NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Final appraisal determination

Etelcalcetide for treating secondary hyperparathyroidism

1 Recommendations

1.1 Etelcalcetide is recommended as an option for treating secondary hyperparathyroidism in adults with chronic kidney disease on haemodialysis, only if:

- treatment with a calcimimetic is indicated but cinacalcet is not suitable and
- the company provides etelcalcetide with the discount agreed in the patient access scheme.

1.2 This guidance is not intended to affect the position of patients whose treatment with etelcalcetide was started within the NHS before this guidance was published. Treatment of those patients may continue without change to whatever funding arrangements were in place for them before this guidance was published until they and their NHS clinician consider it appropriate to stop.

2 The technology

Description of the technology	Etelcalcetide (Parsabiv, Amgen) is a calcimimetic. It binds directly to the extracellular domain of the calcium-sensing receptor and activates it at a site distinct from the calcium-activating site. This suppresses secretion of parathyroid hormone because of an increased sensitivity of the receptor to calcium, and leads to a decrease in calcium levels. Etelcalcetide is given by intravenous injection.
Marketing authorisation	Etelcalcetide is indicated for the treatment of secondary hyperparathyroidism in adults with chronic kidney disease on haemodialysis.
Adverse reactions	Very common adverse reactions with etelcalcetide are decreased blood calcium, muscle spasms, diarrhoea, nausea and vomiting. For full details of adverse reactions and contraindications, see the summary of product characteristics.
Recommended dose and schedule	The recommended initial dose of etelcalcetide is 5 mg administered by bolus injection 3 times per week. Corrected serum calcium should be at or above the lower limit of the normal range before administration of the first dose of etelcalcetide. Etelcalcetide should be titrated so that doses are individualised between 2.5 mg and 15 mg.
Price	NHS list prices: £136.87 per pack of 6 vials of 2.5 mg in 0.5 ml solution (£9.12 per mg; excluding VAT) £163.92 per pack of 6 vials of 5 mg in 1 ml solution (£5.46 per mg) £327.84 per pack of 6 vials of 10 mg in 1 ml solution (£5.46 per mg). The company has agreed a patient access scheme with the Department of Health. This scheme provides a simple discount to the list price of etelcalcetide, with the discount applied at the point of purchase or invoice. The level of the discount is commercial in confidence. The Department of Health considered that this patient access scheme does not constitute an excessive administrative burden on the NHS.

3 Evidence

The appraisal committee (section 7) considered evidence submitted by Amgen and a review of this submission by the evidence review group (ERG). See the committee papers for full details of the evidence.

4 Committee discussion

The appraisal committee reviewed the data available on the clinical and cost effectiveness of etelcalcetide, having considered evidence on the nature of secondary hyperparathyroidism and the value placed on the benefits of etelcalcetide by people with the condition, those who represent them, and clinical experts. It also took into account the effective use of NHS resources.

Clinical effectiveness

Clinical management of secondary hyperparathyroidism

4.1 The committee considered the effect of secondary hyperparathyroidism on people with chronic kidney disease on haemodialysis. The committee heard from the patient experts that the main symptoms are bone pain, reduced mobility, stomach pain and depression. The patient experts also stated that most people with the condition have a substantial number of tablets to take, including phosphate binders that can be unpleasant because they are difficult to swallow and produce nausea, making adherence to treatment challenging. People with secondary hyperparathyroidism would welcome a treatment that could be given at the same time as dialysis with no additional tablets to take. The clinical experts stated that they spend a lot of time talking to people who have difficulty adhering to treatment, in order to find ways to improve adherence. For these reasons, the clinical and patient experts commented that an intravenous calcimimetic could improve adherence because it would be given at the end of haemodialysis sessions. Taking into account the chronic nature of the condition, the availability of an additional treatment with a different mode of administration would be a valued option for people with secondary hyperparathyroidism. The committee understood the importance of having different treatment options available for treating secondary hyperparathyroidism.

4.2 The committee discussed how secondary hyperparathyroidism is treated in clinical practice. It heard from the clinical experts that the aim of treatment is to correct levels of parathyroid hormone, serum calcium and phosphate. Initial treatment comprises dietary changes (to restrict phosphate), oral phosphate binders and active vitamin D such as alfacalcidol, calcitriol or paricalcitol. The clinical experts stated that active vitamin D treatment can lead to an increase in the level of serum calcium, limiting the amount of vitamin D that can be given. When calcium levels are considered to be too high clinicians will consider treatment with a calcimimetic such as cinacalcet, in combination with phosphate binders and vitamin D. The clinical experts confirmed that rising serum calcium and uncontrolled parathyroid hormone levels, despite phosphate binders and vitamin D, could be considered as 'refractory' secondary hyperparathyroidism. The committee heard that surgery to remove the parathyroid glands (parathyroidectomy) can be a good treatment option for people with more severe hyperparathyroidism, but this is more likely to be offered after treatment with phosphate binders, vitamin D and a calcimimetic. The patient experts highlighted a patient survey, which revealed that most people prefer to avoid surgery if possible. The committee noted the wording of the marketing authorisation for etelcalcetide, which is for the treatment of secondary hyperparathyroidism in people with chronic kidney disease on haemodialysis. It heard from the clinical experts that etelcalcetide is unlikely to be used as a first-line treatment because clinicians have a lot of experience with using phosphate binders and active vitamin D, and they would only offer a calcimimetic to people with refractory secondary hyperparathyroidism; that is, people with rising serum calcium and uncontrolled parathyroid hormone levels despite taking phosphate binders and vitamin D. The committee concluded that the most likely place in the treatment pathway for etelcalcetide would be for people with refractory secondary hyperparathyroidism, not as a first-line therapy.

Generalisability of the clinical trial results

4.3 The committee discussed the patient populations in the 2 clinical trials that compared etelcalcetide with placebo (Study 20120229 and Study 20120230) and the active-comparator trial that compared etelcalcetide with cinacalcet (Study 20120360). It acknowledged that the trials included a broad population of people with secondary hyperparathyroidism, rather than those specifically with refractory disease to whom a calcimimetic would be offered in current clinical practice. The committee noted that around 46% of patients in the placebo-controlled trials, and 25% in the cinacalcet-controlled trial, had previously had treatment with cinacalcet. The committee concluded that people included in these trials were generally representative of those with secondary hyperparathyroidism in the UK, but it noted that they did not specifically represent the population who would be considered for etelcalcetide in current clinical practice; that is, people with inadequately controlled calcium and parathyroid hormone levels on standard first-line treatment.

4.4 The committee considered the primary outcome (more than 30% reduction in parathyroid hormone level) from the pooled results of the 2 trials of etelcalcetide compared with placebo. It noted that etelcalcetide resulted in a statistically-significantly higher proportion of people having more than 30% reduction compared with placebo (74.7% for etelcalcetide compared with 8.9% for placebo; odds ratio 31.60, 95% confidence interval [CI] 21.59 to 46.25, $p<0.001$).The committee noted that the in the active comparator-controlled trial, in which etelcalcetide was compared with cinacalcet, etelcalcetide met its non-inferiority endpoint (a difference of no more than 12% in the upper bound of the 95% confidence interval for the proportion of patients achieving more than 30% reduction in parathyroid hormone level): 77.9% of people in the etelcalcetide group had more than 30% reduction in parathyroid hormone levels compared with 63.9% in the cinacalcet group (treatment difference -10.48%, 95% CI -17.45 to -3.51). The committee also noted that etecalcetide showed a

statistically significantly higher proportion of people achieving a reduction of more than 30% and more than 50% reduction in mean parathyroid hormone levels compared with cinacalcet. The committee agreed that etelcalcetide is effective in terms of reducing parathyroid hormone levels by the target percentages in the trial. However it was uncertain of the generalisability of this specific surrogate outcome to long-term outcomes such as cardiovascular events and death. It heard from the clinical experts that the aim of treatment in secondary hyperparathyroidism is to control the levels of phosphate, calcium and parathyroid hormone with the aim of reducing both immediate and longer-term harm; but a directly proportional relationship between a specific percentage reduction in parathyroid hormone with long-term outcomes such as mortality is not clear. The committee concluded that the relationship between a 30% reduction in parathyroid hormone (from a variable baseline level) and long term outcomes such as survival, incidence of fractures, incidence of cardiovascular events and need for parathyroidectomy, which were not measured in the trials, is unclear.

4.5 The committee discussed the key secondary outcome in the placebo-controlled trials of etelcalcetide, which was the attainment of a parathyroid hormone level of 300 picograms/ml (31.8 picomoles/litre) or less. The clinical experts explained that in clinical practice target levels for parathyroid hormone can be very broad (the Kidney Disease Improving Global Outcomes guideline suggests 2 to 9 times the upper limit of normal for the reference limit of the laboratory test used, which translates to a parathyroid hormone range of around 130 to 600 picograms/ml or 13.8 to 63.6 picomoles/litre). The committee heard from the clinical experts that the range is broad because people tolerate high levels of parathyroid hormone differently, and the approach to treatment varies for each person depending on their symptoms and other parameters such as serum calcium and phosphate levels. The committee concluded that the primary outcome of more than 30% reduction in parathyroid hormone is a

good indicator of the effectiveness of a treatment on the blood biochemistry and therefore a clinically relevant outcome. But it recalled its previous conclusion that such a percentage reduction may not be directly proportional to a reduction in incidence of long–term outcomes such as mortality, cardiovascular events and fractures.

Adverse effects of etelcalcetide

4.6 The committee discussed the adverse effects associated with etelcalcetide. It noted that the most common adverse event in the etelcalcetide studies was low serum calcium. The committee noted the ERG's comments that the higher rate of hypocalcaemia observed for etelcalcetide than cinacalcet could result in the use of more health care resources in order to manage the effects of hypocalcaemia. The committee was concerned that the evidence for etelcalcetide came from relatively short-term studies (26 weeks duration initially, followed by a 52-week open-label extension to studies 201202229 and 2012230), whereas people with secondary hyperparathyroidism may be taking this treatment long-term. It heard from the clinical experts that although etelcalcetide acts on a different binding site to cinacalcet, it acts on the same calcium-sensing receptor. Therefore they would not expect the adverse effects to be very different for cinacalcet and etelcalcetide. The committee concluded that etelcalcetide's adverse effect profile is acceptable, but acknowledged that there may be some uncertainty in understanding the long-term risks associated with its use.

Cost effectiveness

The company's economic model

4.7 The committee considered the company's economic model, which used a Markov-type health state transition model. The model used 4 health states, which reflected the principal long-term adverse outcomes associated with secondary hyperparathyroidism: all-cause mortality, non-

fatal clinical fractures and non-fatal cardiovascular events (such as heart failure and myocardial infarction). The committee agreed that the inclusion of these health states was reasonable for the modelling of cost effectiveness over a lifetime horizon, although in clinical practice the success of treatment is judged on shorter-term biochemical outcomes. The committee acknowledged the challenges in modelling long-term outcomes such as mortality on the basis of biochemical outcomes from trials of limited duration, but concluded that the structure of the model was acceptable.

4.8 The committee considered the clinical-effectiveness estimates used in the company's model. The committee was aware that the primary outcome in the etelcalcetide trials was the proportion of people with more than 30% reduction in parathyroid hormone levels, but that the model used data on long-term effects including mortality, cardiovascular events, fractures and parathyroidectomy. It noted that the company derived hazard ratio estimates for etelcalcetide and the comparators for these long-term outcomes from the EVOLVE trial. This was a large international trial that compared cinacalcet with placebo, with a follow up of 64 months. All patients in the trial could also have phosphate binders, vitamin D, or both. The committee understood that the unadjusted intention-to-treat analysis in the publication of the EVOLVE trial showed that cinacalcet did not significantly reduce the risk of death or major cardiovascular events compared with placebo. However, when the trial results were adjusted for imbalance in the 2 arms (principally a 13-month difference in the mean age in the arms of the trial) statistical significance was reached. The committee considered that the evidence for a long-term benefit for cinacalcet on mortality and cardiovascular events from EVOLVE was not particularly strong. However, the committee accepted that EVOLVE also had high rates of both discontinuation and treatment switching. The company had explored several approaches to correct for this when deriving hazard ratio estimates for etelcalcetide and the comparators for

each of the outcomes in the model. In order to derive hazard ratios for estimating the long-term treatment effects of etelcalcetide, the committee understood that the company used hazard ratio estimates from EVOLVE (a cinacalcet trial), linked to outcomes from the etelcalcetide trials. The company assumed a linear relationship between the hazard ratios and the proportion of people experiencing more than 30% reduction in parathyroid hormone levels. The committee agreed with the ERG that EVOLVE was the best available source of evidence for the long-term effects of calcimimetics, but it had concerns about the robustness of the estimates. It was concerned that there were adjustments made to the EVOLVE data to derive treatment effects, and it was unclear how valid they were. The data were also further adjusted for high rates of discontinuation and switching, although the committee acknowledged that the lag-censored approach used in the company's base case was pre-specified. The ERG commented that the company's approach to pooling the placebo-controlled etelcalcetide trials broke randomisation and the ERG suggested that a preferred approach would be a simple chained indirect comparison. The committee was aware that the company's approach assumed that the rate of achieving a 30% reduction in parathyroid hormone level would translate into a directly proportional effect on mortality, fractures, cardiovascular events and the need for parathyroidectomy. It concluded that the company's estimates of the long-term benefits of etelcalcetide were highly uncertain because of the reliance on a trial of another treatment (cinacalcet), the results of which had been extensively adjusted, and the assumption that a higher rate of reduction in parathyroid hormone levels for etelcalcetide than cinacalcet would translate into a directly proportionally greater reduction in mortality, fractures, cardiovascular events and parathyroidectomy.

4.9 The committee considered the company's approach to estimating utility values used in the model. It noted that no utility data were available for etelcalcetide because EQ-5D data were not collected in the etelcalcetide

trials. The committee noted that the utility estimates used in the economic model were derived from EVOLVE, which estimated utilities using EQ-5D questionnaires given to 3,547 people who took part in the trial. The committee noted that a utility value of 0.71 for the baseline utility for people on haemodialysis could be considered relatively high compared with the general population. However, the committee agreed that EVOLVE is the most robust source of utility data and concluded that the company's approach was acceptable.

4.10 The committee discussed the company's base case cost-effectiveness estimates for etelcalcetide. It noted that the company had provided a comparison of etelcalcetide (plus phosphate binders and vitamin D) with phosphate binders and vitamin D alone for a broad population; that is, people with secondary hyperparathyroidism on haemodialysis. The cost-effectiveness results included the patient access scheme discount agreed between the company and the Department of Health. The committee recalled its previous discussion that etelcalcetide would not be used as a first-line treatment in the NHS, although noting comments from clinical experts that there might be some advantages to starting calcimimetics earlier rather than later. The committee therefore confined its further consideration to when etelcalcetide would be used in clinical practice; that is, for raised calcium and uncontrolled parathyroid hormone levels despite routine first-line treatment.

4.11 The committee discussed the company's base-case incremental cost effectiveness ratios (ICERs) for etelcalcetide compared with cinacalcet in people with refractory secondary hyperparathyroidism on haemodialysis. The committee agreed that this comparison is the most appropriate, based on how etelcalcetide would be used in clinical practice (see sections 4.2 and 4.10). The committee noted that the company's base-case deterministic ICER for this comparison was £14,778 per quality-adjusted life year (QALY) gained and the probabilistic ICER was £15,058 per QALY gained. The committee was aware of the multiple uncertainties

in relation to the extrapolation of the hazard ratios from EVOLVE (see section 4.8). The company's deterministic sensitivity analysis, varying the hazard ratio for mortality, which was the key driver in the cost effectiveness analysis, increased the ICER from £14,778 to £26,647 per QALY gained. The ERG's exploratory analysis (using a simple indirect comparison of the etelcalcetide trials rather than pooling, and using an alternative method for adjusting the data from EVOLVE for non-adherence to treatment) increased the ICER from £14,778 to £22,400 per QALY gained. The committee noted that several estimates were above £20,000 per QALY gained, and these still assumed a directly proportional effect of a 30% reduction in parathyroid hormone on long-term outcomes. The company considered that etelcalcetide was 'highly likely' to be cost effective, but the committee considered that it was highly uncertain because of uncertainties in extrapolating short-term surrogate outcomes from the etelcalcetide trials to long-term outcomes such as mortality. The committee considered the company's comments that the appraisal consultation document overstated the uncertainty associated with estimates of the cost-effectiveness of etelcalcetide compared with cinacalcet. The committee was aware that the parameter uncertainty associated with the hazard ratio for mortality alone increased the deterministic ICER by more than £10,000 per QALY gained. In addition, this does not include the uncertainty in the extrapolation from the EVOLVE trial and therefore this uncertainty is not reflected in the ICER estimates nor in the probabilistic sensitivity analyses. The committee noted that the company presented an alternative method for modelling outcomes, using risk-based equations and although this alternative method was welcomed by committee, the committee understood that this approach had not been validated and therefore uncertainty remained. However, the committee accepted the advantages of having an intravenous calcimimetic option available for patients. It agreed that because there is uncertainty in establishing the long-term benefits of etelcalcetide compared with cinacalcet (for outcomes such as mortality,

fracture and cardiovascular events) and higher associated costs, etelcalcetide should be recommended as an option for people with secondary hyperparathyroidism for whom a calcimimetic is indicated, only if cinacalcet is not considered suitable.

Equality issues

4.12 The committee noted the potential equality issue raised by patient experts about people not on dialysis, who are taking calcimimetics and still have symptomatic secondary hyperparathyroidism. The committee noted that the marketing authorisation does not cover this population and that the recommendations made for this technology appraisal would not affect current practice for these people. The committee concluded that this did not constitute an equalities issue.

Pharmaceutical Price Regulation Scheme (PPRS) 2014

4.13 The committee was aware of NICE's position statement on the Pharmaceutical Price Regulation Scheme (PPRS) 2014, and in particular the PPRS payment mechanism. It accepted the conclusion 'that the 2014 PPRS payment mechanism should not, as a matter of course, be regarded as a relevant consideration in its assessment of the cost effectiveness of branded medicines'. The committee heard nothing to suggest that there is any basis for taking a different view about the relevance of the PPRS to this appraisal. It therefore concluded that the PPRS payment mechanism was not relevant in considering the cost effectiveness of the technology in this appraisal.

Summary of appraisal committee's key conclusions

TAXXX	**Appraisal title: Etelcalcetide for treating secondary hyperparathyroidism**	**Section**
Key conclusion		

Etelcalcetide is recommended as an option for treating secondary hyperparathyroidism in adults with chronic kidney disease on haemodialysis, only if: • treatment with a calcimimetic is indicated but cinacalcet is not suitable and • the company provides etelcalcetide with the discount agreed in the patient access scheme.	1.1
The committee noted that although the company's incremental cost-effectiveness ratios (ICERs) were below £30,000 per quality-adjusted life year (QALY) gained, these cost-effectiveness estimates are highly uncertain because of uncertainties in extrapolating short-term surrogate outcomes from the etelcalcetide trials to long-term outcomes such as mortality. However, the committee accepted the advantages of having an intravenous calcimimetic option available. Given that there is uncertainty in establishing the long-term benefits of etelcalcetide compared with cinacalcet (for outcomes such as mortality, fracture and cardiovascular events) and higher associated costs, the committee considered that it should be recommended as an option for people with secondary hyperparathyroidism for whom a calcimimetic is indicated, only if cinacalcet is not considered suitable.	4.11
Current practice	

Clinical need of patients, including the availability of alternative treatments	The patient experts stated that most people with the condition have a substantial number of tablets to take, including phosphate binders that can be unpleasant because they are difficult to swallow and produce nausea, making adherence to treatment challenging. The patient experts highlighted that people with secondary hyperparathyroidism would welcome a treatment that could be given at the same time as dialysis with no additional tablets to take.	4.1
The technology		
Proposed benefits of the technology How innovative is the technology in its potential to make a significant and substantial impact on health-related benefits?	People with secondary hyperparathyroidism would welcome a treatment that could be given at the same time as dialysis with no additional tablets to take, which may improve adherence to treatment. The patient experts highlighted a patient survey, which revealed that most people would prefer to avoid surgery if possible. The committee accepted the advantages of having an intravenous calcimimetic option available.	4.1 4.2 4.11

What is the position of the treatment in the pathway of care for the condition?	The clinical experts stated that they would only offer a calcimimetic to people with refractory secondary hyperparathyroidism; that is, people with rising serum calcium and uncontrolled parathyroid hormone levels despite taking phosphate binders and vitamin D. The committee concluded that the most likely place in the treatment pathway for etelcalcetide would be for people with refractory secondary hyperparathyroidism, not as a first-line therapy.	4.2
Adverse reactions	The committee concluded that etelcalcetide's adverse effect profile is acceptable, but acknowledged that there may be some uncertainty in understanding the long-term risks associated with its use.	4.6
Evidence for clinical effectiveness		
Availability, nature and quality of evidence	The committee concluded that the trials were of good quality but acknowledged that they included a broad population of people with secondary hyperparathyroidism, rather than those specifically with refractory disease to whom a calcimimetic would be offered in current clinical practice. The committee concluded that the primary outcome of a 30% reduction in parathyroid hormone level is a clinically important and meaningful outcome, but may not be directly proportional to the reduction in incidence of	4.3 4.5

	outcomes such as mortality, cardiovascular events and fractures.	
Relevance to general clinical practice in the NHS	The committee concluded that people included in the trials were generally representative of those with secondary hyperparathyroidism in the UK, but it noted that they did not specifically represent the population who would be offered etelcalcetide in clinical practice; that is, people with inadequately controlled calcium and parathyroid hormone levels on standard first-line treatment.	4.3
Uncertainties generated by the evidence	The committee concluded that it was highly uncertain whether a 30% reduction in parathyroid hormone levels translates into directly proportional improvements in long-term outcomes such as survival, cardiovascular events and fractures.	4.3
Are there any clinically relevant subgroups for which there is evidence of differential effectiveness?	Not applicable.	–

Estimate of the size of the clinical effectiveness including strength of supporting evidence	In the placebo-controlled trials, treatment with etelcalcetide resulted in a statistically-significantly higher proportion of people with more than 30% reduction in parathyroid hormone level compared with placebo (74.7% for etelcalcetide compared with 8.9% for placebo; stratified odds ratio 31.60, 95% confidence interval [CI] 21.59 to 46.25, p<0.001). In the trial comparing etelcalcetide with cinacalcet (20120360), which had the same primary outcome measure, 77.9% of people in the etelcalcetide group experienced a more than 30% reduction in parathyroid hormone levels compared with 63.9% in the cinacalcet group (stratified treatment difference -10.48%, 95% CI -17.45% to -3.51%).	4.4
Evidence for cost effectiveness		

Availability and nature of evidence	The model used 4 health states, which reflected the principal adverse events associated with secondary hyperparathyroidism: all-cause mortality; non-fatal clinical fractures; and non-fatal cardiovascular events (such as, heart failure, myocardial infarction). To estimate treatment effects, the company model assumed that the rate of achieving a 30% reduction in the parathyroid hormone level would translate into a directly proportional effect on mortality, fractures, cardiovascular events and the need for parathyroidectomy.	4.7 4.8
Uncertainties around and plausibility of assumptions and inputs in the economic model	The committee concluded that the company's estimates of the long-term benefits of etelcalcetide were highly uncertain because of the reliance on a trial of another treatment (cinacalcet), the results of which had been extensively adjusted and also the assumption that a higher rate of reduction in parathyroid hormone levels for etelcalcetide than cinacalcet, would translate into a directly proportional reduction in mortality, fractures, cardiovascular events and parathyroidectomy.	4.8

Incorporation of health-related quality-of-life benefits and utility values Have any potential significant and substantial health-related benefits been identified that were not included in the economic model, and how have they been considered?	The committee noted that a utility value of 0.71 for the baseline utility for people on haemodialysis could be considered relatively high compared with the general population, but agreed that the EVOLVE trial was the most robust source of utility data and concluded that the company's approach was acceptable.	4.9
Are there specific groups of people for whom the technology is particularly cost effective?	Not applicable.	
What are the key drivers of cost effectiveness?	Hazard ratios for mortality.	4.11

Most likely cost-effectiveness estimate (given as an ICER)	The most plausible ICER for the comparison of etelcalcetide and cinacalcet is between £14,778 to £26,647 per QALY gained, but the committee considered that it was highly uncertain because of uncertainties in extrapolating short-term surrogate outcomes from the etelcalcetide trials to long-term outcomes such as mortality. The committee was aware that the parameter uncertainty associated with the hazard ratio for mortality alone increased the deterministic ICER by more than £10,000 per QALY gained. In addition, this does not include the uncertainty in the extrapolation from the EVOLVE trial and therefore this uncertainty is not reflected in the ICER estimates nor in the probabilistic sensitivity analyses.	4.11
Additional factors taken into account		
Patient access schemes (PPRS)	The committee concluded that the PPRS payment mechanism was not relevant in considering the cost effectiveness of the technology in this appraisal.	4.13
Equalities considerations and social value judgements	None identified.	4.12

5 Implementation

5.1 Section 7(6) of the National Institute for Health and Care Excellence (Constitution and Functions) and the Health and Social Care Information Centre (Functions) Regulations 2013 requires clinical commissioning groups, NHS England and, with respect to their public health functions, local authorities to comply with the recommendations in this appraisal within 3 months of its date of publication.

5.2 The Welsh Assembly Minister for Health and Social Services has issued directions to the NHS in Wales on implementing NICE technology appraisal guidance. When a NICE technology appraisal recommends the use of a drug or treatment, or other technology, the NHS in Wales must usually provide funding and resources for it within 3 months of the guidance being published.

5.3 When NICE recommends a treatment 'as an option', the NHS must make sure it is available within the period set out in the paragraphs above. This means that, if a patient has secondary hyperparathyroidism and the doctor responsible for their care thinks that etelcalcetide is the right treatment, it should be available for use, in line with NICE's recommendations.

5.4 The Department of Health and Amgen have agreed that etelcalcetide will be available to the NHS with a patient access scheme which makes it available with a discount. The size of the discount is commercial in confidence. It is the responsibility of the company to communicate details of the discount to the relevant NHS organisations. Any enquiries from NHS organisations about the patient access scheme should be directed to [NICE to add details at time of publication]

6 Review of guidance

6.1 The guidance on this technology will be considered for review 3 years after publication of the guidance. The guidance executive will decide whether the technology should be reviewed based on information gathered by NICE, and in consultation with consultees and commentators.

Dr Jane Adam
Chair, appraisal committee
June 2017

7 Appraisal committee members and NICE project team

Appraisal committee members

The 4 technology appraisal committees are standing advisory committees of NICE. This topic was considered by committee A.

Committee members are asked to declare any interests in the technology to be appraised. If it is considered there is a conflict of interest, the member is excluded from participating further in that appraisal.

The minutes of each appraisal committee meeting, which include the names of the members who attended and their declarations of interests, are posted on the NICE website.

NICE project team

Each technology appraisal is assigned to a team consisting of 1 or more health technology analysts (who act as technical leads for the appraisal), a technical adviser and a project manager.

Christian Griffiths
Technical Lead

Joanna Richardson

Technical Adviser

Marcia Miller and Liv Gualda

Project Managers

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