November 2007: PTAC minutes for web publishing

PTAC minutes are published in accordance with the following definitions from the PTAC Guidelines 2002:

> ""**Minute"** means that part of the record of a PTAC or Sub-committee meeting (including meetings by teleconference and recommendations made by other means of communication) that contains a recommendation to accept or decline an application for a new investment or a clinical proposal to widen access and related discussion."

Note that this is not necessarily a complete record of the PTAC meeting; some material may be withheld for reasons such as protection of supplier commercial information that has been supplied in confidence.

Names of applicants who are individuals have been withheld under s9(2)(a) of the Official Information Act 1982 (OIA).

Record of PTAC meeting held 9 & 10 May 2007

The Committee reviewed the record of the PTAC meeting held on 9 & 10 May 2007 and made the following minor amendments:

Exenatide (Byetta) – paragraph 13.2 (Special Authority criteria): replace:-

> In Combination with Metformin
> For use in combination with metformin for patients who after diet and lifestyle changes and a six-month trial metformin, titrated to maximum effective dosage, have poor glycaemic control (defined as HbA1c > 7.5% measured within the last month of the six month period). AND

With (change in bold):-

> In Combination with Metformin
> For use in combination with metformin for patients who after diet and lifestyle changes and a six-month trial **of** metformin, titrated to maximum effective dosage, have poor glycaemic control (defined as HbA1c > 7.5% measured within the last month of the six month period). AND

Sildenafil (Revatio) for pulmonary arterial hypertension

The Committee considered an application from Pfizer New Zealand for the listing of sildenafil 20 mg tablets (Revatio) on the Pharmaceutical Schedule for the treatment of pulmonary arterial hypertension (PAH).

The Committee noted that many patients are receiving treatment with sildenafil (Viagra) through the Hospital Exceptional Circumstances (HEC) scheme, and that bosentan and iloprost are also funded for PAH under this mechanism.

The Committee noted that it had considered PAH treatments and funding on a number of occasions.

Members noted that sildenafil is a phosphodiesterase type-5 (PDE-5) inhibitor, causing selective vasodilation of the pulmonary vascular bed and in the systemic circulation, and that it has been registered by Medsafe for use in Group 1 of the aetiological classification of pulmonary hypertension, including idiopathic PAH, PAH secondary to connective tissue disease and PAH secondary to congenital heart disease. Within this group it is registered for use in New York Heart Association (NYHA) classes 2, 3 and 4.

The Committee considered that the evidence provided in support of the application was of good quality and provided information on the effects of sildenafil on three outcome measures commonly used in clinical trials of treatments for PAH – the six-minute walking test (6MWT), pulmonary artery pressure and NYHA functional class.

The Committee considered the results of the SUPER-1 study, which compared sildenafil 20 mg (n=69), 40 mg (n=67) or 80 mg (n=71) TID against placebo (n=70) over a period of 12 weeks. Members noted that simultaneous treatment with iloprost or bosentan was not allowed under the study design. The study excluded those that had failed previous bosentan treatment or who had a LVEF < 45%.

The Committee noted that the SUPER-1 study results indicated that sildenafil significantly improved mean pulmonary artery pressure, WHO functional class and exercise capacity at all doses compared to placebo. Members noted that there appeared to be no significant benefit from doses in excess of 20 mg TID, although both haemodynamic data and the percentage of subjects improving by one NYHA class did show a non-significant dose-response effect. Members also noted that the study was not powered, or of sufficiently long duration, to assess the effects of sildenafil on mortality.

The Committee also considered the results of the SERAPH study, comparing sildenafil 50 mg TID (n=14) with bosentan 125 mg BID (n=12) over 16 weeks. Members noted that in this small study, sildenafil and bosentan appeared to produce similar results.

Members noted the data from Pfizer's Special Access Scheme (SAS) for sildenafil in Australia that suggested improvements in 6MWT for patients in all functional classes.

The Committee considered that sildenafil appears to be at least as effective as bosentan, and that it has a faster onset of action.

The Committee noted that despite a lack of evidence for the efficacy of combination treatments, dual and maybe triple therapy combining PDE-5 inhibitors, endothelin receptor antagonists and prostacyclin derivatives is likely to occur in clinical practice.

The Committee noted that Pfizer had estimated the prevalence of PAH requiring second-line treatment at around 26 per million population (approximately 100 patients in New Zealand). Members considered that, based on the number of patients accessing treatment under HEC, this was likely to be a reasonable estimate of the maximum prevalence.

The Committee noted that treatment with the Viagra brand of sildenafil was currently the least expensive of the second-line treatments for PAH. Members also noted that most patients are currently being treated through HEC with 50 mg sildenafil TID.

[

Withheld under s9(2)(j) of the OIA

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The Committee **recommended** that sildenafil be listed on the Pharmaceutical Schedule for the treatment of PAH with a high priority.

The Committee **recommended** that access to sildenafil and all other second-line treatments for PAH be managed by a high-cost treatment panel, and reiterated that this should be of the highest priority.

Members considered that a panel would provide for greater consistency in the access to treatments, and would assist in ensuring a correct diagnosis.

The Committee **recommended** that an ad-hoc subcommittee be established to determine appropriate entry criteria for the funding of PAH treatments, and **recommended** that this subcommittee be comprised of Howard Wilson and Paul Tomlinson as PTAC representatives and members of the HEC panel, and Lutz Beckert, Claire O'Donnell and Ken Whyte.

Members considered that both the Subcommittee and treatment panel should take a broad view of the treatment options for PAH, specifically by considering access to both pharmaceutical PAH treatments and organ transplant, where the latter is an appropriate option.

The Decision Criteria relevant to this recommendation are: *(i) The health needs of all eligible people within New Zealand; (iii) The availability and suitability of existing medicines, therapeutic medical devices and related products and related things; (iv) The clinical benefits and risks of pharmaceuticals; (v) The cost-effectiveness of meeting health needs by funding pharmaceuticals rather than using other publicly funded health and disability support services; and (vii) The direct cost to health service users.*

Testosterone undecanoate injection (Reandron 1000) for treatment of testosterone deficiency

The Committee considered an application from Bayer for the listing of testosterone undecanoate injection (Reandron 1000) for the treatment of testosterone deficiency.

The Committee noted that the application was largely based on comparisons of testosterone undecanoate with testosterone enanthate, with the remainder of evidence being review articles. Members noted that as testosterone enanthate is no longer available in New Zealand, this comparison is of little use. Members considered that the preferred comparator, of relevance to New Zealand, would be mixed testosterone esters, as this is the most commonly prescribed testosterone injection.

The Committee considered that the evidence for pharmacokinetic superiority of the testosterone undecanoate injection over other testosterone injections was poor, and that there was no evidence for any physiological benefit.

The Committee noted that the testosterone undecanoate injection had a longer duration of action compared with other available injections, and provided the benefit of a reduction in the frequency of injections.

The Committee noted that the testosterone undecanoate injection is a 4 mL injection, which is significantly larger than other testosterone injections (1 mL for mixed esters).

Members considered that, although one product had been discontinued recently, there was no unmet need for testosterone replacement therapy.

The Committee noted that the proposed pricing of the testosterone undecanoate injection was significantly higher than alternative testosterone injections. Members considered that, if testosterone undecanoate were listed at the proposed price, it would

likely result in a large increase in expenditure as switching would be driven by the reduction in injection frequency.

The Committee **recommended** that the testosterone undecanoate injection be listed in the Pharmaceutical Schedule with a low-to-medium priority, but only if cost-neutral compared to existing testosterone injections.

The Decision Criteria relevant to this recommendation are: *(i) The health needs of all eligible people within New Zealand; (ii) The availability and suitability of existing medicines, therapeutic medical devices and related products and related things; (iii) The clinical benefits and risks of pharmaceuticals; (v) The cost-effectiveness of meeting health needs by funding pharmaceuticals rather than using other publicly funded health and disability support services; and (vi) The budgetary impact (in terms of the pharmaceutical budget and the Government's overall health budget) of any changes to the Pharmaceutical Schedule.*

Very high dose fluticasone/salmeterol (Seretide/Seretide Accuhaler) for asthma and chronic obstructive pulmonary disease

The Committee considered an application from GlaxoSmithKline for the listing of a higher strength of fluticasone with salmeterol (Seretide 250/25, Seretide Accuhaler 500/50) for the treatment of both asthma and chronic obstructive pulmonary disease (COPD).

Members noted that the application provided evidence that in the treatment of severe COPD, a combination of very high dose fluticasone (1000 µg per day) with salmeterol showed a modest improvement in exacerbation rate and symptom scores over salmeterol alone, but that this modest improvement must be balanced against the known side effects demonstrated in the two key trials included in the application and the increased cost of treatment. Members noted that there was a higher rate of pneumonia in patients with severe COPD randomised to combined fluticasone/salmeterol (19.6%) compared with fluticasone alone (18.3%) or placebo (12.3%) in the TORCH trial (Calverley et al NEJM 2007). This increased rate of pneumonia was also noted in the Kardos publication (*Am J Respir Crit Care Med* 2007) included in the application.

The Committee was aware that the clinical need of moderate to severe COPD sufferers is currently met by subsidised tiotropium and that while the application contained a study comparing very high dose fluticasone/salmeterol combination to tiotropium this study was in report form only with a differential drop out noted in treatment groups which may have biased the results.

The Committee noted that higher doses of inhaled corticosteroids might allow some patients to withdraw from oral corticosteroids.

Members noted that combination ICS/LABA inhalers do provide a small cost benefit to patients when substituted for individual ICS and LABA inhalers through a reduction in co-payments.

The Committee noted that the risks of higher doses of inhaled corticosteroids are well known but could be somewhat different to oral steroids (e.g. dysphonia, oropharyngeal candidiasis and adrenal suppression), and considered that the application did not adequately address these issues.

The Committee considered that there was insufficient evidence to indicate that the availability of a very high dose combination fluticasone/salmeterol inhaler provides any additional advantage over the existing range of inhalers that are already funded for COPD and asthma.

The Committee **recommended** declining the application to list higher strength fluticasone/salmeterol inhalers on the Pharmaceutical Schedule.

The Decision Criteria relevant to this recommendation are: *(i) The health needs of all eligible people within New Zealand; (ii) The particular health needs of Maori and Pacific peoples*; *(iii) The availability and suitability of existing medicines, therapeutic medical devices and related products and related things; and (iv) The clinical benefits and risks of pharmaceuticals.*

Rituximab for rheumatoid arthritis

The Committee considered an application from Roche Products (NZ) Limited for the widening of access to rituximab (Mabthera) for patients with severe active rheumatoid arthritis (RA) who have had an inadequate response, or intolerance to prior treatment with a TNF-inhibitor, and for patients in whom a TNF-inhibitor is contraindicated or inappropriate.

The Committee noted that rituximab is a monoclonal antibody that binds to the CD20 antigen on B-lymphocytes and initiates immunologic reactions that mediate B-cell lysis. Members noted that currently rituximab was listed on the Pharmaceutical Schedule for various lymphoma indications. Members noted that rheumatoid arthritis (RA) was a new indication for rituximab and in this setting it was used in combination with methotrexate. In the RA setting rituximab caused the down regulation of CD20, and the resulting B-cell lysis led to decreased T-cell activity and inflammatory responses.

The Committee noted that in the RA setting the recommended dose of rituximab was 1000mg administered by intravenous (IV) infusion followed by a further 1000mg IV infusion two weeks later. Patients received further courses of treatment, based on signs and symptoms of disease. Members noted that corticosteroid prophylaxis (oral prednisone or intravenous methylprednisolone) should be given prior to infusion with rituximab to reduce the risk of infusion related reactions.

The Committee considered that, based on an initial report from registry data, there was an unmet clinical need for a small number of patients, likely to be approximately 30 per year, in whom treatment with disease-modifying antirheumatic drugs (DMARDs) and TNF-inhibitors was not successful.

The Committee reviewed evidence from a number of clinical studies. Members noted, however, that only one of these studies compared different doses of rituximab. The

'Dose-ranging Assessment: International Clinical Evaluation of MabThera in RA' study (DANCER, Emery et al, Arthritis and Rheumatism. 2006 May:54(5):1390-400) was a phase IIb randomised, double-blind, placebo-controlled, multifactorial study investigating the efficacy and safety of two different rituximab doses (2x1000mg or 2x500mg) in combination with methotrexate and two alternative corticosteroid regimens in a 3x3 design. The study enrolled 465 patients with active RA despite treatment with DMARDs, 29% of patients had been previously treated with a TNF-inhibitor. Members noted that the primary endpoint measure of ACR20 (20% improvement in symptoms according to the American College of Rheumatology scoring system) at 24 weeks was reached by 55% and 54% of patients respectively in the 2x500 mg rituximab or 2x1000 mg rituximab groups respectively: 33% and 34% achieved an ACR50 and 13% and 20% achieved an ACR70. Response rates were significantly lower in the placebo treated patients with 28% achieving ACR20, 13% ACR50 and 5% ACR70. Members considered that this data demonstrated that there was a benefit of rituximab over placebo, but that there was little difference in efficacy between the two rituximab dosing regimens. The Committee further noted that the clinical trial report of this study showed more withdrawals in the 2x1000 mg rituximab dose compared with the 2x500 mg dose (completers 86% vs 91%); although more patients withdrew due to side effects at the higher dose and more patients withdrew for lack of efficacy at the lower dose. In addition, in a subgroup of rheumatoid factor negative patients, ACR20 responses for rituximab were not significantly different from placebo.

The Committee also considered evidence from the 'Rituximab for Rheumatoid Arthritis Refractory to Anti-tumour Necrosis Factor Therapy' study (REFLEX, Cohen et al, Arthritis and Rheumatism. 2006 Sep:54(9):2793-806). Members noted that this Phase III, randomised, placebo-controlled study enrolled 520 patients who had previously failed treatment with one or more TNF-inhibitors. Patients were randomised 3:2 to receive either 1000 mg rituximab on days 1 and 15 or placebo, in combination with methotrexate and corticosteroids. Members considered that the data demonstrated that the primary efficacy response (ACR20 at 24 weeks) rates were significantly higher in the rituximab treated patients compared with placebo (51% vs 18%); secondary efficacy endpoints of ACR50 and ACR70 were also higher in the rituximab treated patients (27% vs 5% ACR50, and 12% vs 1% ACR70). The Committee noted that the mean time to re-treatment in this study was 10.6 months. The Committee noted that a third study (Edwards et al, N Eng J of Med. 2004 Jun 17:350(25):2572-81) also demonstrated similar increased efficacy of 2x1000 mg rituximab (alone, or in combination with cyclophosphamide or methotrexate) compared with methotrexate alone. Members noted that in this study efficacy was maintained out to 48 weeks (exploratory analysis).

The Committee also reviewed three recent studies not included in the supplier's submission (Popa et al, Rheumatology 2007:46:626-30; Jois et al, Rheumatology 2007:46:980-982; Silverman, Arth Rheum 2006:54:2356-67) and a further study added to the submission by the supplier prior to the meeting (Finckh et al, Arthritis and Rheumatism. 2007. May:56(5):1417-1423).

The Finckh et al study compared rituximab with a second TNF-Inhibitor in patients non-responsive or with side effects to a first TNF-inhibitor. The Committee noted that in this study rituximab was reported to be at least as effective as a second TNF inhibitor after six months. However, members noted that this was an observational, non-randomized study.

The Committee considered that there was little evidence to support the need for the higher 2x1000 mg dose and considered that a 2x500 mg dose would be sufficient, as demonstrated in the DANCER study. However, members noted that this dose was not registered. The Committee noted that no formal dose-ranging studies with rituximab in RA had been published, and therefore there was uncertainty about the optimal dose and schedule of rituximab in this setting. It noted that no data was presented on the effect of a single infusion of rituximab.

The Committee noted that the optimal time interval between treatments was unknown. The mean time to re-treatment was 10.6 months in the REFLEX-study. However, in the studies considered by the Committee, the time to re-treatment varied considerably. The Committee noted a study by Popa et al (Rheumatology, 2007) where long-term treatment with repeated doses of rituximab was reported over seven years. The medium time to re-treatment was 20 months (5-60) and the average duration of benefit per cycle was 15 months (5-43). All patients eventually relapsed.

The Committee considered that even though rituximab would need to be administered by IV infusion in the hospital outpatients setting, this would likely be acceptable to patients given the long time between treatment courses compared with a dose schedule for subcutaneous injections of TNF-inhibitors, which varies between twice weekly and once fortnightly with the currently registered agents.

The Committee noted that the side effects are similar to rituximab being used in other indications. In contrast to TNF-inhibitors, reactivation of latent tuberculosis seems to be less of a clinical concern. Members considered that the long-term safety of rituximab in this RA setting is unknown, due to insufficient long-term data.

The Committee noted that in the future rituximab could become the first choice biological agent.

The Committee **recommended** that rituximab be listed in the Pharmaceutical Schedule with a medium to high priority. The Committee further **recommended** that PHARMAC staff complete a cost-utility analysis (CUA) for rituximab in RA. The Committee considered that the analysis should take into account the uncertainty regarding optimal dose and time to re-treatment with rituximab.

The Decision Criteria relevant to this recommendation are: *(i) The health needs of all eligible people within New Zealand; (ii) The availability and suitability of existing medicines, therapeutic medical devices and related products and related things; and (iv) The clinical benefits and risks of pharmaceuticals.*

Darunavir (Prezista) for HIV infection

The Committee reviewed an application from Janssen-Cilag for the listing of darunavir (Prezista) on the Pharmaceutical Schedule for the treatment of HIV infection after failure of current antiviral regimes.

The Committee considered the POWER 1 (Katlama et al, 2007), POWER 2 (Haubrich et al, 2007), Combined POWER 1 and 2 analysis (Clotet et al, 2007), POWER 3 (Molina et al, 2007) and TITAN (Madruga et al, 2007) trials.

The Committee noted that in the POWER 1 and POWER 2 studies, patients with at least three months exposure to at least one protease inhibitor and a viral load greater than 1000 copies per ml, were treated with an optimised background regimen and either another protease inhibitor or ritonovir-boosted darunavir. The Committee noted that all the patients had at least one protease inhibitor mutation, that enfuvirtide was permitted as background therapy in all of the study arms, and that four different doses of darunavir were used with the 600 mg twice-daily dose being chosen as the recommended dose based upon it having the greatest efficacy. The Committee noted in the POWER 1 and POWER 2 studies that after 24 weeks: 77% and 62% of patients receiving ritonovir-boosted darunavir achieved a viral load reduction of at least 1.01 $\log_{10}$ copies per ml based upon time to loss of virological response, compared to 25% and 14% of the control patients; that there were significant increases in the CD4 cell counts in the ritonovir-boosted darunavir patients; and that the discontinuation rates, mostly for virological failure, were higher in the control patients (62% and 64%) than in the ritonovir-boosted darunavir patients (10% and 23%).

The Committee noted that a combined analysis of the POWER 1 and POWER 2 studies had been performed. The Committee noted the analysis included 131 patients who had received the preferred study dose (600 mg twice daily) for 48 weeks. The Committee noted that: 61% of patients receiving ritonovir-boosted darunavir achieved a viral load reduction of at least 1.01 $\log_{10}$ copies per ml based upon time to loss of virological response compared to 15% of the control patients (a 46% absolute difference); a viral load of less than 50 copies per ml was achieved by 45% of the ritonovir-boosted darunavir patients versus 10% of the control patients; and that the mean viral load reduction from baseline was lower in the ritonovir-boosted darunavir patients than in the control patients (-1.63 versus -0.35, $\log_{10}$ copies per ml).

The Committee noted that the POWER 3 study examined an additional 303 patients with similar baseline characteristics. The Committee noted that after 24 weeks, 65% of patients who had used 600 mg of ritonovir-boosted darunavir twice daily had achieved a viral load reduction of at least 1 $\log_{10}$ copies per ml and that 40% had achieved HIV-RNA below 50 copies per ml.

The Committee noted that the TITAN trial compared darunavir with lopinavir (both being ritonovir boosted) in 595 patients with at least three months treatment experience and who had not previously been treated with lopinavir. The Committee noted that while enfuvirtide was not included the patients had a mean exposure to 5.7 antiretroviral agents, including a mean 1.2 protease inhibitors (mainly indinavir and nelfinavir). The Committee noted that: the darunavir patients were shown to achieve non-inferiority at week 48 with 77% of the darunavir patients achieving a viral load below 400 copies per ml compared to 68% of the lopinavir patients; similar results were observed for a viral load below 50 copies per ml; and the criteria for darunavir superiority was met.

The Committee considered that the quality of the evidence was high although it noted that there was a lack of safety data. The Committee considered that this was consistent with other protease inhibitor trials.

The Committee noted that in the studies a significant number of patients in both the darunavir and control groups were being treated with enfuvirtide.

The Committee considered that while the current data indicates that there is less resistance to darunavir, it is likely to increase as it has with other protease inhibitors.

The Committee noted that 60% of deaths in this patient group were not due to AIDS and that this should be considered in any extrapolation of the results of the studies.

The Committee considered that as Prezista is in a tablet form it would be favoured over enfuvirtide which is an injection.

The Committee considered that the use of darunavir would not create any significant changes in health-sector expenditure.

The Committee considered that the assumptions regarding disease progression in the supplier's cost-effectiveness analysis such as the translation of HIV-RNA levels into CD4 counts and the extrapolation to survival gains were reasonable based on previous clinical data.

The Committee **recommended** that darunavir be listed on the Pharmaceutical Schedule with a medium priority. It further **recommended** that darunavir be considered by the Anti-Infectives Subcommittee of PTAC.

The Decision Criteria relevant to this recommendation are: *(i) The health needs of all eligible people within New Zealand; (iii) The availability and suitability of existing medicines, therapeutic medical devices and related products and related things; (iv) The clinical benefits and risks of pharmaceuticals; (vi) The budgetary impact (in terms of the pharmaceutical budget and the Government's overall health budget) of any changes to the Pharmaceutical Schedule; and (viii) The Government's priorities for health funding, as set out in any objectives notified by the Crown to PHARMAC, or in PHARMAC's Funding Agreement, or elsewhere.*

Aripiprazole (Abilify) for schizophrenia

The Committee considered an application from Bristol-Myers Squibb for the listing of the atypical antipsychotic aripiprazole on the Pharmaceutical Schedule for the treatment of schizophrenia. The Committee noted that although aripiprazole was registered for schizophrenia it would likely be used to treat "related psychoses" in much the same way as other atypical antipsychotics. Members noted that this application had recently been considered by the Mental Health Subcommittee of PTAC.

The Committee noted that the clinical studies provided in support of the application only compared aripiprazole with olanzapine, and that it would have been helpful to have been provided with placebo-controlled studies and studies comparing aripiprazole with other antipsychotic agents. Members noted that the attrition rates in the two pivotal trials (138-002 and 138-003, the latter being unpublished) were high and that as a result the strength of the findings from the studies was modest. However, members noted the difficulties in conducting clinical trials in the target patient group.

Members considered that the results of the studies provided did not fully support the claim of non-inferiority of aripiprazole versus olanzapine. Members noted that aripiprazole was associated with less weight gain than olanzapine at six weeks, but that differences in weight gain between aripiprazole and olanzapine were not maintained at 26 weeks, and up to one third of aripiprazole patients had significant weight gain at 26 weeks.

The Committee considered that there were no serious safety concerns associated with aripiprazole, and that the incidence of extrapyramidal side effects was similar to other atypical antipsychotics.

Members considered that the dose relativity for efficacy, as suggested by the supplier, of 1.41 mg of aripiprazole to 1 mg of olanzapine was correct. Members noted that the supplier suggested that aripiprazole would be cost saving as it would be less expensive than olanzapine. However, the Committee considered that aripiprazole could be used in patients who would not have otherwise been initiated on olanzapine, and since aripiprazole was priced higher than all the other antipsychotic agents apart from olanzapine it would be a cost to the Pharmaceutical Schedule in that situation.

The Committee noted that ziprasidone had recently been funded to address the unmet clinical need for an antipsychotic agent with reduced risk of weight gain and that ziprasidone was, therefore, an appropriate comparator for aripiprazole in terms of pricing.

The Committee considered that if aripiprazole was funded it would mainly be used instead of olanzapine or ziprasidone, and would be used in combination with the same groups of pharmaceuticals as other atypical antipsychotics – that is, antidepressants, mood stabilisers and anxiolytics.

The Committee considered that the key benefits of aripiprazole were its reduced propensity to cause weight gain (although members noted that results of clinical trials suggested this may not be clinically significant with longer-term treatment), reduced risk of raised prolactin and reduced risk of prolongation of the QTc interval. Members considered that the benefits of aripiprazole over ziprasidone were its once-daily dosing (versus twice-daily with ziprasidone), the ability to take aripiprazole without food (unlike ziprasidone which must be taken with a substantial amount of food), and the reduced risk of prolongation of the QTc interval.

Members considered that aripiprazole may be beneficial for patients with a higher risk of weight gain (including Maori and Pacific peoples) and for patients who have gained weight on other atypical antipsychotic agents, again noting that ziprasidone had recently been funded to meet this clinical need.

The Committee considered that any restrictions placed on the use of aripiprazole would be for financial, not clinical, reasons.

The Committee considered that it would be beneficial to have another funded treatment option for schizophrenia; however, it noted that the place of aripiprazole in therapy was uncertain but was likely to be similar to ziprasidone. Therefore, the Committee **recommended** that aripiprazole be listed on the Pharmaceutical Schedule only if it was cost-neutral compared with ziprasidone.

The Decision Criteria relevant to this recommendation are: *(i) The health needs of all eligible people within New Zealand; (ii) The particular health needs of Maori and Pacific peoples; (iv) The clinical benefits and risks of pharmaceuticals; and (viii) The Government's priorities for health funding, as set out in any objectives notified by the Crown to PHARMAC, or in PHARMAC's Funding Agreement, or elsewhere.*

Zolmitriptan (Zomig) for migraine

The Committee considered an application from AstraZeneca for the listing of zolmitriptan nasal spray 5 mg on the Pharmaceutical Schedule for the acute treatment of migraine with or without aura.

The Committee considered that placebo-controlled clinical studies provided in support of the application were of good quality and showed that zolmitriptan nasal spray 5 mg was more effective than placebo and more effective than zolmitriptan 2.5 mg tablets. Members noted that zolmitriptan was more rapidly absorbed from the nasal spray than from the tablets, although it was not clear if this translated clinically into faster onset of action. Members considered that the evidence was poor or lacking for comparisons of zolmitriptan nasal spray with other triptans, noting that there was no evidence that zolmitriptan was any better than any other triptan.

Members considered that zolmitriptan nasal spray 5 mg had similar efficacy to sumatriptan tablets 50 mg and that this would be the appropriate comparator in terms of cost. Members considered that if zolmitriptan nasal spray was listed in the Pharmaceutical Schedule it would be used instead of sumatriptan and ergotamine with caffeine, and would be used in combination with analgesics and metoclopramide (similar to sumatriptan).

The Committee considered that zolmitriptan nasal spray would most benefit patients with migraine with severe nausea and vomiting who could not take tablets and did not want to use sumatriptan injection, and patients who were non-responsive to sumatriptan.

Members noted that literature supplied by PHARMAC staff suggested that approximately 30% of patients do not respond to sumatriptan (or any other triptan) as a first-line agent but that a significant proportion of these will respond to a different triptan. Members noted that in the study provided by the supplier for sumatriptan non-responders, rizatriptan 10 mg had greater efficacy with a more rapid onset of action than zolmitriptan 5 mg tablets.

The Committee noted that a substantial proportion of patients in the clinical trials required a second dose of zolmitriptan nasal spray or other "rescue" treatment, and considered that this should be taken into account when evaluating the cost of treatment with zolmitriptan nasal spray.

Members considered that there would be practical difficulties associated with restricting access to zolmitriptan, noting that if it was not restricted there could be a large cost to the Pharmaceutical Budget given its high cost compared with sumatriptan tablets. Members considered that it was possible that listing zolmitriptan nasal spray could further grow the market for antimigraine drugs.

The Committee **recommended** that the application to list zolmitriptan nasal spray be declined. However, the Committee considered that there was a need for a second triptan for migraineurs with severe nausea and vomiting who did not want to use the sumatriptan injection or who were non-responsive to sumatriptan, and **recommended** PHARMAC staff review the possibility of listing rizatriptan wafers.

The Decision Criteria relevant to this recommendation are: *(i) The health needs of all eligible people within New Zealand; and (vi) The budgetary impact (in terms of the pharmaceutical budget and the Government's overall health budget) of any changes to the Pharmaceutical Schedule.*

Lapatinib ditosylate (Tykerb) for advanced/metastatic breast cancer

The Committee considered an application from GlaxoSmithKline for the listing of lapatinib ditosylate (Tykerb) on the Pharmaceutical Schedule for the treatment of patients with advanced/metastatic breast cancer (in combination with capecitabine) that over-express HER 2 (ErbB2) and whose tumours have progressed after treatment with an anthracycline, a taxane and trastuzumab (Herceptin).

The Committee noted that breast cancer is the most common cancer found in women, with approximately 2300 new cases of breast cancer and 600 deaths in New Zealand in 2003 (NZ Cancer Registry).

The Committee noted that approximately 25% of breast cancers over-express the epidermal growth factor receptor (EGFr) HER 2 and that HER 2-positive breast tumours have a worse prognosis than HER 2-negative tumours, as they are associated with poorly differentiated, high-grade tumours, high rates of cell proliferation and lymph-node involvement, and a relative resistance to certain types of chemotherapy. The Committee noted that standard funded treatment for women with HER 2-positive metastatic breast cancer was currently trastuzumab in conjunction with other chemotherapy agents, with treatment continued until disease progression.

The Committee noted that lapatinib ditosylate is a reversible and selective inhibitor of the intracellular tyrosine kinase domains of the ErbB1 and Her 2/ErbB2 EGFrs. Lapatinib acts intracellularly, binding the adenosine triphosphate (ATP)-binding site of the receptor kinase, thereby blocking downstream signalling. In contrast, trastuzumab binds to the extracellular domain of the HER 2 receptor and inhibits ligand binding and/or dimerisation, leading to down-modulation of the receptors.

Members further noted that unlike trastuzumab, lapatinib is a small molecule and it is therefore able to cross the blood-brain barrier and may be useful in the treatment of brain metastases.

The Committee noted that lapatinib is administered orally (unlike trastuzumab which is given intravenously) at a dose of 1250mg/day (5 tablets) continuously in combination with capecitabine (Xeloda), which is administered at a dose of 2000 mg/day for 1 - 14 days of a repeated 21 day cycle.

Members noted that lapatinib is predominantly metabolised by the liver enzyme cytochrome P450 3A4 (CYP3A4) and is an inhibitor of CYP3A and 2C8. Members noted a study presented at the March 2007 annual meeting of the American Society for Clinical Pharmacology and Therapeutics that showed that lapatinib absorption increased, approximately three to four fold when it was taken with food, compared to the fasted state. Members further noted a commentary article by Ratain and Cohen published in the Journal of Clinical Oncology, July 16, 2007, in which they considered that the drug-food interaction with lapatinib offered potential opportunities to lower drug dosing, and therefore costs, by up to 80%. The authors concluded that 500 mg/day (two tablets) of lapatinib taken with food may be as effective as taking the current regulatory approved dose of 1,250 mg/day (five tablets) without food. Members considered that the potential for lower doses of lapatinib should be explored further by the supplier.

The Committee considered data from the pivotal phase III trial EGF100151 (Cameron et.al, 2006a; Cameron et al, 2006b; Geyer.et.al, 2006, and the clinical study report of the final analysis (3 April 2006 cut-off, Cameron, D.et.al, 2006b, yet to be published). Members noted that EGF100151 was a randomised, open-label study, in women with refractory advanced or metastatic breast cancer who had received prior treatment with anthracyclines (97%), taxanes (97%) or trastuzumab (96%). Previous treatment with capecitabine was prohibited. Patients had to have a good performance status (ECOG 0 or 1), normal range left ventricular ejection fraction (LVEF) and a life expectancy of greater than 12 weeks. It was planned that 528 women would be enrolled. However, the Committee noted that the study was stopped early by the Independent Data and Safety Monitoring Committee after only 324 patients were enrolled.

The Committee noted that in EGF100151, patients were randomised to receive either a combination of lapatinib 1250 mg/day daily continuously and capecitabine 2000 mg/m^2/day days 1-14, every 21 days (n=163) or monotherapy capecitabine 2500 mg/m^2/day days 1-14, every 21 days (n=161). Treatment was administered until disease progression or withdrawal from the study. Dose modifications of capecitabine and/or lapatinib for adverse reactions were permitted.

The Committee considered that the primary efficacy endpoint results from the published interim analysis demonstrated a small but statistically significant benefit in median time to disease progression (TTP) for the lapatinib plus capecitabine arm, compared with the capecitabine monotherapy arm (8.4 months vs. 4.4 months). Forty five disease progression events occurred in the combination arm compared with 69 in the capecitabine monotherapy arm (HR 0.51, 95% CI 0.35-0.74). However, members noted that there was no difference in overall survival with 36 deaths in the combination arm and 35 in the capecitabine monotherapy arm (HR 0.92, 95% Ci 0.58-1.46). The Committee noted that at the time of the final 3 April 2006 cut-off (unpublished data) 55 subjects (28%) in the lapatinib plus capecitabine group and 64 subjects (32%) in the capecitabine group had died, an absolute difference of 4%. There was a 22% reduction in risk of death for subjects receiving lapatinib plus capecitabine relative to capecitabine monotherapy (hazard ratio: 0.78; 95% CI: 0.55, 1.12); this result was not statistically significant.

The Committed noted that the rate of adverse events, and rate of discontinuation due to adverse events was similar between the two treatment groups. Diarrhoea, dyspepsia and rash were more common in the lapatinib treated patients. Seven subjects (4%) in

the lapatinib plus capecitabine group and two subjects (1%) in the capecitabine group experienced a decreased LVEF during the study, although none of these were fatal.

The Committee considered that the benefit of lapatinib was small and that the EGF100151 study, the only phase III study, had been stopped too early and as such the longer-term data was now confounded due to cross-over. Members considered that the place in therapy for lapatinib was not clear, and that clinical trials examining the efficacy of lapatinib in combination with conventional chemotherapeutic agents (paclitaxel, capecitabine and platinoids), hormonal therapy and other target therapies (eg trastuzumab) are ongoing in advanced breast cancer or in neo-adjuvant and adjuvant settings. Members considered that a lower dose taken with food and treatment prior to, or in combination with, trastuzumab in earlier breast cancer would be the likely place in therapy for this pharmaceutical. However, there was insufficient data to justify a recommendation for listing in the population requested by the supplier at this time.

The Committee **recommended** that the application be declined and the minute provided to the Cancer Treatment Subcommittee of PTAC for comment.

The Decision Criteria relevant to this recommendation are: *(i) The health needs of all eligible people within New Zealand; (iii) The availability and suitability of existing medicines, therapeutic medical devices and related products and related things; (iv) The clinical benefits and risks of pharmaceuticals; (vi) The budgetary impact (in terms of the pharmaceutical budget and the Government's overall health budget) of any changes to the Pharmaceutical Schedule; and (vii) The direct cost to health service users.*

Cabergoline Special Authority

The Committee considered an application from [*withheld under s9(2)(a) of the OIA*] requesting that the renewal period on the Special Authority criteria for cabergoline (Dostinex) be extended to at least five years.

Members noted that cabergoline is a dopaminergic ergoline derivative with potent and long-lasting (half-life 65 hours) prolactin-lowering activity. It acts by direct stimulation of the D2-dopamine receptors on pituitary lactotrophs, thus inhibiting prolactin secretion. Members further noted that cabergoline is indicated for the prevention of lactation and the treatment of hyperprolactinaemic disorders, including patients with prolactin-secreting pituitary adenomas (micro- and macro-prolactinomas).

The Committee noted that cabergoline tablet 0.5mg is currently listed on the Pharmaceutical Schedule with a maximum of two tablets per prescription restriction. However, this tablet quantity restriction can be waived by a Special Authority restriction where a patient has pathological hyperprolactinemia. The Committee noted that the Special Authority Initial and Renewal periods were valid for two years.

The Committee reviewed evidence provided by [*the applicant*] that suggests that withdrawal of cabergoline therapy without recurrence of hyperprolactinemia is possible in some patients. [*The applicant*] considered that the optimal time to consider this option would be after four years based on data from the Colao study (Colao et al NEJM 349;21, 2023-2033). Members noted that in this study recurrence rates two to five years after

withdrawal of cabergoline were 24% in patients with non-tumoural hyperprolactinemia, 31% in patients with microprolactinomas and 36% in patients with macroprolactinomas. The median duration of treatment was 48 months (4 years) for microprolactinomas and 42 months (3.5 years) for macroprolactinomas (range 24-75 months).

Members considered that the data supported regular review of continuation of cabergoline treatment (in its view, at least once every two years) which the Special Authority criteria as they are currently written would prompt. However, members considered that in general Special Authority criteria were not designed to prompt or dictate good clinical practice in terms of frequency of patient treatment reviews. Members noted that application for a Special Authority could only come from obstetricians, gynaecologists or endocrinologists, and members considered that these experts should be able to adequately determine appropriate review periods for their patients.

The Committee considered that given that the current Special Authority renewal criteria were fairly open, that is, 'treatment remains appropriate and the patient is benefiting from treatment' and the patients would be under the care of an expert who would review treatment on an ongoing basis, there would be no financial risk to the community pharmaceuticals budget by making the renewal period longer. The Committee **recommended** that the Special Authority Renewal period for cabergoline be amended to Lifetime where the treatment remains appropriate and the patient is benefiting from treatment.

The Committee noted that cardiac valvulopathy (CAV) in Parkinson's patients treated with pergolide and cabergoline has raised concerns about the long-term safety of ergoline dopamine agonists. However, members noted that the dosing in Parkinson's patients associated with CAV was at least 3 mg cabergoline daily, which is 10 to 20 times higher than the dose used in the treatment of prolactinomas. Members noted that there is a current study looking at the effects of cabergoline on cardiac valves in patients with prolactinomas. Members requested that PHARMAC staff be vigilant about the results of this study to determine any possible adverse cardio toxicity associated with lower doses.

The Decision Criteria relevant to this recommendation are: *(i) The health needs of all eligible people within New Zealand; (iii) The availability and suitability of existing medicines, therapeutic medical devices and related products and related things; (iv) The clinical benefits and risks of pharmaceuticals; and (vi) The budgetary impact (in terms of the pharmaceutical budget and the Government's overall health budget) of any changes to the Pharmaceutical Schedule.*

Review of Special Authority Criteria for Octreotide

The Committee considered an application from [*withheld under s9(2)(a) of the OIA*] requesting that the Special Authority criteria for octreotide be widened to include the treatment of patients with thyrotropin (TSH)-secreting pituitary adenomas and the treatment of acromegaly in patients unsuitable for surgery. The Committee also considered a letter from [*withheld under s9(2)(a) of the OIA*] supporting [*the applicant's*] submission and requesting that the Special Authority

criteria for octreotide be widened to include pre-surgery treatment, for three months, in patients with acromegaly.

The Committee noted that octreotide is an analogue of somatostatin, a peptide hormone that inhibits the release of bioactive substances from the pituitary and hypothalamus, ultimately inhibiting the stimulation of growth. Members noted that octreotide is currently listed on the Pharmaceutical Schedule in immediate release form as a subcutaneous injection (Sandostatin) administered 2-4 times daily and a long-acting form (Sandostatin LAR) administered once monthly. Members noted that the subsidy for octreotide is via a Special Authority for a number of different patient groups: patients with acromegaly (where the patient has failed surgery, radiotherapy, bromocriptine and other oral therapies), VIPomas and glucagonomas, gastrinoma (following failed surgery or in metastatic disease where H2 antagonists or proton pump inhibitors have failed), insulinomas (where surgery has failed or is contraindicated), preoperative hypoglycaemia and Carcinoid Syndrome with disabling symptoms.

The Committee considered the applications for TSH-producing pituitary tumours and acromegaly separately.

TSH-producing pituitary tumours

The Committee noted that TSH-producing pituitary tumours were very rare, comprising less than 1% of pituitary adenomas. Members noted that transsphenoidal surgery is the treatment of choice for patients with thyrotropic adenomas. However, approximately one third of these tumours would not be cured by surgery alone, in which case radiotherapy is usually employed. Members noted that even after surgery and radiotherapy some patients are not cured; however, biochemical disease can be controlled in most patients with octreotide.

The Committee noted that according to a review article by Freda and Wardlaw (Freda and Wardlaw J of Clin Endocrinology and Metabolism, 1999. vol 84.No 11, pp 3859-3866) octreotide treatment has been reported to normalise TSH levels in 79% of patients and result in tumour shrinkage in 52% of patients.

The Committee noted that over the last four years there had been four Exceptional Circumstances (EC) applications for octreotide for the treatment of TSH-producing pituitary adenoma, all of which had been approved.

The Committee considered that since the condition is rare and all EC applications had been approved, that widening of access to octreotide on the Pharmaceutical Schedule was appropriate. The Committee **recommended** that the Special Authority criteria for octreotide be widened to include TSH-producing pituitary tumours. The Committee gave this recommendation a high priority.

The Decision Criteria relevant to this recommendation are: *(i) The health needs of all eligible people within New Zealand; (iii) The availability and suitability of existing medicines, therapeutic medical devices and related products and related things; and (iv) The clinical benefits and risks of pharmaceuticals.*

Acromegaly

The Committee noted that it had previously reviewed an application from endocrinologists and neurosurgeons regarding the use of octreotide for pre-surgery treatment of acromegaly in August 1999.

The Committee noted that [*the applicant*] sought clarification of the Special Authority criteria requiring failure of surgery, radiotherapy, bromocriptine and other oral therapies. The Committee considered that the only relevant oral therapy funded on the Pharmaceutical Schedule would be bromocriptine, therefore the phrase 'and other oral therapies' could be removed from the Special Authority criteria.

Members considered that the application was based mainly on review articles, which they considered to be inadequate to assess the relative clinical risks and benefits of treatment in this complex setting. Members considered that in order to assess the application adequately they would need to see the original trial data publications.

Members noted that there was no data from randomised controlled trails comparing primary octreotide treatment with surgery; they further noted that there was no evidence that octreotide treatment for three months improved surgical cure rates, although members acknowledged that surgery was likely to be technically less difficult after pre-treatment with octreotide if there was tumour shrinkage.

The Committee noted that in the last four years there had been eight Exceptional Circumstances (EC) applications for octreotide for the treatment of acromegaly, four of which had been approved.

The Committee considered that they did not have sufficient evidence at this time to make a recommendation for widening access to octreotide on the Pharmaceutical Schedule for pre-surgical treatment. Therefore, the Committee **recommended** that funding for these patients should continue to be assessed under the EC scheme. The Committee requested that it see all the previous submissions and the data referred to in the most recent application and that a literature search be conducted.

The Decision Criteria relevant to this recommendation are: *(i) The health needs of all eligible people within New Zealand; (iii) The availability and suitability of existing medicines, therapeutic medical devices and related products and related things; and (iv) The clinical benefits and risks of pharmaceuticals.*

Anastrozole & Letrozole for breast cancer

The Committee considered a letter from [*withheld under s9(2)(a) of the OIA*] requesting clarification of the Special Authority criteria for Aromatase Inhibitors, in which [*the correspondent*] noted that the Special Authority criteria for fully funded anastrozole (Arimidex) or letrozole (Femara) treatment included Stage IIIb and Stage IV breast cancer patients but excluded Stage IIIc breast cancer. Members noted that [*the correspondent*] also requested funding for Stage II breast cancer patients, but noted that [*the correspondent*] acknowledged that this would likely to be a wider issue.

The Committee considered that there was no reason to exclude Stage IIIc breast cancer patients from the Special Authority Criteria applying to anastrozole and letrozole; they noted that Stage IIIc was likely to have been omitted, because at the time of listing anastrozole and letrozole, the breast cancer staging system had not included Stage IIIc as a group distinct from Stage IIIb. The Committee **recommended** that the Special Authority criteria be amended to include Stage IIIc.

The Committee considered that there was no evidence provided in the application to support the application for widening of access to anastrozole or letrozole to Stage II breast cancer patients. However, the Committee noted that since exemestane (Aromasin) was listed on the Pharmaceutical Schedule fully funded without Special Authority criteria from 1 August 2007, all breast cancer patients, including those with Stage II disease, already had access to an aromatase inhibitor. The Committee reiterated its view that anastrozole, letrozole and exemestane have the same or similar therapeutic effect.

The Decision Criteria relevant to this recommendation are: *(i) The health needs of all eligible people within New Zealand; (iii) The availability and suitability of existing medicines, therapeutic medical devices and related products and related things; (iv) The clinical benefits and risks of pharmaceuticals; and (vi) The budgetary impact (in terms of the pharmaceutical budget and the Government's overall health budget) of any changes to the Pharmaceutical Schedule.*

Capecitabine for rectal cancer

The Committee considered a letter from [*withheld under s9(2)(a) of the OIA*] requesting clarification of the Special Authority criteria for capecitabine (Xeloda). Members noted that [*the correspondent*] sought clarification as to whether capecitabine was funded for pre-operative (neoadjuvant) treatment of locally advanced (node positive, stage III/Dukes C) rectal cancer and pre-operative (neoadjuvant) or post-operative (adjuvant) node-negative (stage I/II) rectal cancer disease.

The Committee noted that capecitabine is currently listed on the Pharmaceutical Schedule under Special Authority criteria for patients with advanced gastrointestinal malignancy; or patients with stage III (Dukes' stage C) colorectal cancer who have undergone surgery. Members noted that the Special Authority criteria also included patients with metastatic breast cancer, or patients with poor venous access or needle phobia.

Members considered that neither neoadjuvant treatment of locally advanced colorectal cancer nor treatment of node negative disease were funded under the current Special Authority criteria for capecitabine. Members noted that capecitabine was not approved by MedSafe for use in these patient groups.

Members noted that the Special Authority criterion of 'advanced gastrointestinal disease' may be confusing, and **recommended** this criterion be amended to 'metastatic gastrointestinal disease' for clarification.

The Committee noted that [*the correspondent*] had recently submitted an application, requesting that access to capecitabine be widened and providing further information. Members **recommended** that, as this application was not received in time to be considered at this meeting, it be reviewed at the February 2008 PTAC meeting.

The Decision Criteria relevant to this recommendation are: *(i) The health needs of all eligible people within New Zealand; and (iii) The availability and suitability of existing medicines, therapeutic medical devices and related products and related things.*

Insulin lispro (Humalog Mix25) for diabetes mellitus

The Committee reviewed an application from Eli Lilly for the listing of 25% insulin lispro and 75% insulin lispro protamine suspension (Humalog Mix 25) on the Pharmaceutical Schedule for the treatment of diabetes mellitus. The Committee noted that the evidence provided primarily related to the use of Humalog Mix 25 in patients with type 2 diabetes.

The Committee noted that the Diabetes Subcommittee of PTAC had reviewed an application for Humalog Mix 25 from Eli Lilly in June 2001 and had concluded that the information provided was insufficient to determine the place in therapy of Humalog Mix 25.

The Committee noted the small open-label studies by Roache et al (1999), Malone et al (2000), and Herz (2002), which compared Humalog Mix 25 with human insulin 30/70 in patients with type 2 diabetes. The Committee also noted a retrospective clinical audit by Thaware et al (2004), which examined clinical outcomes in patients who were switched from conventional mixed insulin to Humalog Mix 25. The Committee considered that these studies suggested that Humalog Mix 25, when compared with human insulin 30/70:

- lowered postprandial blood glucose levels;
- did not affect the occurrence of hypoglycaemic episodes; and,
- did not affect HbA1c levels.

The Committee also noted a number of studies comparing Humalog Mix 25 with other available insulins.

The Committee considered that overall the strength and quality of the evidence was poor to moderate.

The Committee considered that, if listed, Humalog Mix 25 would be preferred over human insulin 30/70 and Penmix 30 and that a number of patients may switch from these products to Humalog Mix 25. The Committee also considered that Humalog Mix 25 may be used as an alternative to other forms of insulin in some patients.

The Committee considered that Humalog Mix 25 would be used in type 1 diabetes, as a large number of patients use twice-daily regimes of short- or rapid-acting insulin and intermediate-acting insulin, either as fixed combinations or separate injections. The

Committee considered that Humalog Mix 25 might also be used in patients on intensive insulin regimes in place of separate morning injections of short- or rapid-acting insulin and intermediate-acting insulin. The Committee also considered that, while there was no evidence regarding the use of Humalog Mix 25 in children, the use of Humalog Mix 25 would appeal, as it would reduce the number of injections required. The Committee therefore considered that if Humalog Mix 25 was listed on the Pharmaceutical Schedule the overall market would increase.

The Committee considered that Humalog Mix 25 has the same or similar effect as human insulin 30/70 and Penmix 30 and that reference pricing could occur between these products. [

Withheld under s9(2)(j) of the OIA

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The Committee considered that patients who would benefit the most from Humalog Mix 25 were those unsuccessfully treated with oral agents and those using twice daily insulin regimes who have inadequate postprandial blood glucose control. However, the Committee considered that, if listed, Humalog Mix 25 should not be restricted.

The Committee noted that the supplier also has a Humalog Mix 50 and considered that there could be a small niche market for this product for patients with significant postprandial blood glucose peaks whose diabetes was not controlled by human insulin 30/70 or Mix 25.

The Committee **recommended** that 25% insulin lispro and 75% insulin lispro protamine suspension be listed only if cost-neutral to the pharmaceutical budget (in particular, cost-neutral against human insulin 30/70).

The Decision Criteria relevant to this recommendation are: *(iii) The availability and suitability of existing medicines, therapeutic medical devices and related products and related things; (iv) The clinical benefits and risks of pharmaceuticals; (vi) The budgetary impact (in terms of the pharmaceutical budget and the Government's overall health budget) of any changes to the Pharmaceutical Schedule; and (viii) The Government's priorities for health funding, as set out in any objectives notified by the Crown to PHARMAC, or in PHARMAC's Funding Agreement, or elsewhere.*

Optium blood glucose test strips for diabetes

The Committee considered an application from Medica Pacifica for a new generation of Optium blood glucose test strips to be listed on the Pharmaceutical Schedule at the same price, and under the same restrictions, as the current Optium blood glucose test strips.

Members noted that the new test strip was compatible with the Optium and Optium Exceed blood glucose meters currently listed on the Pharmaceutical Schedule; therefore, patients would not be required to change meters with the introduction of the new generation Optium blood glucose test strips.

The Committee noted that the new generation Optium test strip appeared to have some advantages over the existing Optium test strip; namely, it required less blood (0.3uL rather than 1.5uL) and gave quicker results (three seconds rather than 10 seconds).

The Committee noted the test results for the new generation of Optium blood glucose test strips from the Clinical Pathology Department of Auckland City Hospital. The Committee considered that the average imprecision of 6.2% was acceptable. The Committee considered that the average bias of +15% was acceptable.

The Committee noted that there had recently been issues with the introduction of the new Accu-Chek Performa test strips and meters from another supplier, Roche Diagnostics.

The Committee **recommended** that the application be referred to the Diabetes Subcommittee of PTAC for consideration. Members considered that, subject to the Diabetes Subcommittee of PTAC agreement, the Committee did not object to the listing of the new generation of Optium blood glucose test strips on the Pharmaceutical Schedule.

The Decision Criteria relevant to this recommendation are: *(i) The health needs of all eligible people within New Zealand;*; *(iii) The availability and suitability of existing medicines, therapeutic medical devices and related products and related things; (iv) The clinical benefits and risks of pharmaceuticals; (vi) The budgetary impact (in terms of the pharmaceutical budget and the Government's overall health budget) of any changes to the Pharmaceutical Schedule; and (vii) The direct cost to health service users.*