

6.14 PREDNISOLONE WITH PHENYLEPHRINE

Eye drops containing prednisolone acetate 10 mg with phenylephrine hydrochloride 1.2 mg per mL, 10 mL Prednefrin® Forte, National Aboriginal Community Controlled Health Organisation

1 Purpose of Application

- 1.1 The minor submission requested a Restricted Benefit listing for the treatment of severe eye inflammation following cataract surgery for patients who identify as Aboriginal and Torres Strait Islander.

2 Requested listing

- 2.1 The submission requested the following extension to the current PBS listing for prednisolone with phenylephrine, with the same DPMQ as the current PBS listings. Suggestions and additions proposed by the Secretariat to the requested listing are in italics and deletions are in strikethrough.

Name, Restriction, Manner of administration and form	Max. Qty	No. of Rpts	Dispensed Price for Max. Qty	Proprietary Name and Manufacturer
PREDNISOLONE WITH PHENYLEPHRINE prednisolone acetate 1% + phenylephrine hydrochloride 0.12% eye drops, 10 mL	1	0	\$28.35	Prednefrin® Forte Allergan Australia Pty Ltd

Category / Program:	GENERAL – General Schedule (Code GE)
Prescriber type:	<input type="checkbox"/> Dental <input checked="" type="checkbox"/> Medical Practitioners <input type="checkbox"/> Nurse practitioners <input type="checkbox"/> Optometrists <input type="checkbox"/> Midwives
Episodicity:	<i>Post-operative</i>
Severity:	
Condition:	<i>eye inflammation</i>
PBS Indication:	For treatment of a patient identifying as Aboriginal or Torres Strait Islander post-operatively cataract surgery <i>Post-operative eye-inflammation [new concept]</i>
Restriction Level / Method:	<input checked="" type="checkbox"/> Restricted benefit <input type="checkbox"/> Authority Required – In Writing <input type="checkbox"/> Authority Required – Telephone/Electronic/Emergency <input type="checkbox"/> Streamlined
Population criteria:	<i>Patient must identify as Aboriginal or a Torres Strait Islander [18066]</i>

Clinical criteria	<i>Patient must have had a cataract removed in the treated eye, or Patient must be scheduled for cataract surgery in the treated eye; [19254]</i>
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For more detail on PBAC’s view, see section 6 PBAC outcome.

3 Background

- 3.1 Prednisolone with phenylephrine was TGA registered on 14 October 1991 for severe inflammation (non-infectious) of the eye, such as acute iritis, iridocyclitis, scleritis, episcleritis, uveitis, resistant ocular allergy and inflammation following surgery (where no infectious aetiology is suspected), particularly where unusually rapid control of the inflammation is desired.
- 3.2 Prednisolone with phenylephrine is currently listed on the PBS as a Restricted Benefit for the treatment of corneal grafts or uveitis.
- 3.3 On 1 July 2010, the Closing the Gap PBS Co-payment Measure¹ was implemented to reduce the cost of PBS medicines for eligible Aboriginal and Torres Strait Islander people living with, or at risk of, chronic disease. When obtaining PBS medicines at their local pharmacy, eligible general patients who would normally pay the full PBS co-payment (as at 1 January 2019, \$40.30 per item) pay the concessional rate (as at 1 January 2019, \$6.50 per item). Those who would normally pay the concessional price receive their PBS medicines without being required to pay a PBS co-payment.

For more detail on PBAC’s view, see section 6 PBAC outcome.

4 Comparator

- 4.1 The minor submission nominated dexamethasone and fluorometholone as the main comparators. The current PBS listings for prednisolone with phenylephrine compared with the nominated comparators is presented in Table 1.

Table 1: Current PBS listings of prednisolone with phenylephrine and the submissions’ nominated comparators

Drug and form	PBS item code	Brand name	Sponsor	Restriction	Prescriber	Max qty packs	Rpts	DPMQ ^a
Dexamethasone, eye drops 1 mg per mL, 5mL	1288T	Maxidex	Novartis Pharmaceuticals Australia Pty Limited	Unrestricted benefit	MP, NP	1	2	\$15.12
Fluorometholone, eye drops 1 mg per mL, 5mL	1204J	FML Liquifilm	Allergan Australia Pty Limited	Unrestricted benefit	MP, NP	1	5	\$14.44
Fluorometholone, eye drops	1438Q	Flarex	Novartis Pharmaceuticals	Unrestricted benefit	MP, NP	1	2	\$14.44

¹ <http://www.pbs.gov.au/info/publication/factsheets/closing-the-gap-pbs-co-payment-measure>

containing fluorometholone acetate 1 mg per mL, 5mL			Australia Pty Limited					
Prednisolone with phenylephrine, eye drops containing prednisolone acetate 10 mg with phenylephrine hydrochloride 1.2 mg per mL, 10 mL	3112T	Prednefrin Forte	Allergan Australia Pty Limited	Restricted benefit: Corneal grafts; uveitis.	MP, NP	1	2	\$28.35

Source: Schedule of Pharmaceutical Benefits, 1 October 2019.

DPMQ=dispensed price for maximum quantity; MP=medical practitioner, NP=nurse practitioner.

^a Patients eligible for the Closing the Gap PBS Co-payment Measure would pay at most \$6.50 per script (see paragraph 3.3).

For more detail on PBAC's view, see section 6 PBAC outcome.

5 Consideration of the evidence

Sponsor hearing

5.1 There was no hearing for this item as it was a minor submission.

Consumer comments

5.2 The PBAC noted that no consumer comments were received for this item.

Evidence provided in the submission

5.3 The PBAC noted that the minor submission was put forward by the National Aboriginal Community Controlled Health Organisation (NACCHO), with letters of support from representatives of the following organisations:

- Allergan (the manufacturer of Prednefrin Forte)
- Inala Indigenous Health Service
- Lions Outback Vision
- Outback Eye Service
- The Royal Australian and New Zealand College of Ophthalmologists
- Vision 2020
- IDEAS Van Partnerships Ltd

5.4 The submission claimed that anti-inflammatory ophthalmologic treatment is routinely indicated for post cataract surgery and that this is particularly important for Aboriginal and Torres Strait Islander patients, who have a higher incidence of diabetic macula oedema when inflammation is not controlled. These complications lead to a reduction in consumer and community engagement with cataract surgery and therefore poorer health outcomes.

5.5 The minor submission stated that eye diseases and vision problems are the most common long-term health conditions reported by Aboriginal and Torres Strait Islander

people. Australian Institute of Health and Welfare (AIHW) data from 2016 showed that cataracts was one of the main causes of vision loss for Aboriginal and Torres Strait Islander people aged 40 and over, accounting for 20% of cases of vision loss. The minor submission also stated that one third of Aboriginal and Torres Strait Islander people have diabetes, which is associated with a higher risk of eye conditions such as cataracts.

- 5.6 The minor submission claimed that prednisolone with phenylephrine has several advantages over the PBS-listed alternatives (see Table 1), including:
- high in vitro relative potency, ensuring rapid control of post-operative inflammation and preventing side-effects;
 - good ocular penetration; and
 - a larger pack size, which means that patients are less likely to run out of product, with no repeat required, before the treatment is complete. This is particularly important for patients who may be travelling home to regional or remote areas after the procedure.
- 5.7 The minor submission stated that tolerability does not vary significantly between prednisolone with phenylephrine and the nominated comparators.
- 5.8 The letter of support from the Outback Eye Service also stated that the phenylephrine component of prednisolone with phenylephrine helps to reduce eye redness post-operatively, which can increase the patient’s perception of the success of the surgery and subsequent recovery and may also reduce concerns about the procedure in the wider community.
- 5.9 Many Aboriginal and Torres Strait Islander people access PBS medicines through the Closing the Gap Co-payment Scheme (see paragraph 3.3). Given that the private cost of prednisolone with phenylephrine is higher than the Closing the Gap *co-payment* amounts, the PBAC noted that listing it on the PBS for Aboriginal and Torres Strait Islander patients after cataract surgery would address the cost barrier and may result in improved health outcomes for this population.

Pricing considerations

- 5.10 The minor submission requested the same DPMQ as the current PBS listings for prednisolone with phenylephrine. Table 2 below shows the AEMP per course of treatment for prednisolone with phenylephrine and the nominated comparators.

Table 2: Price comparison between prednisolone with phenylephrine and PBS-listed alternatives

Drug and form	PBS item code	Max qty packs	Rpts	DPMQ	AEMP	AEMP/course of treatment ^a	DPMQ/course of treatment ^a
Dexamethasone, eye drops 1 mg per mL, 5mL	1288T	1	2	\$15.12	\$3.39	\$6.78	\$30.24
Fluorometholone, eye drops 1 mg per mL, 5mL	1204J	1	5	\$14.44	\$2.75	\$5.50	\$28.88

Fluorometholone, eye drops containing fluorometholone acetate 1 mg per mL, 5mL	1438Q	1	2	\$14.44	\$2.75	\$5.50	\$28.88
Prednisolone with phenylephrine, eye drops containing prednisolone acetate 10 mg with phenylephrine hydrochloride 1.2 mg per mL, 10 mL	3112T	1	2	\$28.35	\$15.69	\$15.69	\$28.35

Source: Schedule of Pharmaceutical Benefits, 1 October 2019 and PBS Ex-manufacturer prices 1 October 2019.

^a Based on a maximum quantity of 1 and assuming 10 mL (or 2 x 5 mL) of eye drops was routinely required per patient per course of treatment, as claimed by the minor submission.

Estimated PBS usage & financial implications

5.11 The minor submission estimated that the proposed listing would cost the Government \$48,507 per year, which would be offset by reduced prescribing of the PBS-listed alternatives. The net financial impact was calculated to be a small saving of between \$907 and \$3,234 per year, depending on the relative assumed use of the currently listed alternative therapies (see Table 3). The minor submission did not account for PBS co-payments in the financial implications. The Pre-PBAC Response stated that the population of interest is largely elderly patients who would be eligible for concession cards, and therefore would not be required to pay a co-payment.

Table 3: Estimated use and financial implications presented in the submission

A	Number of cataract surgery procedures performed on Aboriginal and Torres Strait Islander people between 2015-2017 (based on AIHW data)	5,131
B	Estimated number of cataract surgeries each year (A / 2)	2,566
C	Estimated proportion of patients who would use prednisolone with phenylephrine over PBS-listed alternatives	2/3
D	Estimated annual number of patients (B x C)	1,711
E	Estimated annual cost to the Government [$\$28.35 \text{ (DPMQ)} \times \text{D}$]	\$48,507
F	Estimated saving to the Government due to decreased prescribing of comparators (assuming that 2 x 5 mL bottles of comparators are routinely required per patient) ($\text{DPMQ of comparator} \times 2 \times \text{D}$)	\$49,414 - \$51,741 ^a
G	Estimated net financial impact to the Government (F – E)	Saving of \$907 - \$3,234 ^a

^a The lower figure assumes that prednisolone with phenylephrine would substitute for the lower cost comparator only (fluorometholone and fluorometholone acetate); the upper figure assumes substitution for the more costly comparator only (dexamethasone). The true figure would likely be somewhere within this range.

5.12 The Secretariat estimated utilisation using the same AIHW data referred to the minor submission² and population projections from the Australian Bureau of Statistics (ABS)³.

5.13 Given that the comparators have Unrestricted PBS listings, it was not possible to determine what proportion of the current prescriptions of those drugs were for

² Australian Institute of Health and Welfare. Indigenous eye health measures 2018. Canberra: AIHW; 2019.

³ <https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/3238.02006%20to%202031?OpenDocument>

patients post cataract surgery, or what quantities of those drugs patients typically use after cataract surgery.

- 5.14 The Secretariat made the following assumptions when estimating the financial implications of the requested listing:
- Hospitalisation rates for cataract surgery remain the same as rates presented in AIHW National Hospital Morbidity Database, 2015-2017.
 - Every person who has cataract surgery currently uses two bottles (2 x 5 mL) of one of the PBS-listed comparators, and therefore currently pays two *co-payments*.
 - If prednisolone with phenylephrine were PBS-listed for use post cataract surgery, each patient would receive one script with a maximum quantity of one 10 mL bottle with no repeats.
 - Two-thirds of patients would be prescribed prednisolone with phenylephrine, rather than one of the comparators, if it were PBS-listed for this purpose.
 - For the *co-payment* estimates, it was assumed that all patients will utilise the Closing the Gap (CTG) *Co-payment* Measure, with 80% eligible to receive the medicine without paying a PBS *co-payment* and 20% eligible to pay the general CTG co-payment of \$6.50 (equivalent to the concessional PBS co-payment)⁴.
- 5.15 Based on these assumptions, the Secretariat estimated a net cost to the PBS between \$131 to \$3,104 in Year 6 of listing, and a total net cost to the PBS between \$749 and \$17,736 over the first 6 years of listing. This is summarised in Table 4 with the expected patient and prescription numbers.

⁴ Based on Expenditure and Prescriptions analysis, around 70% of PBS prescriptions was directed towards concessional cardholders. It has been assumed that the proportion of concessional patients will be higher in the requested population due to the "Closing the Gap PBS Co-payment Measure". (Reference <http://www.pbs.gov.au/info/statistics/expenditure-prescriptions/expenditure-prescriptions-twelve-months-to-30-june-2018>)

Table 4: Secretariat estimated use and financial implications

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Estimated extent of use						
Number of patients treated ^a	1,980	2,019	2,060	2,101	2,143	2,186
Number of scripts dispensed ^b	1,980	2,019	2,060	2,101	2,143	2,186
Estimated financial implications of the listing of prednisolone with phenylephrine						
Cost to PBS/RPBS	\$56,124	\$57,251	\$58,402	\$59,574	\$60,766	\$61,976
Co-payments	\$3,860	\$3,938	\$4,017	\$4,098	\$4,180	\$4,263
Cost to PBS/RPBS less co-payments	\$52,264	\$53,313	\$54,384	\$55,476	\$56,587	\$57,713
Estimated financial implications of reduced prescribing fluorometholone or fluorometholone acetate (assuming all patients use 2 x 5 mL bottles)						
Cost to PBS/RPBS ^c	\$57,173	\$58,321	\$59,493	\$60,688	\$61,902	\$63,135
Co-payment ^s	\$7,721	\$7,876	\$8,034	\$8,195	\$8,359	\$8,526
Cost to PBS/RPBS less co-payments	\$49,453	\$50,446	\$51,459	\$52,492	\$53,543	\$54,609
Estimated financial implications of reduced prescribing of dexamethasone (assume all patients use 2 x 5 mL bottles)						
Cost to PBS/RPBS ^c	\$59,866	\$61,068	\$62,295	\$63,545	\$64,817	\$66,108
Co-payment ^s	\$7,721	\$7,876	\$8,034	\$8,195	\$8,359	\$8,526
Cost to PBS/RPBS less co-payments	\$52,145	\$53,192	\$54,261	\$55,350	\$56,458	\$57,582
Net financial implications						
Net cost to PBS/RPBS (upper range ^d)	\$2,811	\$2,868	\$2,925	\$2,984	\$3,044	\$3,104
Net cost to PBS/RPBS (lower range ^d)	\$119	\$121	\$124	\$126	\$129	\$131

^a Assuming that two-thirds of patients undergoing cataract surgery would use prednisolone with phenylephrine if it were listed for this indication

^b Assuming 1 x 10 mL bottle prednisolone with phenylephrine per patient per treatment

^c Assuming 2 x 5 mL bottles of comparator drug per patient per treatment

^d The lower range assumes that prednisolone with phenylephrine would substitute for the lower cost comparator only (fluorometholone and fluorometholone acetate); the upper range assumes substitution for the more costly comparator only (dexamethasone). The true figure would likely be somewhere within this range.

5.16 The Secretariat made several assumptions in its financial estimations and considered the estimated net cost to the PBS/RPBS to be uncertain. A sensitivity analysis was performed to estimate the potential upper limit of costs as a result of the extension to listing. For this it was assumed that:

- every person who requires cataract surgery received cataract surgery (calculated using the AIHW National Hospital Morbidity Database 2015-2017 estimation of the number of people requiring cataract surgery and ABS population projections);

- prednisolone with phenylephrine would substitute for 100% of the existing prescriptions for the comparators (rather than 2/3 of prescriptions) and would only substitute use for the more costly comparator (dexamethasone); and
- patients currently accessing the comparators for this purpose only use one bottle (5 mL) rather than two bottles (10 mL).

The net financial impact on the PBS with these assumptions would be a cost of \$22,629 in Year 6 of listing and a total net cost to the PBS of \$129,364 over the first 6 years of listing.

For more detail on PBAC's view, see section 6 PBAC outcome.

6 PBAC Outcome

- 6.1 The PBAC recommended listing prednisolone with phenylephrine as a Restricted Benefit for severe eye inflammation following cataract surgery for patients who identify as Aboriginal or Torres Strait Islander. In making its recommendation, the PBAC took into consideration, among other matters, the high clinical need of the patient population and that the listing would likely be cost neutral to Government.
- 6.2 The PBAC noted that the requested listing is consistent with the indications approved by the Therapeutic Goods Administration (TGA).
- 6.3 The PBAC considered the nominated comparators were appropriate.
- 6.4 The PBAC noted that eye disease and vision problems are the most common long-term health conditions reported by Aboriginal and Torres Strait Islander people, and acknowledged the ongoing challenges regarding access to medicines for the Aboriginal and Torres Strait Islander population.
- 6.5 The PBAC noted that Aboriginal and Torres Strait Islander patients have a higher incidence of diabetic macula oedema when inflammation is not controlled, which can lead to reduced consumer and community engagement with cataract surgery and therefore poorer health outcomes. The PBAC noted the arguments in the submission and letters of support from the RANZCO and other organisations (see paragraph 5.1) that prednisolone with phenylephrine could be particularly beneficial to this population, and that its ability to reduce eye redness could help to increase the patients' perception of the success of the surgery and reduce concerns about the procedure in the wider community.
- 6.6 The PBAC noted that prednisolone with phenylephrine has a 10 mL pack size compared to the 5 mL pack sizes of the PBS-listed alternatives and that this may be particularly beneficial for the Aboriginal and Torres Strait Islander population, especially patients travelling home to regional or remote areas after the procedure, as they would receive a full course of treatment with no repeats necessary. The recommended listing would allow eligible Aboriginal and Torres Strait Islander people living with chronic disease, to access prednisolone with phenylephrine through the Closing the Gap Co-payment Scheme. The PBAC noted that while the private cost of

prednisolone with phenylephrine is less than the general patient co-payment (\$40.30 as at 1 July 2019), it is higher than the Closing the Gap co-payment amounts (see paragraph 3.3).

- 6.7 The PBAC noted that the submission estimated the listing would result in a small save to the PBS and the Secretariat estimated a small cost. The PBAC noted that the estimates were uncertain and depended on which of the PBS-listed alternatives was replaced by prednisolone with phenylephrine and that the sensitivity analysis conducted by the Secretariat (see paragraph 5.14) represented an upper-limit that was unlikely to be realised. The PBAC considered that, on balance, the listing of prednisolone with phenylephrine for Aboriginal and Torres Strait Islander people is likely to be cost-neutral to Government.
- 6.8 The PBAC recommended the listing include a clinical criterion stating that the patient must have had a cataract removed in the treated eye or be scheduled for cataract surgery in the treated eye, to enable prescribing either prior to or following surgery.
- 6.9 The PBAC considered that nurse practitioner and optometrist prescribing of the drug for the requested indication is not suitable, as nurse practitioners and optometrists are not involved in cataract surgery.
- 6.10 The PBAC noted that the Early Supply Rule does not currently apply to prednisolone with phenylephrine. This is consistent with the nominated comparators, fluorometholone and dexamethasone.
- 6.11 The PBAC advised that, because prednisolone with phenylephrine is not expected to provide a substantial and clinically relevant improvement in efficacy, or reduction of toxicity, over dexamethasone or fluorometholone, or not expected to address a high and urgent unmet clinical need given the presence of an alternative therapy, the criteria prescribed by the National Health (Pharmaceuticals and Vaccines – Cost Recovery) Regulation 2009 for Pricing Pathway A were not met.
- 6.12 The PBAC noted that this submission is not eligible for an Independent Review because it received a positive recommendation.

Outcome:

Recommended

7 Recommended listing

7.1 Add new item:

Name, Restriction, Manner of administration and form	Max. Qty	No. of Rpts	Proprietary Name and Manufacturer	
PREDNISOLONE WITH PHENYLEPHRINE prednisolone acetate 1% + phenylephrine hydrochloride 0.12% eye drops, 10 mL	1	0	Prednefrin® Forte	Allergan Australia Pty Ltd
Category / Program:	GENERAL – General Schedule (Code GE)			

Prescriber type:	<input type="checkbox"/> Dental <input checked="" type="checkbox"/> Medical Practitioners <input type="checkbox"/> Nurse practitioners <input type="checkbox"/> Optometrists <input type="checkbox"/> Midwives
Episodicity:	-
Severity:	Severe
Condition:	eye inflammation
PBS Indication:	Severe eye inflammation [new concept]
Restriction Level / Method:	<input checked="" type="checkbox"/> Restricted benefit <input type="checkbox"/> Authority Required – In Writing <input type="checkbox"/> Authority Required – Telephone/Electronic/Emergency <input type="checkbox"/> Streamlined
Population criteria:	Patient must have had a cataract removed in the treated eye, or Patient must be scheduled for cataract surgery in the treated eye; [19254] AND Patient must identify as Aboriginal or a Torres Strait Islander [18066]

This restriction may be subject to further review. Should there be any changes made to the restriction the Sponsor will be informed.

8 Context for Decision

The PBAC helps decide whether and, if so, how medicines should be subsidised through the Pharmaceutical Benefits Scheme (PBS) in Australia. It considers applications regarding the listing of medicines on the PBS and provides advice about other matters relating to the operation of the PBS in this context. A PBAC decision in relation to PBS listings does not necessarily represent a final PBAC view about the merits of the medicine or the circumstances in which it should be made available through the PBS. The PBAC welcomes applications containing new information at any time.

9 Sponsor's Comment

The sponsor had no comment.