

QIPP Detail Aid

Providing support for quality in prescribing

GLUCOSAMINE - IS IT WORTH IT?

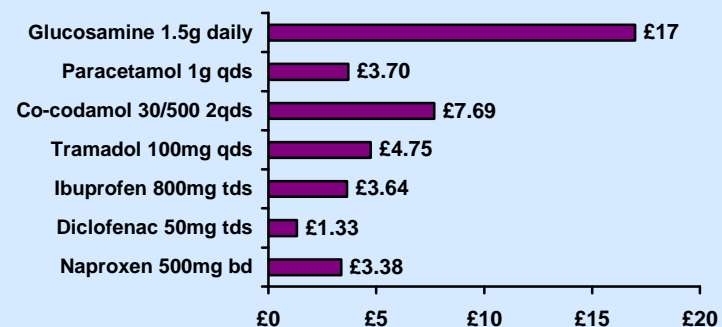
WHAT IS THE PROBLEM?

- In the first quarter of 2010 the East Midlands spent nearly £750k on glucosamine, at an average cost of £25 per prescription. This is equivalent to about £3m annually and represents poor value for money compared with other analgesics for osteoarthritis.
- Glucosamine plus chondroitin is unlicensed, extremely expensive (over £100 per month) and should not be prescribed.
- **## ADD LOCAL DATA HERE**

WHAT IS THE EVIDENCE?

- The efficacy of glucosamine in knee osteoarthritis is not clear. Initially, small trials found that glucosamine reduced pain in mild-moderate disease. More recent well-controlled trials have found little or no benefit compared with placebo. A trial of glucosamine in hip osteoarthritis (unlicensed indication) found no advantage over placebo, either for pain or joint function.
- A Cochrane review of the clinical trials of glucosamine in knee osteoarthritis published in 2005 and updated in 2009 did not find a consistent benefit of glucosamine in pain, joint function or stiffness. The review did find that several trials using an Italian brand of glucosamine (now marketed in the UK as Glusartel[®]) provided a greater improvement in symptoms than placebo. A further meta-analysis of these trials found significant variation in the size of the therapeutic effect of glucosamine in different studies. A Health Technology Assessment in 2009 concluded that although there was evidence of some clinical effectiveness of glucosamine sulphate, cost effectiveness was not conclusively demonstrated.
- NICE clinical guideline on Osteoarthritis (CG 59, issued 2008) advises that the evidence for glucosamine is not strong enough to justify prescribing it on the NHS as they say it is unlikely to be cost effective. However they acknowledge that some patients may wish to trial it on an individual basis.

WHAT ARE THE COSTS?



Costs for 28 days supply. Taken from Drug Tariff March 2011
Doses are a guide and do not imply therapeutic equivalence.

KEY MESSAGES

- **The place of glucosamine in osteoarthritis of the knee remains unclear. There is very little evidence to support use in osteoarthritis of any joint other than the knee.**
- **Review patients who are already prescribed glucosamine. If there is no clear benefit, they should stop.**
- **If patients wish to try over-the-counter glucosamine, advise that any improvement may take several weeks to appear. They should not continue to take it if there is no clear benefit after 3 months.**
- **Prescribing of licensed glucosamine may occasionally be justified for knee osteoarthritis where patients have persistent painful symptoms and have been found to derive significant benefit from glucosamine after a trial.**

Further Information

WHAT IS GLUCOSAMINE?

Glucosamine is an aminosugar (chemically similar to glucose). It is the building block of proteoglycans, which are linked together to make the structure of articular cartilage. Although there has been interest in the therapeutic use of glucosamine for over 20 years, there is no accepted or coherent explanation of how it might help relieve pain in osteoarthritis.

Commercially, glucosamine is generally made from the exoskeleton (shells) of crustaceans such as shrimps. People who are allergic to shellfish should therefore avoid glucosamine.

A GUIDE TO GLUCOSAMINE PRODUCTS AVAILABLE

Over-the-counter brands of glucosamine do not have a UK product licence and are sold as food supplements. These are often cheaper than the branded products if purchased over the counter by a patient.

If glucosamine is dispensed on an NHS prescription, the pharmacist or dispensing doctor would be reimbursed at the Drug Tariff price, currently £16.99 for 28 days (January 2011 Drug Tariff). This is significantly more than other analgesics.

Glucosamine plus chondroitin remains extremely expensive (over £100 per month) and should not be prescribed.

Three preparations of glucosamine have been licensed for use in the UK: Alateris[®] (glucosamine hydrochloride, £17.17 for 28 days); Dolenio[®] (glucosamine sulphate £16.98 for 28 days) and Glusartel[®] (glucosamine sulphate sachets, £17.17 for 28 days).

Licensed use only includes that for mild to moderate osteoarthritis of the knee. Any other use (e.g. hip pain) would therefore be unlicensed.

References:

1. Towheed T, Maxwell L, Anastassiades TP et al. Glucosamine therapy for treating osteoarthritis. Cochrane Database of Systematic Reviews 2005; Issue 2 Art. No.: CD002946, updated Nov 2008 (<http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD002946>)
2. Rozendaal et al 2008 Ann Intern Med. 2008 Feb 19;148(4):268-77 (<http://www.ncbi.nlm.nih.gov/pubmed/18283204>)
3. Vlad et al. Glucosamine for pain in osteoarthritis: why do trial results differ? Arthritis & Rheumatism 2007; 56:2267-2277 (<http://www.ncbi.nlm.nih.gov/pubmed/17599746>)
4. Black C, Clar C, Henderson R et al. The clinical effectiveness of glucosamine and chondroitin supplements in slowing or arresting progression of osteoarthritis of the knee: a systematic review and economic analysis. Health Technol Assess 2009; 13 (52): 1–148. (<http://www.hta.ac.uk/project/1717.asp>)
5. NICE clinical guideline for osteoarthritis (CG59), 2008, available at <http://guidance.nice.org.uk/CG59>
6. MIMS Prescribing reference for General Practice January 2011 pp292-3

Further general references:

1. London New Drugs Group, October 2010. Glucosamine (Glusartel) for arthritis. Accessed via www.nelm.nhs.uk 7/2/11
1. Mereg Rapid Review blog: <http://www.npci.org.uk/blog/?p=1929>, accessed 4/1/11
2. Glucosamine for knee osteoarthritis-what's new? DTB 46:81-84 (2008)