

a societal perspective (direct and indirect costs i.e. time loss from paid and unpaid work) were included. One-way sensitivity analyses were conducted to validate the robustness of the model. **RESULTS:** Cost estimates are similar to the previously published Canadian studies. Rizatriptan compared to UC produced a cost per QALY gained of \$31,845. When the societal perspective was considered the cost per QALY decreased to \$5263. Rizatriptan had a substantial advantage over UC in pain-free results at 2 and 4 hours, resulting in a modest incremental costs of \$49.82 and \$58.48 per attack aborted respectively. In addition, Rizatriptan dominated all other triptans on all measures considered; it was both more effective and less costly. **CONCLUSION:** This study shows that treatment with Rizatriptan for patients who suffer from moderate to severe migraines constitutes a cost-effective strategy for improving care of migraine patients in Canada.

PNM5**MANAGEMENT COSTS OF CHEST AND CNS-RELATED ADVERSE EVENTS OF TRIPTANS (SEROTONIN 5-HT_{1B/1D} AGONISTS) IN SPAIN**

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OBJECTIVES: To determine the resource use and costs of managing chest and CNS-related adverse events (AE) of oral triptans in Spain. **METHODS:** Incidence rates of AE were obtained from a recent meta-analysis of clinical trials (Ferrari et al. Cephalgia 2002). A panel of six neurologists with extensive experience in migraine treatment with triptans was asked how Spanish patients react when they experience triptan AE, and how physicians manage those patients who seek medical attention. All resources used in AE management were valued (in 2002 Euros) using unit costs retrieved from local databases. **RESULTS:** If the triptan is prescribed by a general practitioner (GP), 19.2% of patients will see a physician when experiencing chest-related AE, while 18.3% will do so in the case of CNS-related AE. For patients receiving triptan prescription from specialists, these rates are 9.2% and 13.3%, respectively. Resource consumption comprises visits to physicians and emergency departments (EDs), electrocardiograms, cardiac enzymes, and chest radiography. The cost of managing a consulting patient for chest-related AE is €33.09, €66.43, or €137.01, when treated by a GP, a specialist or at an ED, respectively. For CNS-related AE, costs amount to €16.89, €52.88 and €102.17, respectively. After correction for non-consulting patients and allowing for the different routes of consultation, average cost per chest- and CNS-related AE is €16.76 and €5.05, respectively. Considering placebo-subtracted incidence rates, the management of AE adds between €0 (for almotriptan 12.5 mg) and €1.17 (for eletriptan 80 mg) to

the average cost of treating a migraine episode with triptans. **CONCLUSIONS:** Although triptans are well tolerated and most Spanish patients who experience an AE will not consult a physician, the management of AE can add significant costs to triptan treatments. Consequently, more tolerable triptans (like almotriptan 12.5 mg) should not only be favored on clinical grounds but also for economic reasons.

PNM6**INDIRECT COSTS DUE TO MIGRAINE IN THE UNITED STATES**

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OBJECTIVE: As the second most common primary headache, it follows that migraine is associated with substantial clinical and economic consequences. Migraine particularly impacts the labor force as its disabling effects frequently persist beyond the acute onset of an attack. With such effects in the work place, further understanding of the losses in productivity as a result of migraine is necessary. The objective of this study was to determine the indirect costs due to migraine in the U.S. population. **METHODS:** Retrospective analysis was conducted of the 1999 portion of the Medical Expenditure Panel Survey (MEPS). The MEPS provided data from a nationally representative sample of 24,618 respondents and data from respondents' medical care and health insurance providers and employers. Data utilized in this study included medical conditions and employment information comprised of hourly earnings, hours worked, and disability days. Migraine patients who incurred disability days were identified using International Classification of Diseases (ICD-9-CM) codes and variables denoting disability days. Indirect costs were calculated for migraineurs who missed workdays using the human capital approach. Sample estimates were weighted and projected to the population and 95% confidence limits for estimates were calculated using the Taylor expansion method. **RESULTS:** Total indirect costs of migraine patients who missed workdays were \$3,895,041,461, with mean indirect costs of \$2,273 per patient (95% C.L. = \$1,665 to \$2,882). Relative to the entire population, mean indirect costs per person were \$14. **CONCLUSIONS:** With total indirect costs approaching \$4 billion and per patient indirect costs greater than \$2000, migraine continues to have a considerable impact on the work force. Additional steps should be undertaken to further develop diagnostic and treatment paradigms in an effort to reduce migraine-related absenteeism and lost productivity.