

sufferers. The magnitude of the quality of life improvements estimated in this study allows therapies, which reduce the burden of GI toxicities to be evaluated in a cost-utility framework.

OSTEOPOROSIS—Cost Studies

PAR 14

THE COST OF OSTEOPOROTIC FRACTURES IN FEMALES IN THE UK: AN EPIDEMIOLOGICAL MODEL

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OBJECTIVE: To develop an epidemiological model of osteoporosis and its sequelae to estimate the current and future prevalence and costs of osteoporotic fractures to the NHS. **METHODS:** A decision-analytic model employing a Markov process was constructed using MS Excel. The model incorporates key epidemiological data and modelled treatment pathways with published cost data of fracture/osteoporosis treatment. The model estimates the current population of post-menopausal women, using prevalence data from the European Vertebral Osteoporosis Study (EVOS), along with current usage of anti-fracture medication. The rate of incident fractures from the European Prospective Osteoporosis Study (EPOS) is modified by the increased risk of subsequent fracture and the protection gained with treatment. Costs were based on Dolan & Torgerson (1998): Hip fracture £16,000 (1st year of fracture); vertebral fracture £321–£3,543; wrist fracture £394; other fracture £1,138. **RESULTS:** The model estimates almost 345,000 fractures will occur in 2003, resulting in costs of over £800 million. Vertebral fractures are the most common type, with an estimated 177,000 fractures in 2003 at a cost of £72 million. Hip fractures account for approximately 83% of the total costs, with an estimated 40,000 fractures costing £634 million. Around 65,000 wrist fractures are estimated, at a cost of approximately £25 million, with a further 61,000 “other” fractures costing around £70 million. This model does not currently include males, and hence these results underestimate the true cost of osteoporosis to the NHS. **CONCLUSIONS:** The costs of osteoporosis fractures are substantial. This results from a high incidence of fractures and expensive health care (primarily secondary care). Vertebral fractures are over four times as common as hip fractures, which indicates a substantial health burden, although hip fractures are more costly.

PAR 15

THE BURDEN OF OSTEOPOROSIS IN EUROPE: AN EPIDEMIOLOGICAL MODEL

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OBJECTIVE: To develop an epidemiological model of osteoporosis and its sequelae to estimate the current and future prevalence of osteoporotic fractures in females aged 45 years and over, in different European countries. **METHODS:** A decision-analytic model employing a Markov process was constructed using MS Excel. Country-specific population projection figures were combined with data from major European epidemiological studies to estimate the current and future prevalence of osteoporotic fractures in women. Regional prevalence data came from the European Vertebral Osteoporosis Study (EVOS) and incidence data from the follow-up European Prospective Osteoporosis Study (EPOS). Results for France, Germany (Western Europe), Italy, Spain (Southern Europe), Sweden, and Finland (Scandinavia) will be presented. **RESULTS:** A total of 1.8 million osteoporotic fractures are estimated to occur in women aged 45 years and older in these 6 countries in 2003. Vertebral fractures are the most common type, accounting for almost 1.1 million of all fractures. It is also estimated there will be almost 250,000 wrist fractures, 220,000 hip fractures and 290,000 “other” fractures. The overall rates of fractures are substantially higher for the Scandinavian countries than for the other countries: France 28.2/1000, Germany 28.4/1000, Italy 28.8/1000, Spain 31.0/1000, Finland 61.9/1000, and Sweden 71.0/1000 women. **CONCLUSIONS:** Osteoporotic fractures are an important cause of morbidity in these countries. Vertebral fractures are the most common type, thus warranting study of their economic and health impact. The variations in rate of fracture between regions reflect predominantly the differing prevalence and incidence rates found in the EVOS and EPOS studies, and to a lesser extent, the country-specific age structures.

PAR 16

AN ASSESSMENT OF THE ECONOMIC BURDEN OF BENZODIAZEPINE-ASSOCIATED HOSPITAL TREATED FALL INJURIES IN THE EUROPEAN UNION

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OBJECTIVES: To estimate the hospitalisation costs of accidental injuries in the European Union (EU) resulting from the use of benzodiazepines. **METHODS:** Design: A case-control study on the association between accidental falls and benzodiazepines. Setting: Community-dwelling inhabitants over 55 years of defined areas in The Netherlands covering the period 1985–2000. All analyses were performed from the perspective of a third-party payer. Studies: Risk and exposure data were obtained from the Dutch PHARMO system, a population-based register of drug-dispensing records and hospital records. The population attributable risk (PAR) was calculated with the age specific prevalence estimates of benzodiazepine use and the corresponding odds ratios (OR) obtained from a case