

Therapeutic Trends

Arthritis

The COX-2 Inhibitor Revolution *Insight and Outlook from IMS HEALTH*

Cyclooxygenase (COX)-2 inhibitors, which were introduced in 1999, offer an alternative to traditional non-steroidal anti-inflammatory drugs (NSAIDs). These new NSAIDs provide pain relief for osteoarthritis (OA) and rheumatoid arthritis (RA), while reducing gastrointestinal (GI) side-effects.

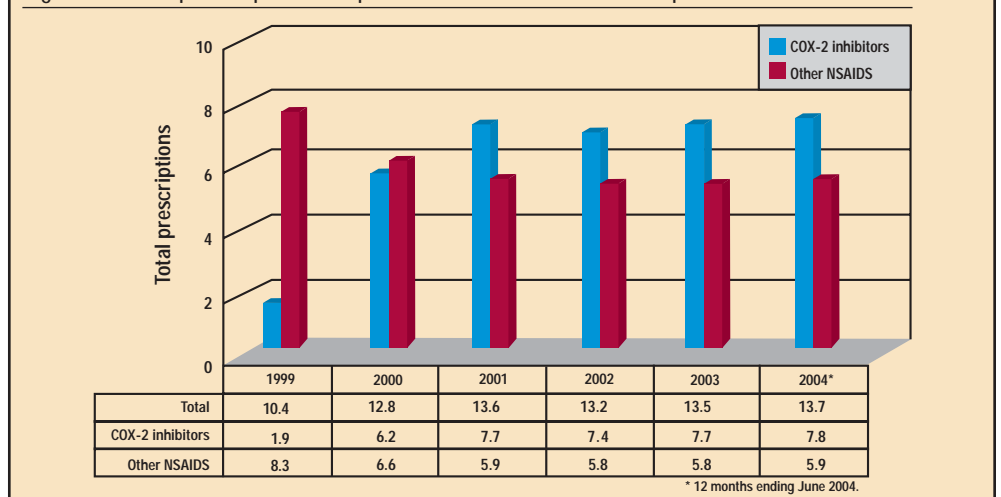
Prior to COX-2 inhibitors, anti-arthritic prescriptions dispensed by pharmacies totalled nine million. In comparison, 13.7 million anti-arthritic prescriptions were dispensed in 2004*—5.9 million for traditional NSAIDs and 7.8 million for COX-2 inhibitors (Figure 1).

About COX-2 inhibitors

COX-2 inhibitors specifically target the COX-2 enzyme, believed to be responsible for pain and inflammation. However, the inhibitors do not affect the action of the COX-1 enzyme, which is thought to have a protective effect on the stomach.

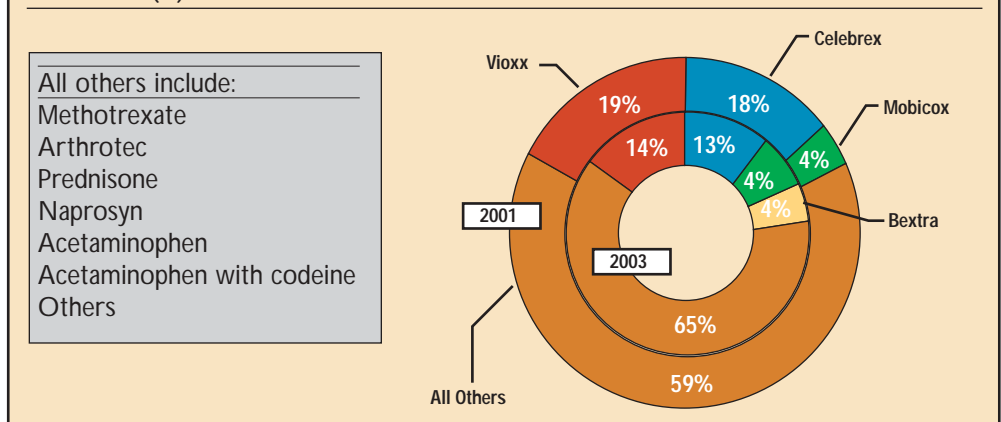
COX-2 inhibitors have become popular because of the efficacy and tolerability they demonstrated in clinical trials. As the use of these drugs continues to grow, their safety and effectiveness will be further demonstrated.

Figure 1. Total prescriptions dispensed from Canadian retail pharmacies



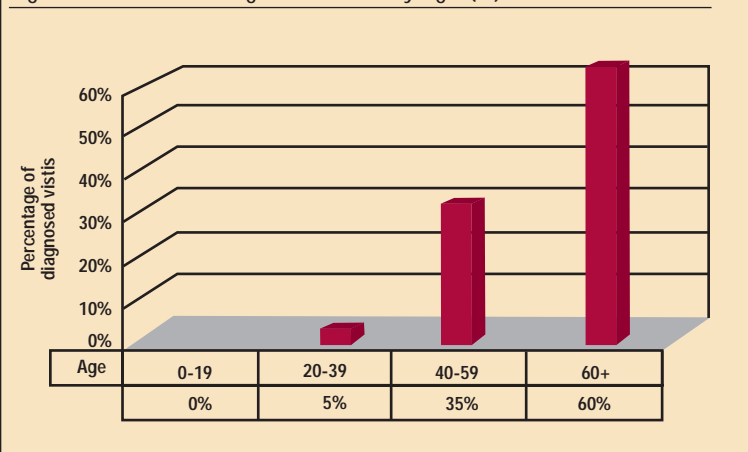
Source: IMS Health, Canada, Compuscript.

Figure 2. Drugs most frequently recommended by office-based physicians for treatment of arthritis (%)



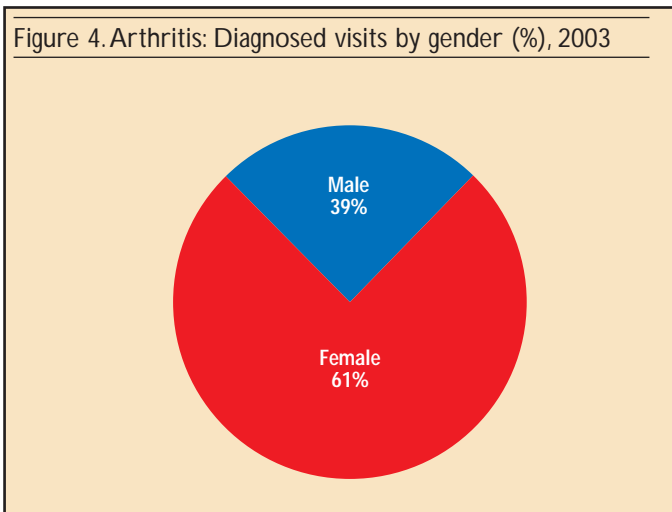
Source: IMS Health, Canada, Canadian Disease and Therapeutic Index.

Figure 3. Arthritis: Diagnosed visits by age (%), 2003



Source: IMS Health, Canada, Canadian Disease and Therapeutic Index.

Figure 4. Arthritis: Diagnosed visits by gender (%), 2003



Source: IMS Health, Canada, Canadian Disease and Therapeutic Index.

In 2001, office-based physicians recommended one of the then three COX-2 inhibitors in 41% of the cases; Vioxx® was the recommended COX-2 medication in 19% of cases, while Celebrex® accounted for 18%, and Mobicox® 4% of the recommendations (Figure 2).

In 2003, with four COX-2s to choose from, recommendations for COX-2s by physicians decreased to 35%. Recommendations for drugs other than COX-2s went up 6%.

Show me the numbers!

Today, more than four million Canadians suffer from arthritis; that figure is projected to increase to 6.5 million within the next 30 years.¹ As baby boomers enter their 50s and 60s,

we can expect more demand for arthritis drug therapy.

In 2003, 60% of doctor visits for arthritis conditions were made by patients older than 60 years, while 35% of patients were between the ages of 40 and 59 (Figure 3). Most patient visits were made by women (Figure 4).

Health Canada estimates that 85% of Canadians are affected by OA by age 70. RA, on the other hand, can strike individuals in their prime. Most of the 300,000 Canadians with RA develop the disease between the ages of 25 and 50. It is estimated that 50% of them will be functionally disabled within 10 years of diagnosis. New biologic treatment for RA could, however, help patients avoid flare-ups, hospitalization, and surgery, allowing them to lead more productive lives.²

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

With arthritis being the leading cause of long-term disability in Canada³, new therapies are a welcome addition in the fight against arthritis. **CPM**

References

- Bradley EM, Wang PP: Arthritis and the aging population: Projections of arthritis prevalence in Canada, 1991 to 2031. *J Rheumatol* 1998; 25(1):138-44.
- Arthritis Society press release: "Arthritis community urges provincial health plans to cover effective new therapies." November 28, 2001.
- Arthritis Society Web site: <http://www.arthritis.ca/resources%20for%20advocates/arthritiscope/slide16/default.asp?s=1>.

According to the Compendium of Pharmaceuticals and Specialties, 2002, The Canadian Drug Reference for Health Professionals, Celebrex, Mobicox, and Bextra are indicated for OA and RA.

THERAPEUTIC TRENDS is provided by IMS HEALTH Canada, a health information company that supplies the Canadian pharmaceutical and health-care industries with data and analyses on disease patterns, treatment trends, physician practice preferences and estimates of prescriptions dispensed. In operation for over 40 years, IMS HEALTH Canada is a subsidiary of IMS HEALTH Inc., world leader in health information solutions with operations in over 100 countries. For more information on IMS services, please contact an account management representative.
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