Primary care prescribing of ADHD & psychotropic medication amongst young people with ADHD in the Clinical Practice Research Datalink: 2005-2014

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Aim:
to understand recent trends in primary care prescribing in ADHD – in order to shape training and practice

• Research questions
  • Describe prescribing prevalence of ADHD medication and other psychotropic medications amongst young people with ADHD
  • Examine medication cessation using survival analysis: time to cessation of medication amongst young people aged 16
## Impact of ADHD

<table>
<thead>
<tr>
<th>Category</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risky behaviours</td>
<td>Accidents, Substance misuse</td>
</tr>
<tr>
<td>Social/occupational functioning</td>
<td>Education, Employment, Relationships</td>
</tr>
<tr>
<td>Psychiatric comorbidities</td>
<td>Anxiety and depression, Conduct disorders</td>
</tr>
<tr>
<td>Core symptoms</td>
<td>Inattention, Impulsivity, Hyperactivity</td>
</tr>
</tbody>
</table>
Not just a condition of childhood

- Symptoms persist in the majority of people with ADHD at age 25
- ADHD medication is also effective in adults - evidence that outcomes are improved in treated vs. untreated ADHD
- CADDY study: between 16 and 17, the proportion of patients stopping treatment was twice that which would be expected

- What happens over the transition period?
Transition: a time of increased vulnerability

- Many simultaneous transitions
- Emerging disorders
- Who takes on management of ADHD after age 18?
- ‘Twilight zone’

But:

- Increasing focus on transition
- NICE guidance 2008
Study design

- Dataset from the Clinical Practice Research Datalink
- Study period 2005-2013
  - Cases with an ADHD diagnosis coded in their records
  - Aged 10-20 at start and 18-28 at end
  - Follow-up data for 5 or more years available on 66%

Study cohort n=9390

<table>
<thead>
<tr>
<th>Year</th>
<th>Age of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>10 11 12 13 14 15 16 17 18 19 20</td>
</tr>
<tr>
<td>2006</td>
<td>11 12 13 14 15 16 17 18 19 20 21</td>
</tr>
<tr>
<td>2007</td>
<td>12 13 14 15 16 17 18 19 20 21 22</td>
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<tr>
<td>2008</td>
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<tr>
<td>2009</td>
<td>14 15 16 17 18 19 20 21 22 23 24</td>
</tr>
<tr>
<td>2010</td>
<td>15 16 17 18 19 20 21 22 23 24 25</td>
</tr>
<tr>
<td>2011</td>
<td>16 17 18 19 20 21 22 23 24 25 26</td>
</tr>
<tr>
<td>2012</td>
<td>17 18 19 20 21 22 23 24 25 26 27</td>
</tr>
<tr>
<td>2013</td>
<td>18 19 20 21 22 23 24 25 26 27 28</td>
</tr>
</tbody>
</table>
Study methods

Descriptive analysis

• Prescribing prevalence by age band & by year:
  • ADHD medication
  • Psychotropic medication (antidepressants, anxiolytics, antipsychotics etc.)

Survival analysis

• Cases with at least 6 months of ADHD prescriptions prior to 16\textsuperscript{th} birthday (n=1620)
• Start point: 16\textsuperscript{th} birthday
• Cessation: at least 6 months gap in prescriptions
• End point: 1\textsuperscript{st} Jan 2014
• Kaplan-Meier estimates
Percentage of cases in each age band with at least one prescription, with 95% confidence intervals
Rise in prescribing of ADHD medication over time

Percentage of cases with at least one ADHD prescription vs. Age band for the years 2005 to 2013.
Median time to cessation – 1.5 years
Key Limitations

- Captures only primary care prescribing
- No coded information on severity, socio-economic class
- No coded reason for stopping
- Censoring
Summary and implications
Summary I

- ADHD prescribing declines sharply over transition period, whilst psychotropic prescriptions rise
  - Role of comorbidities
  - Medication substitution?
Summary II

- Secular trends – ADHD prescribing prevalence in all age groups has risen over time
  - Influence of guidance
  - Changing attitudes
Summary III

- Medication persistence remains lower than the estimated persistence of symptoms
  - Patient choice vs barriers to continuation
  - Factors influencing cessation
Implications: how to improve management through transition and beyond?

- Training
- Shared care/sustainable services
- Understanding and supporting patient decision making
- Evaluating service models
Thank you
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Key References


