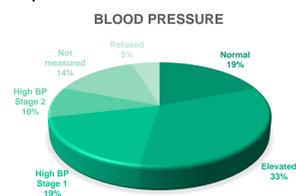
Assess lifestyle, comorbidities and willingness to change in patients with high BMI. Consider referral to specialist services.

Material and methods

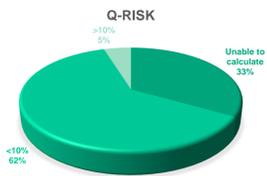
Retrospective data was collected from the patients' files on North Ward, Irwell Unit, Pennine Care NHS Foundation Trust. This audit involves 21 patients that were admitted between 17th of May and 20th of June 2021 and there were examined their admission notes, blood tests results, physical health forms, treatment, medical history and Q-risk assessment.

Results

This audit was conducted on a female ward, most of them being aged between 18 and 35 years old (45%), followed by the 36-60 years old group, with a proportion of 41. 14% were aged 60 or above.

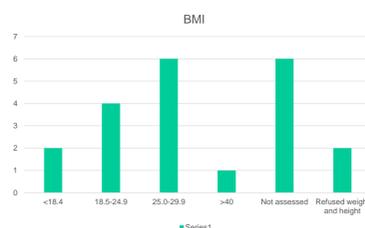


During admission, the majority of the patients (57%) have not had ECGs done. 14% of them refused the ECG and for the rest of 29% it was normal.

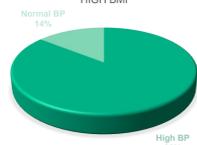


Waist circumference was measured for only 5% of the patients.

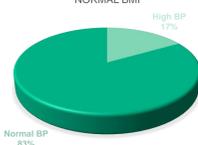
The majority of patients (71%) had no history of substance misuse. For the rest of 29% the most common was the combination of drugs and alcohol.



BLOOD PRESSURE AMONG PATIENTS WITH HIGH BMI



BLOOD PRESSURE AMONG PATIENTS WITH NORMAL BMI



Discussions

A common method to prevent or lower the risk of MS is to change the lifestyle of psychiatric patients as early as possible. Early detection and identification of high-risk patients based on existing guidelines should be a part of daily practice.

Researchers have found that changing the patients' lifestyle improves depressive and psychotic patients as well as the cardiorespiratory status.

Patients with bipolar disorder, major depressive disorder, and schizophrenia who benefitted from a dietary change, exercise and wellness program showed decreases in waist circumference and improvements in their mental health.

A meta-analysis revealed that the prevalence of MS in psychiatric patients is significantly higher than the general population. This increased prevalence was observed for all of the components of the MS.

It is important to be aware of the various psychotropic medications that can raise the MS risk and adapt the prescriptions to each patient's cardiovascular risk profile.

The blood pressure, one of the five criteria of diagnosis of MS and an important information regarding patients' physical health, was not measured for 14%, which can affect the early diagnosis of CVD, brain injury or kidney failure. A normal BP was found in only 19% of patients, showing the importance of BP measurements, given the high percentage of patients whose hypertension has been increased. Despite some research suggesting that antidepressant use increases the chance of hypertension, many cohort studies with several years of follow-up revealed a link between anxiety and depression and hypertension, as well as the beneficial benefits of antidepressants on decreasing blood pressure. On the other hand, one of the medications widely used in Psychiatry that could lead to high values on patients' blood pressure is Venlafaxine, but in this study, no patients with hypertension were on treatment with the above mentioned medication.

Limitations

Missed patients – Individuals that were discharged after a day of admission or transferred to other units.

Small sample size that might have lead to selection bias.

Data collection – This audit was performed during a period of transition from paper files to electronic documents, therefore the statistic could differ as information could be missed during collection of data from files rather than from an electronic system.

Conclusion

In conclusion, the audit standards were not achieved throughout the initial stages of the audit. The absence of BMI, ECGs, and waist circumference accounts for the majority of the incomplete physical health monitoring. The audit revealed the need for physical health assessment standardization.

The importance of MS for psychiatric clinical practice no longer needs to be argued. From the gesture of completing the physical health assessment and prescribing antipsychotic agents to the problem of patient compliance, this morbid complex counts in the equation of choosing a drug, monitoring the patient's evolution and psychoeducational intervention.