A better understanding of the response and side effect of clozapine use

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We think methylation patterns and gene expression profiles predict treatment outcome (respons + ADRs) after initiating CLZ.

Ethical review	Positive opinion
Status	Recruiting
Health condition type	-
Study type	Observational non invasive

Summary

ID

NL-OMON20290

Source
NTR

Brief title
CLOZIN

Health condition

Schizophrenia,schizophreniform and schizoaffective disorder Clozapine, psychotic disorders

Sponsors and support

Primary sponsor: University Medical Center Utrecht
Source(s) of monetary or material Support: Primary Funds dr. Luykx

Intervention

Outcome measures

Primary outcome

Reponse and the development of ADRs after clozapine intake. We think this is influenced by methylation patterns and gene expression

Secondary outcome

We measure non-genetic factors such as smoking, cannabis use, duration of illness etc., because we think these influence treatment outcome (ADRs+response) as well. In addition, we use the data with our other protocol (NTR 5257) to create a prediction model for clozapine response and side effects.

Study description

Background summary

Clozapine (CLZ) is one of the most effective antipsychotic medications, but with life-threatening adverse drug reactions (ADRs), such as agranulocytosis, diabetic ketoacidosis and gastrointestinal hypomotility and insidious adverse reactions such as metabolic syndrome (MetS). For many patients with schizophrenia spectrum disorders (SCZ), CLZ is the last resort because other antipsychotics have not resulted in sufficient clinical improvements. Prescribing CLZ in clinical practice therefore requires balancing ADR risk profile likelihoods with clinical response probabilities. This need highly contrasts with the current state of knowledge as it is unknown who will respond to CLZ and to what degree a specific patient may develop ADRs. Based on preclinical studies, we hypothesize that epigenetic and gene expression mechanisms influence treatment outcome (response + development ADRs) of CLZ. We will therefore investigate methylation patterns and gene expression profiles before and after initiation of CLZ pharmacotherapy. Furthermore, we will try and identify other predictive factors for treatment outcome following CLZ pharmacotherapy initiation.

In addition, we use the data with our other protocol (NTR 5248) to create a prediction model for clozapine response and side effects.

Study objective

We think methylation patterns and gene expression profiles predict treatment outcome (respons + ADRs) after initiating CLZ.

Study design

Patients have 3 visits: one before clozapine initiation, 4-12 weeks and 28 weeks after steady state.

Intervention

None

Contacts

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Eligibility criteria

Inclusion criteria

-he/she is about to initiate CLZ (i.e. he/she has an indication to start CLZ treatment according to the treating physician and he/she is willing to start on CLZ)
-he/she has received a diagnosis of schizophrenia, schizophreniform disorder, schizoaffective disorder or psychosis not otherwise specified.
-his/her age must be ≥18 years old
-he/she must be able to speak and read the Dutch language
-he/she must be mentally competent with regard to a decision to participate in the current study

Exclusion criteria

- admission to a psychiatric unit involuntarily in the context of an ‘inbewaringstelling’ (IBS)
- a history of Parkinson’s disease

Study design

Design

Study type:	Observational non invasive
Intervention model:	Other
Allocation:	Non controlled trial
Masking:	Open (masking not used)
Control:	N/A , unknown

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	01-07-2015
Enrollment:	60
Type:	Anticipated

IPD sharing statement

Plan to share IPD: No

Ethics review

Positive opinion

Date:	19-06-2015
Application type:	First submission

Study registrations

Followed up by the following (possibly more current) registration

ID: 50475
Bron: ToetsingOnline
Titel:

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
NTR-new	NL5125
NTR-old	NTR5257
CCMO	NL52728.041.15
OMON	NL-OMON50475

Study results