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Liraglutide and the management of overweight and obesity in people with schizophrenia

Submission date
29/11/2017

Recruitment status
No longer recruiting

Registration date
26/03/2019

Overall study status
Completed

Last Edited
07/05/2020

Condition category
Mental and Behavioural Disorders

[ ] Prospectively registered
[ ] Protocol
[ ] Statistical analysis plan
[ ] Results
[ ] Individual participant data
[ ] Record updated in last year

Plain English summary of protocol

Background and study aims
People with schizophrenia die 10- 20 years earlier than the general population. This is in part due to the fact that they are two times more likely to be overweight. One reason for this is the drugs they need to take to control their symptoms. Current approaches to reducing weight in people with severe mental illness have not been shown to be effective for this population in NHS settings. Liraglutide is a drug which is similar to a hormone found in the body that reduces appetite. It is used as a treatment in type 2 diabetes and at a high dose it is also used for weight loss. It is a daily injectable medication. The aim of this study is to see if it is possible to run a study using liraglutide in people with severe mental illness who are overweight.

Who can participate?
People aged over 18 with schizophrenia, schizoaffective disorder or first episode psychosis who have been on antipsychotic medication for a minimum of one month and are either obese or overweight

What does the study involve?
Eligible participants are randomly allocated to either liraglutide or placebo (dummy drug) daily for 6 months. Data is collected at the start of the study and after 12 and 26 weeks on all aspects of running the study, including signing people up to the study, the consent process, if people take the drug during the study, and how many people drop out. Participants are also interviewed about their involvement. All of this information would then be used in the design of the final study to see if liraglutide causes a significant amount of weight loss.

What are the possible benefits and risks of participating?
The trial medication may help participants to lose weight and this may improve health and sense of wellbeing. People involved in the study will have to give an injection each day. Occasionally this can cause a little discomfort or swelling. The researchers will carefully explain how to use the injection pen to reduce the likelihood of this happening and give a leaflet containing this information. There may also be some mild bruising or slight scratch during the blood sampling process. Very rarely people can have an allergic reaction to a new medication. As a precaution, people with known or suspected allergy to the medication being used will not be enrolled in the study.

Where is the study run from?
Southern Health NHS Foundation Trust (UK)

When is the study starting and how long is it expected to run for?
October 2017 to April 2020 (updated 06/08/2019, previously: January 2020)

Who is funding the study?
Novo Nordisk (Denmark)

Who is the main contact?
Dr Clare Whicher
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Contact information

Type(s)
Public

Contact name
Dr Clare Whicher

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Additional identifiers

EudraCT/CTIS number
2017-004064-35

IRAS number

ClinicalTrials.gov number
Nil known

Secondary identifying numbers
U1111-1203-0068; 37638

Study information

Scientific Title
Liraglutide and the management of overweight and obesity in people with schizophrenia: a pilot study

Acronym
L.O.S.E Weight Version 1.0

Study objectives
The aim of the study is to gather feasibility data on recruitment, consent, retention, adherence and dropout rates for using liraglutide in people with severe mental illness.

Ethics approval required
Old ethics approval format

Ethics approval(s)
Approved 17/4/2019 by South Central - Hampshire B Research Ethics Committee, Level 3 Block B, Whitefriars, Lewins Mead, Bristol, BS1 2NT, Tel: +44 (0)207 1048055, Email: nrescommittee.southcentral-hampshireb@nhs.net, REC ref: 18/SC/0085

Study design
Randomised controlled trial

Primary study design
Interventional

Secondary study design
Randomised controlled trial

Study setting(s)
Hospital

Study type(s)
Treatment

Participant information sheet

Health condition(s) or problem(s) studied
Schizophrenia

Interventions
Participants will be randomised to either once daily subcutaneous liraglutide titrated to 3 mg daily or placebo for 6 months.

Intervention Type
Drug

Phase
Phase III

Drug/device/biological/vaccine name(s)
Liraglutide

Primary outcome measure

Feasibility outcome measures:
1. Time to reach recruitment target as defined by the time from first participant screened to randomisation of the 60th participant
2. Number of participants required to be screened in order to reach recruitment target as defined by the number of participants attending a screening visit
3. Participant attrition rate as defined by the number of participants not available for follow-up at the final study visit as per the research protocol
4. Adherence to the investigational medicinal product as defined by the number of empty cartridges returned at each visit by trial participants divided by the total number of cartridges prescribed. Adherence will be analysed both as a continuous variable and by the number of participants using at least 70% of prescribed trial medication over 12 weeks and 26 weeks
5. Change in weight at 12 and 26 weeks, defined as weight in kilograms (kg) at 12 and 26 weeks minus weight in kg at randomisation

Secondary outcome measures
Measured at baseline, 3 and 6 months:
1. Weight measured in kilograms
2. BMI calculated from weight(kg) divided by height in metres squared
3. Waist circumference measured in cm
4. Symptoms of psychosis measured using the brief psychiatric rating scale (BPRS)
5. HbA1c will be a fasting blood sample measured in mmol/mol
6. Fasting plasma glucose (FPG) will be a fasting blood sample measured in mmol/l
7. Fasting lipids will be a fasting blood sample measured in mmol/l
8. Systolic and diastolic blood pressure measured with a blood pressure machine in mmHg
9. Adherence to randomised treatment measured as those taking more than 70% of prescribed medication over 6 month period
10. Type of diabetes medication measured as per recorded on the CRF
11. Change in type or dose of diabetes medication measured as per changes in diabetes medication at baseline and 6 months
12. Type of antipsychotic medication measured as per recorded on the CRF
13. Change in type or dose of antipsychotic medication measured as per changes in antipsychotic medication at baseline and 6 months

Overall study start date
31/10/2017

Completion date
05/05/2020

Eligibility

Key inclusion criteria
1. Age 18-75 years old
2. Clinical diagnosis of schizophrenia or schizoaffective disorder (defined by ICD-10 codes F20 and F25) or first episode psychosis using case note review. There is no limit on the duration of illness for those with schizophrenia or schizoaffective disorder but first episode psychosis is defined as less than 3 years since presentation to the mental health team or first antipsychotic prescription
3. Treatment with an antipsychotic, with a minimum duration of 1 month prior to entry in to the trial. No restriction is placed on the class or generation of antipsychotic

4. Ability to give written informed consent
5. Ability and willingness to take liraglutide or placebo
6. Ability to speak and read English
7. Body mass index ≥ 30 kg/m² (obese), or ≥ 27 kg/m² to < 30 kg/m² (overweight) in the presence of at least one weight-related comorbidity such as dysglycaemia (pre-diabetes), hypertension, dyslipidaemia or obstructive sleep apnoea

Participant type(s)
Patient

Age group
Adult

Lower age limit
18 Years

Upper age limit
75 Years

Sex
Both

Target number of participants
60

Total final enrolment
47

Key exclusion criteria
1. Physical illnesses that could seriously reduce their life expectancy or ability to participate in the trial
2. A co-existing physical health problem that would, in the opinion of the principal investigator, independently impact on metabolic measures or weight, e.g. Cushing's syndrome.
3. Severe renal or hepatic impairment
4. Inflammatory bowel disease
5. Contraindications to Saxenda®: Hypersensitivity to liraglutide or to any of the excipients
6. Use of other pharmacological products for weight management
7. Mental illnesses that could seriously reduce their ability to participant in the trial, including significant suicidality. Every patient in contact with the Southern Health Trust has a risk assessment which is recorded on the electronic patient record (RIO). If the risk assessment states that they are at "High" risk of harm to themselves, we would exclude the patient from the study. In addition, prior to recruitment, we will approach any potential participant's care coordinators to verify the currently recorded risk, to ensure that the risk status has not changed.
8. Current pregnancy or a desire to become pregnant. Mothers who are less than 6 months post-partum or breastfeeding will also be excluded. Women who become pregnant during the trial will be advised to stop the study medication and will be withdrawn from the trial
9. Significant alcohol or substance misuse which, in the opinion of the principal investigator, would limit the patient's ability to participate in the trial.
10. A diagnosis or tentative diagnosis of psychotic depression or mania.
11. A primary diagnosis of learning disability.
12. Lack of capacity. Those who lose capacity any time during the study will not be eligible to

continue and will be withdrawn from the study immediately with no further study procedures carried out.
13. Cognitive impairment which would impair participants ability to self-administer trial medication
14. History of type 1 diabetes

Date of first enrolment
02/07/2018

Date of final enrolment
31/10/2019

Locations

Countries of recruitment
England

United Kingdom

Study participating centre
Southern Health NHS Foundation Trust
United Kingdom
SO30 3BJ

Sponsor information

Organisation
Southern Health NHS Foundation Trust

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Research and Development (R&D)
Tom Rudd Unit, Moorgreen Hospital
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Sponsor type
Hospital/treatment centre

ROR
https://ror.org/03qesm017

Funder(s)

Funder type
Industry

Funder Name
Novo Nordisk

Alternative Name(s)
Novo Nordisk Global

Funding Body Type
Private sector organisation

Funding Body Subtype
For-profit companies (industry)

Location
Denmark

Results and Publications

Publication and dissemination plan
Results of the study will be submitted for publication in peer-reviewed journals (likely target journals include Diabetes Care, Diabetic Medicine, Lancet Psychiatry, British Journal of Psychiatry, Journal of Obesity, International Journal of Obesity) and for presentation at national and international scientific, medical and nursing conferences in 2020 (International Conference of the Royal College of Psychiatry, World Psychiatric Association, European Congress of Obesity). At a local level, results will be shared with clinicians and commissioners in a seminar to be held in Hampshire. The researchers will disseminate the results to mental health charities e.g. Rethink Mental Illness & Mind and to Diabetes UK for inclusion in their patient magazines.

Intention to publish date
01/08/2020

Individual participant data (IPD) sharing plan
The datasets generated during and/or analysed during the current study are/will be available upon request from Clare Whicher (clare.whicher@southernhealth.nhs.uk) from 01/04/2020.

IPD sharing plan summary
Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
HRA research summary			28/06/2023	No	No