

# Rise in Anti-Arthritic Market:

## 35% increase since introduction of COX-2 inhibitors

*Insight and Outlook from IMS HEALTH*

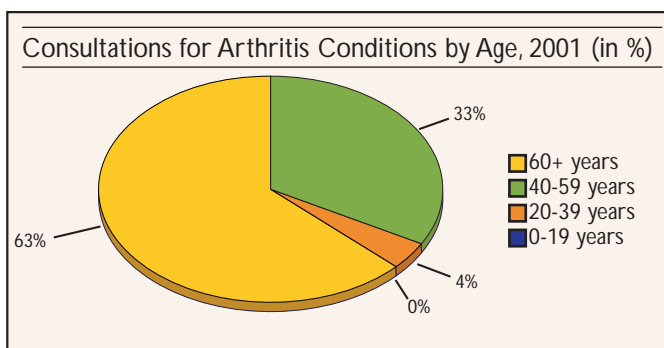
Introduced in 1999, COX-2 inhibitors offered an alternative to traditional nonsteroidal anti-inflammatory drug therapy (NSAID).

These new NSAIDs provide pain relief for osteoarthritis (OA) and rheumatoid arthritis (RA) patients, while reducing gastrointestinal (GI) side effects.

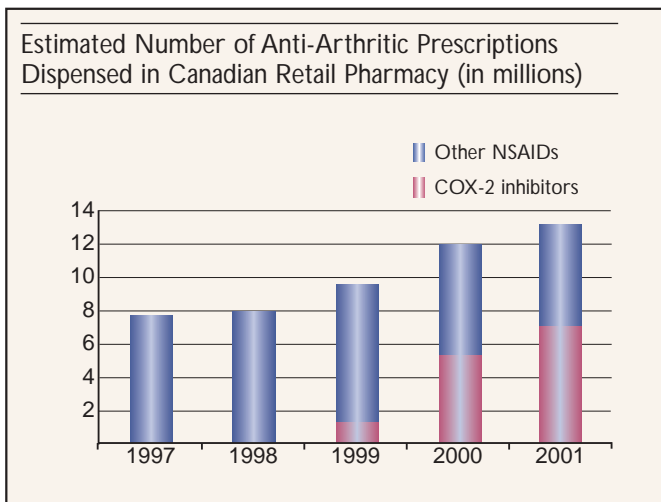
The total anti-arthritic prescriptions, prior to COX-2 inhibitors, by pharmacies in 1999 was 9 million. In comparison, 14 million anti-arthritic prescriptions were dispensed in 2001 – 6 million were for traditional NSAID drug therapy and 8 million were COX-2 inhibitors.

A COX-2 inhibitor works by specifically targeting the COX-2 enzyme (cyclo-oxygenase-2) believed to be responsible for pain and inflammation, without affecting the action of the COX-1 enzyme (cyclo-oxygenase-1), which is thought to have a protective effect on the stomach.

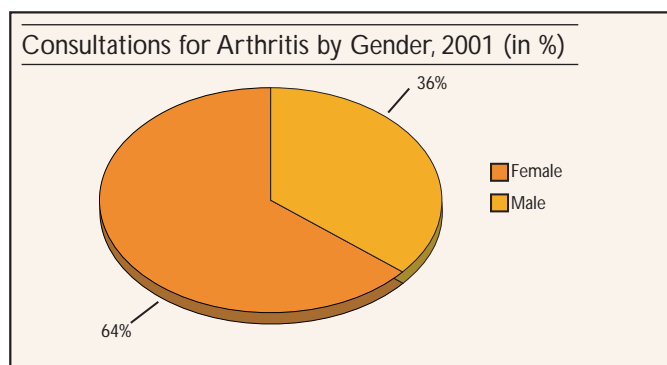
Today, more than 4 million Canadians suffer from arthritis; that figure is projected to increase to 6.5 million within the next 30 years.<sup>1</sup> As baby boomers enter their 50s and 60s, we can expect more demand for arthritis drug therapy. In 2001, over 60% of doctor visits for arthritis conditions were made by patients aged over 60, while 33% were between the ages of 40 and 59. In addition, 64% of the patient visits were made by women, compared to 36% by men.



Source: IMS HEALTH, Canadian Disease and Therapeutic Index

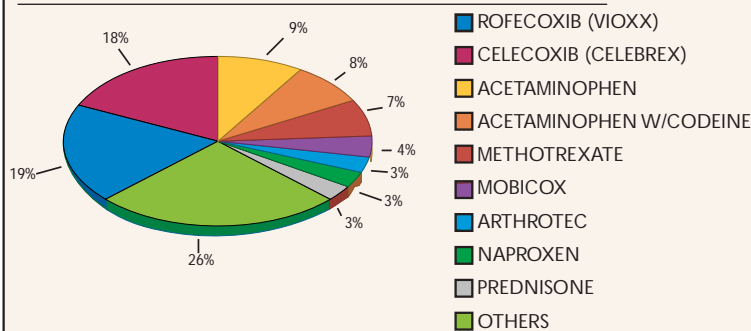


Source: IMS HEALTH, CompuScript



Source: IMS HEALTH, Canadian Disease and Therapeutic Index

Drugs Most Frequently Recommended by Canadian Office-Based Physicians for the Treatment of Arthritic Conditions in 2001



Source: IMS HEALTH, Canadian Disease and Therapeutic Index

With arthritis being the leading cause of long-term disability in Canada, new treatment therapies are a welcome addition in the fight against arthritis.<sup>4</sup> [CPM](#)

References:

- 1 Bradley EM, Wang PP. Arthritis and the aging population: projections of arthritis prevalence in Canada 1991 to 2031. *J Rheumatol* 1998;25:138-44.
- 2 According to the Compendium of Pharmaceuticals and Specialties, 2002, The Canadian Drug Reference for Health Professionals, Celebrex and Mobicox are indicated for osteoarthritis and RA. Vioxx is indicated for osteoarthritis, relief of pain in adults and primary dysmenorrhea.
- 3 Arthritis Society press release: "Arthritis community urges provincial health plans to cover effective new therapies". November 28, 2001
- 4 Arthritis Society Web site: <http://www.arthritis.ca/resourcesforadvocates/arthroscope/slide16/default.asp>

GI side effects such as heartburn, ulcers and internal bleeding occur more frequently in elderly patients. The COX-2 inhibitors have become popular because of the efficacy and tolerability they demonstrated in clinical trials. As the use of these drugs continue to grow, their safety and effectiveness will be demonstrated over time - as is the case with all new drugs on the market.

In 2001, there were three COX-2 inhibitors available on the market: Celebrex, Vioxx, and Mobicox.<sup>2</sup> The drugs were respectively introduced in April 1999, October 1999, and October 2000. In 2001, office-based physicians recommended one of the three COX-2 inhibitors in 41% of the cases; Vioxx was the recommended COX-2 medication in 19% of the cases, while Celebrex accounted for 18% of the recommendations and Mobicox 4%.

Health Canada estimates that 85% of Canadians are affected by osteoarthritis by age 70. RA, on the other hand, can strike individuals in their prime. Most of the 300,000 Canadians with RA developed the disease between the ages of 25 and 50. It is estimated that 50% of them will be functionally disabled within ten years of diagnosis. However, new biologic treatment for RA could help patients avoid flare-ups, hospitalization as well as surgery, allowing them to lead more productive lives.<sup>3</sup>

These new biologic drug therapies - Remicade™ (infliximab) and Enbrel® (etanercept) - work by blocking a chemical in the body known as tumor necrosis factor (TNF). TNF inflames joints, making them painful and stiff.

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