

**HEALTH TECHNOLOGY APPRAISAL: Cinacalcet  
Hydrochloride for the Treatment of Secondary  
Hyperparathyroidism in Patients with End Stage Renal  
Disease on Maintenance Dialysis Therapy (Assessment  
Report)**

**TO: NICE**

**FROM: NHS Quality  
Improvement Scotland**

Many thanks for asking me to comment on the above.

I feel the PENTAG group have undertaken a very thorough and precise appraisal of the potential use of Cinacalcet in this patient group.

Without going through the whole document (a bit of a tome!) in a long-winded manner, I will summarise the salient points as concisely as possible.

- The background information was accurate, up to date and gave an excellent lead up to the scale of the problem, treatment options available and what the PENTAG group were trying to ascertain as to the circumstances in which Cinacalcet could be utilised as a means of improving Secondary Hyperparathyroidism
- The cost utility model was very robust, factored for a number of variables and the different costing conclusions between PENTAG and the AMGEN group carefully teased out and adequately explained with full exploration for potential use of Cinacalcet at different levels of baseline PTH. Clearly new territory was being broached here with pre-existing utility values being absent for ESRD, the impact of high PTH levels, values for Cardiovascular events and values for Fracture incidence.
- The seven published reports on Cinacalcet were thoroughly scrutinised. The trials were well designed but used retrospective data for determination of Cinacalcet effect on Cardiovascular events, Fracture events and Mortality etc. This data collection was not the primary endpoint of the trials which, it has to be remembered, were of extremely short duration (most being 6 months). Certainly study extensions were undertaken but baseline characteristics differed from the initial study group with pooled analysis showing differences in age, ethnicity and dialysis modality – clearly this makes the drawing of worthwhile conclusions very difficult. Additionally the death rates in the trial groups were half of that seen in our UK renal register thereby rendering the trial group conclusions potentially not applicable to the UK population.
- As an aside the BMD data from the Lien paper makes no sense whatsoever and to draw conclusions about improvements in bone

density with Cinacalcet versus standard treatment, in such a small group of people over such a small time period, is wholly erroneous.

I would have to agree wholeheartedly with those conclusions drawn by the PENTAG group in that Cinacalcet is clearly effective in bringing secondary hyperparathyroidism under control and more so in those with moderately elevated than markedly elevated baseline PTH levels however what is its impact on patient based clinical outcomes?

There appeared to be fewer Fractures, hospitalisations for Cardiovascular events and Parathyroidectomies. However no effect on Mortality. Remember these studies were fairly short term, involved relatively small numbers of patients and it is impossible to extrapolate to the long term.

Cinacalcet is not free from side effects (a problem shared with all Calcimimetics) with a greater incidence of withdrawal from the trials – 15% versus 8%.

I am convinced by the PENTAG QALY calculations of £61,890 which make it unlikely to be considered cost effective.

In summary, excellent work has been performed by the PENTAG group and I feel their conclusions are wholly applicable to the Scottish population.

Cinacalcet is clearly not cost effective as yet.

Further research, as outlined by the PENTAG group, clearly needs to be undertaken in this very interesting field to ascertain the *potential* long term benefits and *possible* cost effectiveness of such products in times to come.

Yours sincerely,

**Andrew Gallagher**  
**Consultant Physician & Endocrinologist**