Purpose: The occurrence and prevention of gastrointestinal ulcers attributable to the use of non-steroidal anti-inflammatory drugs (NSAIDs) has become a major health care issue. Analysis of cost effectiveness of preventive strategies has been hampered by a lack of recent cost of illness studies. The aim of this study was to determine direct medical costs of serious gastrointestinal ulcers attributable to NSAIDs from the societal perspective.

Methods: From November 2001 until December 2003 all consecutive patients who were hospitalized due to gastropathy attributable to NSAIDs (serious event) were identified. Data was retrieved on the number of days hospitalized, and on the number and type of diagnostic and therapeutic interventions. Direct costs of resources used per patient were estimated. A bootstrap procedure of 10.000 replicates was performed to estimate means and 95% confidence interval of the total direct costs.

Results: During the observational period 104 patients from a cohort of 152.989 inhabitants were hospitalized with NSAID-gastropathy (incidence 0.314 per 1000 persons per year). Most patients were elderly (mean 70.4 years, SD 16.7). Many patients reported serious, especially cardiovascular, co-morbidity. Mortality was high; 11 (10.6%) died in the hospital, and another 4 (3.8%) died within 3 months. Direct medical costs were € 8.375 (95% CI € 7.067 - € 10.393). In extrapolation to The Netherlands, annually approximately 5.105 people are hospitalized, with an estimated 541 deaths directly, and another 194 indirectly due to NSAID-gastropathy. The total annual Dutch direct medical costs for serious NSAID related gastropathy would be € 42.754.375 (95% CI € 36.077.035 - € 53.056.265).

Conclusion: Clinically relevant NSAID-gastropathy has an in hospital mortality rate of 10.6%. Direct medical costs for Dutch society are approximately € 42.750.000.

H.E. Vonkeman, None.