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Injectable versus oral opioid maintenance treatment for heroin addicts currently failing to benefit from standard treatment: a three way Randomised Controlled Trial (RCT) of injectable heroin versus injectable methadone versus oral methadone maintenance

Submission date
14/09/2007

Recruitment status
No longer recruiting

Registration date
27/09/2007

Overall study status
Completed

Last Edited
26/09/2014

Condition category
Mental and Behavioural Disorders

[ ] Prospectively registered
[ ] Protocol
[ ] Statistical analysis plan
[X] Results
[ ] Individual participant data

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Scientific

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Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers
KCL/SLaM-CT2004-3

Study information

Scientific Title

Acronym
RIOTT (Randomised Injectable Opioid Treatment Trial)

Study objectives
The research objective of the trial is to examine the safety, efficacy and cost effectiveness of treatment with injectable methadone or injectable heroin compared to optimised oral methadone treatment, for patients not responding to their current oral maintenance treatment episode.

Hypotheses:
1. A selected group of patients (not responding to usual oral methadone treatment) receiving injectable heroin treatment or injectable methadone treatment, will make greater reductions in their illicit heroin use, other drug use and criminal activity and greater improvements in their health and social functioning, than if provided with optimised oral methadone treatment
2. Providing injectable heroin or injectable methadone to a selected group of patients (not responding to usual oral methadone treatment) results in a greater economic benefit per extra unit of resource invested in the treatment, than only offering optimised oral methadone

Ethics approval required
Old ethics approval format

Ethics approval(s)
1. Institute of Psychiatry Ethics Committee for single-site study, 26/02/2004, ref: 291/03
2. London MREC for multi-site study, 03/06/2006, ref: 06/MREC02/22

Study design
Multi-site open-label randomised controlled trial to compare the safety, efficacy and cost-effectiveness of prescribing injectable opiates versus optimised oral methadone

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
Opiate dependence/addiction

Interventions
Patients randomised to receive optimised oral methadone treatment will receive methadone treatment under enhanced conditions. The intervention will include high methadone doses (at least 80 mg), supervised dispensing of medications contingent upon levels of unsanctioned drug use (daily supervised dosing initially), and patients will be expected to attend for regular key worker and medical appointments. Methadone is a semi-synthetic opioid used in the treatment of opioid drug dependence to prevent opioid withdrawal syndrome by substituting for heroin.

The injectable methadone group will receive treatment with once-daily injectable (intraveous [IV] /intramuscular [IM]) methadone ampoules. There will be full supervision of all injected doses. Patients will be expected to attend for regular key worker and medical appointments. Patients will be able to supplement their injectable methadone dose with prescribed oral methadone doses. Methadone Hydrochloride B.P. for injection is a colourless, preservative and oxidant free solution in clear glass ampoules.

Those receiving injectable heroin will receive treatment with injectable (IV/IM) heroin ampoules, administered under supervision up to twice a day. Patients will be expected to attend for regular key worker and medical appointments. Patients will be able to supplement their injectable heroin dose with prescribed oral methadone doses. Diacetylmorphine hydrochloride (Diamorphine hydrochloride, heroin hydrochloride, heroin) is a opioid used in the treatment of opioid drug dependence. All injections are supervised in the clinic.

All those receiving injectable treatment or optimised oral methadone treatment will receive named keyworker and frequent reviews and ancillary services. The total duration of treatment and follow-up is 6 months.

Intervention Type
Drug

Phase
Not Specified

Drug/device/biological/vaccine name(s)
Heroin, methadone

Primary outcome measure
Reduction in illicit heroin, measured by urine drug screens taken on a weekly basis over 6 months.

Secondary outcome measures
Self-reported to researcher at baseline, 3 months and 6 months (in or out of treatment):
1. Changes in illicit heroin use:
1.1. Number of days used illicit heroin in past 30 days

1.2. No days injected/smoked/snorted illicit heroin in past 30 days
1.3. Average cost of illicit heroin on days used
1.4. Frequency of use in past month, as measured by the Drug Use Section of Opiate Treatment Index (OTI Q score)
2. Changes in other illicit opiate drug use (non-prescribed):
2.1. Injectable opioid pharmaceuticals (methadone, heroin)
2.1.1. Days used in past 30 days
2.1.2. Average cost
2.1.3. Estimate quantity on average day of use
2.2. Oral methadone/morphine:
2.2.1. Days used in past 30 days
2.2.2. Average cost
2.2.3. Estimate quantity on average day of use
2.3. Codeine/codeine like preparations:
2.3.1. Days used in past 30 days
2.3.2. Average cost
2.3.3. Estimate quantity on average day of use
3. Changes in illicit cocaine use:
3.1. Number of days used crack/cocaine in past 30 days
3.2. No days injected/smoked/snorted in past 30 days
3.3. Average cost of cocaine on days used
4. Other illicit drug use and alcohol - benzodiazepines, alcohol, cannabis:
4.1. No days used past 30 days
4.2. Average quantities consumed (estimated as diazepam mg equivalents; units alcohol; grams cannabis)
4.3. Average cost of each drug used on average day
5. Changes in high-risk injecting practices:
5.1. Participation in risk practices for blood borne virus transmission in preceding month using the Injecting Risk Questionnaire, with responses pegged according to number of times occurred in the past month
5.2. Assessment of injecting practices using self-report scale developed for the trial
6. Changes in general health status:
6.1. 36-item Short Form health survey (SF-36)
6.2. Euro-QoL instrument (EQ-5D)
7. Changes in psychosocial functioning:
7.1. 36-item Short Form health survey (SF-36)
7.2. Euro-QoL instrument (EQ-5D)
7.3. Psychosocial Adjustment Section of the OTI
8. Changes in criminality: self-report using adapted OTI Crime Section of MAP
9. Use of other health and social services: health, social and voluntary sector services used, days off work due to illness, criminal justice sector contacts - adapted REDUCE questionnaire for cost effectiveness analysis
10. Measures of patient expectation of and satisfaction with treatment
10.1. Treatment Perceptions Questionnaire
10.2. Drug Use, Expectations and Satisfaction Questionnaire to measure benefits and problems with using street heroin (developed for the trial) and expectations and satisfaction of treatment received whilst on trial (developed for trial)

In addition, we are monitoring injecting practices and complications, any post dosing side effects and serious and non-serious adverse event data and collecting data on retention.

Overall study start date

01/07/2004

Completion date
30/06/2008

Eligibility

Key inclusion criteria
The selection criteria targets heroin users with a long-standing history of injecting heroin use who continue to inject heroin frequently whilst in their current episode of methadone treatment. Selection criteria include:
1. History of injecting heroin use sufficient to meet Diagnostic and Statistical Manual of Mental Disorders, 4th edition (DSM-IV) criteria
2. Aged between 18 and 65 years at recruitment to study
3. In continuous methadone treatment for at least 6 months this episode
4. Regular injecting heroin use

Participant type(s)
Patient

Age group
Adult

Lower age limit
18 Years

Upper age limit
65 Years

Sex
Both

Target number of participants
150

Key exclusion criteria
1. No active significant medical (e.g., hepatic failure) or psychiatric condition (active psychosis, severe affective state) as determined by study medical officer
2. Not alcohol dependent or abusing benzodiazepines according to DSM-IV revised criteria
3. Not pregnant, breast feeding, or planning to become pregnant during the study period
4. Able and willing to participate in the study procedures (e.g., no impending prison sentence) and provide informed consent

Date of first enrolment
01/07/2004

Date of final enrolment
30/06/2008

Locations

Countries of recruitment
England

United Kingdom

Study participating centre
National Addiction Centre
London
United Kingdom
SE5 8AF

Sponsor information

Organisation
South London and Maudsley NHS Foundation Trust and Kings College London (UK)

Sponsor details
c/o Dr Gill Dale
Director of Research Quality
Joint R&D Office of South London and Maudsley NHS Foundation Trust and Institute of Psychiatry
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Sponsor type
Hospital/treatment centre

Website
http://www.kcl.ac.uk/

ROR
https://ror.org/015803449

Funder(s)

Funder type
Charity

Funder Name
Action on Addiction (UK) - Big Lottery Fund (research part of trial) (ref: PR/1/010256258)

Funder Name
National Treatment Agency (UK) - clinical part of trial (ref: 2007/08)

Results and Publications

Publication and dissemination plan
Not provided at time of registration

Intention to publish date

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not provided at time of registration

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	29/05/2010		Yes	No
Results article	secondary outcome results	01/03/2015		Yes	No