

The use of chondroprotectors (SYSADOA) would enable the NHS to avoid around 20,000 adverse effects per year, with an economic saving of more than 40 million Euros over three years

- The report issued by the consultancy Health Value analyzes the health and budgetary impact of the treatment of knee osteoarthritis with chondroitin sulfate, a drug pertaining to the slow-acting chondroprotective group
- Chondroprotectors are determinant as long-term medication with great therapeutic advantages

**Madrid, February 5, 2020**, Reig Jofre, a pharmaceutical company listed on the Spanish continuous market, today presented the Budget and Health Impact Report prepared by the consultancy Health Value. The presentation was given by **Mr. Carlos Rubio**, director of the consultancy Health Value and an expert in Pharmacoeconomics, **Dr. Miguel Bernad**, Rheumatology Specialist at La Paz University Hospital in Madrid and **Dr. Marta Herrero**, Senior Manager Innovation and Pipeline Management at Reig Jofre.

Osteoarthritis is the most frequent rheumatic disease in Spain and will become the fourth cause of disability in the world in 2020, according to the WHO. It is a serious disease that increases the risk of death by 20%.

Chondroitin Sulfate and Glucosamine (SYSADOA (English Syntomatic Slow Action Drugs for Osteoarthritis)) are a group of slow-acting drugs approved by the Spanish Agency of Medicines for the treatment of osteoarthritis, a disease afflicting some 7 million Spaniards. They are an alternative of great therapeutic utility and enable reductions in pain and improvements in functional capacity. They are safe drugs, especially for those patients with comorbidities (other pathologies) for which the use of analgesics or anti-inflammatories may be contraindicated.

Both substances are two complex molecules, polysaccharides, which form part of various structures of the joint, primarily cartilage. In the '70s and '80s, "in vitro" studies were carried out in which these substances were included in samples of arthritic cartilage, with improvements observed in cartilage metabolism data. Subsequently, clinical trials were conducted on patients with osteoarthritis, in comparison with NSAIDs (anti-inflammatories), in order to study the symptomatic effect of Chondroitin Sulfate (CS) and Glucosamine (G).



During the '90s, numerous scientific evidences appeared supporting the therapeutic effect of SYSADOAs on pain in a manner very similar to NSAIDs in patients with osteoarthritis, with a **significantly lower incidence of digestive, cardiovascular, hepatic and/or renal side effects**.

Additionally, it was observed that after a 3-month treatment period the symptomatic improvement lasted at least 2 further months, unlike other usual analgesics (Paracetamol, NSAIDs).

Likewise, on the symptomatic effect of pain produced in osteoarthritis, there is scientific evidence that CS and G produce a **delay in the evolution of osteoarthritis and deterioration of cartilage**, as we will see later.

It is important to bear in mind that, in **countries such as Spain, Portugal, France, Austria, Finland, etc., these compounds are regulated by the Health Authorities as drugs**, with all that this entails, such as quality control in production, adequate concentrations, traceability, etc. That is, **SYSADOAs are not nutraceuticals. but drugs**.

#### **Main Conclusions of the Report** (See detailed analysis in Annex)

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Regarding the **HEALTH IMPACT**, the study concludes that the treatment of Spanish patients with osteoarthritis of the knee would avoid thousands of toxicities associated with anti-inflammatories over a period of 3 years (from 2020 to 2022).

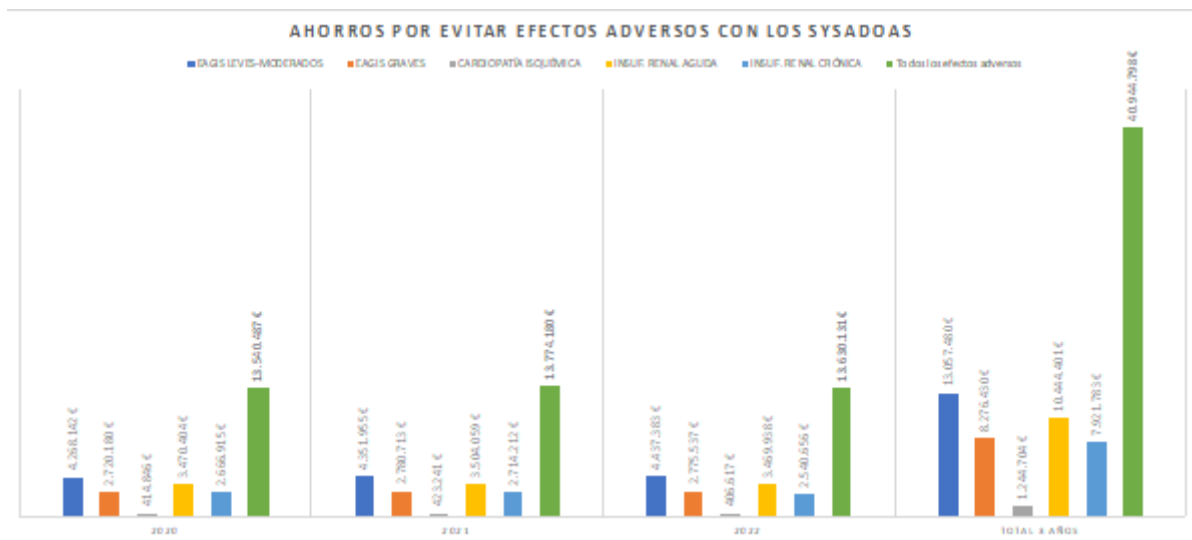
Specifically, the **use during the next triennium of chondroitin sulphate would avoid:**

- 55,098 mild or moderate gastrointestinal episodes (at a cost of € 240 per episode)
- 3,060 severe gastrointestinal episodes (at a cost of € 2,857 per episode)
- 204 ischemic cardiopathies (at a cost of € 6,168 per case)
- 1,089 cases of acute kidney injury (at a cost of € 6,011 per case)
- 733 cases of chronic kidney injury (at a cost of € 10,221 per case)

Consequently, the **ECONOMIC SAVINGS** that would be produced by the use of chondroitin sulphate in the next three years would amount (adding the cost of all adverse effects) to € 40,944,798.

Discounting the cost of medicines (i.e. chondroitin sulphate and anti-inflammatory drugs), **the three-year saving for the NHS by avoiding the aforementioned toxicities would be 21.8 million Euros (between a minimum of 12.3 and a maximum of 29.7 million Euros)**.

**The Budget Impact Report from the consultancy Health Value** reflects the millions of Euros of savings for the NHS over the next 3 years if the treatments with SYSADOAs (chondroitin) are continued, as well as **the avoidance of around 20,000 different adverse annual effects** of different nature.



**Carlos Rubio**, director of the consultancy Health Value and an expert in Pharmacoeconomics, said that *"The data analyzed suggest that treatment with SYSADOA (chondroitin) of Spanish patients with knee osteoarthritis would avoid, in a period of 3 years, nearly 20,000 annual adverse effects of different kinds and produce millions of Euros of savings for the NHS. Given this reality, serious reflection must be made and the benefits of this group of drugs evaluated globally"*.

**Dr. Miguel Bernad**, Rheumatology Specialist at the University Hospital La Paz in Madrid, stressed that *"Chondroprotectors are a group of slow-acting drugs approved by the Spanish Agency of Medicines for the treatment of osteoarthritis. It is important to underline that they are not nutraceuticals, but drugs of great therapeutic utility with minimal side effects, which enable a reduction in pain and improvements in functional capacity. They are safe drugs and are backed by scientific evidence stating that they produce a delay in the evolution of osteoarthritis and the deterioration of cartilage"*.

The **Annex** identifies and analyzes:

- studies that support the usefulness of chondroprotectors and other treatments with NSAIDs, paracetamol and opioids
- data extracted from the budget impact report with chondroitin versus NSAIDs (anti-inflammatories)
- the development of the probabilistic model used
- the differences in the toxicity of the medications in order to subsequently evaluate the cost of managing the adverse effects of each group
- the cost of each adverse effect



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### **About Reig Jofre**

Founded in 1929 in Barcelona, Reig Jofre is a family-controlled pharmaceutical company listed on the Spanish Stock Exchange's continuous market and dedicated to the research, development, manufacture and marketing of pharmaceutical products and nutritional supplements from its four plants in Toledo (2), Barcelona and Malmö (Sweden). Reig Jofre structures its product development activity in three business areas: (1) Pharmaceutical technologies specialized in sterile and lyophilized injectables, and antibiotics derived from penicillin; (2) Specialty products in Skin, Hair and Nail Health; Health and Joint Pain and Women's Health (developed and produced internally), and (3) Consumer Healthcare with products aimed at the consumer under the Forté Pharma brand, mainly in France, Belgium, Spain and Portugal, and other OTCs. Reig Jofre has more than 1000 employees, direct sales in 7 countries and more than 130 business partners in 70 countries around the world. The company closed 2018 with a turnover of 181 million Euros. Reig Jofre is listed the ticker RJF. Share capital: 76,062,457 shares

### **Further information**

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