# Mirtazapine for treatment resistant depression

Submission date	Recruitment status  No longer recruiting	[X] Prospectively registered			
20/09/2012		[X] Protocol			
Registration date	Overall study status Completed Condition category	Statistical analysis plan			
20/09/2012		[X] Results			
Last Edited		Individual participant data			
17/12/2018	Mental and Behavioural Disorders				

#### Plain English summary of protocol

Background and study aims

Depression is common and most depressed patients are treated by their general practitioner (GP). Antidepressants are very widely prescribed, but a substantial proportion of those who take them do not get better. There is very little evidence to guide GPs when this happens, and most are unsure what to do when their patients do not respond to the medication. Many patients remain in a depressed state for long periods of time, despite taking antidepressant treatment. We are looking for other ways to help those whose depression does not respond to initial treatment, and we think that it might be useful to use combinations of antidepressant drugs. Combination treatments are used in many areas of medicine, including other common conditions such as hypertension and diabetes. Most of the antidepressants prescribed in the UK as first line treatment are Selective Serotinin Reuptake Inhibitors (SSRIs) like Fluoxetine (Prozac). However, there is another well-established antidepressant called Mirtazapine, that works in a different way from SSRIs and the related noradrenaline reuptake inhibitors (SNRIs). We propose a large study in general practice, where most depression is treated, to examine the effectiveness and cost-effectiveness of the combination of mirtazapine and an SSRI or SNRI.

## Who can participate?

Patients from primary care who are depressed and have taken an SSRI or SNRI antidepressant for at least six weeks without substantial benefit. They must be aged between 18 and 75 and must not be suffering from a psychotic disorder or be dependent on drugs and alcohol. They must not be pregnant.

#### What does the study involve?

Participants who agree will be randomly allocated to receive either mirtazapine treatment or a dummy drug (placebo) that appears identical. Neither the participant, GP, or study investigator will know whether the participant is taking mirtazapine or placebo. They will continue to take their SSRI antidepressant and be treated by their GP in the usual way.

#### What are the possible benefits and risks of participating?

If it proves effective, this combination has the potential to rapidly make a difference for people with depression that does not respond to usual first line antidepressant treatment. Mirtazapine has been licensed in the UK for the treatment of depression since 1994, and its adverse effect

profile is well known. Its principal effects are increase in appetite, weight gain and drowsiness. Mirtazapine continues to be used in psychiatric settings in combination with other antidepressants without the reporting to date of any unexpected or new adverse events.

Where is the study run from?

Bristol University. The other participating centres are the Universities of Exeter, Manchester and York.

When is study starting and how long is it expected to run for? The study begins in January 2013 and will run for 42 months

Who is funding the study?
NIHR Health Technology Assessment Programme (HTA)

Who is the main contact? Dr David Kessler david.kessler@bristol.ac.uk

# Contact information

#### Type(s)

Scientific

#### Contact name

Dr David Kessler

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# Additional identifiers

Protocol serial number HTA 11/129/76

# Study information

Scientific Title

A double blind placebo-controlled randomised trial of the addition of mirtazapine for patients with depression in primary care who have not responded to at least 6 weeks of treatment with a selective serotonin reuptake inhibitor or serotonin and noradrenaline reuptake inhibitor.

#### Acronym

MIR

#### **Study objectives**

That the addition of mirtazapine will improve outcome in depressed patients from primary care who have not responded to an SSRI antidepressant after at least 6 weeks of treatment.

#### Ethics approval required

Old ethics approval format

#### Ethics approval(s)

South East Wales Research Ethics Committee C, 25/01/2013, ref: 12/WA/0353

#### Study design

A two parallel group multi-centre pragmatic placebo-controlled randomised trial with allocation at the level of the individual

#### Primary study design

Interventional

#### Study type(s)

Treatment

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

Depression

#### Interventions

The addition of Mirtazapine to SSRI antidepressants

#### Added 27/07/2017:

To investigate whether combining mirtazapine with Serotonin-Noradrenaline Reuptake Inhibitor (SNRI) or Selective Serotonin Reuptake Inhibitor (SSRI) antidepressants results in better patient outcomes and more efficient NHS care than SNRI or SSRI therapy alone in Treatment Resistant Depression (TRD).

Design: MIR is a two-parallel group, multi-centre, pragmatic, placebo controlled, randomised trial with allocation at the level of the individual.

Interventions: Participants are randomised to receive either oral mirtazapine or matched placebo, starting at 15mg daily for two weeks and increasing to 30mg daily thereafter, for up to 12 months to be taken in addition to their usual antidepressant.

#### Intervention Type

Drug

#### Phase

Not Applicable

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

Mirtazapine

#### Primary outcome(s)

Change in Beck Depression Inventory score at 12 weeks (added 27/07/2017: measured using the BDI-I) measured as a continuous variable

#### Key secondary outcome(s))

Current secondary outcome measures:

The following are measured at 12, 24, and 52 weeks:

- 1. Response
- 2. Remission of depression symptoms
- 3. Changes in anxiety symptoms
- 4. Adverse Effects
- 5. Quality of life
- 6. Adherence to antidepressant medication
- 7. Health and social care use
- 8. Time off work
- 9. Cost effectiveness

All outcomes are analysed on an intention to treat basis.

Previous secondary outcome measures:

- 1. 50% improvement in BDI score (remission)
- 2. A measure of anxiety (GAD7)
- 3. Quality of life (EQ-5D-5L)
- 4. Health care utilisation

#### Completion date

30/06/2016

# Eligibility

#### Key inclusion criteria

- 1. Aged 18-75 years
- 2. Currently taking any of the following SSRI or SNRI antidepressants, for at least 6 weeks at recommended (BNF) doses:
- 2.1. Fluoxetine
- 2.2. Sertraline
- 2.3. Citalopram
- 2.4. Escitalopram
- 2.5. Fluvoxamine
- 2.6. Paroxetine
- 2.7. Duloxetine
- 2.8. Venlafaxine and who have done so for at least 6 weeks at
- 3. Patients who score 14 or more on the Beck Depression Inventory (BDI)
- 4. Patients who have adhered to their medication and meet ICD-10 criteria for depression (assessed using the Computerised Interview Schedule Revised version (CIS-R))

#### Participant type(s)

Patient

### Healthy volunteers allowed

No

#### Age group

Adult

#### Lower age limit

18 years

#### Upper age limit

75 years

#### Sex

All

#### Key exclusion criteria

GPs will be asked to exclude patients who have bipolar disorder, psychosis or alcohol/substance abuse/dependence or who are pregnant. In addition, we will exclude patients who: are not able to complete the study questionnaires or have a past history of an adverse reaction to mirtazapine.

#### Date of first enrolment

01/01/2013

#### Date of final enrolment

30/06/2016

# Locations

#### Countries of recruitment

United Kingdom

England

# Study participating centre University of Bristol

Bristol United Kingdom BS8 2BN

# Study participating centre University Of Exeter Medical School

St Lukes Campus Magdalen Road Exeter United Kingdom EX1 2LU

### Study participating centre Keele University

Primary Care And Health Sciences Keele United Kingdom ST5 5BG

## Study participating centre Hull York Medical School

Cottingham Road Hull United Kingdom HU6 7RX

# Sponsor information

#### Organisation

University of Bristol (UK)

#### **ROR**

https://ror.org/0524sp257

# Funder(s)

# Funder type

Government

#### **Funder Name**

Health Technology Assessment Programme

#### Alternative Name(s)

NIHR Health Technology Assessment Programme, Health Technology Assessment (HTA), HTA

#### **Funding Body Type**

Government organisation

#### **Funding Body Subtype**

National government

#### Location

United Kingdom

# **Results and Publications**

## Individual participant data (IPD) sharing plan

The current data sharing plans for the current study are unknown and will be made available at a later date

## IPD sharing plan summary

Data sharing statement to be made available at a later date

## **Study outputs**

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	31/10/2018		Yes	No
Results article	results	01/11/2018		Yes	No
Results article	qualitative study results	14/12/2018		Yes	No
<u>Protocol article</u>	protocol	03/02/2016		Yes	No
HRA research summary			28/06/2023	No	No
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes