Resources

The following resources are available at:

- Stimulant Regulatory Scheme
- Schedule 8 medicines prescribing code

The following are available from the State Law Publisher at www.slp.wa.gov.au:

- Medicines and Poisons Act 2014
- Medicines and Poisons Regulations 2016

Contacts

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WA 6849

Tel: (08) 9222 2483
Fax: (08) 9222 2463
Email: stimulants@health.wa.gov.au

Data Source

Monitoring of Drugs of dependence System (MODDS), Medicines and Poisons Regulation Branch, Department of Health WA
Introduction

To promote quality, safety and efficacy in patients, the prescribing of stimulant medicines (dexamphetamine, lisdexamfetamine and methylphenidate) is strictly controlled by the Medicines and Poisons Regulations and is subject to the controls in the Schedule 8 medicines prescribing Code – Part 4. The Schedule 8 medicines prescribing Code (the Code) also outlines the standard conditions e.g. ADHD for prescribing.

Background

The Stimulant Regulatory Scheme sets the policy for the prescribing and dispensing of stimulant medicines (dexamphetamine, lisdexamfetamine and methylphenidate) in Western Australia (WA). Clinical criteria for prescribing of stimulant medicines in WA are set out in the Schedule 8 medicine prescribing code (the Code), published by the Director General of the Department of Health. The Code is issued under provisions of the Medicines and Poisons Act 2014 and the Medicines and Poisons Regulations 2016.

This is the thirteenth report of the data generated by the Scheme and reports on the period 1 January 2016 to 31 December 2016.

A more detailed analysis was performed on the cohort of patients prescribed stimulant medicines for the treatment of ADHD.
Prescribing of stimulant medicines is restricted to specialist medical practitioners who are authorised by the Western Australia (WA) Department of Health and are practising in WA. The figure outlines the number of approved specialists who are currently treating patients with ADHD in 2016.

Total number and percentage of active specialists in 2016 by speciality:

- Adult Neurologist 3 (1.1%)
- Adult Psychiatrist 100 (37.9%)
- Child and Adolescent Psychiatrist 33 (12.5%)
- Paediatric Neurologist 9 (3.4%)
- Paediatric Rehabilitation Physician 1 (0.4%)
- Paediatrician 112 (42.4%)
- Respiratory and Sleep Physician 6 (2.3%)
Number of patients dispensed medications for ADHD by gender (%)
The figures below outline the number and percentage of patients by gender and age with ADHD receiving treatment with stimulant medicines.

Total 21,840

- Female 7,007 (32%)
- Male 14,833 (68%)

Number of patients dispensed medications for ADHD by age (%)

Total 21,840

- Child (0-18) 8,857 (41%)
- Adult (>18) 12,983 (59%)
Specialist medical practitioners can nominate general practitioners who assist the specialist medical practitioners with prescribing using a shared care arrangement. The co-prescribers refer the patients back to the specialist medical practitioners for an annual review.

The figure below indicates the number of patients with ADHD who are being treated by a nominated co-prescriber.

Number of ADHD patients with a nominated co-prescriber by age

- **Child (0-18)**: 1,881
- **Adult (>18)**: 3,844
Public Sector Clinics (PSC) are situated at most hospitals and are available at most Child Development Centers. The PSCs register with the WA Department of Health. Notifications submitted to the Department, on behalf of the clinic, cover all approved specialists involved in the treatment of patients at the clinic. This allows the approved specialist medical practitioners at a particular clinic, who have access to patients’ notes to prescribe stimulant medicines, without having to notify the Department each time.

The figure below outlines the number of patients with ADHD who are being treated at Public Sector Clinics:

**Number of patients treated at a Public Sector Clinic by age**

- **Child (0-18):** 2,341
- **Adult (>18):** 359

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Treatment statistics

The figure below outlines the number of patients with ADHD in treatment from 2005 to 2016.

Number of patients dispensed medications for ADHD per year in proportion to the WA population

Note: The scale differs for the number of patients (1 = 0.006mm) and WA population (1 = 0.00007143mm) in this figure.

The Epidemiology Branch of Department of Health using EpiCalc 4.0 provided population denominators and estimated projections from data obtained from the Department of Planning, WA.

Note:* - that 2016 is a census year and all the inter-census data have been revised by ABS. 2015 will be an underestimate once it is recast based on 2016 census.
The table below outlines the number of patients (children vs adults) with ADHD treated with different stimulant medicines from 2004 to 2016.

### Number of children/adults being treated with specified medicine for ADHD per year

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
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<tbody>
<tr>
<td><strong>Children</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dexamphetamine</td>
<td>5,563</td>
<td>4,708</td>
<td>3,982</td>
<td>2,874</td>
<td>2,163</td>
<td>1,836</td>
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<tr>
<td>Lisdexamfetamine</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Methylphenidate</td>
<td>726</td>
<td>825</td>
<td>979</td>
<td>984</td>
<td>1,027</td>
<td>1,157</td>
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<tr>
<td>Methylphenidate long-acting</td>
<td>1,968</td>
<td>1,898</td>
<td>1,738</td>
<td>1,831</td>
<td>1,993</td>
<td>2,108</td>
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<tr>
<td>Combination</td>
<td>602</td>
<td>626</td>
<td>584</td>
<td>499</td>
<td>483</td>
<td>479</td>
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<tr>
<td><strong>Total</strong></td>
<td>8,859</td>
<td>8,057</td>
<td>7,283</td>
<td>6,188</td>
<td>5,666</td>
<td>5,580</td>
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<table>
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<tr>
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</thead>
<tbody>
<tr>
<td><strong>Adult</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dexamphetamine</td>
<td>5,792</td>
<td>6,092</td>
<td>6,340</td>
<td>6,209</td>
<td>6,276</td>
<td>6,914</td>
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<td>Lisdexamfetamine</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Methylphenidate</td>
<td>206</td>
<td>282</td>
<td>390</td>
<td>359</td>
<td>394</td>
<td>467</td>
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<tr>
<td>Methylphenidate long-acting</td>
<td>184</td>
<td>214</td>
<td>242</td>
<td>271</td>
<td>288</td>
<td>397</td>
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<tr>
<td>Combination</td>
<td>122</td>
<td>168</td>
<td>170</td>
<td>158</td>
<td>181</td>
<td>203</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>6,304</td>
<td>6,756</td>
<td>7,142</td>
<td>6,997</td>
<td>7,139</td>
<td>7,981</td>
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</table>

### Number of children/adults being treated with specified medicine for ADHD per year continued

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<td><strong>Children</strong></td>
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<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Dexamphetamine</td>
<td>1,567</td>
<td>1,429</td>
<td>1,226</td>
<td>1,241</td>
<td>1,267</td>
<td>1,220</td>
<td>1,043</td>
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<tr>
<td>Lisdexamfetamine</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>81</td>
<td>717</td>
<td>1,788</td>
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<tr>
<td>Methylphenidate</td>
<td>1,270</td>
<td>1,499</td>
<td>1,659</td>
<td>1,300</td>
<td>1,394</td>
<td>1,470</td>
<td>1,527</td>
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<tr>
<td>Methylphenidate long-acting</td>
<td>2,273</td>
<td>2,511</td>
<td>2,659</td>
<td>3,228</td>
<td>3,296</td>
<td>3,558</td>
<td>3,482</td>
</tr>
<tr>
<td>Combination</td>
<td>526</td>
<td>515</td>
<td>571</td>
<td>814</td>
<td>933</td>
<td>1,032</td>
<td>1,017</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>5,636</td>
<td>5,954</td>
<td>6,115</td>
<td>6,583</td>
<td>6,971</td>
<td>7,997</td>
<td>8,857</td>
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</table>

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<thead>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Adult</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dexamphetamine</td>
<td>7,296</td>
<td>7,599</td>
<td>8,237</td>
<td>8,795</td>
<td>9,318</td>
<td>9,850</td>
<td>9,732</td>
</tr>
<tr>
<td>Lisdexamfetamine</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>75</td>
<td>221</td>
<td>577</td>
</tr>
<tr>
<td>Methylphenidate</td>
<td>538</td>
<td>699</td>
<td>872</td>
<td>969</td>
<td>995</td>
<td>1,040</td>
<td>1,013</td>
</tr>
<tr>
<td>Methylphenidate long-acting</td>
<td>515</td>
<td>617</td>
<td>760</td>
<td>959</td>
<td>951</td>
<td>968</td>
<td>972</td>
</tr>
<tr>
<td>Combination</td>
<td>220</td>
<td>227</td>
<td>248</td>
<td>293</td>
<td>346</td>
<td>482</td>
<td>689</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>8,569</td>
<td>9,142</td>
<td>10,117</td>
<td>11,016</td>
<td>11,685</td>
<td>12,561</td>
<td>12,983</td>
</tr>
</tbody>
</table>

There has been a decrease in the number of patients being treated with dexamphetamine and methylphenidate, and an increase in number of patients being treated with long acting formulations e.g. lisdexamfetamine and methylphenidate long acting, since 2015.

**Note:** Lisdexamfetamine was listed on the Pharmaceutical Benefits Scheme in 2014 (PBS)
Prevalence statistics

Rates - patients dispensed medications for ADHD by gender, 2016

- Males per 1,000: 11.3 (14,833)
- Females per 1,000: 5.5 (7,007)
- Total per 1,000: 8.4 (21,840)

Rates - patients dispensed medications for ADHD by age, 2016

- Children per 1,000 (0-18): 14.2 (14,833)
- Adults per 1,000 (>18): 6.6 (6,200)

Rates - patients dispensed medications for ADHD by region, 2016

- Metro per 1,000: 6.2
- Country per 1,000: 6.2
- Total per 1,000: 9.1
Stimulant Induced Psychosis statistics

Stimulant Induced Psychosis is a prescribed condition of health under the *Health (Notification of Stimulant Induced Psychosis) Regulations 2010*. A psychiatrist who makes a definite diagnosis of Stimulant Induced Psychosis must inform the Chief Executive Officer (CEO) of the Department of Health within 72 hours.

There were 19 reported cases of Stimulant Induced Psychosis in 2016.

Since introduction of the *Regulations* in 2010, there have been 108 cases reported (42 females and 66 males).

Number of cases reported for Stimulant Induced Psychosis

- 19 total in 2016
  - 2 Females
  - 17 Males

- 108 since 2010
  - 42 Females
  - 66 Males

The stimulant medication that precipitated the episode of Stimulant Induced Psychosis is outlined below:

Number of cases reported for Stimulant Induced Psychosis

- 16 Dexamphetamine
- 2 Methylphenidate
- 1 Long-acting methylphenidate
The Stimulant Assessment Panel (the Panel) is established as a Ministerial advisory board under the Health Legislation Administration Act 1984.

The Panel comprises nine appointed members, inclusive of the chair. Six appointments are specialist clinicians (psychiatrist, paediatrician and addiction medicine specialist), nominated by the respective professional college. Three members are public sector employees, including a public health physician and two officers with regulatory expertise in stimulant medicines. It is chaired by a senior public sector employee and executive support to the Panel is provided by the Medicines and Poisons Regulation Branch.

Prescribing of stimulants outside the criteria of the Code requires approval of the Chief Executive Officer (CEO). Decisions on approval to prescribe outside the Code are made by the Delegate of the CEO. The Delegate may refer a request for approval to the Panel who will make a recommendation on which the Delegate may base their decision.

Diagnostic statistics - 2016

Requests outside the Code typically include those patients with a history of substance abuse, co-morbid mental health disorders (e.g. psychosis), doses over the maximum specified by the Code, or use in very young children. The number of patients for each reason for approval outside the Code is outlined in the following statistics:

Number of applications to the Panel by reason

- Substance abuse = 138
- Psychiatric co morbidity = 82
- Drug Dependent Person = 36
- 15-17 by adult specialist = 12
- <4 = 0
- Non-standard diagnosis = 2
- High dose = 5
- Other = 7

The total number of patients reviewed by the Panel in 2016 is greater than the number of applications as some patients present with multiple co-morbidities such as substance abuse and psychosis or bipolar disorder.
Outcome statistics - 2016

Total number of applications received during 2016

<table>
<thead>
<tr>
<th>Year</th>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>63</td>
</tr>
<tr>
<td>2011</td>
<td>98</td>
</tr>
<tr>
<td>2012</td>
<td>106</td>
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<td>2013</td>
<td>70</td>
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<tr>
<td>2014</td>
<td>102</td>
</tr>
<tr>
<td>2015</td>
<td>152</td>
</tr>
<tr>
<td>2016</td>
<td>207</td>
</tr>
</tbody>
</table>

The Panel members follow a strict protocol in assessing applications for authorisation and each case is reviewed on a case by case basis. In 2016, 59% of the applications are approved as per the requests from specialist medical practitioners.

Where the applications are not approved for the requested stimulant medicine, the Panel recommends the most appropriate medication. The Panel approves prescribing for patients where extra measures to reduce potential for harm to the patient are undertaken. Extra measures include a requirement to prescribe stimulant medicines and formulations that are less likely to be misused like long acting preparations and the medicines to be dispensed from a Pharmacy weekly or daily.

Re-applications can be referred to the Panel for increases in dose or with further information.
Patient statistics - 2016

Number of applications to the Panel by gender

- Male (61%) = 127
- Female (39%) = 80
- Total = 207

Number of applications to the Panel by age

- Adults (>18) = 191 (92%)
- Children (0-17) = 16 (8%)
- Total = 207

Number of applications to the Panel by age group

- <4: 0
- 4-15: 5
- 16-25: 32
- 26-35: 70
- 36-45: 69
- 46-55: 25
- 56-65: 6
- >65: 0

Number of applications received = 207