

## PI Switches in AHOD

Requested by: Industry

### Use of data

The data will be used internally to populate patients forecast models for business planning, which includes stock requirement forecasting, and to assist in the planning of appropriate HCP support materials. It may also be used in future PBAC submissions.

### Background

In this report, treatment switches are defined as the addition of 2 or more new agents and/or a change in class in patients who have commenced antiretroviral treatment.

This excludes commencements by treatment naïve patients but includes other commencements or cessations of treatment other than resulting from death.

Multiple switches per patient were recorded.

Calendar years are reported.

Source data is the Australian HIV Observational Database (AHOD) up to 31 March 2010.

**Table A.1 All switches in AHOD by year and switch type**

Switch type	2007 n (%)	2008 n (%)	2009 n (%)
PI Switch	384 (68)	345 (67)	255 (63)
Non PI switch	178 (32)	173 (33)	149 (37)
<b>Total</b>	<b>562 (100)</b>	<b>518 (100)</b>	<b>404 (100)</b>

**Table A.2 All switches in AHOD by year and switch number**

Switch number	2007 n (%)	2008 n (%)	2009 n (%)
1st	53 (9)	60 (12)	61 (15)
2nd	50 (9)	55 (11)	38 (9)
3rd	50 (9)	38 (7)	41 (10)
4th or more	409 (73)	365 (70)	264 (65)
<b>Total</b>	<b>562 (100)</b>	<b>518 (100)</b>	<b>404 (100)</b>

### PI regimen switches

Protease inhibitor (PI) switches to or from regimens containing PI were examined excluding those PI switches where a patient continued nucleoside/nucleotide reverse transcriptase inhibitor (NRTI) treatment. Data was tabulated by switch number, class change and calendar year from 2007 to 2009 (Table 1.1, Table 1.2 and Figure 1).

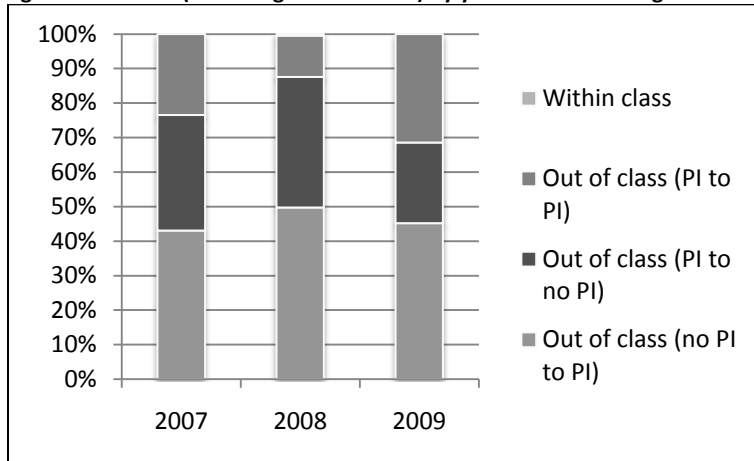
**Table 1.1 PI Switches (excluding NRTI to NRTI) by year and switch number**

Switch number	2007 n (%)	2008 n (%)	2009 n (%)
1st	14 (6)	10 (5)	12 (8)
2nd	18 (8)	10 (5)	12 (8)
3rd	15 (7)	11 (6)	13 (9)
4th or more	174 (79)	162 (84)	109 (75)
<b>Total</b>	<b>221 (100)</b>	<b>193 (100)</b>	<b>146 (100)</b>

**Table 1.2 PI Switches (excluding NRTI to NRTI) by year and class change**

Class change	2007 n (%)	2008 n (%)	2009 n (%)
No change in class	0 (0)	1 (1)	0 (0)
Change in class (& PI to PI)	52 (24)	23 (12)	46 (32)
Change in class (& PI to no PI)	74 (33)	73 (38)	34 (23)
Change in class (& no PI to PI)	95 (43)	96 (50)	66 (45)
<b>Total</b>	<b>221 (100)</b>	<b>193 (100)</b>	<b>146 (100)</b>

**Figure 1 Switches (excluding NRTI to NRTI) by year and class change**



PI/Ritonavir switches

Switches from regimens containing both PI and ritonavir and to regimens without ritonavir were examined (Table 2.1, Table 2.2 and Figure 2). Calendar years were grouped into 3 year intervals (2001-2003, 2004-2006 and 2007-2009). Switch numbers were recorded.

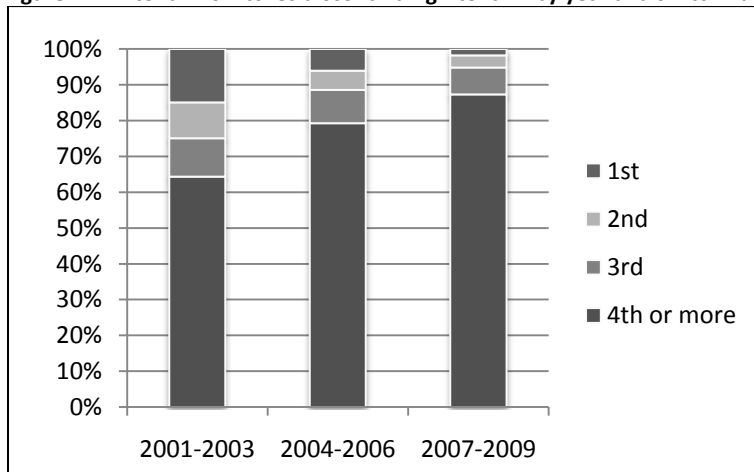
**Table 2.1 PI+ritonavir switches by year and switch type**

PI+ritonavir switch	2001-2003 n (%)	2004-2006 n (%)	2007-2009 n (%)
to PI, no ritonavir	43 (11)	37 (8)	16 (5)
to no PI, no ritonavir	266 (69)	209 (47)	157 (52)
to PI, ritonavir	77 (20)	201 (45)	130 (43)
to no PI, ritonavir	0 (0)	0 (0)	0 (0)
<b>Total</b>	<b>386 (100)</b>	<b>447 (100)</b>	<b>303 (100)</b>

**Table 2.2 PI+ritonavir switches discontinuing ritonavir by year and switch number**

PI+ritonavir switch number	2001-2003 n (%)	2004-2006 n (%)	2007-2009 n (%)
1st	46 (15)	15 (6)	3 (2)
2nd	31 (10)	13 (5)	6 (3)
3rd	33 (11)	23 (9)	13 (8)
4th or more	199 (64)	195 (79)	151 (87)
<b>Total</b>	<b>309 (100)</b>	<b>246 (100)</b>	<b>173 (100)</b>

**Figure 2 PI+ritonavir switches discontinuing ritonavir by year and switch number**



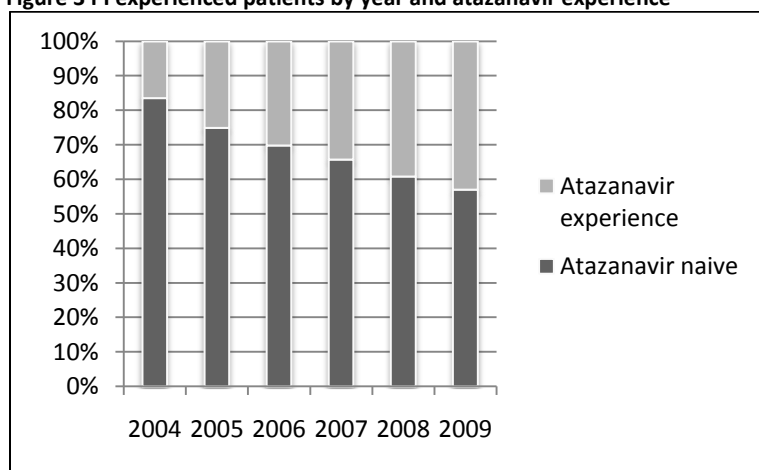
### PI/Atazanavir experience

Numbers of patients with PI experience (any use of PI up to 31 December of given year) and atazanavir experience (any use of atazanavir up to 31 December of given year) were examined by calendar year from 2004 to 2009 inclusive (Table 3.1). Numbers of patients with atazanavir experience on PI regimens were also examined (Table 3.2). Patients on a PI regimen were taken as those on PI as at last visit after 1 January 2009, up until 31 December 2009. Patients with atazanavir experience were taken as those who had ever been on atazanavir as at last visit after 1 January 2009 and up until 31 December 2009.

**Table 3.1 PI experienced patients by year and atazanavir experience**

Atazanavir experience	2004 n (%)	2005 n (%)	2006 n (%)	2007 n (%)	2008 n (%)	2009 n (%)
Atazanavir naive	1260 (84)	1133 (75)	1058 (70)	978 (66)	888 (61)	759 (57)
Atazanavir experience	248 (16)	380 (25)	457 (30)	510 (34)	571 (39)	571 (43)
<b>Total</b>	<b>1508 (100)</b>	<b>1513 (100)</b>	<b>1515 (100)</b>	<b>1488 (100)</b>	<b>1459 (100)</b>	<b>1330 (100)</b>

**Figure 3 PI experienced patients by year and atazanavir experience**



**Table 3.2 PI patients by atazanavir experience as at 31 December 2009**

Atazanavir experience	n (%)
Atazanavir naive	379 (43)
Atazanavir experience	511 (57)
<b>Total</b>	<b>890 (100)</b>

### PI currently on non-nucleoside reverse transcriptase inhibitors (NNRTI)

Numbers of patients with PI experience and on NNRTIs were examined (Table 4.1). Patients on a NNRTI regimen were taken as those on NNRTI as at last visit after 1 January 2009 and up until 31 December 2009. Patients with PI experience were taken as those who had ever been on PI as at last visit after 1 January 2009 and up until 31 December 2009.

**Table 4.1 2009 NNRTI status of patients by PI experience**

NNRTI status	PI naive n (%)	PI experience n (%)
Current NNRTI	479 (68)	531 (40)
Not current NNRTI	228 (32)	799 (60)
<b>Total</b>	<b>707 (100)</b>	<b>1330 (100)</b>