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**TRANSPARENCY COMMITTEE**

OPINION

21 July 2010

Review of the dossier of the medicinal product included on the list of reimbursable medicines for a period of 5 years by the order of 8 November 2005 (Journal Officiel, 16 November 2005)

**FOSAVANCE 70 mg/2800 IU, tablet**

**B/4 (CIP code: 369 251-8)**

**B/12 (CIP code: 370 223-4)**

**Applicant: MERCK SHARP & DOHME-CHIBRET**

alendronate monosodium trihydrate, cholecalciferol  
ATC code: M05BB03

List I

Date of Marketing Authorisation: 24 Aug 2005 (centralised procedure)

Reason for request: Renewal of inclusion on the list of medicinal products reimbursable by National Health Insurance.

Linked renewal of the medicinal product:

**FOSAVANCE 70 mg/5600 IU, tablet**

**B/4 (CIP code: 382 018-1)**

**B/12 (CIP code: 382 019-8)**

## 1 CHARACTERISTICS OF THE MEDICINAL PRODUCT

### 1.1. Active ingredients

Alendronate monosodium trihydrate, cholecalciferol (vitamin D3)

### 1.2. Indications

#### FOSAVANCE 70 mg/2800 IU, tablet

“Treatment of postmenopausal osteoporosis in patients at risk of vitamin D insufficiency. FOSAVANCE reduces the risk of vertebral and hip fractures.”

#### FOSAVANCE 70 mg/5600 IU, tablet

“Treatment of postmenopausal osteoporosis in patients at risk of vitamin D insufficiency who are not receiving vitamin D supplementation. FOSAVANCE reduces the risk of vertebral and hip fractures.”

### 1.3. Dosage

See the SPC.

## 2 UPDATING OF AVAILABLE DATA SINCE THE PREVIOUS OPINION (5 July 2006)

### 2.1. Efficacy

The company has supplied new clinical data in the indication post-menopausal osteoporosis<sup>1,2,3</sup>. These are primarily efficacy data for alendronic acid in terms of increase in bone mineral density (surrogate endpoint).

The results of the 24-week extension of study 227, which were the basis for the inclusion of FOSAVANCE 70 mg/2800 IU, are also supplied. There was no observed difference between FOSAVANCE 70 mg/2800 IU and FOSAVANCE 70 mg/5600 IU in the proportion of patients who had developed hypercalciuria at week 39. Hypercalciuria was defined as calciuria > 300 mg/24 h in women and > 350 mg/24 h in men and an increase of more than 25% relative to randomisation.

These new efficacy data are insufficient for any change to the conclusions of the last transparency Committee opinion.

### 2.2. Adverse effects

Analysis of pharmacovigilance data covering the period from 10 March 2005 to 09 September 2009 brought to light 1279 spontaneously reported cases of which 376 were serious. These were mainly “musculoskeletal and connective tissue disorders”, “gastrointestinal disorders” and “general disorders and administration site conditions”.

The SPC has been updated to include the risk of osteonecrosis of the jaw (ONJ), stress fractures, a new adverse effect “dysgeusia” and a precaution for use in patients with “Barrett’s syndrome”.

<sup>1</sup> Miller et al. Once-monthly oral ibandronate compared with weekly oral alendronate in postmenopausal osteoporosis: results from the head-to-head MOTION study. *Curr. Med. Res. Opin.* 2008; 24: 207-213.

<sup>2</sup> Reid et al. A comparison of the effect of alendronate and risedronate on bone mineral density in postmenopausal women with osteoporosis: 24-month results from FACTS-International. *J. Clin. Pract.* 2008; 62 (4): 575-584.

<sup>3</sup> Recke et al. Comparative effects of raloxifene and alendronate on fracture outcomes in postmenopausal women with low bone mass. *Bone* 2007; 40 : 843-885.

Alendronic acid, in common with all bisphosphonates, has been the subject of three tolerance re-assessments by the EMA:

- osteonecrosis of the jaw
- stress fracture
- atrial fibrillation

#### Osteonecrosis of the jaw<sup>4</sup> (mandibular and/or maxillary):

Following the first re-assessment of the class of bisphosphonates in respect of ONJ by the EMEA in 2005, the SPC of FOSAVANCE, in common with that of all medicinal products of this class, was revised to include under "Special warnings and precautions for use" the risk of ONJ secondary to infections or dental extractions.

Despite the changes to the SPCs of bisphosphonates, cases of ONJ have continued to be reported. The EMA consequently undertook a second re-assessment in December 2007, the conclusions of which were published in September 2009<sup>5</sup>.

This analysis revealed that the risk of ONJ is significantly greater in patients treated with IV bisphosphonates as cancer chemotherapy (incidence 0.8-12%) than in those treated orally for osteoporosis or Paget's disease (incidence 0.0004-0.06%). The risk of ONJ with oral bisphosphonates seems low.

Since the risk factors are many and not yet fully elucidated, the CHMP would like a more in-depth assessment of the risk of ONJ through the creation of a European register and the performance of clinical studies.

The transparency Committee draws attention to the recommendations on the oral and dental care of patients treated with bisphosphonates<sup>6</sup>: "in patients who are to be treated with bisphosphonates for osteoporosis or Paget's disease, it is recommended to carry out an initial oral and dental assessment, followed by any necessary dental treatment. An annual oral and dental checkup is recommended. Based on the currently available data, use of bisphosphonates in osteoporosis cannot be considered a contraindication for the placement of a dental implant."

#### Stress fracture (or fractures due to bone weakness)

The re-assessment of bisphosphonates in respect of stress fracture was prompted by the publication of articles indicating a possible link between treatment with alendronic acid and the occurrence of stress fracture; this may be associated with an excessive increase in bone metabolism after long-term treatment with alendronic acid. Because of the proposed mechanism, a "class effect" could not be ruled out. The EMA consequently carried out a re-assessment of the class as a whole in 2008<sup>7</sup>.

The EMA pharmacovigilance working group concluded that:

- stress fractures of the proximal femoral shaft were associated with long-term treatment with alendronic acid. These fractures have occurred after minimal or no trauma;
- the available data have not demonstrated an increase in the risk of stress fractures with bisphosphonates other than alendronic acid;
- although analysis of the literature had shown that the majority of cases concerned alendronic acid, there is uncertainty about a possible "class effect", given that there are only limited long-term data for other bisphosphonates.

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<sup>4</sup> Osteonecrosis of the jaw is defined as an area of exposed bone in the maxillofacial region that did not heal within 8 weeks after identification by a health care provider, in a patient who was receiving or had been exposed to a bisphosphonate and had not had radiation therapy to the craniofacial region.

<sup>5</sup> EMA. CHMP Assessment report on bisphosphonates and osteonecrosis of the jaw. 24/09/2009.

<sup>6</sup> AFSSAPS. Letter to healthcare professionals. Recommendations on the oral and dental care of patients treated with bisphosphonates. 18/12/2007

<sup>7</sup> MHRA. Bisphosphonates and stress fractures. January 2009.

The SPC of FOSAVANCE was therefore amended on 07/04/2009 to include reported cases of stress fracture:

Special warnings “Stress fractures (also known as insufficiency fractures) of the proximal femoral shaft have been reported in patients treated long-term with alendronic acid (time to onset in the majority of cases ranged from 18 months to 10 years). The fractures occurred after minimal or no trauma and some patients experienced thigh pain, often associated with imaging features of stress fractures, weeks to months before presenting with a completed femoral fracture. Fractures were often bilateral; therefore the contralateral femur should be examined in bisphosphonate-treated patients who have sustained a femoral shaft fracture. Poor healing of these fractures was also reported. Discontinuation of bisphosphonate therapy in patients with stress fracture is advisable pending assessment of the patient, based on an individual benefit risk assessment.”

#### Atrial fibrillation (AF):

In June 2008, the EMA pharmacovigilance working group re-evaluated the benefits/risk relationship of bisphosphonates in respect of the risk of AF<sup>8</sup>. This re-assessment of the class was prompted by the identification of an increase in the incidence of atrial fibrillation relative to placebo in patients treated with zoledronic acid in the HORIZON study and in those treated with alendronic acid in the FIT study.

The working group concluded that:

- the benefits/risk relationship remained favourable for the entire class;
- the risk of developing AF seemed higher with certain bisphosphonates, for biochemical reasons;
- the data obtained from clinical studies indicated increased risk for zoledronic acid and, in the case of data from extension phases, for alendronic acid and pamidronic acid.

No change has been made to the SPC of FOSAVANCE. The company has been asked to provide additional data.

### 3 USAGE DATA

#### Thalès study

The results of a THALES survey examining the conditions of treatment of osteoporosis in general practice are presented.

Between April 2008 and April 2009, 1,819,707 patients consulting their GP had had a diagnosis of osteoporosis. Of these patients, 1,718,106 had been treated (94.4%). Approximately 84% of patients were aged over 60 years (the average age was 71.0 years for men and 72.1 years for women) and 54.1% had been treated with bisphosphonates (FOSAVANCE accounted for 10.5% of bisphosphonate prescriptions).

#### EPPM panel (IMS-DOREMA)

According to the EPPM data for winter 2009/2010, there were 587,000 prescriptions of FOSAVANCE (319,000 prescriptions of FOSAVANCE 70 mg/2800 IU and 268,000 of FOSAVANCE 70 mg/5600 IU).

Approximately 80% of prescriptions were for patients aged over 65 years. The treatment of osteoporosis without pathological fracture accounted for 80.4% of prescriptions.

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<sup>8</sup> EMA post-authorisation evaluation of medicines for human use. Updated overall assessment report of responses to agency request for information on bisphosphonates and the potential risk of atrial fibrillation-zoledronic acid-2008

## 4      **TRANSPARENCY COMMITTEE CONCLUSIONS**

### **4.1.    Re-assessment of actual benefit**

Osteoporosis is a serious disorder because of the risk of fractures. In particular, fractures of the femoral neck can be life-threatening.

FOSAVANCE, a fixed combination of alendronate and vitamin D3, is a preventive treatment for osteoporotic fractures. The efficacy of alendronate has been demonstrated in the prevention of vertebral and peripheral fractures, including femoral neck fractures.

In the light of the new tolerance data, the transparency Committee considers that the efficacy/adverse effects ratio of the medicinal product FOSAVANCE, like that of all products of the bisphosphonates class, is moderate.

These medicinal products are first line therapies.

Alternative medicinal products exist.

The actual medical benefit of these medicinal products remains substantial.

### **4.2.    Transparency Committee recommendations**

The transparency Committee recommends maintaining inclusion on the list of medicines refundable by National Health Insurance at the dosage of the marketing authorisation and only in the therapeutic indications qualifying for reimbursement:

- Treatment of postmenopausal osteoporosis to reduce the risk of vertebral and hip fractures :
  - in patients with a fracture caused by bone fragility,
  - in the absence of a fracture, in women with a substantial reduction in bone mineral density (T-score < -3) or with a T-score ≤ -2.5 associated with other risk factors for fractures, in particular age > 60 years, current or past systemic corticosteroid therapy at a dosage ≥ 7.5 mg/day prednisone equivalent, a body mass index < 19 kg/m<sup>2</sup>, a history of femoral neck fracture in a first-degree relative (mother), early menopause (before the age of 40 years).

Packaging: Appropriate for the prescription conditions

Reimbursement rate: 65%