A Skipped Beat? A Review of the Physical Health of Clozapine Patients and the Follow-Up of Sustained Tachycardia

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Aims and Hypothesis

Our hypothesis was that there would be a high prevalence of un-investigated tachycardia in patients receiving clozapine from the Brent Community Mental Health Team (CMHT).

The aim was to survey the physical health of all patients prescribed clozapine by the Brent CMHT and provide guidance on how to support patients' unmet physical health needs as revealed by this survey.

Background

Despite its positive risk profile for mortality(1) clozapine's use is limited to treatment resistant severe mental illness due to its side effect profile including cardiac side effects(2). Clozapine is known to cause a persistent tachycardia(3) which local guidelines suggest be followed up with review from a cardiologist. Alongside this, evidence indicates that those with suffering from mental health conditions are at greater risk of physical health conditions and reduced life expectancy(4).

Method

Electronic notes and the ZTAS registration list were reviewed revealing 181 patients on clozapine as of 10/06/20 who were receiving their prescription from the Brent CMHT. Authors reviewed patients' electronic records for evidence of heart rate recordings at the Clozapine clinic as well as their other prescribed medications. Any patient with a heart rate over 100 on more than one occasion or on a Beta Blocker for rate control was recorded. The highest HR value within the 6 months was recorded if a patient was found to be tachycardic.

Results

Over half of our patients on Clozapine had more than one reading of tachycardia at their Clozapine clinic appointment or had medication for rate control (n=99). Only a small minority of these patients on rate control with a B-Blocker (n=10). No other chronotropic medications were prescribed in this population.

Of the remaining 89 patients who were not rate controlled, 35 had a HR101-110, 30 had a HR111-120, 19 had a HR121-130 and 5 had a HR>130.

Assessment of recommendations to GP for onwards referrals and investigation was difficult due to lack of clarity within our records.

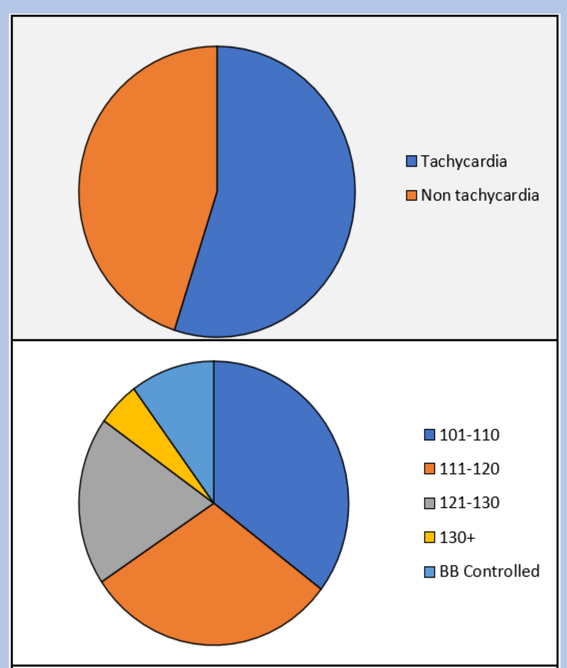

Figure 1: The proportion of patients taking clozapine with tachycardia and the degree of tachycardia recorded

Are you suffering from any of the following right now?

Chest Pain	Yes*	No
Palpitations (heartbeats that suddenly become more noticeable)	Yes	No
Blackouts/collapse	Yes*	No
Shortness of breath	Yes	No
Leg swelling	Yes	No
Chest tightness	Yes*	No

*Red flag symptom- If you answer yes to any of these then we would recommend getting urgent medical advice via 999

Have you suffered from any of the following in the last month?

Chest Pain	Yes*	No
Palpitations (heartbeats that suddenly become more noticeable)	Yes	No
Blackouts/collapse	Yes*	No
Increased shortness of breath	Yes	No
Leg swelling	Yes	No
Chest tightness	Yes*	No

*Red flag symptom- If you answer yes to any of these then we would recommend getting urgent medical advice via 111

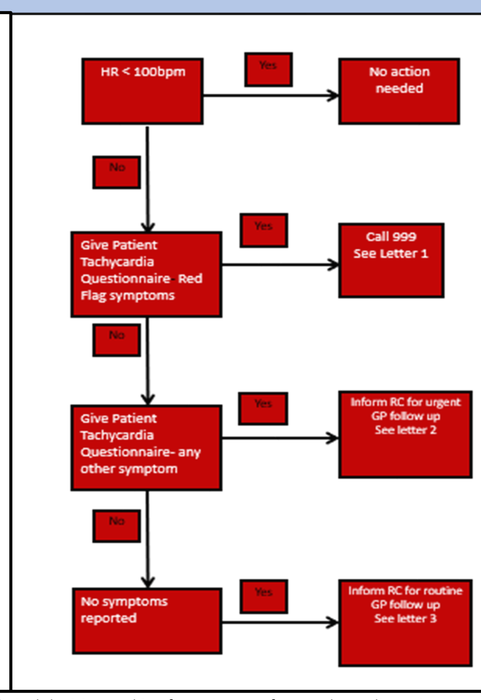

Figure 2: A patient questionnaire and staff flowchart of support clinical decision making for outcomes for a tachycardic patient presenting at the Brent clozapine clinic

Discussion

The prevalence of tachycardia in our population was higher (55%) than that anticipated from existing literature (25%)(3). Alongside this, many of our patients were having repeated incidences of tachycardia recorded without adequate investigation or treatment. Two potential reasons for this are a lack of communication with the patient's GP and lack of engagement with follow-up from patients.

In order to improve the former, a new guideline was proposed for use by the CMHT whereby request for investigations could be sent directly and quickly to the GP and recorded in our notes for reference. This included a pathway to pick up potentially life-threatening causes of tachycardia such as infarction or myocarditis (figure 2). Pre-formatted letters were generated to streamline informing the GP about the tachycardia as swiftly as possible and included in the full guidelines.

References

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