7.04 PRASUGREL

**Tablet 5 mg,**

**Tablet 10 mg,**

**Prasugrel SCP,**

**GENERIC HEALTH PTY LTD**

1. Purpose
   1. The early re-entry resubmission requested a General Schedule Authority Required (STREAMLINED) listing for prasugrel, in combination with aspirin, for the treatment of acute coronary syndrome (ACS) i.e., myocardial infarction or unstable angina, managed by percutaneous coronary intervention (PCI).
   2. The resubmission was based on the PBAC decision to not recommend prasugrel for this indication at the March 2024 PBAC meeting. This resubmission addressed the issues raised by PBAC; see table below.

Table 1: Summary of key matters to be addressed

| Matter of concern | Response | Addressed? |
| --- | --- | --- |
| The proposed restriction allowed patients to continue receiving prasugrel if a PCI was planned, but not performed. The PBAC noted that this was inconsistent with the clinical trial data and the registered TGA indication and advised that prasugrel should be ceased in patients who do not receive a PCI (paragraph 7.5, March 2024 Public Summary Document (PSD)). | The proposed restriction included a criterion stating that ‘Prasugrel should be ceased if a percutaneous coronary intervention is not performed’. | Yes |
| The PBAC rejected the claim that prasugrel was superior to ticagrelor in terms of efficacy. Instead, the PBAC considered that prasugrel was likely non-inferior compared to ticagrelor (paragraph 7.10, March 2024 PSD). | The early re-entry submission acknowledged that there were inherent uncertainties in the efficacy claim based on the evidence provided and accepted the PBAC’s assessment that prasugrel was non-inferior to ticagrelor. | Yes |
| The PBAC considered that a weighted CMA based on the expected replacement of clopidogrel and ticagrelor would be reasonable. The PBAC advised that the CMA’s between prasugrel and clopidogrel and prasugrel and ticagrelor should incorporate drug costs only. The PBAC considered that a weighting of 50% clopidogrel use and 50% ticagrelor use would be pragmatic (paragraph 7.15, March 2024 PSD). | The early re-entry resubmission presented a weighted CMA based on 60% ticagrelor and 40% clopidogrel use. | Partially |
| The PBAC considered that prasugrel would primarily substitute for the less expensive clopidogrel over ticagrelor, and that uptake would be lower than in the submission (paragraph 7.14, March 2024 PSD). The PBAC requested revised financial estimates that included revised inputs and incorporated the cost minimised price (paragraph 7.15, March 2024 PSD). | The early re-entry resubmission incorporated the revised cost-minimised price of prasugrel into the financial estimates. No changes were made to the substitution rates between ticagrelor and clopidogrel or to the uptake rates of prasugrel. | Partially |

Source: page 6 of the early re-entry submission and March 2024 prasugrel Public Summary Document.

CMA = cost minimisation approach; PCI = percutaneous coronary intervention

1. Background
   1. Prasugrel SCP was listed on the Australian Register of Therapeutic Goods on 26 June 2020 for the following indication, when co-administered with aspirin:

The prevention of atherothrombotic events (myocardial infarction, stroke and cardiovascular death) in patients with acute coronary syndromes (moderate to high-risk unstable angina, non-ST-segment elevation myocardial infarction (NSTEMI) or ST-segment elevation myocardial infarction (STEMI)) who are to undergo percutaneous coronary intervention (PCI).

* 1. The PICO is presented below. The resubmission acknowledged that there were inherent uncertainties with the superior effectiveness claim presented in the March 2024 submission and accepted the PBAC’s assessment of non-inferior efficacy versus ticagrelor.

Table 2: Key components of the clinical issue addressed by the submission (as stated in the submission)

| Component | Description |
| --- | --- |
| Population | Adults with acute coronary syndrome (MI or UA) managed by PCI, in combination with aspirin |
| Intervention | Prasugrel 60 mg (loading dose) then 10 mg/day (maintenance dose), or 5 mg/day maintenance dose if aged ≥75 years or weight <60 kg, with concomitant aspirin at 75 mg – 325 mg/day |
| Comparator | Primary comparator: ticagrelor 180 mg (loading dose) then 90 mg twice daily (maintenance dose), with concomitant aspirin at 75 mg – 150 mg/day  Secondary comparator: clopidogrel 300 mg (loading dose) then 75 mg/day (maintenance dose), with concomitant aspirin at 75 mg – 325 mg/day |
| Outcomes | Composite of death, MI or stroke; mortality (all cause), stroke, MI, stent thrombosis, bleeding. |
| Clinical claim | Prasugrel with aspirin is non-inferior in terms of effectiveness and safety compared to ticagrelor with aspirin.  No clinical claim was made for the comparison with clopidogrel, with the March 2024 submission stating that the PBAC previously accepted that the superior comparative clinical benefit of prasugrel over clopidogrel, in terms of reduced non-fatal MI events, marginally outweighed the inferior comparative safety profile in terms of a higher incidence of adverse bleeding events (Section 12, Prasugrel PSD, July 2009 PBAC meeting). |

Source: Table 1 of the March 2024 PBAC Public Summary Document and p8 of the early re-entry resubmission

MI = myocardial infarction; PCI = percutaneous coronary intervention; UA = unstable angina

* 1. Prasugrel (Effient®) was previously PBS-listed for the same indication on 1 December 2009. Listing was on the basis of superior comparative clinical benefit of prasugrel over clopidogrel (reduced non-fatal myocardial infarction events), which marginally outweighed the inferior comparative safety profile (higher incidence of adverse bleeding events; Section 12, Prasugrel PSD, July 2009 PBAC meeting).
  2. Prasugrel was PBS-listed until 1 July 2020 when the brand and product was delisted from the PBS. NPS MedicineWise RADAR (17 May 2022) reported that prasugrel experienced lower uptake in clinical practice than other available P2Y12 inhibitors, potentially due to factors such as higher bleeding risk (compared to clopidogrel) and inability to use outside patients receiving PCI[[1]](#footnote-2). Since this time, prasugrel has not been available on the PBS.
  3. Table 3 below outlines the prices of clopidogrel, clopidogrel with aspirin, prasugrel and ticagrelor on the PBS over time. The proposed price of prasugrel in this resubmission was approximately 15% lower than that proposed in March 2024, and was equivalent to when it was delisted in July 2020.

Table 3: DPMQs for clopidogrel, clopidogrel with aspirin, prasugrel and ticagrelor over time

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **PBS Schedule; event** | **Clopidogrel**  **75 mg, 28** | **Clopidogrel  75 mg  with aspirin  100 mg, 30** | **Prasugrel**  **5 mg, 28**  **10 mg, 28** | **Ticagrelor**  **90 mg, 56** |
| November 1999: Clopidogrel listed for secondary prevention of stroke, MI | $83.77 | - | - | - |
| February 2009: Clopidogrel listed for ACS | $80.49 | - | - | - |
| August 2009: Clopidogrel listed for stent insertion | $80.92 | - | - | - |
| December 2009: Clopidogrel with aspirin listed; prasugrel listed for ACS | $80.92 | $86.25 | $96.43  $106.43 | - |
| August 2012: Ticagrelor listed for ACS | $50.15 | $74.97 | $96.53  $106.53 | $149.10 |
| June 2020: Prior to prasugrel being delisted in July 2020 | $15.57 | $15.86 | $81.44  $89.22 | $134.61 |
| May 2022: Clopidogrel and clopidogrel plus aspirin unrestricted listing | $16.29 | $16.56 | - | $136.37 |
| March 2024 | $17.08 | $17.37 | Proposed  $　|  $　| | $130.81 |
| July 2024 | $17.08 | $17.37 | Proposed  $　|  $　| | $130.81 |

Source: Table 2 of the prasugrel Public Summary Document, March 2024

ACS = acute coronary syndrome; DPMQ = dispensed price for maximum quantity; MI = myocardial infarction; PBS = Pharmaceutical Benefits Scheme

Note: Clopidogrel, clopidogrel with aspirin and ticagrelor are eligible for 60-day dispensing (clopidogrel 75 mg, 56: $21.17; clopidogrel 75 mg with aspirin 100 mg, 60: $21.75; ticagrelor 90 mg, 112: $253.63; May 2024 PBS Schedule).

*For more detail on PBAC’s view, see section 5 PBAC outcome.*

1. Requested listing
   1. The resubmission proposed a revised restriction which included a clinical criterion stating that prasugrel should be ceased if a PCI is not performed.
   2. Secretariat additions are in italics and deletions in strikethrough.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **MEDICINAL PRODUCT**  **medicinal product pack** | | | **PBS item code** | **DPMQ** | **Max. qty packs** | **Max. qty units** | **№. of**  **Rpts** | **Available brands** |
| PRASUGREL | | | | | | | | |
| prasugrel 5 mg tablet, 28 | | | New | $　| | 1 | 28 | 5 | Prasugrel SCP |
| prasugrel 10 mg tablet, 28 | | | New | $　| | 1 | 28 | 5 | Prasugrel SCP |
|  | | | | | | | | |
| **Restriction Summary [new] /TOC [new]** | | | | | | | | |
| **Concept ID** (for internal Dept. use) | | **Category / Program:** GENERAL – General Schedule (Code GE) | | | | | | |
| ***Prescriber type:*** *Medical Practitioners Nurse practitioners* | | | | | | |
| **Restriction type:** Authority Required (Streamlined) [new code] | | | | | | |
| Prescribing rule level | 7730 | **Administrative Advice:**  ***Continuing Therapy Only:***  *For prescribing by nurse practitioners as continuing therapy only, where the treatment of, and prescribing of medicine for, a patient has been initiated by a medical practitioner. Further information can be found in the Explanatory Notes for Nurse Practitioners.* | | | | | | |
|  | | **~~Condition:~~** ~~Acute coronary syndrome (myocardial infarction or unstable angina)~~ | | | | | | |
|  | | **Indication:** Acute coronary syndrome (myocardial infarction or unstable angina) | | | | | | |
|  | | **Treatment Phase:** [blank] | | | | | | |
|  | |  | | | | | | |
|  | | **Clinical criteria:** | | | | | | |
|  | | The treatment must be in combination with aspirin | | | | | | |
|  | | ***AND*** | | | | | | |
|  | | **~~Treatment criteria~~ *Clinical criteria*** | | | | | | |
|  | | Patient must have percutaneous coronary intervention planned, *OR* | | | | | | |
|  | | *Patient must have* previously undergone percutaneous coronary intervention, *~~OR~~* | | | | | | |
|  | | *~~Patient must have~~* ~~previously had percutaneous coronary intervention planned~~ | | | | | | |
|  | | **AND** | | | | | | |
|  | | ***Clinical criteria*** | | | | | | |
|  | | Patient must not have a known history of *either* *(i)* stroke ~~or~~ *(ii)* transient ischaemic attack. | | | | | | |
|  | | **AND** | | | | | | |
|  | | **~~Clinical~~ *Treatment* criteria:** | | | | | | |
|  | | ~~Prasugrel~~ *Treatment with this drug* should be ceased if a percutaneous coronary intervention is not performed. | | | | | | |
|  | |  | | | | | | |
|  | | **Population criteria:** | | | | | | |
|  | | ~~Patient must be aged 18 years or older.~~ *Patient must be at least 18 years of age.* | | | | | | |
|  | |  | | | | | | |
|  | | **Prescribing Instructions:** Patient must be treated with the recommended maintenance dose of prasugrel according to the TGA-approved Product Information. | | | | | | |

*For more detail on PBAC’s view, see section 5 PBAC outcome.*

1. Consideration of the evidence

Sponsor hearing

* 1. There was no hearing for this item.

Consumer comments

* 1. The PBAC noted that no consumer comments were received for this item. The PBAC recalled that in March 2024 one comment was received from NACHHO that stated that there were a small number of patients who were accessing prasugrel privately.

Clinical claim

* 1. The resubmission acknowledged that there were inherent uncertainties in the clinical claim based on the evidence provided and accepted the PBAC’s assessment in March 2024 that prasugrel (in combination with aspirin) was non-inferior compared to ticagrelor (in combination with aspirin) in terms of efficacy. The claim that prasugrel was non-inferior compared to ticagrelor in terms of safety was unchanged.
  2. In the March 2024 submission, prasugrel (in combination with aspirin) was described as superior in terms of effectiveness and non-inferior in terms of safety compared with ticagrelor (in combination with aspirin).
  3. In March 2024, the PBAC considered that the claim that prasugrel was superior to ticagrelor in terms of efficacy was not adequately supported given:
* The robustness of the key evidence supporting the prasugrel versus ticagrelor comparison (ISAR-REACT 5) was uncertain as it was an open-label trial with differential discontinuation between treatment arms.
* The submission’s literature search to identify relevant clinical trials was unsatisfactory and the evidence presented in the submission did not capture the full body of evidence comparing prasugrel with ticagrelor.
* The NICE evaluation concluded that there were conflicting results in trials that reported results at one year between clopidogrel, ticagrelor and prasugrel that prevented an appropriate meta-analysis from being performed.
  1. Overall, in March 2024 the PBAC rejected the submission’s claim that prasugrel was superior to ticagrelor in terms of efficacy. Instead, the PBAC considered that prasugrel was likely non-inferior compared to ticagrelor (paragraph 7.10, prasugrel Public Summary Document (PSD), March 2024 PBAC meeting).
  2. In March 2024, the PBAC considered that the claim that prasugrel was likely to be non-inferior compared to ticagrelor in terms of safety was reasonable (paragraph 7.11, prasugrel PSD, March 2024 PBAC meeting).
  3. No clinical claim was made for the comparison of prasugrel to clopidogrel. However, in July 2009, the PBAC previously accepted that the superior comparative clinical benefit of prasugrel over clopidogrel, in terms of reduced non-fatal MI events, marginally outweighed the inferior comparative safety profile in terms of a higher incidence of adverse bleeding events (Section 12, prasugrel PSD, July 2009 PBAC meeting).
  4. The PBACs consideration of the comparative clinical effectiveness and safety of prasugrel remained unchanged from March 2024.

Economic analysis

* 1. At the March 2024 PBAC meeting, the PBAC, noted that there were numerous errors and issues with the modelled evaluation and overall, considered that the model was uninformative as the claim of superior efficacy was not accepted. The PBAC considered that an early re-entry submission should present:
     1. a CMA between prasugrel and clopidogrel incorporating drug costs only. The PBAC acknowledged that a marginal benefit of prasugrel over clopidogrel was previously accepted; however, in the context of an early re-entry submission, a CMA was appropriate.
     2. a CMA between prasugrel and ticagrelor incorporating drug costs only.
     3. weighting of the above analyses based on expected replacement of ticagrelor and clopidogrel in clinical practice. The PBAC considered that a weighting of 50% ticagrelor use and 50% clopidogrel use would be pragmatic, given the proportions of use in this population are unknown.
  2. The resubmission presented a weighted CMA versus ticagrelor and clopidogrel; however, based on Australian treatment guidelines and prescribing data from the PBS, the resubmission considered that a weighting of 60% ticagrelor and 40% clopidogrel was more accurate.
  3. The resubmission stated that, according to the Australian Therapeutic Guidelines for ACS (2023), the preferred P2Y12 inhibitors for patients undergoing PCI were prasugrel and ticagrelor due to a more rapid onset of action, less variable platelet inhibition and better clinical outcomes than clopidogrel, and that clopidogrel should be recommended only if patients are contraindicated to prasugrel and ticagrelor[[2]](#footnote-3).
  4. The resubmission presented a comparison of the market share of antiplatelet prescriptions for ACS from 2017 to 2023. The resubmission stated that following the delisting of prasugrel, the percentage of ticagrelor prescriptions rose proportionately and the percentage of clopidogrel prescriptions remained relatively steady. The submission stated that the proportion of use of clopidogrel + aspirin and clopidogrel for ACS was estimated based on the February 2016 DUSC review of ticagrelor. However, as clopidogrel + aspirin and clopidogrel are now Restricted Benefit and General Schedule listings, the use of these medicines for ACS cannot be identified in more recent PBS data. Further, as the DPMQs for clopidogrel and clopidogrel + aspirin fall below the maximum co-payment for non-concession card holders, not all prescriptions for these items would be captured in the data below.

Table 4: Market share of antiplatelet prescriptions used in ACS, 2017 – 2023.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Antiplatelet Therapy** | **2017** | **2018** | **2019** | **2020** | **2021** | **2022** | **2023** |
| Ticagrelor (1418P) | 64.8% | 67.8% | 69.7% | 72.5% | 79.3% | 78.2% | 76.6% |
| Clopidogrel + Aspirin (9296G) | 8.7% | 8.0% | 7.5% | 7.5% | 7.4% | 6.7% | 5.9% |
| Clopidogrel (8358X,9354H) | 13.8% | 13.1% | 12.6% | 12.7% | 13.2% | 15.1% | 17.5% |
| Prasugrel (9495R, 9496T) | 12.7% | 11.1% | 10.3% | 7.3% | 0% | 0% | 0% |

Source: Table 3-2, p11 of the early re-entry resubmission

ACS = acute coronary syndrome

* 1. The resubmission stated that the market share data indicated that prasugrel will primarily substitute for ticagrelor and that a 50%-50% weighting between ticagrelor and clopidogrel was not appropriate and proposed a 60% ticagrelor/40% clopidogrel weighting for the CMA. The resubmission and pre-PBAC response argued this weighting was highly conservative.
  2. The resubmission stated that, for the purposes of the CMA, the following doses were proposed to be equivalent:

Prasugrel 10 mg, once daily = ticagrelor 90 mg, twice daily = clopidogrel 75 mg, once daily

However, in effect, the CMA proposed in the submission was based on an average dose of 8.07 mg per day of prasugrel (based on the assumption that 39% of patients treated with prasugrel would receive the 5 mg strength and 61% would receive the 10 mg strength, refer to paragraph 4.18).

* 1. The resubmission presented the following CMAs, based on drug costs only, i.e. no differences in utilisation, administration costs or management of adverse events were included. Further, perfect adherence and persistence were assumed for each of the drugs, and the duration of use was assumed to be the same.

Table 5: CMA of clopidogrel, ticagrelor and prasugrel

|  |  |  |
| --- | --- | --- |
|  | **Clopidogrel, 75 mg** | **Ticagrelor, 90 mg** |
| AEMP | $3.80 | $108.79 |
| Weighting | 40% | 60% |
| **Average AEMP of prasugrel** | **$66.79** | |
| **Sensitivity analysis** | | |
| Weighting | 50% | 50% |
| Average AEMP of prasugrel | $56.30 | |

Source: Table 3-6 of the early re-entry resubmission

AEMP = approved ex-manufacturer price

Notes: the submission did not include the clopidogrel + aspirin combination product in the CMA. The impact is minor as the AEMP of the combination product is $4.07.

* 1. The CMA did not account for the loading doses that are required for each of the three drugs. This was appropriate given these are one-off/single loading doses and would have minimal impact on the CMA.
  2. The resubmission assumed that 39% of patients would receive the 5 mg prasugrel strength and 61% would receive the 10 mg strength. These percentages were consistent with the assumptions applied in the March 2024 submission.

Table 6: Prices of prasugrel 5 mg and 10 mg

|  |  |  |
| --- | --- | --- |
|  | **Prasugrel, 5 mg** | **Prasugrel, 10 mg** |
| Average AEMP of prasugrel | $66.79 | |
| Weighting a | 39% | 61% |
| **AEMP** | **$63.30** | **$68.99** |
| **DPMQ** | **$|** | **$|** |

Source: Table 3-5 of the early re-entry resubmission

AEMP = approved ex-manufacturer price; DPMQ = dispensed price for maximum quantity

a Weightings applied were 38.61% 5 mg and 61.39% 10 mg. The proposed weightings were based on the number of patients with ACS events in 2018 aged ≥75 years and <75 years from AIHW 2022 Estimating the incidence of stroke and ACS using the National Integrated Health Services Information Analysis Asset (and did not account for patients aged < 75 years who weigh < 60 kg, for whom the 5 mg dose is also recommended). Should a higher proportion of patients use the 5 mg strength in clinical practice than estimated in the CMA, the financial impact would be reduced, though the impact would be minor.

Estimated PBS usage & financial implications

* 1. In March 2024, the PBAC considered the prasugrel would primarily substitute for the less expensive clopidogrel over ticagrelor, and that the uptake would be lower than estimated in the submission (of 7.33%; paragraph 7.14, prasugrel PSD, March 2024 PBAC meeting).
  2. The PBAC requested that the revised financial estimates incorporate the changes outlined in paragraph 4.19 and the cost minimised price.
  3. The resubmission presented financial estimates that were unchanged, with the exception of including the cost minimised price of prasugrel. As such, the following assumptions continued to be applied in the financial estimates:
* The substitution rates applied were:
  + ticagrelor: 71.81%;
  + clopidogrel: 13.37%;
  + clopidogrel + aspirin: 7.65%.

These were based on PBS utilisation statistics for P2Y12 inhibitors, with clopidogrel and clopidogrel + aspirin scripts adjusted for the proportion of use in ACS; averaged over 2017-2022. As noted in the March 2024 PSD (Table 12), the estimates were not adjusted to remove private use of prasugrel from current market estimates and do not sum to 100% (substitution rate 92.84%).

* An uptake rate of 7.33% based on prasugrel (and other P2Y12 inhibitor) utilisation data from 2020. In March 2024, the PBAC considered that uptake would be lower than estimated in the submission (paragraph 7.14, prasugrel PSD, March 2024 PBAC meeting), with the ESC considering that, given the prescribing trends in the years prior to the de-listing of prasugrel, uptake will likely be lower than predicted by the sponsor (Table 12, prasugrel PSD, March 2024 PBAC meeting). The assumed uptake rate would have a limited impact on the financial estimates if the substitution rates were consistent with the CMA.

Table 7: 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 | |　1 | |　1 | |　1 | |　1 | |　1 | |　1 |
| Number of scripts dispenseda | |　2 | ||2 | |　2 | |　2 | |　2 | |　2 |
| Estimated financial implications of prasugrel | | | | | | |
| Cost to PBS/RPBS less copayments | |　3 | |　3 | |　3 | |　3 | |　3 | |　3 |
| **Estimated financial implications for ticagrelor, clopidogrel, and clopidogrel plus aspirin** | | | | | | |
| Cost to PBS/RPBS less copayments | |　4 | |　44 | |　4 | |　4 | |　4 | |　4 |
| Net financial implications to the PBS/RPBS | | | | | | |
| **Net cost to PBS/RPBS** | **|**4 | **|**4 | **|**4 | **|**4 | **|**4 | **|**4 |
| **Sensitivity analysis: assuming 60% substitution from ticagrelor and 40% from clopidogrel (consistent with CMA)** | | | | | | |
| **Net cost to PBS/RPBS** | |　4 | |　4 | |　4 | |　4 | |　4 | |　4 |
| **March 2024 submission** | | | | | | |
| **Net cost to PBS/RPBS** | **|**3 | **|**3 | **|**3 | **|**3 | **|**3 | **|**3 |

Source: Section 4 Workbook supplied with the early re-entry resubmission

PBS = Pharmaceutical Benefits Scheme; RPBS = Repatriation Pharmaceutical Benefits Scheme

a Assuming each incident patient receives 13.045 scripts (one year of treatment per patient, assuming perfect adherence and persistence).

*The redacted values correspond to the following ranges:*

*1 500 to < 5,000*

*2 20,000 to < 30,000*

*3 $0 to < $10 million*

*4 net cost saving*

* 1. The resubmission estimated that prasugrel would result in a net saving to the PBS/RPBS of $0 to < $10 million over the first 6 years of listing. In the March 2024 submission, it was estimated that prasugrel would cost the PBS/RPBS $0 to < $10 million over the first 6 years of listing. A key reason that there was a net saving to the PBS/RPBS was the difference in substitution rates applied in the financial estimates versus the CMA.
  2. Overall, the net financial implications to the PBS/RPBS will be dependent on the proportion of substitution from the more expensive ticagrelor versus the less expensive clopidogrel, and the extent to which prasugrel will substitute for clopidogrel use that is below general patient copayment.

*For more detail on PBAC’s view, see section 5 PBAC outcome.*

1. PBAC Outcome
   1. The PBAC recommended prasugrel, in combination with aspirin, for the treatment of acute coronary syndrome (ACS) i.e., myocardial infarction (MI) or unstable angina, managed by percutaneous coronary intervention (PCI). The PBAC noted that the early re-entry resubmission had satisfactorily addressed the outstanding issues and considered that the cost minimisation approach (CMA) presented, which was based on 60% ticagrelor use and 40% clopidogrel use, and the updated financial estimates were reasonable.
   2. The PBAC noted that the proposed restriction appropriately included a criterion stating that treatment should be ceased if a PCI is not performed. Further, the PBAC noted that that criterion that patients must have previously had a PCI planned should be removed and that the prescriber note recommending that patients aged over 75 years or weighing less than 60 kg should use a 5 mg/day dose should be amended to “Patient must be treated with the recommended maintenance dose of prasugrel according to the TGA-approved Product Information”. The PBAC considered that dentists, optometrists and endorsed midwives would not ordinarily be called upon to treat the requested PBS indication and therefore recommended that the eligible prescribers be restricted to medical practitioners and nurse practitioners.
   3. The PBAC noted that no new clinical evidence was presented in the resubmission. The PBAC recalled that in March 2024 it had considered the submission’s claim that prasugrel was superior to ticagrelor in terms of efficacy was not reasonable. Instead, the PBAC had considered, based on the uncertain results of the ISAR-REACT 5 trial and inconclusive results of a NICE Evidence Review, that prasugrel was likely non-inferior compared to ticagrelor. The PBAC noted that the resubmission acknowledged that there were inherent uncertainties with the previous efficacy claim and accepted the assessment that prasugrel was non-inferior to ticagrelor.
   4. The PBAC recalled that in March 2024 it had considered that as (i) the claim of superior efficacy versus ticagrelor was not accepted and (ii) there were numerous errors with the modelled evaluation, the cost utility analysis between prasugrel and ticagrelor was uninformative. The PBAC recalled that it had considered that a weighted CMA between prasugrel and ticagrelor and clopidogrel, which incorporated drug costs only, would be appropriate. The PBAC noted that it had previously accepted that prasugrel had a marginal benefit in terms of efficacy compared to clopidogrel (Section 12, prasugrel PSD, July 2009 PBAC meeting), but that in the context of an early re-entry resubmission, a CMA based on a weighting of 50% ticagrelor use and 50% clopidogrel use would be pragmatic.
   5. The PBAC noted that the resubmission considered that, based on Australian treatment guidelines and PBS prescribing data, substitution would predominantly be from ticagrelor and proposed a weighting of 60% ticagrelor and 40% clopidogrel. The PBAC considered that this was reasonable.
   6. The PBAC considered that, for the purposes of the CMA, the following doses of prasugrel, ticagrelor and clopidogrel were considered equivalent:

Prasugrel 8.07 mg, once daily (61% of patients would receive 10 mg/day and 39% of patients would receive 5 mg/day)

Ticagrelor 90 mg, twice daily

Clopidogrel 75 mg, once daily

* 1. The PBAC noted that the resubmission presented revised financial impact estimates which incorporated the cost minimised price of prasugrel. The PBAC noted that the resubmission estimated that the listing of prasugrel would result in a net saving to the PBS/RPBS of $0 to < $10 million over the first 6 years of listing. The PBAC noted that the resubmission did not revise the substitution rates between ticagrelor and clopidogrel or the uptake rates of prasugrel, but overall considered that the estimates were reasonable.
  2. The PBAC advised that prasugrel should not be treated as interchangeable with any other drugs.
  3. The PBAC advised that prasugrel is suitable for prescribing by nurse practitioners for continuing supply only.
  4. The PBAC recommended that prasugrel should not be exempt from the Early Supply Rule.
  5. The PBAC noted that its recommendation was on a cost minimisation basis and advised that, because prasugrel is not expected to provide a substantial and clinically relevant improvement in efficacy, or reduction in toxicity, over ticagrelor (or clopidogrel), or 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) Regulations 2022* for Pricing Pathway A were not met.
  6. The PBAC noted that this submission is not eligible for an Independent Review as it received a positive recommendation.

**Outcome:**

Recommended

1. Recommended listing
   1. Add new item:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **MEDICINAL PRODUCT**  **medicinal product pack** | | | **PBS item code** | **Max. qty packs** | **Max. qty units** | **№. Of Rpts** | **Available brands** |
| PRASUGREL | | | | | | | |
| prasugrel 5 mg tablet, 28 | | | NEW | 1 | 28 | 5 | Prasugrel SCP |
| prasugrel 10 mg tablet, 28 | | | NEW | 1 | 28 | 5 | Prasugrel SCP |
|  | | | | | | | |
| **Restriction Summary [new] /TOC [new]** | | | | | | | |
| **Concept ID** (for internal Dept. use) | | **Category / Program:** GENERAL – General Schedule (Code GE) | | | | | |
| **Prescriber type:** Medical Practitioners Nurse practitioners | | | | | |
| **Restriction type:** Authority Required (Streamlined) [new code] | | | | | |
| PR level |  | **Administrative Advice:**  Continuing Therapy Only:For prescribing by nurse practitioners as continuing therapy only, where the treatment of, and prescribing of medicine for, a patient has been initiated by a medical practitioner. Further information can be found in the Explanatory Notes for Nurse Practitioners. | | | | | |
|  | | **Indication:** Acute coronary syndrome (myocardial infarction or unstable angina) | | | | | |
|  | | **Treatment Phase:** [blank] | | | | | |
|  | | | | | | | |
|  | | **Clinical criteria:** | | | | | |
|  | | The treatment must be in combination with aspirin | | | | | |
|  | | **AND** | | | | | |
|  | | **Clinical criteria** | | | | | |
|  | | Patient must have percutaneous coronary intervention planned, OR | | | | | |
|  | | Patient must have previously undergone percutaneous coronary intervention, | | | | | |
|  | | **AND** | | | | | |
|  | | **Clinical criteria** | | | | | |
|  | | Patient must not have a known history of either (i) stroke (ii) transient ischaemic attack. | | | | | |
|  | | **AND** | | | | | |
|  | | **Treatment criteria:** | | | | | |
|  | | Treatment with this drug should be ceased if a percutaneous coronary intervention is not performed. | | | | | |
|  | |  | | | | | |
|  | | **Population criteria:** | | | | | |
|  | | Patient must be at least 18 years of age. | | | | | |
|  | |  | | | | | |
|  | | **Prescribing Instructions:** Patient must be treated with the recommended maintenance dose of prasugrel according to the TGA-approved Product Information. | | | | | |

***These restrictions may be subject to further review. Should there be any changes made to the restriction the sponsor will be informed.***

1. 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.

1. Sponsor’s Comment

Generic Health welcomes the PBAC recommendation for a General Schedule Authority Required (STREAMLINED) listing for prasugrel, in combination with aspirin, for the treatment of acute coronary syndrome (ACS) i.e., myocardial infarction or unstable angina, managed by percutaneous coronary intervention (PCI).

1. <https://www.nps.org.au/radar/articles/clopidogrel-and-clopidogrel-with-aspirin-now-unrestricted-on-pbs> [↑](#footnote-ref-2)
2. Antithrombotic therapy for long-term management of acute coronary syndromes. Australian Therapeutic Guidelines - Cardiovascular, June 2023. [↑](#footnote-ref-3)