Diagnosis
Sector: Hospital

HAUTE AUTORITÉ DE SANTÉ

TRANSPARENCY COMMITTEE
AND
NATIONAL COMMITTEE FOR THE EVALUATION OF MEDICAL DEVICES AND HEALTH TECHNOLOGIES

HAVING MET IN APPLICATION OF ARTICLE L. 161-41 OF THE FRENCH SOCIAL SECURITY CODE

SUMMARY

08 JUNE 2022

The legally binding text is the original French opinion version

Butedronate
TECEOS 13 mg kit for radiopharmaceutical preparation
New indication

Key points

Favourable opinion for reimbursement in cardiac scintigraphy for the diagnosis of transthyretin cardiac amyloidosis (ATTR) (after ruling out light-chain cardiac amyloidosis (AL) by serum and urine immunofixation and serum free light chain assay).

What therapeutic improvement?

No clinical added value in the diagnostic management of transthyretin cardiac amyloidosis (ATTR) (after ruling out light-chain cardiac amyloidosis (AL) by serum and urine immunofixation and serum free light chain assay).

Role in the diagnostic pathway?

Transthyretin amyloid cardiomyopathy (ATTR-CM) may be suspected in patients presenting heart failure with preserved ejection fraction, in particular. A diagnosis of cardiomyopathy is generally suggested following echocardiography and surface ECG, and confirmed by cardiac scintigraphy.

A diagnosis of ATTR-CM is usually suspected in the event of left ventricular parietal hypertrophy, which is considered to be significant if it is greater than 13 or 14 mm. The cardiovascular conditions described in the disease or related to the disease include, in particular:

- heart failure with preserved ejection fraction;

- atrial arrhythmias: very common in patients with wild-type ATTR;

- conduction disorders: first cardiac manifestation in 7% of patients;

- valve damage: in particular low-flow aortic stenosis, often presenting a specific clinical form (low-flow low-gradient form);

- stroke.

The 2022 European and North American guidelines for patients in whom there is a strong clinical suspicion of cardiac amyloidosis, following exclusion of the presence of serum or monoclonal light chains, recommend the performance of cardiac scintigraphy using metastable technetium-99-labelled radiotracers (^{99m}Tc-DPD, ^{99m}Tc-HDP, ^{99m}Tc-PYP) to confirm the presence of transthyretin amyloidosis.

In adult patients with a family history of hereditary ATTR and symptoms suggestive of the disease, the identification of a mutation by genetic sequencing enables a diagnosis of hereditary ATTR. Genetic counselling may be requested by asymptomatic relatives liable to be carriers of a mutation based on their family history.

Role of the medicinal product in the care pathway:

TECEOS (butedronate) has a role in the diagnostic pathway, in the same way as the other metastable technetium-99-labelled phosphonates (^{99m}Tc-HDP, ^{99m}Tc-PYP) when the current guidelines schedule the performance of cardiac scintigraphy to investigate for the presence of ATTR following the performance of an echocardiogram and after ruling out light-chain cardiac amyloidosis (AL) (by serum and urine immunofixation and serum free light chain assay).

In comparison with endomyocardial biopsy, myocardial scintigraphy is non-invasive and painless for the patient and does not cause any adverse event. Endomyocardial biopsy, a definitive diagnostic test, is only offered in cases of doubt (Perugini grade 1).

JOINT COMMITTEE CONCLUSIONS

Considering all of this information and further to debate and voting, the Joint Committee considers:

Clinical benefit

◗ Wild-type or hereditary transthyretin amyloid cardiomyopathy is a rare, serious disease with fatal outcome.

◗ The proprietary medicinal product TECEOS (butedronate) is a medicinal product for diagnostic use.

◗ The efficacy/adverse effects ratio is high.

◗ There are alternative diagnostic methods.

◗ Cardiac scintigraphy is a second-line test in the diagnosis of transthyretin amyloidosis.

Public health benefit
Considering:
- the seriousness and low incidence of transthyretin amyloidosis,
- the partially met medical need, but with the persistence of a need to have access to new non-invasive tests with demonstration of a better-quality diagnostic performance in this strategy,
- the lack of demonstrated additional impact on mortality, morbidity or quality of life compared to the diagnostic methods available,
- the lack of expected additional impact on the care and/or life pathway,
TECEOS (butedronate) is unlikely to have an additional impact on public health.

Considering all these elements, the Joint Committee deems that the clinical benefit of TECEOS (butedronate) is substantial in the MA indication.

The Joint Committee issues a favourable opinion for inclusion in the hospital formulary list of reimbursed proprietary medicinal products approved for use in the MA indication.

Clinical Added Value

Considering the absence of conclusive evidence provided by TECEOS (butedronate) concerning a potential advantage in terms of diagnostic performance compared to the other phosphonates used off-label in myocardial scintigraphy, TECEOS (butedronate) provides no clinical added value (CAV V) compared to OSTEOCIS (sodium oxidronate (HDP)), Technescan HDP (sodium oxidronate) and Technescan PYP (stannous chloride/sodium pyrophosphate) in the diagnostic strategy for transthyretin cardiac amyloidosis.