Title: A retrospective audit to access the utilisation of clozapine in a high secure forensic hospital


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A Retrospective Audit To Assess The Utilisation Of Clozapine In A High Secure Forensic Hospital

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Background

People with schizophrenia have an increased mortality rate associated with comorbid physical conditions, socioeconomic factors and elevated rates of suicide.2 Clozapine has been proven to be superior for treatment resistant schizophrenia compared to other antipsychotics, however, clozapine utilisation has been lower than ideal due to reasons such as patients’ fear of side effects and clinicians’ general negative beliefs.2

Objectives

The National Institute for Health and Care Excellence, NICE clinical guideline for the prevention and management of schizophrenia2 states that clozapine should be offered to patients with schizophrenia whose illness has not responded adequately to treatment despite the sequential use of adequate doses of at least 2 different antipsychotics. The objective of this audit was to assess the percentage of patients meeting this standard, and the expected compliance standard was set at 100%.

Method

- A patient list was generated automatically by the Applied Informatics Department based on the inclusion criteria: 1. A diagnosis of Schizophrenia (F20), 2. Currently as inpatient, and 3. Admitted for > 12 weeks.
- These patients were assessed for eligibility based on the criteria from a New Zealand District Health Board guideline to define adequate doses and durations for antipsychotics previously trialled.4
- Ineligible patients were excluded. Criteria for this were: 1. Current or previous treatment with clozapine, 2. A documented allergy or hypersensitivity to it.
- Each eligible patient’s clinical notes were reviewed for any record of being offered clozapine. Only their current admission and electronic notes were used.
- Review period was since admission and as far as electronic notes existed up and until any record on or before the 29th March 2018, when the patient list was generated. Data collection was performed retrospectively and began on 6th April 2018 for a period of 2 weeks. Any changes that occurred after 29th March 2018 were not included.
- Audit Committee comments were sought and sign off gained. Ethics approval was not required.

Results

Fig 1. Flow diagram showing the process of audit and analysis

Initial list generated by Applied Informatics based on the inclusion criteria (n= 98)

Excluded due to incorrectly recorded diagnoses and currently responding to antipsychotics (n= 3)

Ineligible patients [potential cohort for qualitative analyses] (n= 71)

Assessed for eligibility (n= 95)

Eligible patients (n= 24)

Standards met [clozapine offered] (n= 15)

Fig 2. Pie chart showing the patients eligible to be considered and offered clozapine (n= 24) and their current status with regards to clozapine therapy

63% (n= 15) of the eligible patients (n= 24) have been documented as being offered clozapine, compared to the agreed standard of 100%. This could mean patients deserving of a clozapine trial are not being offered one and the hospital may not be compliant with NICE guidance.

Conclusion

- We recommend that clinicians must actively assess patients’ responses to current antipsychotics and consider clozapine wherever appropriate. If the reasons for rejecting clozapine are clinically significant and cannot be overcome this should be clearly documented.
- In order to facilitate the most appropriate and evidence-based medication regimens for patients, clinical pharmacists should perform medication reviews and make patient-centred recommendations wherever possible.
- Errors within the patient list generated by Applied Informatics were identified by colleagues undertaking the data collection: 1. Inaccurate diagnoses, 2. Patients fitting the inclusion criteria missing. This could be due to the information source that Applied Informatics used to extract data being incorrect and may have resulted in an incomplete patient cohort.
- Another limitation was only using electronic data as these systems was only introduced within the last decade.
- There was also no assurance around adherence to an antipsychotic leading to uncertainties of adequate doses and durations.

Discussion

- A trigger point could be used in identifying potential patients prospectively when adequate doses of at least 2 antipsychotics (1 being atypical) have been prescribed for adequate durations; this could be embedded in the pharmacy record or dispensing systems as an algorithm that triggers an automatic alert.
- A re-audit should be performed taking into account of the possibility that the patient list generated may contain inaccurate information and therefore patients should be manually identified as a part of data collection. The re-audit should also be prospective, monitoring the adherence with routine antipsychotics in real time.
- These data collected will also be used to inform the trust clozapine guidance currently being developed.
- Qualitative analyses using the results of this audit should be considered, for example, the specific reasons why clozapine therapy was rejected or ceased and if these reasons were documented. This could enable patients that will benefit from clozapine be re-trialed or re-challenged. These analyses could also be used to inform the guidance of re-introducing clozapine for eligible patients in the future.

Future Directions

Reference: