| **Drug Name, form(s), strength(s) and Sponsor** | **Drug Type and Use** | **Listing requested by Sponsor / Purpose of Submission** | **PBAC Recommendation** |
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| ACLIDINIUM BROMIDE, 400 microgram/actuation inhalation: powder for, 60 actuations  Bretaris® Genuair®  A.Menarini Australia Pty Ltd | Chronic Obstructive Pulmonary Disease (COPD) | To request Restricted Benefit General Schedule listing for patients with chronic obstructive pulmonary disease (COPD). | The PBAC recommended listing of aclidinium bromide as a restricted benefit for chronic obstructive pulmonary disease with a maximum quantity of one pack with five repeats. Listing was recommended at the price proposed in the submission. The trial-based equi-effective doses are aclidinium bromide 400 g twice daily and tiotropium 18 g once daily.  Based on the data provided, the PBAC accepted that treatment with aclidinium bromide resulted in changes in FEV1 that were comparable to those associated with tiotropium. Differences in effect on FEV1 were neither statistically significant, nor clinically relevant. The PBAC considered that the data provided adequately supported the submission’s claim that aclidinium bromide is non-inferior in terms of comparative effectiveness and comparative safety to tiotropium. |
| ALENDRONATE + COLECALCIFEROL + CALCIUM, alendronate 70 mg + colecalciferol 140 microgram tablet [4 tablets] (&) calcium (as carbonate) 500 mg tablet [24 tablets], 1 pack  Fosamax Plus D-Cal®  Merck Sharp and Dohme (Australia) Pty Ltd | Osteoporosis | To request listing as General Schedule Authority Required (STREAMLINED) benefit of a new presentation of alendronate + colecalciferol + calcium. | The PBAC recommended the listing of the new presentation of alendronate with colecalciferol and calcium on a cost minimisation basis with alendronate, on a mg per mg basis of the alendronate component. The PBAC considered that the cost-effectiveness of alendronate with colecalciferol and calcium would be acceptable if it were cost-minimised against alendronate.  In making this recommendation, the PBAC noted it could only recommend listing of alendronate with colecalciferol and calcium at the price requested by the submission if it was satisfied that alendronate with colecalciferol and calcium provides, for some patients, a significant improvement in efficacy or reduction of toxicity over the alternative therapy or therapies. The alternative therapies in this case include alendronate. The PBAC noted that the current submission did not present any data demonstrating an advantage of alendronate with colecalciferol and calcium over alendronate and neither did any of the earlier submissions for the combination alendronate product (alendronate with colecalciferol or alendronate with colecalciferol and calcium). The PBAC therefore considered a cost-minimisation recommendation against alendronate was appropriate for the new alendronate with colecalciferol and calcium presentation.  The PBAC expressed concern that the dose of vitamin D would not be adequate for those patients who are genuinely vitamin D deficient, but may assist in maintaining normalised levels in patients requiring supplementation of vitamin D. The PBAC also noted the concerns about the toxicity risks of calcium supplementation reported in the October 2013 Drug Utilisation Sub-Committee (DUSC) Report on Osteoporosis (Bolland et al. Calcium and cardiovascular risks. Aust Prescr 2013; 36:5-8). The Committee acknowledged that the sponsor was attempting to address this concern by reducing the number of calcium tablets in the combination pack; however the PBAC noted Bolland et al conclude that no calcium supplementation is required for people other than institutionalised elderly women. |
| ATOMOXETINE, 10 mg capsule, 28, 18 mg capsule, 28, 25 mg capsule, 28, 40 mg capsule, 28, 60 mg capsule, 28 and 80 mg capsule, 28  Strattera®  Eli Lilly Australia Pty Limited | Attention Deficit Hyperactivity Disorder | To request that the current Authority Required listing for atomoxetine be changed to authority required (STREAMLINED) and the restriction wording be altered. | The PBAC recommended the streamlining of atomoxetine’s Authority Required listing and simplification of the restriction in line with the submission’s proposed changes and the Secretariat suggestions. |
| BETAINE, 1 g/g oral liquid: powder for, 180 g  Cystadane®  Emerge Health Pty Ltd | Homocystinuria | To request an Authority Required General Schedule listing for the treatment of patients with homocystinuria. | The PBAC recommended the listing for betaine as an Authority Required benefit for the adjunct treatment of homocystinuria, in consultation with a metabolic physician on the basis of improved vascular outcomes over standard care without betaine.  The PBAC noted that homocystinuria is a rare disease for which there is a high need for new treatments.  The PBAC was satisfied that betaine provides, for some patients, a significant reduction in the risk of a vascular event, as well as reduced serum levels of homocysteine.  The PBAC acknowledged the difficulties associated in the collection of data in rare conditions such as homocystinuria.  The PBAC noted that its recommendation was in the context of a small patient population with a high unmet clinical need, and a modest overall likely financial impact to the PBS. |
| BIMATOPROST + TIMOLOL, bimatoprost 0.03% + timolol 0.5% eye drops, 30 x 0.4mL  Ganfort PF®  Allergan Australia Pty Ltd | Glaucoma | To request listing of a new preservative free formulation as a restricted benefit within the general and optometrist schedules for the treatment of glaucoma. | The PBAC recommended the listing of bimatoprost 0.03% + timolol 0.5% PF eye drops, single dose units, 0.4 mL, on the PBS as a Restricted Benefit for prescribing by medical practitioners and optometrists.  In making this recommendation, the PBAC noted it could only recommend listing of bimatoprost + timolol PF at the price requested by the submission if it was satisfied that bimatoprost +timolol PF provides, for some patients, a significant improvement in efficacy or reduction of toxicity over the alternative therapy or therapies. The alternative therapies in this case include latanoprost + timolol. The PBAC noted that the current submission did not demonstrate an advantage of bimatoprost + timolol PF over latanoprost + timolol. |
| BRENTUXIMAB VEDOTIN, 50 mg injection, 1 x 50 mg vial  Adcetris®  Takeda Pharmaceutical Australia Pty Ltd | Systemic Anaplastic Large Cell Lymphoma (sALCL) | To request a Section 100 (Efficient Funding of Chemotherapy) Authority Required (+/- STREAMLINED) listing for the treatment of adult patients with relapsed or refractory systemic anaplastic large cell lymphoma (sALCL) who are suitable for further systemic curative-intent salvage therapy. | The PBAC recommended the listing of brentuximab vedotin (BV) for the treatment of relapsed or refractory systemic anaplastic large cell lymphoma in patients who are suitable for further systemic curative intent salvage therapy under the Section 100 Efficient Funding of Chemotherapy Program (EFCP).    The PBAC considered that there was a high clinical need for treatments for sALCL, noting that the prognosis is poor for patients who have relapsed following first line treatment. The PBAC welcomed and noted the input received via the consumer comments facility on the PBS website from health care professionals and organisations in support of the submission for BV. The comments included descriptions of the high unmet clinical need, and highlighted the chance provided by BV for patients to proceed to potentially curative transplant.  The PBAC was satisfied that BV provides, for some patients, a significant improvement in efficacy over multi-agent salvage chemotherapy.  The PBAC agreed that multi-agent salvage chemotherapy (ICE, DHAP, and ESHAP) was the appropriate comparator.  The PBAC accepted that BV represented an advance in therapy for a disease where a high clinical need exists. The PBAC accepted the submission’s claim that BV is associated with significant additional OS and patient relevant efficacy in the first line salvage therapy setting for patients that have had no prior SCT.  The PBAC considered that the submission’s claim of less toxicity relative to multi-agent salvage chemotherapy was reasonable with respect to most acute toxicity, but that severe peripheral neuropathy was an important toxicity more likely in BV treated patients.  The PBAC noted that the revised base case resulted in an ICER in a range of $75,000/QALY to $1000,000/QALY. The PBAC considered that this was the most realistic estimate of the cost-effectiveness of BV in the indication requested. Based on sensitivity analyses, the PBAC considered the ICER for BV in sALCL could plausibly be as high as over $100,000/QALY. The PBAC considered that at the price proposed in the submission, BV was not acceptably cost-effective. The PBAC considered that BV would be cost-effective at a reduced price that produced an ICER, derived from the re specified base case, in a range of $45,000 and $75,000/QALY. |
| CALCIUM, tablet (chewable) 500 mg (as carbonate), 60  Cal-500®  Petrus Pharmaceuticals Pty Ltd | Hyperphosphataemia associated with chronic renal failure | To request General Schedule Authority Required (STREAMLINED) listing for the treatment of hyperphosphataemia associated with chronic renal failure. | The PBAC recommended an Authority Required (STREAMLINED) listing (maximum quantity of 4 and 1 repeat) for patients with hyperphosphataemia due to chronic renal failure. Listing was recommended on a cost-minimisation basis with the currently listed calcium chewable tablet (Cal-Sup). |
| CERTOLIZUMAB PEGOL, 200 mg/mL injection, 2 x 1 mL syringes  Cimzia®  UCB Australia Pty Ltd | Ankylosing Spondylitis | To request Authority Required General Schedule listing for the treatment of adults with active ankylosing spondylitis (AS) who meet certain criteria. | The PBAC recommended the extending the authority required listing of certolizumab pegol to include the treatment of active ankylosing spondylitis (AS) in patients who meet certain criteria on a cost minimisation basis with adalimumab. The equi-effective doses are 400 mg certolizumab at weeks zero, two and four, then 200 mg every two weeks or 400 mg every four weeks, and adalimumab 40 mg every two weeks.  The PBAC recommended the same restriction as for etanercept, adalimumab and golimumab for active ankylosing spondylitis apply to certolizumab. The PBAC agreed that certolizumab would provide an alternative treatment option for ankylosing spondylitis to the currently available bDMARDs.  Adalimumab was the primary comparator for the cost-minimisation analysis. Etanercept, infliximab and golimumab were nominated as secondary comparators. The PBAC considered the comparators to be appropriate.  The PBAC considered that the indirect comparisons indicated there were no statistically significant difference between certolizumab and any of the bDMARDs or the combined bDMARDs.  Based on the evidence presented the PBAC agreed that the safety profile of certolizumab appeared to be consistent with the known safety profiles of the other bDMARDs for the treatment of AS.  Based on the evidence presented and the nominated non-inferiority criterion the PBAC considered certolizumab to be non-inferior in terms of comparative efficacy and safety to adalimumab, etanercept, infliximab and golimumab. |
| CORIFOLLITROPIN ALFA, 100 microgram/0.5 mL injection, 1 x 0.5 mL syringe  Elonva®  Merck Sharp and Dohme (Australia) Pty Ltd | Assisted reproductive therapies | To request removal of the maximum weight restriction wording from the PBS restriction of Elonva 100 microgram presentation. | The PBAC recommended that the weight limitation for subsidised treatment could be removed from the 100 microgram strength of corifollitropin alfa. |
| ECULIZUMAB, 300 mg/30 mL injection, 1 x 30mL vial  Soliris®  Alexion Pharmaceuticals Australasia Pty Ltd | Atypical Haemolytic Uraemic Syndrome (aHUS) | Re-submission to request Section 100 (Highly Specialised Drugs Program) or LSDP listing for atypical Haemolytic Uraemic Syndrome (aHUS). | The PBAC recommended the listing of eculizumab on the basis that it should be available only through special arrangements under section 100.  The PBAC again acknowledged the difficulties associated with obtaining clinical data for the use of eculizumab in the treatment of patients with aHUS disease given the rarity of the condition.  The PBAC noted that the submission requested listing in two distinct groups of patients with aHUS:   * Patients with active, progressive thrombotic microangiopathy (TMA) during acute episodes of aHUS, who have not progressed to end stage renal disease; * Patients with end stage renal disease on chronic dialysis who are demonstrating extra-renal TMA or who are suitable for a kidney transplant.   The PBAC noted that the incremental improvements with eculizumab in TMA, kidney function and quality of life were greater in the studies that were representative of patients who have not progressed to end stage renal disease than in the studies representative of patients with later-stage aHUS. Further, in patients with recently commenced dialysis, eculizumab may prevent progression to end stage renal disease and the PBAC considered this to be a very clinically important benefit.    The PBAC concluded that there is a high clinical need for eculizumab in aHUS, particularly in those patients with an acute episode who have not progressed to end stage renal disease. The PBAC formed this view because it noted:   * aHUS is a severe disease associated with end stage renal disease and mortality, particularly at its first presentation. * The submission estimated the prevalence of aHUS to be 3.3 to 7 cases per million. * Patients are currently treated with supportive care consisting of plasma exchange/infusion, dialysis and/or renal transplant. There is high morbidity and mortality associated with dialysis and renal transplant. * The PBAC considered that the clinical data indicated that eculizumab was more effective than supportive care with respect to the outcomes of mortality and TMA response. Further the PBAC noted that, in those patients who have only recently commenced dialysis, eculizumab may prevent progression to end stage renal disease.   The PBAC concluded that, while eculizumab was an effective drug in the treatment of acute episodes of aHUS, the extent of the clinical benefit was difficult to quantify. The PBAC was unable to determine the effectiveness of eculizumab in patients on long term dialysis. The PBAC was therefore satisfied that eculizumab provides, for some patients, a significant improvement in efficacy over supportive care - that is for patients with active, progressive TMA during acute episodes of aHUS and who have not progressed to end stage renal disease (ESRD).  The PBAC considered that eculizumab would be cost-effective at a price justified by the existing evidence and if certain risk sharing measures as well as a structured program to collect ongoing evidence to assess long term outcomes are negotiated and implemented with the sponsor:   * This program would need to be under a Managed Entry Scheme and ultimately include rebates to the Commonwealth for patients who do not achieve an agreed clinical outcome over an agreed period of time. * The sponsor agrees to fund a structured program to collect evidence aimed at resolving areas of uncertainty including duration of therapy. |
| EVEROLIMUS, 5 mg tablet, 30 and 10 mg tablet, 30  Afinitor®  Novartis Pharmaceuticals Australia Pty Ltd | Malignant pancreatic neuroendocrine tumour (pNET) | To request a General Schedule Authority Required listing for the treatment of metastatic or unresectable, well-differentiated malignant pancreatic neuroendocrine tumour (pNET). | The PBAC recommended extending the current PBS Authority required listing for everolimus to include initial and continuing treatment of metastatic or unresectable, well-differentiated malignant pancreatic neuroendocrine tumour (pNET). Listing was recommended on a cost-minimisation basis with sunitinib.  The PBAC acknowledged that a high clinical need exists for treatments for metastatic pNET. The PBAC noted that currently, sunitinib is the only PBS-listed treatment available for this condition.  Overall, the PBAC considered the re-submission’s claim that everolimus is non-inferior to sunitinib in terms of clinical effectiveness for the treatment of patients with advanced pNET, with a different, but manageable, safety profile, was reasonable. |
| EVEROLIMUS, 5 mg tablet, 30 and 10 mg tablet, 30  Afinitor®  Novartis Pharmaceuticals Australia Pty Ltd | Clear cell variant renal cell carcinoma | To request a General Schedule Authority Required listing for the treatment of Stage IV clear cell variant renal cell carcinoma after progression on sunitinib. | The PBAC recommended extending the current PBS Authority required listing for everolimus to include initial and continuing treatment of stage IV clear cell variant RCC in patients who have disease progression following treatment with a PBS-subsidised tyrosine kinase inhibitor.  The PBAC was satisfied that everolimus provides, for some patients, a significant improvement in efficacy over best supportive care.  The PBAC’s recommendation for listing was based on, among other matters, its assessment that the survival gain was likely to be between the estimates of 3 and 4.8 months. Given the clinical need for treatments in this population of patients, the PBAC therefore considered that at the price proposed in re-submission, everolimus was acceptably cost-effective. The PBAC recalled that the ICER at which everolimus was recommended for listing in advanced breast cancer was comparable, but the estimate of survival for second line renal cancer is more uncertain.  The PBAC also requested, should additional data about the survival benefit of everolimus become available in the future, the sponsor provide the data to the PBAC to provide more certainty about the overall survival benefit.  With no new clinical safety data presented in the re-submission, the PBAC had no reason to alter its previous acceptance that everolimus is inferior to placebo in terms of safety. |
| FLUTICASONE FUROATE AND VILANTEROL TRIFENATATE, fluticasone furoate 100 microgram/actuation + vilanterol trifenatate 25 microgram/actuation, inhalation: powder for, 30 actuations and fluticasone furoate 200 microgram/actuation + vilanterol trifenatate 25 microgram/actuation, inhalation: powder for, 30 actuations  Breo® Ellipta®  GlaxoSmithKline Australia Pty Ltd | Asthma | To request a Restricted Benefit General Schedule listing for the treatment of patients with frequent episodes of asthma who are 12 years or older and who are undergoing treatment with an optimal dose of an inhaled corticosteroid or who are undergoing treatment with a combination of an inhaled corticosteroid and a long-acting beta-2-agonist. | The PBAC recommended PBS listing of fluticasone furoate with vilanterol (dry powder inhaler) on a cost minimisation basis to fluticasone propionate with salmeterol (dry powder inhaler and metered dose inhaler).  The PBAC agreed that the restriction for fluticasone furoate with vilanterol fixed dose combination (FDC) should be consistent with the restrictions for the other inhaled corticosteroid with long-acting beta-agonist (ICS-LABA) FDCs listed for asthma maintenance therapy, but that the PBS-subsidised use of fluticasone furoate with vilanterol FDC should be additionally restricted to patients who are 12 years or older. This is consistent with the TGA approved product information and with the clinical trials presented in the submission.  The PBAC accepted fluticasone propionate with salmeterol FDC is the main comparator. While evidence comparing fluticasone propionate with salmeterol against budesonide with eformoterol was not presented in the submission the PBAC considered that, based on previous considerations of fluticasone propionate with salmeterol and budesonide with eformoterol that it was reasonable to assume similar benefit.  The PBAC raised a number of safety concerns regarding the fluticasone furoate with vilanterol FDC: the different dosing in patients with asthma and COPD may be problematic in patients with both asthma and COPD, that neither component of the FDC is available as a single product, and there is limited long term safety data for vilanterol and cardiovascular concerns have been raised in regard to very long acting LABAs. The PBAC weighed this against the significant clinical experience with ICS/LABA FDC products in asthma, and the advice that the Product Information will include direction for prescribers on how to switch patients from currently-listed products. The PBAC therefore considered that it was reasonable to recommend the listing of the FDC in the absence of the components. The PBAC requested that the National Prescribing Service address these issues in a future publication. |
| FOLLITROPIN BETA, 300 international units/0.36 mL injection, 1 x 0.36 mL cartridge, 600 international units/0.72 mL injection, 1 x 0.72 mL cartridge and 900 international units/1.108 mL injection, 1 x 1.08 mL cartridge  Puregon®  Merck Sharp and Dohme (Australia) Pty Ltd | Assisted reproductive therapies | To request that the PBAC confirm that follitropin alfa is not bioequivalent with follitropin beta and to request the Department advise the Department of Human Services on the changes that would be required for their claim forms. | The PBAC noted that follitropin alfa and follitropin beta cannot be bioequivalent and are therefore not substitutable at the pharmacist level.  The PBAC requested that the Department liaise with the Department of Human Services (DHS) to clarify that follitropin alfa and follitropin beta are not “a” flagged in the Schedule and therefore are not interchangeable at the point of dispensing.  The PBAC did not consider that any changes to the current listings of follitropin beta are required, noting that while a restriction may include a note regarding products that may be substituted, it is not standard practice to include a note for products that cannot be substituted. |
| GLUCOSE INDICATOR BLOOD, glucose indicator blood strip: diagnostic, 25 diagnostic strips, 50 diagnostic strips and 100 diagnostic strips  Easy Mate II Blood Glucose Meter Strips  Wincot Pty Ltd | Diabetes | To request the listing of a new brand of blood glucose test strips. | The PBAC recommended the PBS listing of Easy Mate II® blood glucose test strips under the same listing conditions as existing listed brands of glucose indicator strips. |
| HIGH FAT FORMULA WITH VITAMINS, MINERALS AND TRACE ELELMENTS AND LOW IN PROTEIN AND CARBOHYDRATE, oral liquid, 32 x 200 mL tetrapak  KETOCAL® 4:1 LQ  Nutricia Australia Pty Ltd | Medicinal food | To request a General Schedule restricted benefit listing for patients requiring a ketogenic diet, for the treatment intractable childhood epilepsy, glucose transporter protein (GLUT-1) deficiency and pyruvate dehydrogenase deficiency (PDHD). | The PBAC recommended the listing of KetoCal 4:1 LQ as a Restricted Benefit for patients requiring a ketogenic diet, for the treatment of intractable childhood epilepsy, glucose transporter protein (GLUT-1) deficiency and pyruvate dehydrogenase deficiency (PDHD), at a price that is more closely aligned with that of the comparator, Keota 4:1 powder (on a cost per kilojoule basis). |
| INFLIXIMAB, 100 mg injection, 1 x 100 mg vial  Remicade®  Janssen-Cilag Pty Ltd | Ulcerative Colitis | To request Section 100 Highly Specialised Drugs Program (HSD) listing for the treatment of moderate to severe ulcerative colitis in patients who have failed to respond to conventional therapy and meet certain criteria. | The PBAC recommended the listing of infliximab available as a Section 100 (Highly Specialised Drugs Program) Authority required benefit for the treatment of moderate to severe ulcerative colitis in adults and children.  The PBAC acknowledged the limited treatment options on the PBS for patients with moderate to severe ulcerative colitis and considered that a clinical need exists for further effective treatment options to be available to such patients. The PBAC noted that this sentiment was reflected in the consumer comments, as well as consumer views that listing for moderate to severe ulcerative colitis would also improve equity in access across infliximab’s various treatment indications, in particular noting that infliximab is currently subsidised for Crohn disease but not for ulcerative colitis.  The PBAC noted that for every 100 patients treated with infliximab compared to placebo:   * Approximately 26 more patients would achieve remission at 8 weeks; * Approximately 14 more patients would have a sustained remission at weeks 8 and 30; * Approximately 13 more patients would have a sustained remission at weeks 8, 30 and 54; * Approximately 7 less patients would experience a serious adverse event; * Approximately 1 more patient would experience an infusion reaction; and * There would be approximately no difference in the number of patients experiencing a serious infection.   The submission described infliximab 5 mg/kg as superior in terms of comparative effectiveness and equivalent in terms of comparative safety and tolerability over best supportive care in the treatment of patients with moderate to severe ulcerative colitis. The PBAC considered the clinical claim to be adequately supported in both adult and paediatric populations.  The PBAC considered the revised economic model structure and variables as calculated by the Economics Subcommittee (ESC) to be the most reliable basis for estimating the true incremental cost-effectiveness ratio (ICER). However, the PBAC considered this ICER to be unacceptably high.  The PBAC further considered a lower ICER, as determined by the ESC’s revised economic model, would be acceptable to enable infliximab to be considered cost-effective for use in ulcerative colitis. |
| INTERFERON BETA-1A, 30 microgram (6 million international units) injection [4 x 30 microgram vials] (&) inert substance diluent [4 x 1.1 mL syringes], 1 pack and 30 microgram/0.5 mL (6 million international units) injection, 4 x 0.5 mL syringes  Avonex®  Biogen Idec Australia Pty Ltd | Multiple sclerosis | To request that the current Authority Required listing for interferon beta-1a be changed to Authority Required (STREAMLINED). | The PBAC considered that it would be appropriate for the current Authority Required listing be amended to Authority Required (STREAMLINED).  However, the PBAC recommended that the Department review the administrative requirements for all PBS listed treatments for relapsing-remitting multiple sclerosis (RRMS) in a consolidated fashion, rather than considering the individual listings in a piecemeal approach. The PBAC considered that it would be problematic for any one listing to be amended before other RRMS listings had been reviewed for suitability for Streamlining. |
| IVACAFTOR, 150 mg tablet, 56  Kalydeco®  Vertex Pharmaceuticals (Australia) Pty Ltd | Cystic Fibrosis | Re-submission to request Section 100 Highly Specialised Drugs (HSD) listing with or without Rule of Rescue consideration or LSDP listing for the treatment of cystic fibrosis in patients 6 years and older who have confirmed class III (gating) G551D mutation in the cystic fibrosis transmembrane conductance regulator (CFTR) gene. | The PBAC reiterated its previous recommendation for the PBS listing of ivacaftor as a Section 100 (Highly Specialised Drugs Program) benefit for treatment of cystic fibrosis (CF) in patients aged six years and older who have a G551D mutation in the cystic fibrosis transmembrane conductance regulator (CFTR) gene. The PBAC also recommended that access to the listing be by written Authority application, to be handled by the Complex Drugs area of the Department of Human Services.  The PBAC considered that, in the absence of a lower price than that proposed in the submission, the cost-effectiveness of ivacaftor could also be improved under a “pay for performance” arrangement, because the PBAC was satisfied that ivacaftor offers, for some patients, a significant improvement in efficacy compared with best supportive care. The PBAC was of the view that ivacaftor would be acceptably cost effective for patients who respond to treatment to the same extent and duration as depicted in the clinical data.  The PBAC considered that cost-effectiveness of ivacaftor would be acceptable if a “pay for performance” arrangement of the nature described below were implemented, together with the other risk sharing measures also identified below:   * An agreement between the sponsor of ivacaftor and the Government to cap the maximum financial expenditure to the submission’s estimates with a 100% rebate thereafter; * A “pay-for-performance” arrangement whereby the sponsor rebates to the Commonwealth 100% of the cost of treatment with ivacaftor received by patients who are subsequently assessed as not responding to treatment every 3 and 6 months.   Response for that purpose should be defined as at least a 5% improvement in FEV1 after three months’ treatment, and at least 10% improvement after six months treatment. For patients aged six to 11 years that are able to show improvement in FEV1 but less than the threshold for PBS subsidy, the assessment of clinical response may also include a weight gain of 1.5kg at three months and/or 3kg at six months. Where a patient’s response to ivacaftor is affected by acute infective exacerbation at the time of diagnosis, a single month’s additional PBS subsidised treatment might be authorised before reassessment.   * Where a patient currently uses a moderate or strong CYP3A inhibitor known to influence the pharmacokinetics of ivacaftor which must trigger a dose adjustment as per the recommended dose in the Product Information (150mg once daily for moderate inhibitors, 150mg twice weekly for strong inhibitors), the subsidy only be paid for the adjusted dose, with any difference between what is being used in clinical practice versus recommended PI dose to be rebated by the sponsor. * Commitment by the sponsor for ongoing funding for collection of data in all patients receiving PBS-funded ivacaftor in accordance with the views expressed by the PBAC in November 2013; * Every 12 months of data to be provided to the PBAC for assessment and comparison between the clinical trial and assumptions in the economic analysis and real life clinical experience.   The PBAC acknowledged that if that alternative approach were adopted, that it would involve some administrative and compliance measures on prescribers, patients and the Government, and inconvenience for each, although consistent with other high-cost drugs on the PBS. However, the PBAC has suggested those measures in an effort to identify a means of achieving the PBS listing of the drug on a basis which is cost-effective, if the sponsor is not willing to offer the drug to the Government at a price that achieves cost-effectiveness, and that the Government considers acceptable.  The PBAC considered that it would be desirable that any data collected pursuant to any arrangements agreed with the sponsor be placed in the public domain to develop knowledge of CF for government, industry and academia alike. |
| IVERMECTIN, 3 mg tablet, 4  Stromectol®  Merck Sharp & Dohme (Australia) Pty Ltd | Scabies | To request Authority Required (STREAMLINED) General Schedule listing for the treatment of scabies where prior topical treatment has failed or is contra-indicated and for crusted scabies in conjunction with topical therapy. | The PBAC recommended the Section 85 listing of ivermectin, as an Authority Required (STREAMLINED) benefit for treatment of patients with crusted scabies in conjunction with topical therapy and for treatment of patients with typical scabies when prior topical treatment with both permethrin and benzoyl benzoate has failed or is contra-indicated.  The PBAC was satisfied that ivermectin provides, for some patients, a significant improvement in efficacy over placebo.  The PBAC made its recommendation based on the high clinical need, modest overall financial impact to the PBS and the positive consequence of avoided health costs following treatment with scabies.  The PBAC considered that ivermectin in conjunction with topical therapy was currently the only effective treatment available for crusted scabies.  For the indication of typical scabies, the PBAC considered that there were a number of Quality Use of Medicines issues raised by the availability of ivermectin on the PBS, which may be addressed in the restriction and by prescriber and patient education.   * + Maintaining proper topical treatments as first-line treatment   + Minimising the risk of leakage of ivermectin into first-line treatment   + Minimising the risk of mite-resistance to ivermectin   + Minimising deviation of ivermectin to inappropriate treatment groups (first-line treatment or household contacts)   The PBAC advised that prescriber and patient education could be based on the experience of community-based education programmes associated with organisations. |
| LEVONORGESTREL, 13.5 mg drug delivery system: intrauterine, 1 system  Jaydess®  Bayer Australia Limited | Contraception | Resubmission to request the PBS listing of levonorgestrel as an ultralow dose contraceptive system. | The PBAC recommended listing levonorgestrel as a Restricted benefit for contraception. |
| MACITENTAN, 10 mg tablet, 30  Opsumit®  Actelion Pharmaceuticals Australia Pty Ltd | Pulmonary Arterial Hypertension (PAH) | To request a Section 100 Highly Specialised Drugs (HSD) Program Authority Required listing for the treatment of idiopathic pulmonary arterial hypertension (PAH) and PAH associated with connective tissue disease and PAH associated with congenital heart disease, in patients with World Health Organisation Functional Classification III and IV who meet certain criteria. | The PBAC recommended the listing of macitentan, on the basis that it should be available only under special arrangements under section 100.  The PBAC accepted that bosentan is the appropriate comparator.  Based on the data provided, the PBAC accepted that treatment with macitentan resulted in neither a statistically significant, nor clinically relevant, difference in 6 minute walk distance (6MWD) compared to bosentan. The PBAC considered that the data provided adequately supported the submission’s claim that macitentan is non-inferior in terms of comparative effectiveness and comparative safety to bosentan.  The PBAC did not accept that macitentan was possibly superior to bosentan in terms of safety as claimed in the submission. This was due to the absence of direct clinical evidence and longer term data.  The PBAC considered that a cost-minimisation economic analysis was the appropriate approach based on the evidence presented for non-inferiority. The PBAC considered that the impact of listing macitentan should be cost neutral for the PBS. |
| MACROGOL 3350 + SODIUM CHLORIDE + POTASSIUM CHLORIDE + BICARBONATE  macrogol 3350 13.12 g + sodium chloride 350.7 mg + potassium chloride 46.6 mg (0.66 mmol potassium) + sodium bicarbonate 178.5 mg solution, 500 mL  Movicol® Liquid  Norgine Pty Limited | Constipation | To request General Schedule restricted benefit and palliative care schedule listing and quadriplegic association program for the treatment of constipation. | The PBAC recommended a Restricted Benefit listing (maximum quantity of 2 and 5 repeats) as requested in the submission. |
| NATALIZUMAB, 300 mg/15 mL injection, 1 x 15 mL vial  Tysabri®  Biogen Idec Australia Pty Ltd | Multiple sclerosis | To request that the current Authority Required listing for natalizumab be changed to Authority Required (STREAMLINED). | The PBAC considered that it would be appropriate for the current Authority Required listing be amended to Authority Required (STREAMLINED).  However, the PBAC recommended that the Department review the administrative requirements for all PBS listed treatments for relapsing-remitting multiple sclerosis (RRMS) in a consolidated fashion, rather than considering the individual listings in a piecemeal approach. The PBAC considered that it would be problematic for any one listing to be amended before other RRMS listings had been reviewed for suitability for Streamlining. |
| OESTRADIOL (&) OESTRADIOL + DYDROGESTERONE, oestradiol 1 mg tablet [14 tablets] (&) oestradiol 1 mg + dydrogesterone 10 mg tablet [14 tablets], 28  Femoston 1/10®  Abbott Australasia Pty Ltd | Hormone Replacement Therapy (HRT) | To request a General Schedule unrestricted benefit for the treatment of menopause related symptoms. | The PBAC considered that there was a clinical place for low-dose oestradiol (Femoston 1/10) in patients initiating hormone replacement therapy. The PBAC noted the potential benefits of low dose therapy to reduce menopausal symptoms, while minimising adverse effects which is also in accordance with International Menopause Society recommendations. However, the PBAC also noted that long-term data on lower doses regarding fracture or cancer risks and cardiovascular implications were still lacking.  The PBAC recommended the listing of the form strength of Femoston 1/10 on a cost-minimisation basis against the existing Femoston 2/10, under the same conditions as the current listing. |
| OESTRADIOL + DYDROGESTERONE, oestradiol 1 mg + dydrogesterone 5 mg tablet, 28  Femoston Conti®  Abbott Australasia Pty Ltd | Hormone Replacement Therapy (HRT) | Resubmission to request a General Schedule unrestricted benefit for the treatment of menopause related symptoms. | The PBAC considered that there was a clinical place for Femoston 1/5 for patients beginning hormone replacement therapy. The PBAC noted the potential benefits of low dose oestradiol therapy to reduce menopausal symptoms, while minimising adverse effects.  The PBAC recommended the listing of Femoston 1/5 on a cost-minimisation basis against the existing Femoston 2/10, under the same conditions as the current listing. |
| OESTRADIOL, 10 microgram pessary: modified release,18  Vagifem Low ®  Novo Nordisk Pharmaceuticals Pty Ltd | Atrophic vaginitis | To request a General Schedule unrestricted benefit listing for the treatment of atrophic vaginitis due to oestrogen deficiency. | The PBAC recommended the listing of oestradiol pessary, 10 microgram as a General Schedule unrestricted benefit for the treatment of atrophic vaginitis due to oestrogen deficiency on a cost minimisation basis with oestradiol pessary, 25 microgram.  The PBAC recommended that the restriction wording for oestradiol, pessary, 10 microgram should be consistent with the current restriction wording for oestradiol, pessary, 25 microgram). |
| OMALIZUMAB, 75 mg/0.5 mL injection, 1 x 0.5 mL syringe and 150 mg/1 mL injection, 1 x 1mL syringe  Xolair®  Novartis Pharmaceuticals Australia Pty Ltd | Severe allergic asthma | To request listing as a Section 100 (Highly Specialised Drugs Program) +/- STREAMLINED benefit, a new presentation of omalizumab, for the existing indication of uncontrolled severe allergic asthma. | The PBAC recommended listing of omalizumab pre-filled syringes on a cost-minimisation basis compared to the existing PBS listed powder for injection product. |
| PACLITAXEL-NANOPARTICLE ALBUMIN BOUND, 100 mg injection, 1 x 100 mg  Abraxane®  Specialised Therapeutics Australia Pty Ltd | Pancreatic cancer | To request Section 100 [Efficient Funding of Chemotherapy (Public and Private)] Authority Required (STREAMLINED) listing for the treatment, in combination with gemcitabine, of patients with locally advanced, unresectable or metastatic adenocarcinoma of the pancreas. | The PBAC recommended the listing of *nab*-paclitaxel injection 100mg vial only, on the basis that it should be made available only under special arrangements under Section 100 (Efficient Funding of Chemotherapy).  The PBAC was satisfied that *nab*-paclitaxel in combination with gemcitabine provides, for some patients, a significant improvement in efficacy over gemcitabine monotherapy.  The PBAC noted the clinical need for new treatments for pancreatic cancer. The PBAC noted and appreciated the consumer comments received on this item, in particular the view that *nab*-paclitaxel provides a survival benefit in this disease.  The PBAC considered that the clinical data presented in the submission were mature and demonstrated a benefit in overall survival (OS) and progression-free survival (PFS).  The PBAC noted significant toxicity and adverse events with *nab*-paclitaxel plus gemcitabine compared with gemcitabine monotherapy. In particular, the PBAC noted the incidence of neutropenia, fatigue and peripheral neuropathy and the consequent effect on a patient’s quality of life. The PBAC considered that the lack of quality of life data from the trial was a significant limitation.    The PBAC considered that the claim of superior comparative effectiveness of *nab*-paclitaxel plus gemcitabine over gemcitabine was adequately supported, but that the claim of comparable safety was not adequately supported. |
| PROGESTERONE, 100 mg pessary, 21  Endometrin®  Ferring Pharmaceuticals Pty Ltd | Assisted reproductive therapies | To request a PBS listing as part of Section 100 IVF/GIFT Program for luteal phase support in patients who are receiving medical treatment as described in items 13200 or 13201 in the Medicare Benefits Schedule. The luteal phase is defined as the time span from embryo transfer until implantation confirmed by positive β-hCG measurement. | The PBAC recommended listing of progesterone pessaries under the Section 100 IVF/GIFT Program for luteal phase support in patients meeting certain criteria as part of an Assisted Reproductive Technology (ART) treatment program. Listing was recommended on a cost-minimisation basis with progesterone gel (Crinone) taking into account the doses used in the clinical trial, 2004-02, and the number of doses needed to complete a course of treatment. |
| RANIBIZUMAB, 1.65 mg/0.165 mL injection, 1 x 0.165 mL syringe  Lucentis®  Novartis Pharmaceuticals Australia Pty Ltd | Neovascular age-related macular degeneration | To request a General Schedule Authority Required listing for a new presentation of ranibizumab for the treatment of neovascular age-related macular degeneration. | The PBAC recommended the listing of the pre-filled syringe presentation of ranibizumab for the treatment of subfoveal choroidal neovascularisation (CNV) due to age-related macular degeneration (AMD) with the same restriction as the currently listed vial presentation. Listing was recommended on a cost minimisation basis with the vial presentation. |
| RIOCIGUAT, 500 microgram tablet, 42 and 84, 1 mg tablet, 42 and 84, 1.5 mg tablet, 42 and 84 and 2 mg tablet, 42 and 84  Adempas®  Bayer Australia Ltd | Pulmonary Arterial Hypertension (PAH) | To request Section 100 Highly Specialised Drugs (HSD) program Authority Required listing for the treatment of pulmonary arterial hypertension (PAH) in patients who meet certain criteria. | The PBAC recommended the listing of riociguat, on the basis that is should be available only under special arrangements under Section 100 (Highly Specialised Drugs Program).  The PBAC recommended listing on a cost-minimisation basis with bosentan and sildenafil.  The PBAC considered that a mixed comparator was appropriate. The submission claimed that riociguat is non-inferior to bosentan in both comparative effectiveness and comparative safety. The PBAC considered that these claims were reasonable, noting however the issues relating to the indirect comparison. The PBAC also considered that riociguat is non-inferior to sildenafil. |
| SOMATROPIN, 45 international units (15 mg/1.5 mL) injection, 1 x 1.5 mL cartridge  Omnitrope®  Sandoz Pty Ltd | Human Growth Hormone deficiencies | To request listing of an additional brand of somatropin 45 international units on the Section 100 (Human Growth Hormone Program). | The PBAC recommended a Section 100 (Human Growth Hormone Programme) listing for somatropin (Omnitrope) 15 mg/1.5 mL. |
| VARENICLINE, 500 microgram tablet [11 tablets] (&) 1mg tablet [42 tablets], 53 and 1 mg tablet, 56  Champix®  Pfizer Australia Pty Ltd | Smoking cessation | Re-submission to change the NOTE to the restriction to permit a further course of varenicline tartrate in patients who did not cease smoking after a 12 week course of treatment, provided 6 months have elapsed between varenicline treatments. | The PBAC recommended a change to the listing of varenicline (as tartrate) for smoking cessation to allow an additional course within a twelve month period for patients who have been unsuccessful in achieving abstinence from smoking during or after a course of PBS-subsidised varenicline. This recommendation was made on the basis of acceptable cost effectiveness to placebo, bupropion and nicotine replacement therapy (NRT).  The PBAC considered that repeated courses of varenicline within a twelve month period were of acceptable safety based on the currently known safety profile of varenicline, which incorporates worldwide usage, and the information provided in the submission.  The PBAC accepted that varenicline is of superior efficacy to placebo, bupropion and NRT, and no worse in terms of safety to bupropion. The PBAC noted that no claim was made with respect to comparative safety to placebo or NRT. The PBAC considered that varenicline is of inferior safety to placebo and NRT. |
| VORICONAZOLE, 50 mg tablet, 56, 200 mg tablet, 56 and 40 mg/mL oral liquid: powder for, 70 mL  Vfend®  Pfizer Australia Pty Ltd | Fungal Infection | To request an Authority Required listing for prophylaxis of invasive fungal infections, including both yeasts and moulds, in a patient who is at high risk of developing these infections. | The PBAC recommended an extension to the listing of voriconazole to include an Authority required listing for prophylaxis against invasive fungal infections in the high risk patients groups of acute myeloid leukaemia (AML); high-risk myelodysplastic syndrome (MDS); Graft versus host disease (GVHD); and high risk allogeneic haematopoietic stem cell transplant (AlloHSCT) recipients.  The PBAC’s recommendation was on a cost minimisation basis against a weighted mixed comparator of posaconazole, fluconazole and itraconazole in the GVHD and AlloHSCT high risk patient populations.  In the AML/MDS high risk patient population, the PBAC recommended listing voriconazole on a cost-minimisation basis compared to only fluconazole and itraconazole.  The PBAC considered the submission’s proposed clinical place for voriconazole as an alternative antimicrobial for prophylaxis against invasive fungal infections, including both yeasts and moulds, to be reasonable.  The PBAC accepted posaconazole as the appropriate comparator. Fluconazole and itraconazole were also accepted by the PBAC as secondary comparators. |