Supervised heroin treatment for refractory chronic heroin addicts: the RIOTT research

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Disclaimer

* Reckitt-Benckiser, Martindale
Operating costs

- Optimised oral methadone maintenance – c 5k pppa
- Supervised injectable methadone maintenance – c 10k pppa
- Supervised injectable heroin maintenance – c 15k pppa
- .....
Entrenched heroin addicts who have repeatedly been found to fail to benefit from existing treatments (despite treatment, continuing to inject heroin on all/most days per month)
Injecting heroin
User in opioid
Maintenance
Treatment for 6 months

Diamorphine iv/im +/- oral methadone

Methadone Ampoules iv/im +/- oral methadone

Enhanced Oral Methadone
## Primary outcome measure

<table>
<thead>
<tr>
<th>Primary outcome</th>
<th>Measures</th>
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</thead>
<tbody>
<tr>
<td>Reduction in street heroin use</td>
<td>The proportion of subjects in each group who cease regular street heroin use</td>
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### Outcome measures

<table>
<thead>
<tr>
<th>Secondary outcomes</th>
<th>Measures</th>
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<tbody>
<tr>
<td>Other illicit drug use</td>
<td>UDS &amp; self-report</td>
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<tr>
<td>Treatment retention</td>
<td>Clinic records (&amp; self report)</td>
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<tr>
<td>Injecting practices</td>
<td>Frequency, risk &amp; complications</td>
</tr>
<tr>
<td>Psychosocial functioning &amp; Quality of Life Measures</td>
<td>SF-36, EQ-5D, OTI</td>
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<tr>
<td>Crime</td>
<td>Self-report (drug related expenditure &amp; criminal activity)</td>
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<tr>
<td>Safety</td>
<td>Adverse events</td>
</tr>
<tr>
<td>Patient satisfaction</td>
<td>Semi-structured Q’s</td>
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<tr>
<td>Cost effectiveness</td>
<td>Service costs (internal &amp; external)</td>
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Retention

The graph illustrates the retention percentages over time for different treatment methods. The x-axis represents weeks, ranging from 0 to 28. The y-axis shows the percentage retention, ranging from 0 to 100.

- Injectable Methadone: represented by a dashed blue line.
- Injectable Heroin: represented by a solid red line.
- Oral Methadone: represented by a dashed green line.

The retention percentages for Injectable Methadone and Injectable Heroin remain relatively stable over the 28-week period. Oral Methadone shows a decrease in retention percentages, indicating a potential decline in adherence over time.

Overall, the graph highlights the differences in retention rates among the three treatment methods, with Injectable Methadone and Injectable Heroin maintaining higher retention rates compared to Oral Methadone.
Treatments to be investigated

- Supervised Injectable Heroin (SIH)
- Supervised Injectable Methadone (SIM)
- Optimised Oral Methadone (OOM)
Primary outcome

Retention in treatment  X

Reducing/quitting ‘street heroin’

Other drug use; well-being;

Criminal behaviour  ?

Wider recovery
‘responder’ or ‘abstinent’?

Major reduction in frequency of use of ‘street heroin’

Completely abstinent from ‘street heroin’
Which measure of primary outcome?

- Urine test results
- Observations and measurements
- Self-report
To begin at the end

Four important conclusions, as I see them

- SIH (heroin) group strongest achievement
- SIM (inj methadone) better than control group
- OOM (optimised oral) – notable benefit
- Rapid onset of benefit and gain
RIOTT - data on ‘responders’ and ‘non-responders’ – broken down as % - at Months 4-6 (OOM, SIM, SIH)
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RIOTT treatment group

- non-responder
- responder - only one dirty
- responder - all clean

<table>
<thead>
<tr>
<th></th>
<th>OOM</th>
<th>SIM</th>
<th>SIH</th>
</tr>
</thead>
<tbody>
<tr>
<td>non-responder</td>
<td>72</td>
<td>67</td>
<td>54</td>
</tr>
<tr>
<td>responder - only one dirty</td>
<td>7</td>
<td>31</td>
<td>19</td>
</tr>
<tr>
<td>responder - all clean</td>
<td>2</td>
<td></td>
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</table>
So how substantial a benefit are we talking about?
The NNT calculation: (Number-Needed-to-Treat)

NNT

- SIH vs OOM: 2.1
- SIM vs OOM: 9.1
- SIH vs SIM: 2.8
Percentage of participants not using illicit heroin by week (ITT sample)
How real an issue? SAEs

- Injected diamorphine –
  - 2 x rapid overdose requiring emergency naloxone as well as oxygen (incl. unconscious and unrousable)

- Injected methadone –
  - 1 x rapid overdose requiring emergency naloxone plus oxygen
RIOTT Research conclusions

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