7.19 TRIFLURIDINE with TIPIRACIL
Tablet, 15 mg trifluridine with 6.14 mg tipiracil, 20 mg

**trifluridine with 8.19 mg tipiracil,
Lonsurf®, Servier Laboratories (Australia) Pty Ltd**

1. Purpose of Application
	1. The minor resubmission sought an Authority Required (STREAMLINED) listing for trifluridine with tipiracil (hereafter referred to as trifluridine/tipiracil) for the treatment of patients with metastatic colorectal cancer (mCRC) who have been previously treated with, or are not considered candidates for, available therapies including fluoropyrimidine, oxaliplatin and irinotecan-based chemotherapy, anti-VEGF therapy and anti-EGFR therapy.
2. Requested listing
	1. The submission requested the following new listing:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name, Restriction,****Manner of administration and form** | **Max.****Qty** | **№.of****Rpts** | **Dispensed Price for Max. Qty** | **Proprietary Name and Manufacturer** |
| TRIFLURIDINE + TIPIRACILTrifluridine 15 mg + tipiracil 6.14 mg tablet, 20Trifluridine 20 mg + tipiracil 8.19 mg tablet, 20 | 34 | 22 | $'''''''''''''''''''''a$'''''''''''''''''''''b | LONSURF | Servier Laboratories  |
| **Category / Program** | GENERAL – General Schedule (Code GE) |
| **Prescriber type:** | [ ] Dental [x] Medical Practitioners [ ] Nurse practitioners [ ] Optometrists [ ] Midwives |
| **Severity:** | Metastatic  |
| **Condition:** | Metastatic colorectal cancer |
| **PBS Indication:** | Metastatic colorectal cancer  |
| **Treatment phase:** | Initial treatment  |
| **Restriction Level / Method:** | [ ] Restricted benefit[ ] Authority Required - In Writing[ ] Authority Required - Telephone[ ] Authority Required – Emergency[ ] Authority Required - Electronic[x] Streamlined |
| **Clinical criteria:** | Patient must have a WHO performance status of 1 or less,ANDPatient must have previously received treatment with fluoropyrimidine, oxaliplatin, irinotecan-based chemotherapies, an anti-VEGF agent and an anti-EGFR agent, ORPatient must not be a candidate for treatment with fluoropyrimidine, oxaliplatin, and irinotecan-based chemotherapies, anti-VEGF agents and anti-EGFR agents. |
| **Administrative Advice** | Patient must have a WHO performance status of 1 or less,ANDPatient must have previously received treatment with fluoropyrimidine, oxaliplatin, irinotecan-based chemotherapies, an anti-VEGF agent and an anti-EGFR agent, ORPatient must not be a candidate for treatment with fluoropyrimidine, oxaliplatin, and irinotecan-based chemotherapies, anti-VEGF agents and anti-EGFR agents. |

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| **Category / Program** | GENERAL – General Schedule (Code GE) |
| **Prescriber type:** | [ ] Dental [x] Medical Practitioners [ ] Nurse practitioners [ ] Optometrists [ ] Midwives |
| **Severity:** | Metastatic |
| **Condition:** | Metastatic colorectal cancer |
| **PBS Indication:** | Metastatic colorectal cancer  |
| **Treatment phase:** | Continuing treatment  |
| **Restriction Level / Method:** | [ ] Restricted benefit[ ] Authority Required - In Writing[ ] Authority Required - Telephone[ ] Authority Required – Emergency[ ] Authority Required - Electronic[x] Streamlined |
| **Clinical criteria:** | Patient must have previously been issued with an authority prescription for this drug for this condition,ANDPatient must not have progressive disease while on this drug,ANDThe treatment must be the sole PBS-subsidised therapy for this condition.  |
| **Prescriber Instructions** | A patient who has progressive disease when treated with this drug is no longer eligible for PBS-subsidised treatment with this drug.  |
| **Administrative Advice** | The prescribed dose is not permitted to be increased once it has been reduced.No increase in maximum quantity or number of units may be authorised. No increase in the maximum number of repeats may be authorised. |

a Effective price = $'''''''''''''''''''''' (including '''''% rebate) b Effective price = $'''''''''''''''''''' (including '''''% rebate)

* 1. The proposed restriction was unchanged from the March 2018 minor resubmission. The minor resubmission (p8) indicated that the sponsor would be willing to further amend the restriction to align with the RECOURSE trial eligibility criteria if required.

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

1. Background
	1. The PBAC first considered trifluridine/tipiracil as a major submission at its November 2016 meeting. Trifluridine/tipiracil was not recommended for listing on the basis of a modest clinical benefit, high and uncertain incremental cost-effectiveness ratio, and concern that the extent of benefit as observed in the clinical trial would not be realised in clinical practice (paragraph 7.1, November 2016 Public Summary Document [PSD]).
	2. A minor resubmission for trifluridine/tipiracil was considered at the March 2017 PBAC meeting where it was not recommended for listing. While the PBAC noted the revised lower incremental-cost effectiveness ratio (ICER) presented, it considered that the ICER remained high and uncertain as concerns regarding the modest benefits observed in clinical practice remained (paragraph 5.1, March 2017 Public Summary Document [PSD]). Further, the PBAC considered that the proposed rebates of 10% and 20% for utilisation over the financial caps were insufficient to address the significant financial impact to the PBS (paragraph 5.8, March 2017 PSD).

* 1. A minor resubmission for trifluridine/tipiracil was considered at the July 2017 PBAC meeting. The PBAC did not recommend the listing of trifluridine/tipiracil based on a modest clinical benefit in the context of substantial toxicity, and high and uncertain ICER given the extent of benefit observed in the trial and model may not be realised in clinical practice (paragraph 5.1, July 2017 PSD). The PBAC noted that the proposed rebate ('''''''''%) decreased the ICER from $45,000 - $75,000 per QALY gained to $45,000 - $75,000 per QALY gained. However, the PBAC considered that the base case ICER presented in the submission likely represented a best-case scenario where the benefit observed in the trial setting is reflected in clinical practice and the true ICER would be higher than $45,000 - $75,000 and therefore not cost-effective at the price proposed (paragraph 5.6, July 2017 PSD).
	2. At its November 2017 meeting, the PBAC again considered a minor resubmission for trifluridine/tipiracil where it did not recommend the requested listing for the treatment of mCRC. The PBAC noted that the submission presented a ‘worst case’ scenario sensitivity analysis however, considered that this analysis addressed only one aspect of the potential differences between the trial and likely PBS population (i.e. that G-CSF is not routinely used in Australia in patients with metastatic disease) (paragraph 5.9, November 2017 PSD).
	3. The PBAC considered a subsequent minor resubmission for trifluridine/tipiracil at its March 2018 meeting. The PBAC maintained its previous decision not to recommend the requested listing for the treatment of mCRC based on its previous concerns regarding the modest clinical benefit and high and uncertain incremental cost-effectiveness ratio. Further, the PBAC considered the submission’s proposed Risk Sharing Arrangement was not an appropriate approach to achieve cost-effectiveness given the remaining uncertainty in the estimated utilisation.

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

# Consideration of the evidence

## Sponsor hearing

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

## Consumer comments

* 1. The PBAC noted and welcomed the input from individuals (1) via the Consumer Comments facility on the PBS website. The comment indicated that trifluridine/tipiracil would be an important third line treatment option for patients who have failed prior therapies for mCRC as there are currently limited treatment options in this setting.
	2. The Medical Oncology Group of Australia (MOGA) reiterated its support for the trifluridine/tipiracil minor submission. It was noted that the indication for this item represents an area of unmet need after failure of standard prior therapies and trifluridine/tipiracil has a proven survival benefit in a phase 3 trial.

## Clinical trials

* 1. As a minor submission, no clinical trials were presented.

## Comparative effectiveness

* 1. At its March 2018 meeting, the PBAC recalled that the median increase in PFS of 0.3 months (HR 0.49; CI: 0.42, 0.58) compared with best supportive care in the RECOURSE trial (n=800) was small, and that the majority of patients (i.e. 53% of patients in the trifluridine/tipiracil treatment arm and 79% of patients in the best supportive care arm) had progressed by week 8. The PBAC recalled that the median gain in overall survival (OS) was 2.0 months (HR 0.69; CI: 0.59, 0.81) in the RECOURSE trial was modest. The PBAC also recalled that the results of the J003 trial (n=169) were similar to those of the RECOURSE trial.

## Special pricing arrangement

* 1. The minor submission proposed a revised Special Pricing Arrangement (SPA) where the sponsor would rebate '''''% of Commonwealth PBS expenditure. The March 2018 submission proposed a rebate of '''''''''% of the dispensed price for maximum quantity (DPMQ). While the proposed effective DPMQs in the March 2018 submission equate to ''''''''% of the published DPMQs, the proposed effective DPMQs in the current minor resubmission were calculated taking into account the average patient co-payment (see Table 1).
	2. A summary of the SPA proposed in the March 2018 and current minor resubmission are presented below in Table 1.

**Table 1: Summary of March 2018 and July 2018 special pricing arrangements**

| **Presentation** | **Published AEMP** | **Effective AEMP** | **Published DPMQ** | **Effective DPMQ** | **% Rebate**  |
| --- | --- | --- | --- | --- | --- |
| **March 2018 Submission**  |
| Trifluridine 15 mg + tipiracil 6.14 mg tablet, 20 (Max Qty 3) | $'''''''''''''''' | $'''''''''''''''' | $'''''''''''''''''''''' | $'''''''''''''''''''' | '''''''''''% (Rebate on published DPMQ) |
| Trifluridine 20 mg + tipiracil 8.19 mg tablet, 20 (Max Qty 4) | $''''''''''''''''' | $''''''''''''''''' | $'''''''''''''''''''''' | $''''''''''''''''''' |
| **July 2018 Submission** |
| Trifluridine 15 mg + tipiracil 6.14 mg tablet, 20 (Max Qty 3) | $'''''''''''''''''' | $''''''''''''''' | $''''''''''''''''''''' | $'''''''''''''''''''\* | ''''''% (Rebate on Commonwealth PBS expenditure)  |
| Trifluridine 20 mg + tipiracil 8.19 mg tablet, 20 (Max Qty 4) | $''''''''''''''''' | $''''''''''''''' | $'''''''''''''''''''' | $''''''''''''''''''''\* |

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

Source: Table 1 of the March 2018 PBAC Minutes, Table 1 page 5 of the submission

\*Calculated as (Published DPMQ – average patient co-payment) x (1- ''''''%) + average patient co-payment, assumes average patient co-payment of $33.62 based on total estimated copayments over 6 years.

## Economic analysis

* 1. As per the previous submissions, the minor resubmission presented a trial-based economic evaluation. There were no structural changes to the economic model presented in the previous submissions.
	2. The economic evaluation was updated in the minor resubmission to include the revised '''''% rebate on PBS expenditure. No other changes were made to the economic evaluation. The results of the base case economic analysis are presented below.

**Table 2: Results of the economic analysis**

|  | **Trifluridine/tipiracil arm** | **Placebo arm** | **Increment** |
| --- | --- | --- | --- |
| **Costs** |
| Average total drug costs | $'''''''''''''''''''''''  | $0.00 | $'''''''''''''''''''' |
| Average cost per patient to manage AEs | $'''''''''''''''  | $0.00 | $''''''''''''''' |
| Clinician visits | $'''''''''''''''''' | $'''''''''''''''' | $'''''''''''''''' |
| Monitoring costs | $'''''''''''' | $0.00 | $''''''''''''''' |
| **Total costs** | $'''''''''''''''''''' | $'''''''''''''''' | $'''''''''''''''''''' |
| **Outcomes** |
| Mean OS (in months) | 10.0 | 7.4 | 2.6 |
| Mean OS (in years) | 0.84 | 0.62 | 0.22 |
| Mean QALYs | 0.54 | 0.39 | 0.15 |
| Incremental cost of trifluridine/tipiracil vs placebo per LY gained: | $'''''''''''''''' |
| **Incremental cost of trifluridine/tipiracil vs placebo per QALY gained:** | **$''''''''''''''** |

Abbreviations: AE = adverse event; OS = overall survival; QALY = quality adjusted life year

Source: 2. Revised economic & financial analyses - LONSURF - mCRC - Jul 2018 resubmission - FINAL Excel workbook provided with the submission

* 1. The revised economic analysis which incorporates the revised '''''% rebate and resulted in a base case ICER of $15,000 - $45,000 per QALY gained.
	2. The minor resubmission also presented results from the same sensitivity analysis (updated to include the revised '''''% rebate) presented in the previous March 2018 and November 2017 minor submissions which attempted to stimulate a ‘worst case’ scenario assuming:
* No benefit of treatment in patients who received granulocyte colony stimulating factors (G-CSF). Placebo outcomes were applied for the 9.4% of patients in the trifluridine/tipiracil arm treated with G-CSF, and the costs for G-CSF were also removed.
* Quality of life for patients treated with trifluridine/tipiracil is considered to be no better than for patients treated with regorafenib. The utility value applied to patients in the progression-free health state is the unadjusted regorafenib trial utility value for the progression-free health state of 0.73 without the adjustment of a 2.5% increase (utility value for progression-free health state in the base-case analysis is 0.75).

The resulting ICER from the sensitivity analysis was $15,000 - $45,000 per QALY gained.

* 1. The PBAC previously considered this sensitivity analysis addressed only one aspect of the potential differences between the trial and likely PBS population (i.e. that G-CSF is not routinely used in Australia in patients with metastatic disease), and it did not adequately address that the PBS population are likely to have additional and/or more extensive comorbidities compared with the trial patients (paragraph 5.9, November 2017 PSD).

## Drug cost/patient/course: $''''''''''

* 1. The average effective dispensed cost per patient per cycle (one month) is approximately $'''''''''''[[1]](#footnote-1) based on the minor resubmission’s estimate of the total net financial implications over 6 years ($'''''''''''''''''''''') divided by the estimated total number of patients over 6 years (''''''''''''), divided by the average number of cycles per patient (3.42). Based on this per cycle cost and an average of 3.42 cycles of treatment per patient, the total effective dispensed cost would be $'''''''''.

## Estimated PBS usage & financial implications

* 1. Similar to the approach used in prior submissions, the extent of use of trifluridine/ tipiracil assumed that a proportion of incident patients diagnosed with mCRC who receive treatment with a biologic and/or chemotherapy will be treated with trifluridine/tipiracil as a last-line treatment.
	2. At its meeting in March 2018, the PBAC considered a report from the Drug Utilisation Sub-Committee (DUSC) examining the utilisation of cetuximab, panitumumab and bevacizumab for mCRC. The sponsor considered that forecasting the number of patients treated for mCRC based on the DUSC report would be an underestimate as it only included biologic therapy and did not include patients who only receive chemotherapy. The minor resubmission used a 10% PBS data sample to estimate the proportion of patients who are treated with chemotherapy only.
	3. The minor resubmission estimated less than 10,000 prevalent patients based on the 10% PBS data sample (year ending at December 2016).The minor resubmission offset the potential overestimation due to use of therapies in other indications and due to the inability to identify use of fluoropyrimidines specifically for mCRC by excluding patients who were dispensed only 5-fluorouracil or capecitabine from the analyses. Based on the 10% PBS data, the minor resubmission estimated that ''''''% (less than 10,000 patients) of patients were treated with biologics for mCRC for the year ending 2016.
	4. The minor resubmission forecast the number of incident mCRC patients receiving biologic therapy based on the DUSC report. The forecast of incident patients was then increased to include the sponsor’s estimate of additional patients treated with chemotherapy alone (i.e. the number of incident patients treated with biologic therapy divided by '''''%). Details on the source of the 10% PBS sample and PBS item codes included in the analysis could not be located in the minor resubmission. As such, the sponsor’s estimate of the proportion of mCRC who had not been supplied a biologic could not be validated and the forecast of the incident mCRC treated population likely to be prescribed trifluridine/tipiracil is therefore uncertain. The minor resubmission also did not specify whether the analysis of the 10% PBS dataset included both patients treated with first line and second line therapies. The pre-PBAC Response stated that the analysis of the 10% PBS dataset included all prevalent patients treated for mCRC receiving any line of therapy and included PBS item codes for bevacizumab, cetuximab, panitumumab, irinotecan and oxaliplatin.
	5. The minor resubmission used a second source of data to estimate the extent of use of chemotherapy alone for the treatment of mCRC, the minor resubmission utilised retrospective data from a report of analyses from the Australian Comprehensive Cancer Outcomes and Research Database (ACCORD). Patients with a diagnosis of mCRC between 1-January-2011 and 1-January-2015 included in the database were managed at one of seven Melbourne-based centres: Royal Melbourne Hospital, the Western Hospital, the Box Hill Hospital, the Melbourne Private Hospital, the Western Private Hospital, the Epworth Eastern Hospital, and the inner city private practice (Epworth Freemasons). The representativeness of these hospitals for others across Australia is unknown. The minor resubmission noted that patients treated with biologics represent approximately 60% (less than 10,000 patients) of the total population treated for mCRC. The minor resubmission claimed that when patients treated with fluoropyrimidine alone were removed from the analysis, the estimated proportion of patients treated with biologics is ''''''% which approximately consistent with the estimated '''''% from the 10% PBS dataset. The estimate that '''''% of mCRC patients are treated with biologics from the PBS dataset was used in the minor resubmission to adjust for the estimates of incident patients treated with biologics.
	6. The minor resubmission applied a growth rate of 1.6% for the Australian population based on Australian Bureau of Statistics data on the basis that the DUSC report noted that the growth rate in patient numbers appears to be plateauing. Further, the assumed uptake rate was revised to be '''''% in all years compared to '''''% in the first year increasing to ''''''% in subsequent years in previous submissions. The distribution of patients by dose and packs was based on the RECOURSE trial. The average number of courses per patient was assumed to be 3.42 based on the RECOURSE trial as per the previous submissions. The estimated utilisation and financial implications are presented below.

**Table 3: Estimated use and financial implications**

|  | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** | **Total** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Likely number of patients in each year\* | **''''''''** | **'''''''** | **'''''''** | **''''''''** | **'''''''** | **''''''''** | **'''''''''''** |
| Number of patients receiving 15 mg x 20 x 1 pack per cycle | '''''''''' | '''''''''' | '''''''''' | '''''''''' | ''''''''' | ''''''''' |  |
| Number of patients receiving 15 mg x 20 x 2 packs per cycle | ''''''''' | '''''''''' | ''''''''' | '''''''''' | '''''''''' | '''''''''' |  |
| Number of patients receiving 15 mg x 20 x 3 packs per cycle | ''''''''' | ''''''''' | '''''''''' | ''''''''' | '''''''' | ''''''''' |  |
| Number of patients receiving 20 mg x 20 x 1 pack per cycle | ''''''''' | '''''''''' | '''''''''' | '''''''''' | ''''''''' | ''''''''' |  |
| Number of patients receiving 20 mg x 20 x 2 packs per cycle | ''''''''' | '''''''''' | '''''''' | '''''''''' | '''''''' | '''''''''' |  |
| Number of patients receiving 20 mg x 20 x 3 packs per cycle | ''''''''' | ''''''''' | '''''''''' | ''''''''' | '''''''''' | '''''''''' |  |
| Number of patients receiving 20 mg x 20 x 4 packs per cycle | '''''' | '''''' | '''''' | '''''' | '''''' | ''''''' |  |
| Average number of cycles of treatment per patient | 3.42 |  |
| Total dispensed cost  | **$''''''''''''''''''''** | **$'''''''''''''''''''** | **$''''''''''''''''''** | **$''''''''''''''''''** | **$'''''''''''''''''** | **$'''''''''''''''''''''** | **$'''''''''''''''''''''''** |
| Total rebates paid | -$''''''''''''''''''''''' | -$'''''''''''''''''''''' | -$''''''''''''''''''''''' | -$''''''''''''''''''''''' | -$''''''''''''''''''''''' | -$'''''''''''''''''''''' |  |
| General patient co-payments | -$''''''''''''''''' | -$''''''''''''''' | -$'''''''''''''''' | -$'''''''''''''''' | -$''''''''''''''' | -$''''''''''''''' |  |
| Concessional patient co-payments | -$''''''''''''''''' | -$''''''''''''''' | -$''''''''''''''' | -$''''''''''''''' | -$''''''''''''''''' | -$'''''''''''''''' |  |
| **Net financial implications for PBS budget** | **$''''''''''''''''''''** | **$'''''''''''''''''** | **$'''''''''''''''''''** | **$''''''''''''''''''** | **$''''''''''''''''''** | **$'''''''''''''''''''''** | **$'''''''''''''''''''''** |

Source: 2. Revised economic & financial analyses - LONSURF - mCRC - Jul 2018 resubmission - FINAL Excel workbook provided with the submission

\*Estimated number of patients based on uptake rate of ''''''% in all years.

The redacted table shows that the total estimated number of patients over 6 years was 10,000 – 50,000.

* 1. The resubmission estimated a net cost to the PBS of less than $10 million in Year 6 of listing, with a total net cost to the PBS of $20 - $30 million over the first 6 years of listing. The revised financial estimates incorporated the proposed '''''% rebate on PBS expenditure. The minor resubmission’s estimated financial implications were not evaluated.
	2. The minor resubmission proposed a Risk Sharing Arrangement based on its revised estimates with 100% rebate for PBS expenditure above the estimated utilisation.
	3. The March 2018 submission estimated a net cost to the PBS of $10 - $20 million in Year 6 of listing, with a total net cost to the PBS of $60 - $100 million over the first 6 years of listing.

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

# PBAC Outcome

* 1. The PBAC recommended the listing of trifluridine with tipiracil for the treatment of patients with metastatic colorectal cancer (mCRC) who have been treated previously or are not considered suitable for current available therapies. The PBAC considered that for some patients, trifluridine with tipiracil may provide a meaningful benefit compared with placebo. The PBAC considered that the reduced proposed price in conjunction with the proposed financial caps based on revised utilisation estimates, were adequate to address the Committee’s uncertainty around cost-effectiveness.
	2. The PBAC noted that the Medical Oncology Group of Australia (MOGA) reiterated its support for the trifluridine/tipiracil submission on the basis that the treatment represents an area of unmet need and is proven to improve survival in a phase III trial. The PBAC acknowledged there are currently limited treatment options for patients with mCRC who have failed or are intolerant to current first and second line therapies.
	3. The PBAC recalled that the median increase in progression free survival (PFS) of 0.3 months (HR 0.49; CI: 0.42, 0.58) compared with best supportive care in the RECOURSE trial (n=800) was small, and that the majority of patients (i.e. 53% of patients in the trifluridine/tipiracil treatment arm and 79% of patients in the best supportive care arm) had progressed by week 8. The PBAC recalled that the median gain in overall survival (OS) of 2.0 months (HR 0.69; CI: 0.59, 0.81) in the RECOURSE trial was modest. The PBAC also recalled that the results of the J003 trial (n=169) were similar to those of the RECOURSE trial. However, the PBAC considered that in the context of limited treatment options, the small treatment benefit of trifluridine with tipiracil may be meaningful for some patients.
	4. The PBAC recalled that the toxicity associated with trifluridine with tipiracil was similar to other oral antineoplastic agents listed on the PBS, with myelosuppression being a key adverse event. The PBAC considered although the toxicity associated with trifluridine with tipiracil may be significant in the context of a modest benefit, the appropriateness of treatment with trifluridine with tipiracil could be left up to the treating clinician.
	5. The PBAC noted that the minor resubmission proposed a revised effective price for trifluridine with tipiracil based on a rebate of '''''% of Commonwealth PBS expenditure. The PBAC noted that incorporating the reduced effective price into the economic model reduced the ICER to $15,000 - $45,000 per QALY gained from an ICER of $45,000 - $75,000 per QALY gained in the previous submission. The PBAC recalled that it previously considered that the base case ICER should not exceed $45,000 - $75,000 per QALY gained. The PBAC recalled it previously considered the true ICER would be higher than $45,000 - $75,000 per QALY gained as it was uncertain that the benefit observed in the clinical trial setting would be realised to the same extent in clinical practice. However, the PBAC considered that the reduced effective price proposed was sufficient to address its concern that the true ICER would not be higher than $45,000 - $75,000 per QALY and therefore, was sufficiently satisfied of the cost-effectiveness of trifluridine with tipiracil for the treatment of mCRC.
	6. The PBAC noted that the submission estimated substantially lower utilisation rates compared to the previous submission (less than 10,000 patients compared to 10,000 – 50,000 patients over the first 6 years of listing) which in conjunction with the reduced effective price, resulted in an estimated net financial impact of $20 - $30 million over the first 6 years of listing. The PBAC considered although there remained some uncertainty around the methodology used to estimate the number of patients that would be treated with trifluridine with tipiracil, the PBAC noted the estimates were significantly reduced from the estimated financial impact in the previous submission of $30 - $60 million over 6 years. The PBAC considered that the revised estimated utilisation would more likely reflect the actual utilisation of trifluridine with tipiracil. On this basis, the PBAC was satisfied that the proposed Risk Sharing Arrangement consisting of 100% rebate for Commonwealth expenditure above the estimated utilisation would be adequate to ensure the cost-effectiveness of trifluridine with tipiracil and appropriate to manage the remaining uncertainty in the budget impact analysis.
	7. The PBAC advised that trifluridine with tipiracil should not be treated as interchangeable on an individual patient basis with any other drugs under Section 101 (3BA) of the *National Health Act 1953*.
	8. The PBAC recommended that the Early Supply Rule should apply to trifluridine with tipiracil.
	9. The PBAC advised that trifluridine with tipiracil is not suitable for prescribing by nurse practitioners
	10. The PBAC noted that this submission would not meet the criteria for an Independent Review as it received a positive recommendation.

**Outcome:**

Recommended

# Recommended listing

* 1. Add new item:

|  |  |  |  |
| --- | --- | --- | --- |
| **Name, Restriction,****Manner of administration and form** | **Max.****Qty** | **№.of****Rpts** | **Proprietary Name and Manufacturer** |
| TRIFLURIDINE + TIPIRACILTrifluridine 15 mg + tipiracil 6.14 mg tablet, 20Trifluridine 20 mg + tipiracil 8.19 mg tablet, 20 | 34 | 22 | LONSURF | Servier Laboratories  |
| **Category /** **Program** | GENERAL – General Schedule (Code GE) |
| **Prescriber type:** | [ ] Dental [x] Medical Practitioners [ ] Nurse practitioners [ ] Optometrists[ ] Midwives |
| **Severity:** | Metastatic  |
| **Condition:** | Metastatic colorectal cancer |
| **PBS Indication:** | Metastatic colorectal cancer  |
| **Treatment phase:** | Initial treatment  |
| **Restriction Level / Method:** | [ ] Restricted benefit[ ] Authority Required - In Writing[ ] Authority Required - Telephone[ ] Authority Required – Emergency[ ] Authority Required - Electronic[x] Streamlined |
| **Clinical criteria:** | Patient must have a WHO performance status of 1 or less,ANDPatient must have previously received treatment with fluoropyrimidine, oxaliplatin, irinotecan-based chemotherapies, an anti-VEGF agent and an anti-EGFR agent, ORPatient must not be a candidate for treatment with fluoropyrimidine, oxaliplatin, and irinotecan-based chemotherapies, anti-VEGF agents and anti-EGFR agents. |
| **Administrative Advice** | Patient must have a WHO performance status of 1 or less,ANDPatient must have previously received treatment with fluoropyrimidine, oxaliplatin, irinotecan-based chemotherapies, an anti-VEGF agent and an anti-EGFR agent, ORPatient must not be a candidate for treatment with fluoropyrimidine, oxaliplatin, and irinotecan-based chemotherapies, anti-VEGF agents and anti-EGFR agents. |

|  |  |
| --- | --- |
| **Category / Program** | GENERAL – General Schedule (Code GE) |
| **Prescriber type:** | [ ] Dental [x] Medical Practitioners [ ] Nurse practitioners [ ] Optometrists [ ] Midwives |
| **Severity:** | Metastatic |
| **Condition:** | Metastatic colorectal cancer |
| **PBS Indication:** | Metastatic colorectal cancer  |
| **Treatment phase:** | Continuing treatment  |
| **Restriction Level / Method:** | [ ] Restricted benefit[ ] Authority Required - In Writing[ ] Authority Required - Telephone[ ] Authority Required – Emergency[ ] Authority Required - Electronic[x] Streamlined |
| **Clinical criteria:** | Patient must have previously been issued with an authority prescription for this drug for this condition,ANDPatient must not have progressive disease while on this drug,ANDThe treatment must be the sole PBS-subsidised therapy for this condition.  |
| **Prescriber Instructions** | A patient who has progressive disease when treated with this drug is no longer eligible for PBS-subsidised treatment with this drug.  |
| **Administrative Advice** | The prescribed dose is not permitted to be increased once it has been reduced.No increase in maximum quantity or number of units may be authorised. No increase in the maximum number of repeats may be authorised. |

# Context for Decision

The PBAC helps decide whether and, if so, how medicines should be subsidised in Australia. It considers submissions in this context. A PBAC decision not to recommend listing or not to recommend changing a listing does not represent a final PBAC view about the merits of the medicine. A company can resubmit to the PBAC or seek independent review of the PBAC decision.

# Sponsor’s Comment

The sponsor had no comment.

1. The average effective dispensed price per cycle based on the individual patient data was $'''''''''''''''''''''' (sourced from the ‘Recourse IPD – summary’ worksheet of the economic and financial workbook submitted with the minor resubmission [↑](#footnote-ref-1)