Attention Deficit Hyperactivity Disorder: Utilisation Analysis

Drug utilisation sub-committee (DUSC)

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Abstract

Purpose

To review the utilisation of Pharmaceutical Benefits Scheme and Repatriation Pharmaceutical Benefits Scheme (R/PBS) listed medicines used in the management of attention deficit hyperactivity disorder (ADHD). This includes a predicted versus actual analysis of lisdexamfetamine in the first 24 months of R/PBS listing. Lisdexamfetamine was first R/PBS-listed for this indication on 1 September 2015.

Date of listing on the Pharmaceutical Benefits Scheme (PBS)

- Dexamfetamine - 1 December 1973
- Methylphenidate immediate release (IR) - 1 August 2005
- Methylphenidate modified release (MR) (Concerta®) - 1 April 2007
- Methylphenidate modified release (MR) (Ritalin LA®) - 1 April 2008
- Atomoxetine - 1 July 2007 requiring authority approval. On 1 August 2014, the restriction was simplified and changed to streamlined authority
- Lisdexamfetamine - 1 September 2015

Subsidy of lisdexamfetamine, atomoxetine and the two modified-release forms of methylphenidate (Ritalin LA® and Concerta®) is limited to patients diagnosed between the ages of 6 and 18 years of age inclusive. In addition, for modified-release methylphenidate, patients need to have demonstrated a response to immediate-release methylphenidate with no emergence of adverse events. Lisdexamfetamine and Concerta® are for patients requiring coverage over 12 hours. Ritalin LA® is for patients requiring coverage over 8 hours.

Atomoxetine is subsidised for patients unable to take dexamfetamine, lisdexamfetamine or methylphenidate due to specific circumstances set out in the PBS restriction. Patients need to have been diagnosed by a paediatrician or psychiatrist according to the DSM-5 criteria.

Data Source / methodology

The analysis used data from the Department of Human Services (DHS) supplied prescriptions database.

Table 4. Number of new patients treated with PBS-listed ADHD medicines by age group and gender per calendar year

	2015	2016	2017
<6 years male	1,646	1,796	1,990
<6 years female	450	471	499
6-12 years male	11,719	12,607	13,617
6-12 years female	3,389	3,753	4,310
13-17 years male	2,485	2,510	2,809
13-17 years female	1,224	1,296	1,482
18+ years male	5,736	6,370	6,859
18+ years female	3,680	4,106	4,787
Unknown	7	<=5	<=5
Total New patients	**30,336**	**32,914**	**36,357**
% growth from previous year		8.5%	10.5%

Source: DHS prescriptions database, extracted February 2018. Unknown denotes age and sex not available in the data. Patient counts may be slightly perturbed to protect confidentiality.

Table 5. Total number of patients treated with PBS-listed ADHD medicines by age group and gender per calendar year

	2013	2014	2015	2016	2017
<6 years male	2,226	2,277	2,334	2,518	2,807
<6 years female	521	516	619	653	676
6-12 years male	38,216	40,870	45,506	50,726	55,880
6-12 years female	9,716	10,471	11,672	13,312	15,195
13-17 years male	19,310	19,793	21,129	22,729	24,916
13-17 years female	5,397	5,742	6,314	6,996	7,871
18+ years male	23,500	25,088	27,898	31,508	35,022
18+ years female	13,634	14,727	16,632	18,834	21,583
Unknown	77	73	79	16	33
Total New patients	**112,597**	**119,557**	**132,183**	**147,292**	**163,983**
% growth from previous year		6.2%	10.6%	11.4%	11.3%

Source: DHS prescriptions database, extracted February 2018. Unknown denotes age and sex not available in the data.

Children aged 6-12 years constituted 40% of all patients treated with ADHD medicines from 2013 to 2017. In addition, over the same period, approximately two thirds of patients supplied PBS ADHD medicines were less than 18 years of age.

The average annual growth rate between 2013 and 2017 differed slightly in males and females; with females at a higher rate of 11.6% and males at 9.3%. The ratio of males to females receiving an ADHD medicine gradually decreased from 2.8 in 2013 to 2.6 in 2017.

Figure 6 depicts the age distribution of patients new to PBS-subsidised ADHD therapy in 2017 by the first ever ADHD medicine they were supplied. Figure 7 shows the age distribution for all patients supplied an ADHD medicine in 2017 by medicine. In Figure 7,