STREAMLINED AUTHORITY INITIATIVE

REVIEW

APPENDICES

The Review

As part of a package of reforms to the Pharmaceutical Benefits Scheme (PBS) announced by the Commonwealth Minister for Health and Ageing in November 2006, a new streamlined authority process was instituted from 1 July 2007 for almost half of the medicines then listed as authority required. The new process was developed in conjunction with the Australian Medical Association (AMA) with the aim of reducing the administrative burden for prescribers, providing them with more time to devote to patient care without compromising the integrity of the authority system. A list of the PBS drugs included is at Table 1.

Potential impacts of the new streamlined authority process on prescribing behaviour following implementation were monitored through the Streamlined Authority Monitoring Group (SAMG) comprising representatives of the Department of Health and Ageing, Medicare Australia and the AMA.

Monitoring of the effects of streamlined prescribing was to be primarily informed by monthly and quarterly assessment of changes to script volume, in comparison with historical trends derived from Medicare Australia's national administrative PBS data collection.

Review Findings

Overall findings indicate that there were no substantial changes relative to historical growth trends observed in either total script volume or total PBS outlays for streamlined authority medicines for the first year of operation. The small changes observed are generally within overall PBS growth trends for the same 12-month period. A summary of findings for each of the medicines is at Table 2.

The majority of medicines show no changes on historical trends. For example, medicines which were showing strong growth prior to streamlining have continued to do so. Medicines listed within the previous 2 years show the typical early rapid growth consistent with new listings, particularly combination drugs in the lipid-lowering class for cardiovascular conditions and diabetes, the bisphosphonate class used for management of osteoporosis, and anti-psychotic medications.

Overall, the SAMG considered that the Post-Implementation Review of streamlined authority medicines did not raise any major concerns with streamlining this particular group of drugs in its first year of operation, and in general, implementation of the initiative had been successful.

Some medicines were identified as needing continued monitoring (Refer Table 2). These will be followed up through existing drug review and monitoring mechanisms such as the PBAC's Drug Utilisation Sub-Committee (DUSC).

The AMA reported that feedback from prescribers was highly positive and indicated that the initiative has been a welcome and effective 'red-tape cutting' measure for prescribers.

Medicare Australia reported that there were some initial implementation issues with the initiative due to the fact that some prescribers experienced confusion about the new process which affected a small number of prescriptions. However, these issues were successfully addressed by Medicare Australia and implementation of streamlining into Medicare Australia's regular PBS operational and compliance monitoring programs, along with general PBS prescriber/pharmacist education and communication programs has been successful overall.

Additionally, informal feedback from pharmacists from a 2008 survey conducted by Medicare Australia, had not raised any issues of concern with implementation of the initiative from a community pharmacy perspective beyond the initial implementation issues which led to claiming issues for a small number of prescriptions.

The Department noted that there had been a reduction in the data collected (i.e. restriction data) associated with streamlining authority required medicines, and would consider the matter further.

Future Directions

Successful completion of implementation and the agreed 12-month post-implementation streamlined authority monitoring strategy enables incorporation of ongoing monitoring into the existing PBS administration and drug review processes. The AMA, through its Therapeutics Committee will be included in the Department's general consultation processes when a major drug review is undertaken which relates to a streamlined-authority medicine.

The Department and the AMA, as the peak body representing the majority of Australian medical prescribers, will continue to discuss issues regarding streamlined authorities. The AMA has proposed that discussions include extending the streamlined authority system to other medicines that currently require a phone authority to further reduce red tape for doctors.

Table 1 Authority Required PBS items eligible for the streamlined authority arrangements

Drug Name	Item code	Drug Name	Item code	Drug Name	Item code
ABCIXIMAB	8048N	CABERGOLINE	8114C	DISODIUM PAMIDRONATE	8209C
ACAMPROSATE CALCIUM	8357W	CALCITRIOL	2502Q	DISODIUM PAMIDRONATE	8463K
ACITRETIN	2019G	CALCIUM	8560M	ENTACAPONE	8367J
ACITRETIN	2020H	CALCIUM	3116B	EPLERENONE	8879H
ADRENALINE	8697R	CALCIUM	3117C	EPLERENONE	8880J
ADRENALINE	8698T	CARBOMER 974	8514D	EPTIFIBATIDE ACETATE	8683B
ALBENDAZOLE	8503M	CARBOMER 980	8578L	EPTIFIBATIDE ACETATE	8684C
ALBENDAZOLE	8459F	CARMELLOSE SODIUM	8823J	EZETIMIBE	8757X
ALENDRONATE SODIUM	8511Y	CARMELLOSE SODIUM	2338C	EZETIMIBE	8757X
ALENDRONATE SODIUM	8090T	CARMELLOSE SODIUM	2324H	EZETIMIBE with SIMVASTATIN	8881K
ALENDRONATE SODIUM with COLECALCIFEROL	9012H	CARMELLOSE SODIUM	8824K	EZETIMIBE with SIMVASTATIN	8882L
AMISULPRIDE	8594H	CARVEDILOL	8742D	FONDAPARINUX SODIUM	8775W
AMISULPRIDE	8595J	CARVEDILOL	8255L	GABAPENTIN	8505P
AMISULPRIDE	8596K	CARVEDILOL	8256M	GABAPENTIN	1834M
AMISULPRIDE	8736T	CARVEDILOL	8257N	GABAPENTIN	1835N
ARIPIPRAZOLE	8717T	CARVEDILOL	8258P	GABAPENTIN	8559L
ARIPIPRAZOLE	8718W	CLOPIDOGREL HYDROGEN SULFATE	8358X	GABAPENTIN	8389M
ARIPIPRAZOLE	8719X	CLOTRIMAZOLE	1027C	GLUCOSE INDICATOR—BLOOD	8634K
ARIPIPRAZOLE	8720Y	DANAZOL	1285P	GLUCOSE INDICATOR—BLOOD	2926B
ATOVAQUONE	8300W	DANAZOL	1287R	HYPROMELLOSE with DEXTRAN	8299T
BALSALAZIDE SODIUM	8845M	DESMOPRESSIN ACETATE	8662X	IRON SUCROSE	8807M
BIFONAZOLE	8066M	DESMOPRESSIN ACETATE	2129C	ISOTRETINOIN	2591J
BISOPROLOL FUMARATE	8604W	DESMOPRESSIN ACETATE	8711L	ISOTRETINOIN	2592K

Drug Name	Item code	Drug Name	Item code	Drug Name	Item code
				LAMOTRIGINE	8063J
MICONAZOLE NITRATE	9027D	QUETIAPINE FUMARATE	8456C	LAMOTRIGINE	2848X
MICONAZOLE NITRATE	9028E	QUETIAPINE FUMARATE	8457D	LAMOTRIGINE	2849Y
MICONAZOLE NITRATE	9029F	QUETIAPINE FUMARATE	8458E	LAMOTRIGINE	2850B
MICONAZOLE NITRATE	9030G	QUETIAPINE FUMARATE	8580N	LAMOTRIGINE	2851C
MINOXIDIL	2313R	QUINAGOLIDE HYDROCHLORIDE	8860H	LEFLUNOMIDE	8373Q
MONTELUKAST SODIUM	8627C	QUINAGOLIDE HYDROCHLORIDE	8822H	LEFLUNOMIDE	8374R
MONTELUKAST SODIUM	8628D	QUININE BISULFATE	1972T	LEFLUNOMIDE	8375T
NALTREXONE HCL	8370M	QUININE SULFATE	1975Y	LEVODOPA with CARBIDOPA	1255C
NAPROXEN	1658G	RALOXIFENE HYDROCHLORIDE	8363E	LEVODOPA with CARBIDOPA and ENTACAPONE	8797B
NARATRIPTAN HYDROCHLORIDE	8298R	RISEDRONATE SODIUM	8481J	LEVODOPA with CARBIDOPA and ENTACAPONE	8798C
NYSTATIN	1698J	RISEDRONATE SODIUM	8621R	LEVODOPA with CARBIDOPA and ENTACAPONE	8799D
OLANZAPINE	8170B	RISEDRONATE SODIUM	8482K	LIOTHYRONINE SODIUM	2318B
OLANZAPINE	8185T	RISEDRONATE SODIUM and CALCIUM CARBONATE	8899J	MESALAZINE	1611T
OLANZAPINE	8186W	RISPERIDONE	8787L	MESALAZINE	8731M
OLANZAPINE	8187X	RISPERIDONE	8788M	MESALAZINE	8598M
OLANZAPINE	8433W	RISPERIDONE	8789N	MESALAZINE	8599N
OLANZAPINE	8434X	RISPERIDONE	8790P	MESALAZINE	8753Q
OLSALAZINE SODIUM	1728Y	RISPERIDONE	8791Q	MESALAZINE	8616L
OLSALAZINE SODIUM	8086N	RISPERIDONE	8869T	MESALAZINE	8617M

Drug Name	Item code	Drug Name	Item code	Drug Name	Item code
OXCARBAZEPINE	8584T	RISPERIDONE	8870W	MESALAZINE	8768L
OXCARBAZEPINE	8585W	RISPERIDONE	3169T	METOPROLOL SUCCINATE	8818D
OXCARBAZEPINE	8586X	RISPERIDONE	8792R	METOPROLOL SUCCINATE	8732N
OXCARBAZEPINE	8588B	RISPERIDONE	3170W	METOPROLOL SUCCINATE	8733P
PERHEXILINE MALEATE	1822X	RISPERIDONE	8794W	METOPROLOL SUCCINATE	8734Q
PIOGLITAZONE HYDROCHLORIDE	8694N	RISPERIDONE	3171X	METOPROLOL SUCCINATE	8735R
PIOGLITAZONE HYDROCHLORIDE	8695P	RISPERIDONE	3172Y	MICONAZOLE	9031H
RISPERIDONE	8100H	SUMATRIPTAN	8341B	TIAGABINE HYDROCHLORIDE	8222R
RISPERIDONE	8780D	SUMATRIPTAN SUCCINATE	8144P	TIAGABINE HYDROCHLORIDE	8223T
RISPERIDONE	8781E	SUMATRIPTAN SUCCINATE	8885P	TICLOPIDINE HYDROCHLORIDE	2095G
RISPERIDONE	8782F	TETRABENAZINE	1330B	TILUDRONATE DISODIUM	8267D
ROSIGLITAZONE MALEATE	8690J	THIAMINE HYDROCHLORIDE	1070H	TIROFIBAN HYDROCHLORIDE	8350L
ROSIGLITAZONE MALEATE	8689H	THIORIDAZINE HYDROCHLORIDE	2163W	URSODEOXYCHOLIC ACID	8448P
ROSIGLITAZONE MALEATE	8689H	THIORIDAZINE HYDROCHLORIDE	2359E	VIGABATRIN	2667J
SALCATONIN	2995P	THIORIDAZINE HYDROCHLORIDE	2164X	ZOLMITRIPTAN	8266C
SALCATONIN	2997R	THIORIDAZINE HYDROCHLORIDE	2165Y	VIGABATRIN	2668K
SODIUM ACID PHOSPHATE	2946C	TIAGABINE HYDROCHLORIDE	8221Q	TIAGABINE HYDROCHLORIDE	8222R

Table 2 Summary of findings by Anatomical Therapeutic Classification (ATC) Grouping

NOTE: Drug Names in **Bold** were identified as potentially of higher-risk under streamlining arrangements. Drug Names in *Italics* were initially identified as 'control' medicines, as there were no known reasons for prescribing patterns to change under streamlining.

ATC Grouping	Drug Names	Comments: as at 30 June 2008
Alimentary Tract & Metabolism.	• *misoprostol,* calcium,	• No observed changes from historical patterns
	• *sodium acid phosphate, ursodeoxycholic acid*	• POSSIBLE INVESTIGATION: • Both drugs displayed significant increase in script volume over the year following streamlining.
	• balsalazide, mesalazine, olsalazine (2^{nd}-line therapies – ulcerative colitis) • sulfasalazine (unrestricted 1^{st}-line therapy – comparator)	• POSSIBLE INVESTIGATION: • Sulfasalazine reduced market share by 3% over the year following streamlining, suggesting that 2^{nd}-line therapies, particularly mesalazine, are replacing sulfasalazine due to streamlining. • DUSC to investigate changes in Defined daily Dose (DDD).
	• **pioglitazone, rosiglitazone** ('Glitazones' - Diabetes) metformin, sulfonylureas – unrestricted, 1^{st} & 2^{nd}-line therapy - Comparators]	• No observable changes from historical patterns on overall therapeutic class utilisation. INFORMATION: • Glitazone class growth appears to be slowing and stabilising. Pioglitazone appears to be replacing rosiglitazone which is decreasing following recent safety concerns.
	• *Glucose indicators*	• No observable changes from historical patterns. INFORMATION: • Slight reduction over last quarter may indicate shift to alternate access arrangements for these products.
Blood	abciximab, bivalirudin, **clopidogrel,** eptifibatide, ticlopidine, tirofiban fondaparinux	• No observable changes from historical patterns
Cardiovascular	*perhexiline, minoxidil,* eplerenone, bisoprolol,	• No observable changes from historical utilisation patterns

ATC Grouping	Drug Names	Comments: as at 30 June 2008
	carvedilol, metoprolol	• INFORMATION: Slow growth in beta-blockers continues
	ezetimibe (lipid-lowering drugs) [statins – comparators]	• No observable changes from historical growth patterns for statins. • INFORMATION: Ezetimibe continues to show strong growth, particularly the new combination with simvastatin
Dermatologicals	*acitretin, isotretinoin*	• No observable changes from historical patterns
Antiparasitics	*atovaquone*, quinine	• No observable changes from historical patterns
Respiratory	budesonide, **montelukast**	• POSSIBLE INVESTIGATION: • Possible increase in montelukast script volume, as well as possible increased prescribing rates in children 0-9 years.
Hormones (sex)	cabergoline, quinagolide, cyproterone, danazol	• No observable changes from historical patterns
Hormones (systemic)	liothryonine, salcatonin, **desmopressin**	• No observable changes from historical patterns • No observable age-group dependent issues: INFORMATION: Nasal spray formulations decreasing, and switch to tablet form. Likely in response to recent safety concerns over nasal spray forms.
Musculoskeletal	naproxen	• No observable changes from historical patterns
	alendronic acid, risedronic acid, ('Bisphosphonates' - Osteoporosis) **strontium, calcitriol, raloxifene**	• No observable changes from historical patterns for overall utilisation. • INFORMATION: Data set may be insufficiently sensitive to identify changes in prescriber behaviour in this group of drugs, due to the complex utilisation patterns in this therapeutic class. eg Complex co-prescribing regimens, changes to PBS restrictions, and strong market activity with new listings, and changing market shares etc. Stronger growth in newer listings for combinations (eg alendronate/ colecalciferol)

ATC Grouping	Drug Names	Comments: as at 30 June 2008
	alendronic acid, etidronic acid, pamidronic acid, risedronic acid, tiludronic acid (Paget's disease etc)	• No observable changes from historical patterns
Immunologicals	leflunomide	• No observable changes from historical patterns INFORMATION: McA previously advised of issues with leflunomide.
Sensory Organs	carbomer 974, carbomer 980, carmellose, hypromellose	• No observable changes from historical patterns
Nervous System	**gabapentin,** lamotrigine, oxcarbazepine, tiagabine, vigabatrin (Anti-epileptics)	• INVESTIGATION: • Gabapentin continuing to display anomalous increase in growth following streamlining. McA requested to investigate initiation rates • No observable changes from historical patterns for other drugs in this group.
	entacapone, levodopa/carbidopa (Anti-Parkinsons)	• No observable changes from historical patterns
	tetrabenazine, amisulpride, aripiprazole, ***olanzapine, quetiapine, risperidone**, thioridazine, ziprasidone (Anti-psychotics)	• POSSIBLE INVESTIGATION: • Quetiapine and Olanzapine displaying increase in script volume following streamlining.
	acamprosate (anti-addiction)	• No observable changes from historical patterns
	sumatriptan (pain relief – migraine) (naratriptan, zolmatriptan – Comparators) Topiramate (anti-epileptic, migraine)	• No observable changes from historical patterns : • INFORMATION: Possible reduction in naratriptan and zolmatriptan script volume, following listing of topiramate in December 2007.
ATSI medicines	*bifonazole, clotrimazole, ketoconazole, miconazole, nystatin, albendazole, ivermectin, thiamine*	• No observable changes, limited data for monitoring • Low volume, low risk

***** The anti-psychotic group was identified as a high-risk group of medicines. DUSC Secretariat advises that anti-psychotics are being reviewed.

Appendix 1

Background to the Review

Introduction

Medicines listed on the Pharmaceutical Benefits Schedule (PBS) for subsidy are based on the advice of the Pharmaceutical Benefits Advisory Committee (PBAC). When recommending that a medicine be listed on the PBS, the PBAC takes into account the indications for which the medicine has been approved for use in Australia by the Therapeutic Goods Administration (TGA), the medical conditions for which the manufacturer or Responsible Person has sought PBS listing, the clinical effectiveness, safety and cost-effectiveness compared with other medicines listed on the PBS to treat the same conditions.

A medicine listed on the Schedule will fall into one of three broad categories of pharmaceutical benefits as determined by PBAC:

(a) Unrestricted: Medicines which can be prescribed through the PBS for subsidy without restrictions on its therapeutic uses.
(b) Restricted: Medicines which can only be prescribed through the PBS if the prescriber is satisfied that the patient's clinical condition matches the approved therapeutic uses as determined by the PBAC (this medicine will be identified in the Schedule as a 'restricted benefit').
(c) Authority required: Authority required benefit items are restricted medicines that require prior approval from Medicare Australia or the Department of Veterans' Affairs (DVA) (noted as **Authority required**)

Restricted medicines do not require an approval number to prescribe, however, there are important prescribing requirements with which prescribers must comply. Both the restricted and authority required indications are listed in the Schedule.

Only patients who satisfy the restrictions have access to the medicine under PBS subsidy. Where a patient is not eligible for PBS subsidy, the medicine can be prescribed as a non-PBS (private) prescription. The onus is on the prescriber to ensure that a PBS medicine is prescribed in accordance with PBS requirements. Prescribing a PBS restricted or authority medicine to a patient who does not meet the restriction criteria is in breach of the legislation that governs the PBS. Medicare Australia uses a range of strategies to prevent, detect and investigate inappropriate and fraudulent use of the PBS.

Authority prescriptions are also required for:

- Special Patient Contribution (SPC) exemption approvals
- Therapeutic Group Premium (TGP) exemption approvals
- Section 100 (highly specialised drugs) approvals
- Palliative Care section approvals
- Increased quantities and/or repeats of PBS medicines; and
- approvals associated with the Chemotherapy Pharmaceutical Access Program (CPAP).

Background

As part of a package of reforms to the Pharmaceutical Benefits Scheme (PBS) announced by the Commonwealth Minister for Health and Ageing in November 2006, a new streamlined authority process was instituted from 1 July 2007 for almost half of the medicines then listed as authority required. The new process was developed in conjunction with the Australian Medical Association (AMA) with the aim of reducing the administrative burden for prescribers, providing them with more time to devote to patient care without compromising the integrity of the authority system.

The streamlined authority process allows prescribers to use a 'streamlined authority code' on the authority prescription corresponding to specific restrictions for each eligible authority item published in the Schedule

without the need to obtain prior approval from Medicare Australia or Department of Veterans' Affairs (DVA).

Streamlined items remain Authority Required items under the same regulatory conditions of listing and use. For example, formal approval will still be required for increased quantities and repeats or for TGP exemptions as with all authority required items. Repatriation PBS authority required items are also excluded from streamlining.

Selection of medicines for streamlining

Following consultations between PBAC and the AMA it was agreed in May 2007 that the initial approved listing of Authority Required (Streamlined) medicines would be limited to those authority required medicines that treat chronic and stable long-term conditions, with stable dosage regimes, and those that are less susceptible to risk of misuse or increased prescribing outside of restrictions (For full list refer Report Table 1). Additionally, a set of criteria were developed for excluding items from the streamlined authority process:

Table 1.1 Drugs excluded from the Authority Required (Streamlined) listing as at 1 July 2007:

Medicine/Class	Rationale for Exclusion
Antiinfectives	Short term use and risk of antimicrobial resistance
Drugs to treat nausea in chemotherapy	Short term use, variable and complex dosage regimes
Anabolic steroids, androgens, antiandrogens	Potential for illicit diversion
Antigonadotropics	Some restrictions for short term use
Antineoplastic (cytotoxic) agents	Short term use and variable and complex dosage regimes
Narcotics	Potential for dependence and illicit diversion
Benzodiazepines	Potential for dependence and possible illicit diversion
Psychostimulants	Potential for dependence and illicit diversion
Bupropion	Short term use for cessation of smoking
Special dietary foods	Short term use and need for continual review/management
Palliative care medications	Usually short term use, variable and complex dosage regimes
Section 100 items	High cost items often short term use/ requiring demonstration of clinical response
Special Pharmaceutical Benefit and Therapeutic Group Premium Exemptions	Waiver of SPC or TGP premium on clinical grounds requires contact with Medicare Australia
Repatriation Pharmaceutical Benefits	Repatriation pharmaceutical benefits may be authorised for uses outside of approved PBS use.
Requests for increased quantities and / or repeats above those set out in the PBS schedule.	All requests for increased quantities and/or repeats above those set out in the PBS schedule require approval from Medicare Australia.

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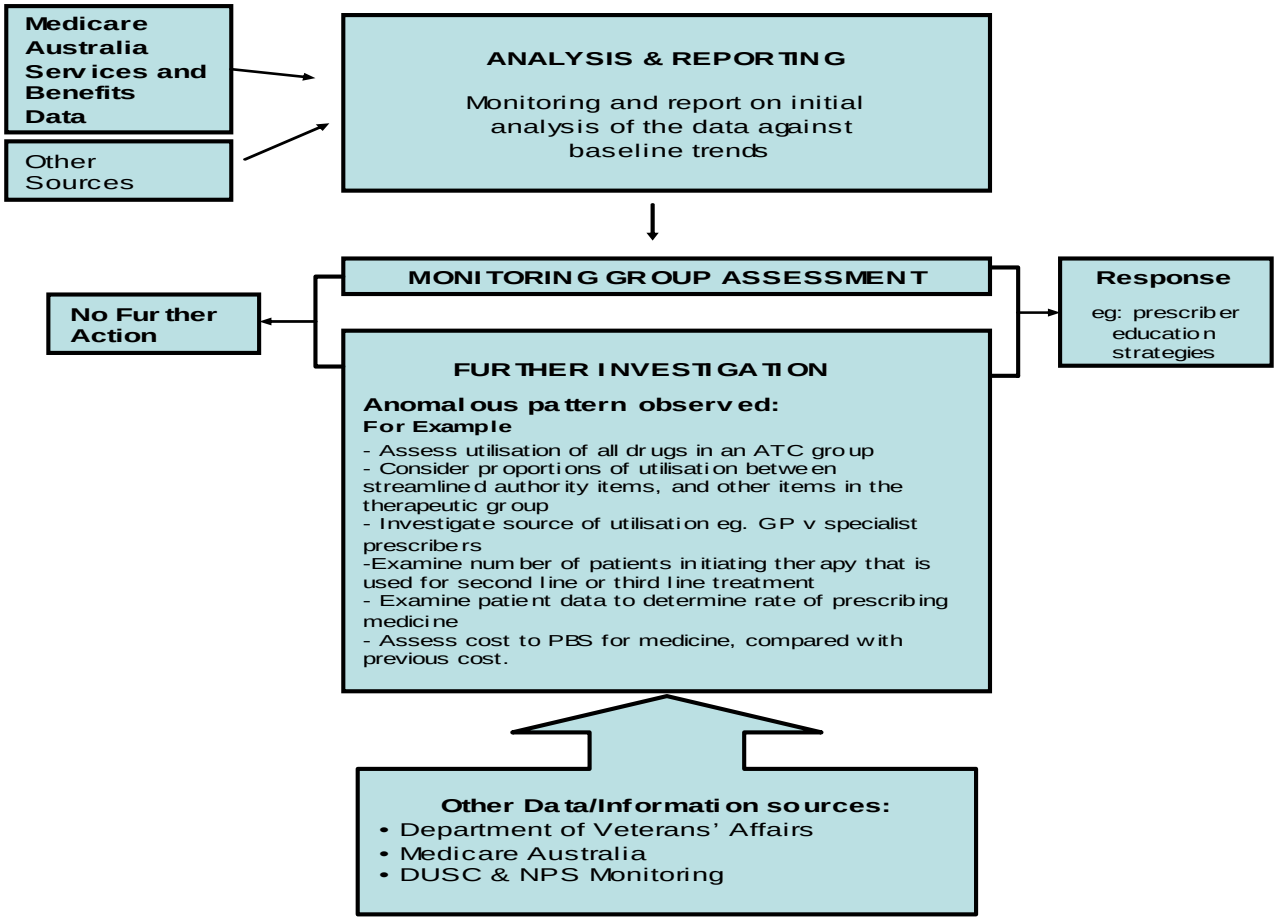
Monitoring Strategy

Potential impacts of the new streamlined authority process on prescribing behaviour following implementation were monitored through the Streamlined Authority Monitoring Group (SAMG) comprising representatives of the Department of Health and Ageing, Medicare Australia and the AMA.

The agreed monitoring strategy for at least the first twelve months of operations was to be primarily informed by analysis of broad drug utilisation and prescribing patterns, in comparison with historical trends derived from Medicare Australia's national administrative PBS data collection. Initial monitoring of utilisation was undertaken on a monthly basis and formally reported quarterly through the SAMG, to be followed by a more comprehensive twelve-month post-implementation review to be reported to SAMG in the first instance. An overview of the process is presented below:



Appendix 2

Utilisation Data Review

Methodology

In accordance with the agreed Monitoring Strategy, initial assessment of changes in prescribing patterns for streamlined authority medicines was primarily performed through:

- Development of an historical "baseline" data set, with three financial years of utilisation data for each streamlined medicine, grouped by broad ATC grouping, and including non-streamlined comparator medicines in the groups where applicable. This enabled the establishment of a baseline or historical pattern for the medicines.

- Specialist advice and risk-assessment of the medicines was undertaken to identify streamlined authority medicines which may be of a higher risk of inappropriate prescribing under streamlining. Risk assessments were undertaken separately by Medicare Australia and by the Drug Utilisation Sub-Committee and reported to the SAMG, and agreed with the AMA.

- Comparison of growth rates in script volume against the historical baseline by financial year, quarter and month, over the year following the implementation of streamlining.

- The significance of a change in volume is highly dependent on the medicine and/or therapeutic class of medicine to which it belongs and its known prescribing regimen. Low volume medicines (< 500 scripts / month) are generally highly specialised medicines used in small defined patient groups and unlikely to be prescribed outside of its specific restrictions. High volume medicines (> 100,000 scripts/month) are generally used for large numbers of patients, and/or for a range of indications.

  As a general guideline, changes in volume were broadly classified as:

  - Less than 10% - No change observed from historical trends
  - 11-20% change – Substantial change from historical trends
  - Greater than 20% - Significant change from historical trends.

- Other patterns of potential changes were further investigated in some cases:
  - changes in PBS benefits;
  - changes in prescribing rates in affected populations; (eg children, seniors)
  - changes in market share between alternate medicines within a therapeutic class (eg between first-line and second-line therapies);
  - changes in market share between different items, formulations/strengths for a medicine; and
  - Some medicines initially assessed as high-risk (eg gabapentin, anti-psychotics) were also reviewed by 'smoothing' seasonal discrepancies by utilising rolling annual totals.

- Further specialised investigation for some medicines is expected to be undertaken by the Drug Utilisation Sub-Committee (DUSC) and by Medicare Australia, in relation to:
  - Defined Daily Dose (DDD) calculations;
  - rate of initiation of therapy in new patients; and
  - results from National Assessments undertaken by Medicare Australia for PBS compliance monitoring purposes.

Data Limitations

The broad time-series PBS medicine utilisation data sets, based on date of processing, are generally insufficiently sensitive to display evidence of a definitive quantitative changes in utilisation patterns which could be attributed to changes in prescriber behaviour following streamlining, and are used primarily as an indicator for more detailed investigation.

Patterns of utilisation following streamlining for medicines with complex prescribing patterns and dosage regimens, or are commonly co-prescribed with other medicines in the therapeutic class, or have a number of recent listings for new formulations/strengths, or amended restrictions, are generally inconclusive from this data set. For example, combination drugs in the lipid-lowering class for cardiovascular conditions, the bisphosphonate class used for management of osteoporosis and anti-psychotic medications.

Other data limitations include:

- Spikes and dips in volume, due to end of quarter, or end of year, bulk processing by pharmacists;
- February 2008 was slightly higher than in previous years given that it was a leap year; and
- Easter public holidays in March 2008 indicate drop in volume for a ‘short’ month.

Findings by Anatomical Therapeutic Classification (ATC) Groupings

A. ALIMENTARY TRACT AND METABOLISM

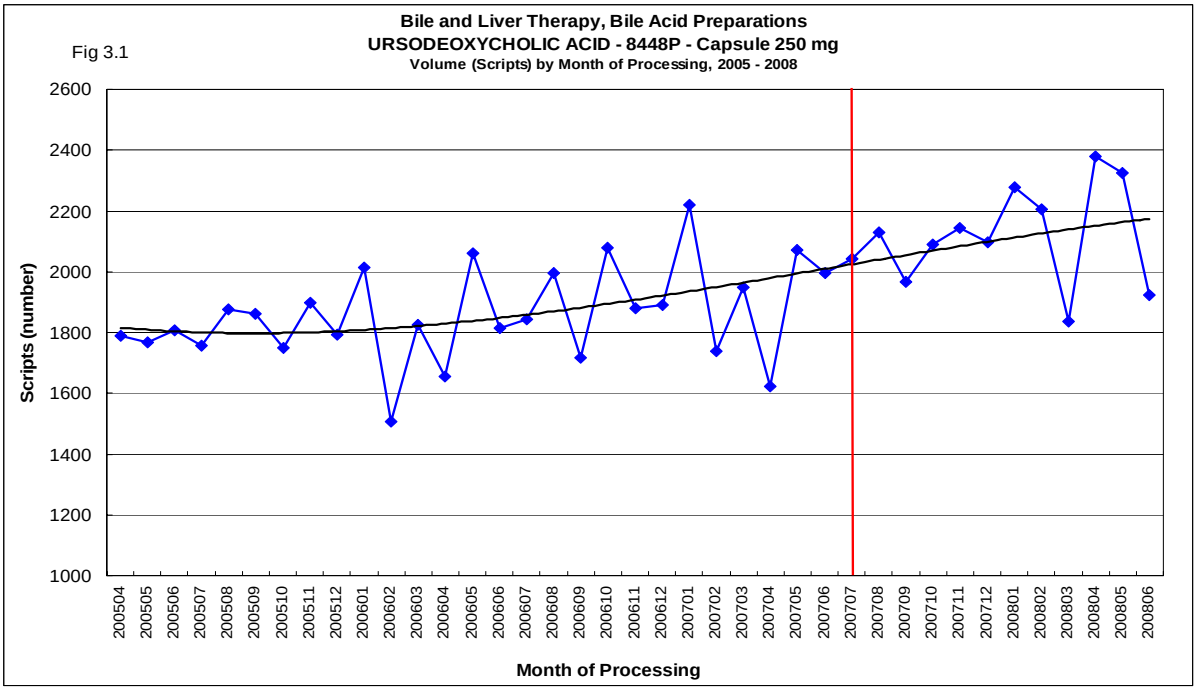
(a) Misoprostol, ursodeoxycholic acid, calcium, sodium acid phosphate

Misoprostol and *ursodeoxycholic* acid are restricted to specific gastrointestinal conditions. Historically they are both low-volume drugs, around 150 and 2,000 scripts per month respectively, with no known concerns or risks under streamlining. Misoprostol had demonstrated low negative growth and ursodeoxycholic acid low positive growth, over the previous three years.

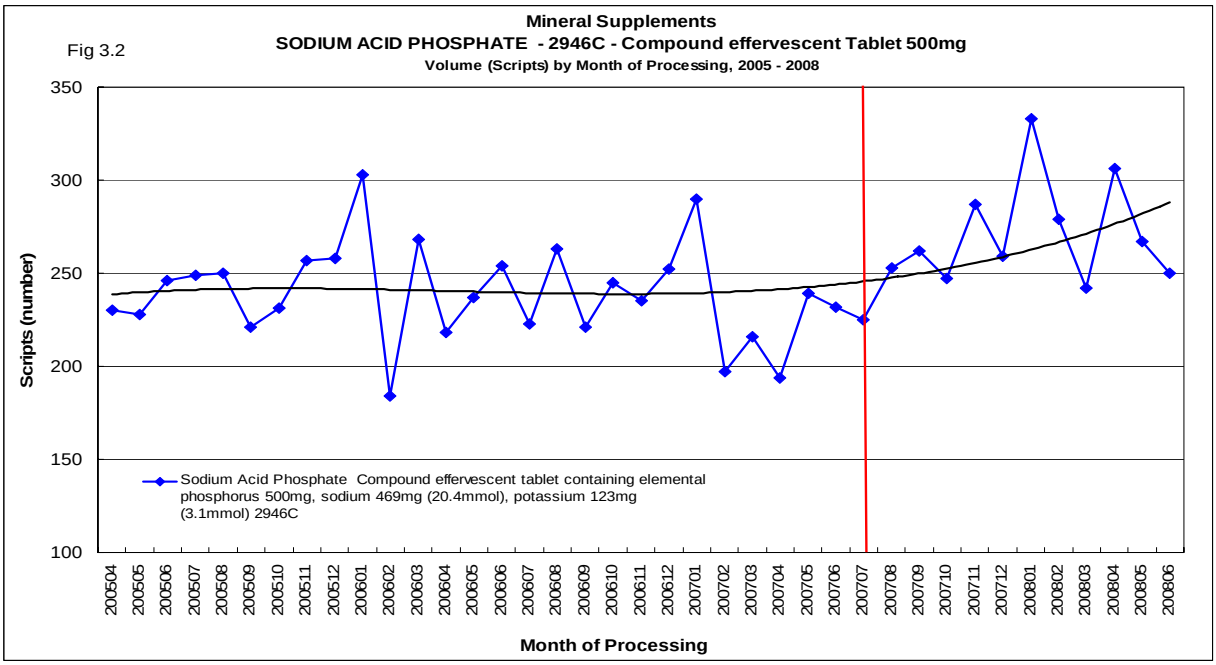
Sodium acid phosphate is a single item medicine restricted to specific metabolic disorders, for example Vitamin D-resistant rickets, historically very low-volume at around 200-300 scripts per month with no known concerns or risks under streamlining.

Calcium formulations were experiencing high growth until put on authority restriction to treatment of hyperphosphataemia associated with chronic renal failure (CRF) in early 2006. The volume dropped from over 20,000 per month to remain steady since late 2006 at around 6-7,000 scripts per month. The listing of a new phosphate binder (sevelamer) for use in CRF in January 2008, is expected to further substitute for a significant amount of calcium carbonate prescribed for this indication.

Fig 3.1



Quarter:	Jun-05	Sep-05	Dec-05	Mar-06	Jun-06	Sep-06	Dec-06	Mar-07	Jun-07	Sep-07	Dec-07	Mar-08	Jun-08
Scripts	5368	5495	5440	5344	5529	5555	5848	5905	5692	6134	6332	6322	6625



Quarter	Jun-05	Sep-05	Dec-05	Mar-06	Jun-06	Sep-06	Dec-06	Mar-07	Jun-07	Sep-07	Dec-07	Mar-08	Jun-08
Scripts	704	720	746	755	709	707	732	703	665	740	793	854	823

Observed trends following streamlining:

- Calcium and misoprostol :
  No substantial changes from historical trends over the year were observed.
- Ursodeoxycholic acid and sodium acid phosphate:
  Substantial increases in script volume were observed for these drugs, particularly sodium acid phosphate. (Figures 3.1 and 3.2)

(b) <u>Mesalazine, olsalazine, balsalazide, sulfasalazine</u>

The first three streamlined authority medicines are intestinal antiinflammatory agents restricted to second-line therapy (where hypersensitivity to sulphonamides exists) for specific ulcerative gastrointestinal disorders. Sulfasalazine is not restricted but recognised in clinical best practice as the first line therapy for these conditions. Mesalazine is the major second-line therapy drug demonstrating negligible growth over the previous three years, followed by olsalazine with much lower volume and displaying low negative growth since 2005 coinciding with the listing of balsalazide, which appears to be replacing olsalazine.

Review of changes over time in percentage market share by volume suggests that a trend towards a slight increase in the second-line therapy medicines in this group has been underway since 2005.

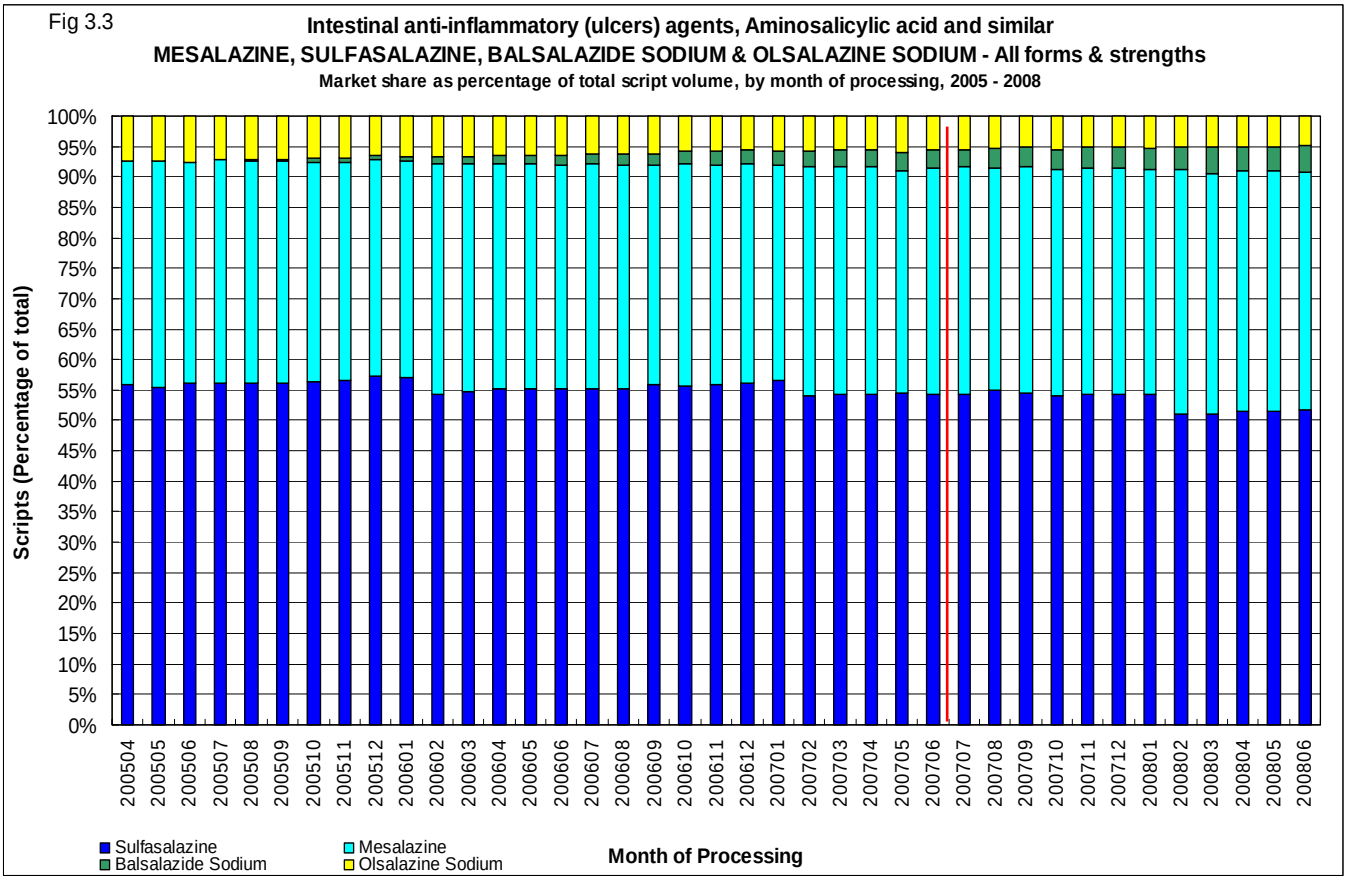
Mesalazine is a relatively high-cost drug, ranging from $150 to $450 per unit volume over nine items. Small increases in volume for high-cost drugs can demonstrate much larger corresponding increases in PBS benefits outlays per unit volume. The main risk identified with streamlining this group of drugs is the potential for increasing replacement of the first line therapy use of sulfasalazine by mesalazine items, increasing costs to the PBS with no benefit in health outcomes.

While there have been changes in script volume across individual formulations and strengths of mesalazine, (eg prescriptions for the 500 mg tablet have increased over time with a parallel reduction in prescriptions for the smaller 250 mg tablet), and in script volume market share between first and second-line medicine groups, these trends have been underway since 2004/5.

Observed trends following streamlining:

During the first quarter, benefits paid for mesalazine appeared to increase sharply following the introduction of streamlining. Analysis by individual items indicated that four of the nine listed PBS items for mesalazine had recorded PBS listing price increases from April 2007. Accordingly, the rise was independent of streamlining, and has stabilised at the new level relative to volume in subsequent quarters.

The rate of drop in market share for sulfasalazine has appeared to have increased, dropping over the year from around 55% to 52% following the introduction of streamlining, resulting in an overall drop of around 3% in sulfasalazine (Fig 3.3)



(c) Drugs used in management of diabetes:
Pioglitazone, rosiglitazone (glitazones), metformin, sulfonylureas (not authority restricted)

The drugs of the glitazone class have shown rapid growth since their introduction in 2005/6 but growth appears to have slowed and stabilised over 2007/8. Peak changes in benefits appears to be primarily due to increased uptake of high-cost combination items immediately following listing.

The glitazones are restricted to third-line combination therapy in treatment of diabetes behind metformin and sulfonylureas (eg gliclazide, glimepiride), and are subsidised under the PBS for a relatively small number of

patients. The main risk identified with streamlining this group of drugs is the potential for inappropriate use (eg in patients at risk of cardiovascular disease) or as monotherapy, or replacement of the first line therapy use of metformin.

Observed trends following streamlining:

No firm definitive patterns were observed for this group of drugs following streamlining. The historical trends from this data set are generally inconclusive and highly variable across the class. While there has been early strong growth in the glitazones, it has steadied in the last 6-12 months in comparison with non-restricted first-line therapies. There has been a slight overall decrease in glitazones observed from December 2007, which may reflect newly released information concerning the safety of glitazones, in particular rosiglitazone. Pioglitazone appears to be replacing rosiglitazone which is decreasing following recent safety concerns.

There are a number of items within the glitazone class which are prescribed in a variety of complex dosage regimens, restricted to use in dual and triple therapies, in combination with metformin for example, and more recent listings for combination items may also be impacting on overall utilisation with potential for increasing replacement of multiple prescriptions for single ingredient medicines.

(d) Blood Glucose Indicators

These formulations are restricted to patients who previously received them as a pharmaceutical benefit. A slight drop in script volume was observed over the last quarter of 2007/8. While not a substantial changes from historical trends, this drop may indicate patients moving to alternative access arrangements for these products, for example through NGO's such as Diabetes Australia.

B. BLOOD AND BLOOD FORMING ORGANS

(a) Abciximab, eptifibatide, ticlopidine, tirofiban, fondaparinux, bivalirudin, clopidogrel

These medicines are generally restricted to prevention of cerebrovascular episodes and thromboembolism, for example in patients undergoing cardiac surgical procedures and where other forms of prophylaxis are contraindicated.

Abciximab, ticlopidine and tirofiban hydrochloride have all demonstrated slow negative growth in the previous three years and fondaparinux, eptifibatide and bivalirudin have shown small positive growth. There are no known risks or concerns with these drugs under streamlining.

Clopidogrel growth in recent years has been higher than expected and has been previously identified by Medicare Australia for potential inclusion in targeted education strategies to address the potential for inappropriate prescribing. Clopidogrel is also listed separately as an RPBS authority item.

Observed trends following streamlining:

No substantial changes from historical trends for these medicines has been observed following streamlining. The early rapid growth rates seen for clopidogrel in 2005/6 and 2006/7 appears to be slowing. A small increase in the number of incorrectly coded scripts for clopidogrel, primarily for the RPBS authority item, were observed separately from PBS Online records for the first quarter but stabilised following implementation of improved education and communication strategies.

C. CARDIOVASCULAR SYSTEM

(a) Minoxidil, perhexiline

Minoxidil and perhexiline are restricted to severe hypertension and angina respectively and are specialised drugs where treatment is usually initiated in hospital and requires close monitoring of the patient. There are no known risks or concerns with these drugs under streamlining.

Observed trends following streamlining:

No substantial changes from historical trends following streamlining were observed in this group of drugs.

(b) Eplerenone, carvedilol, metaprolol, bisoprolol

This group of drugs is generally restricted to treatment of heart failure and have demonstrated slow positive growth historically consistent with an ageing population and known to have a low risk of inappropriate use.

Observed trends following streamlining:

No substantial changes from historical trends following streamlining were observed in this group of drugs. A small increase in incorrectly coded authority scripts were recorded for the period, primarily for increased quantities/repeats for carvedilol and metaprolol but have stabilised following implementation of improved education and communication strategies.

(c) Ezetimibe, statins (lipid-lowering medications)

Ezetimibe is a lipid-lowering medication which has more restrictive patient eligibility criteria for subsidy than other medicines in this class, ie statins. It has experienced rapid growth in recent years and an increasing share of the total scripts for all lipid-lowering drugs, particularly the combination ezetimibe/simvastatin formulation listed in early 2006. The main risk identified with streamlining ezetimibe is the potential for prescribing outside the restrictions or increased use as monotherapy replacing statin use as there is no health outcome study yet available for ezetimibe.

The increase in volume of ezetimibe following streamlining is consistent with its historical growth pattern and for that of the lipid-lowering class including statins generally. It is also consistent with increases for the same periods in previous years, which indicates that the trend is independent of the introduction of streamlining.

Observed trends following streamlining:
No substantial changes from historical trends following streamlining were observed in this group of drugs.

D. DERMATOLOGICALS

Acitretin and isotretinoin are restricted for treatment of severe skin disorders with known toxic side effects including teratogenicity, and are often restricted to specialists by state/territory legislation. There are no known risks or concerns with the use of these drugs under streamlining.

Observed trends following streamlining:
No substantial changes from historical trends following streamlining were observed in this group of drugs.

E. ANTIPARASITICS

Atavaquone and quinine are restricted for use in rare parasitic infections, with some potential for inappropriate prescribing of quinine for muscle cramps.

Observed trends over first quarter of streamlining:
No substantial changes from historical trends over the year were observed in this group of drugs.

F. *RESPIRATORY SYSTEM*

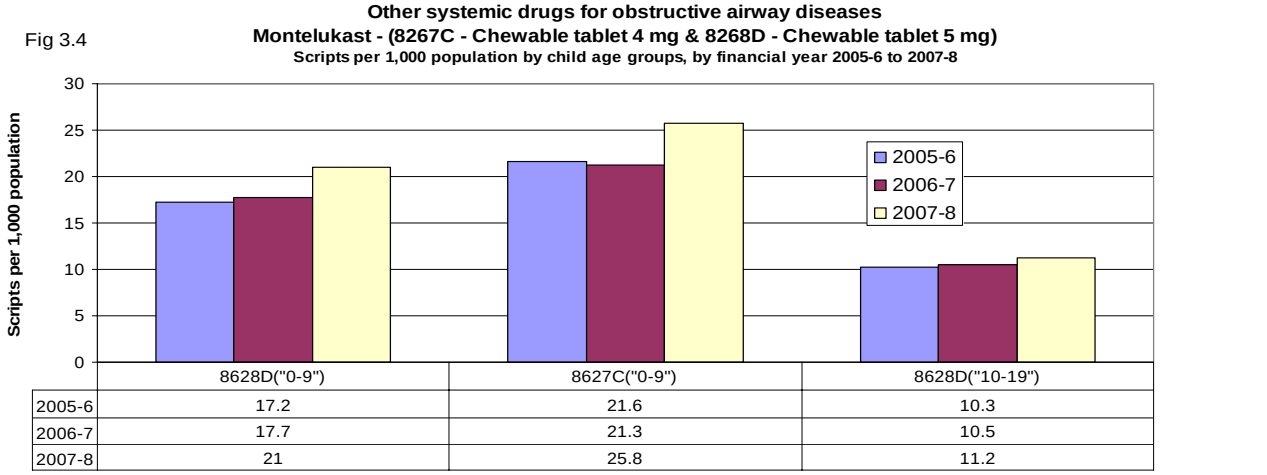
Budesonide is used in treatment of asthma, the majority of low-dose formulations are restricted benefit, with the high-dose single unit nebuliser formulations eligible for streamlining. Montelukast is further restricted to use in childhood asthma. Budesonide has displayed slow negative growth for the previous 3 years with montelukast showing steady positive growth. Non-restricted items in this group include nedocromil sodium and sodium cromoglycate.

Respiratory system medicine utilisation shows a strong seasonal influence, and increases were observed for the winter months across the entire class, which is consistent with increases in winter seasonal respiratory illnesses and also consistent with patterns observed for the same period in previous years.

Observed trends following streamlining:
No substantial changes from historical trends following streamlining were observed for budesonide.

For montelukast a small increase in growth rate was observed, from around 4% growth over the 2006/7 year, to nearly 12% over 2007/8. Comparison by age-group of use in children displayed a possible increase in prescribing rates in children 0-9 years (Fig 3.4).

Fig 3.4



	8628D("0-9")	8627C("0-9")	8628D("10-19")
2005-6	17.2	21.6	10.3
2006-7	17.7	21.3	10.5
2007-8	21	25.8	11.2

G. *GENITO-URINARY SYSTEM AND SEX HORMONES*

(a) Cabergoline, quinagolide, danazol

These medicines are generally restricted to use in complex endocrine disorders. There are no known risks or concerns with the use of these drugs under streamlining. This group of drugs historically demonstrated limited uptake and negligible growth.

Observed trends following streamlining:
No substantial changes from historical trends over the year were observed in this group of drugs.

(b) Cyproterone

Cyproterone acetate is generally restricted to use in complex endocrine disorders. There are no known risks or concerns with the use of this drug under streamlining and has historically demonstrated slow negative growth.

Observed trends following streamlining:
No substantial changes from historical trends over the year were observed for this medicine.

H. SYSTEMIC HORMONES

(a) Liothyronine, salcatonin

These medicines are generally restricted to use in complex endocrine disorders. There are no known risks or concerns with the use of these drugs under streamlining. This group of drugs historically demonstrated

negligible or negative growth.

Observed trends following streamlining:
No substantial changes from historical trends following streamlining were observed in this group of drugs.

(b) Desmopressin (intra-nasal preparations)

Desmopressin acetate is generally restricted to treatment of serious enuresis, with some items restricted to patients over 6 years of age. The tablet formulation is more commonly prescribed than intra-nasal preparations. It is a high-cost medicine with historically steady growth. Potential inappropriate prescribing for geriatric incontinence or in cases where an enuresis alarm has not been trialled initially is the main risk identified with streamlining this medicine.

Observed trends following streamlining:
No substantial changes from historical trends following streamlining were observed for this medicine, and no divergence from historical trends for specific age-groups was observed. A change in market share across formulations was observed, with nasal spray formulations decreasing and the tablet formulation increasing market share. This trend may reflect safety concerns raised in 2007 concerning the nasal spray formulations.

I. IMMUNOMODULATING AGENTS

Leflunomide is the only medicine in this group eligible for streamlining, but is dual-listed for musculoskeletal conditions as it is primarily restricted to treatment of rheumatoid and psoriatic arthritis. There are no known risks or concerns with the use of leflunomide following streamlining as it is known to have severe side-effects and historically has shown low positive growth consistent with an increase in an ageing population.

Observed trends following streamlining:
No substantial changes from historical trends following streamlining were observed for this medicine.

J. SENSORY ORGANS

(a) Carbomer 974, carbomer 980, carmellose sodium, hypromellose with dextran

These items are restricted for streamlining to the single dose unit formulations, for the treatment of severe dry eye syndrome in patients who are sensitive to preservatives in multiple-dose products with historically negligible or low positive growth. Other formulations/strengths are restricted benefit or authority required for palliative care and optometrist use.

Observed trends following streamlining:

No substantial changes from historical trends following streamlining were observed in this group of drugs.

K. *MUSCULOSKELETAL SYSTEM*

(a) Osteoporosis group:
Alendronic acid, risedronic acid, etidronic acid (Bisphosphonates) strontium, raloxifene, calcitriol

The bisphosphonate class of drugs for the treatment of osteoporosis is one of the fastest-growing drug groups. Of this group, alendronate is the largest by proportion of volume prescribed and has shown a steady increase over the 3 year period, particularly the combination alendronate and colecalciferol. The main risk identified with streamlining this group of drugs is the potential for prescribing outside of PBS restrictions, although some increase would be expected with the ageing of the population.

Raloxifene and calcitriol, while lower growth items, have similar risks to the bisphosphonates and are included in this group.

Observed trends following streamlining:
The historical trends from this data set are generally inconclusive and highly variable across the class, and no major changes were observed.

(b) Paget's Disease group:
Alendronic acid, etidronic acid, pamidronic acid, risedronic acid, tiludronic acid

This group of bisphosphonates historically shows low growth and low volume and there are no known concerns or risks under streamlining due the specific restriction for treatment of bony metastases or Pagets disease.

Observed trends following streamlining:
No substantial changes from historical trends following streamlining were observed in this group of drugs.

(c) Naproxen

Only one item is listed in this category for naproxen, an oral solution formulation restricted to the treatment of chronic arthropathies (including osteoarthritis) in patients unable to take a solid dose form, and is also listed in the palliative care category. There are no known risks or concerns with this drug under streamlining. It has historically shown very low volume (< 50 scripts/month) with negligible growth.

Observed trends following streamlining:
No substantial changes from historical trends following streamlining were observed for this medicine.

L. NERVOUS SYSTEM:

(a) *Anti-epileptics* : Gabapentin, lamotrigine, oxcarbazepine, tiagabine, vigabatrin

These drugs are generally restricted to second-line therapy for treatment of epilepsy which is not controlled satisfactorily by other anti-epileptic drugs, such as sodium valproate and carbamazepine.

The main risk identified in streamlining this group is an increased potential for inappropriate prescribing outside of the approved restrictions, particularly gabapentin which is known to be at risk of inappropriate prescribing for neuropathic pain. Lamotrigine and oxcarbazepine have displayed the strongest positive growth of the group, with the remainder showing negative growth historically.

Topiramate was added to the streamlined listing for this group in December 2007, following addition of a restriction change to treat migraine for some items, and removal of the Special Patient Contribution (SPC).

Observed trends following streamlining:
No substantial changes from historical trends following streamlining were observed for all medicines in this group with the exception of gabapentin.

Streamlined items for gabapentin have continued to increasing script volume over the year following streamlining which may possibly be an emerging trend indicative of prescribing outside of approved restrictions for neuropathic pain.

(b) *Parkinsons disease:* Entacapone, levadopa/carbidopa, levodopa/carbidopa/entacapone (combinations)

These drugs are generally restricted to adjunctive therapy in the management of Parkinson's disease. Entacapone and levadopa/carbidopa combination have historically shown negative growth with the triple combination medicine showing rapid growth since its introduction in 2005.

Observed trends following streamlining:
No substantial changes from historical trends following streamlining were observed in this group of drugs.

(c) *Antipsychotics:*
Amisulpride, aripiprazole, olanzapine, quetiapine, risperidone, tetrabenazine, ziprasidone

These drugs are generally restricted to treatment of severe episodes of psychiatric illness and/or management of chronic psychiatric disorders such as bipolar disorder and schizophrenia. Amisulpride and tetrabenazine have shown negligible growth historically, with aripiprazole having moderate growth.

Olanzapine, risperidone and quetiapine have all shown positive growth over the previous 3 years and were identified as potentially at risk for prescribing outside of the approved restrictions under streamlining.

Ziprasidone is a new listing (April 2007) and while initial uptake has been rapid, there is insufficient data to establish a reliable time-series trend for monitoring purposes.

Prescribing patterns in this group are known to be complex, including for example, co-prescribing of multiple medications and variation in dosage regimens, and consequently the broad general PBS utilisation data may not be sufficiently sensitive to detect changes in prescriber behaviour or the impact of streamlining on this group of drugs.

Observed trends following streamlining:
No substantial changes from historical trends following streamlining were observed in this group of drugs from the available data set, which displayed continuing historical growth trends in script volume, benefits paid and quantities dispensed across the class. A moderate increase was observed in script volume for olanzapine rising from around 4% growth per year to over 9% growth over 2007/8, with a smaller increase seen in quetiapine (from 20% to 27% growth).

(d) *Pain relief (Migraine)* : Sumatriptan, topiramate

Sumatriptan is restricted to second-line treatment of migraine generally for a small group of patients and has shown negative growth over the previous 3 years, similar to the non-restricted medicines in this class, naratriptan and zolmitriptan.

Topiramate was originally authority restricted for use as an anti-epileptic, but in December 2007 an additional restriction for migraine was approved. The Therapeutic Group Premium was also removed, and topirimate was added to the list of streamlined authority medicines.

Observed trends following streamlining:
No substantial changes from historical trends following streamlining were observed in this group of drugs.

Following the amended listing in December 2007, topirimate displayed rapid uptake characteristic of a new listing for a major indication.

(e) *Anti-addiction agents:* Acamprosate

Acamprosate is restricted to treatment of alcohol dependence with known serious side-effects and is unlikely to be prescribed outside the restrictions. It has shown negligible positive growth historically.

Observed trends following streamlining:
No substantial changes from historical trends following streamlining were observed for this medicine.

3.13 *ABORIGINAL & TORRES STRAIT ISLANDER (ATSI) RESTRICTED MEDICINES*

Bifonazole, Clotrimazole, Ketoconazole, Miconazole, Nystatin, Albendazole, Ivermectin, Thiamine

These medicines are restricted to use in Indigenous populations for treatment of parasitic and fungal infections and nutritional disorders. These medicines are often supplied to Indigenous patients through systems other than community pharmacy particularly in rural and remote regions, eg through Aboriginal Community Controlled Health Services, the Royal Flying Doctor Service and state/territory funded primary care clinic services. Furthermore, most are priced under the general patient co-payment. Accordingly, the utilisation will be under-reported in the national PBS data collection and unreliable.

Further information was sought from the Australian Institute of Health and Welfare and the Office of Aboriginal and Torres Strait Islander Health, with a view to identifying any risks or alternate data sources. Advice received indicated that there is little concern or risk of inappropriate prescribing in this group of drugs**.**

Appendix 4

Growth rates of selected streamlined medicines and comparators (all forms/strengths) by financial year 2005-6 – 2007-8

ATC Grouping	Streamlined Medicines	Scripts	Growth Rate	Scripts	Growth Rate	Scripts	Growth Rate
			(%)		(%)		(%)
		2005-06		2006-07		2007-08	
Alimentary Tract & Metabolism	Calcium	662566	-30.01	56159	-91.52	32616	-41.92
	Glucose Indicator - Blood	482081	-4.28	478318	-0.78	459513	-3.93
	Mesalazine	138573	0.53	140344	1.28	150985	7.58
	Misoprostol	2338	-14.67	2009	-14.07	1851	-7.86
	Olsalazine	26308	-12.96	23269	-11.55	21342	-8.00
	Balsalazide sodium	12672	NA	9436	-25.54	14836	57.23
	Pioglitazone	160046	120.72	185656	16.00	234126	26.11
	Rosiglitazone	294276	243.45	474448	61.23	412284	-13.10
	Sodium acid phosphate	2930	6.08	2807	-4.20	3210	14.36
	Sulfasalazine	217875	-0.78	219452	0.72	219067	-0.18
	Thiamine	16653	-16.85	15706	-5.69	16016	1.97
	Ursodeoxycholic acid	21808	2.80	23000	5.47	25413	10.49
Blood and Blood Forming Organs	Abciximab	2730	-17.42	2172	-20.44	1783	-17.91
	Clopidogrel	2158539	12.75	2386352	10.55	2581339	8.17
	Eptifibatide	92	NA	389	322.83	947	143.44
	Ticlopidine	4162	-16.31	3585	-13.86	3298	-8.01
	Tirofiban	2098	-21.63	1823	-13.11	1793	-1.65
Cardiovascular	Carvedilol	536899	7.94	565150	5.26	583316	3.21
	Ezetimibe	540009	134.03	660276	22.27	769043	16.47
	Metoprolol Succinate	45786	178.32	66099	44.37	81617	23.48
	Minoxidil	4037	1.64	4008	-0.72	4190	4.54
	Perhexiline	33362	-3.66	31436	-5.77	31607	0.54
Dermatologicals	Acitretin	13546	0.89	14726	8.71	15644	6.23
	Bifonazole	1811	-17.76	1529	-15.57	1291	-15.57
	Clotrimazole	19211	-8.83	16581	-13.69	14251	-14.05
	Isotretinoin	124538	-5.78	135413	8.73	143913	6.28
	Ketoconazole	34365	-6.34	29958	-12.82	28506	-4.85
	Miconazole	1342	-6.74	1038	-22.65	808	-22.16
Anti-parasitics	Albendazole	634	-13.03	750	18.30	782	4.27
	Atovaquone	53	23.26	45	-15.09	55	22.22
	Ivermectin	523	4.60	723	38.24	836	15.63
	Quinine Sulfate	83316	-78.62	2690	-96.77	3239	20.41

ATC Grouping	Streamlined Medicines	Scripts	Growth Rate	Scripts	Growth Rate	Scripts	Growth Rate
Respiratory	Budesonide	322299	-19.54	260092	-19.30	226060	-13.08
	Montelukast	130847	17.14	135606	3.64	151841	11.97
Genito-Urinary System and Sex Hormones	Cabergoline	122760	6.32	123938	0.96	110320	-10.99
	Cyproterone	78291	-6.89	73304	-6.37	69882	-4.67
	Danazol	2808	-18.06	2312	-17.66	2278	-1.47
Systemic Hormonal Preparations	Desmopressin	68055	-5.02	66404	-2.43	65656	-1.13
	Liothryonine	9799	-1.27	9800	0.01	9910	1.12
	Salcatonin	479	-28.61	388	-19.00	306	-21.13
Musculo-skeletal	Alendronate sodium	2284314	8.20	1986005	-13.06	1448040	-27.09
	Bisoprolol	137847	59.59	193772	40.57	261366	34.88
	Calcitriol	346328	-9.52	318450	-8.05	304000	-4.54
	Disodium Etidronate	269	17.98	291	8.18	282	-3.09
	Disodium Pamidronate	4791	-10.58	4287	-10.52	4002	-6.65
	Naproxen	364681	-1.31	348240	-4.51	329816	-5.29
	Raloxifine	333135	-3.21	321073	-3.62	297367	-7.38
	Risedronate sodium	825011	25.71	638739	-22.58	507312	-20.58
	Tiludronate Disodium	1057	-15.64	874	-17.31	722	-17.39
Anti-neoplastic and immunomodulating agents	Leflunomide	126132	8.71	136848	8.50	148821	8.75
	Carbomer 980	196496	-9.01	182281	-7.23	165798	-9.04
	Carmellose	584154	22.72	650896	11.43	666778	2.44
	Hypromellose	190714	-15.97	176813	-7.29	186105	5.26
Sensory Organs	Carbomer 974	18942	1.06	18377	-2.98	18839	2.51
	Carbomer 980	196496	-9.01	182281	-7.23	165798	-9.04
	Carmellose	584154	22.72	650896	11.43	666778	2.44
	Hypromellose	190714	-15.97	176813	-7.29	186105	5.26
Nervous System	Acamprosate	23392	4.27	25327	8.27	28028	10.66
	Amisulpride	81202	2.67	81340	0.17	81747	0.50
	Aripiprazole	71714	31.62	85475	19.19	94055	10.04
	Entacapone	18527	-10.20	17717	-4.37	17250	-2.64
	Gabapentin	83078	-4.71	81181	-2.28	85741	5.62
	Lamotrigine	245622	5.68	255709	4.11	268225	4.89
	Levodopa with Carbidopa	251933	-2.40	252858	0.37	256724	1.53
	Naratriptan hydrochloride	43378	-23.88	42289	-2.51	39340	-6.97
	Olanzapine	742008	4.46	772422	4.10	844389	9.32
	Oxcarbazepine	9480	14.60	10166	7.24	11489	13.01
	Quetiapine	214398	26.30	257287	20.00	326408	26.87
	Risperidone	366161	42.47	453567	23.87	535594	18.08
	Sumatriptan	140481	252.42	36951	-73.70	35063	-5.11

ATC Grouping	Streamlined Medicines	Scripts	Growth Rate	Scripts	Growth Rate	Scripts	Growth Rate
	Tetrabenazine	4740	8.59	4843	2.17	4987	2.97
	Thioridazine	14528	-10.33	13563	-6.64	5880	-56.65
	Tiagabine	2425	-15.18	2398	-1.11	2367	-1.29
	Topiramate	85426	5.80	89854	5.18	110444	22.91
	Zolmitriptan	71084	-23.74	69440	-2.31	64485	-7.14