

## Twenty five years of requests for euthanasia and physician assisted suicide in Dutch general practice: trend analysis

R L Marquet, A Bartelds, G J Visser, P Spreeuwenberg, L Peters

Concerns have been expressed that the Dutch policy on euthanasia (E) and physician assisted suicide (PAS) may lead to an exponential increase in the number of requests and use.<sup>1</sup> Many Dutch general practitioners, nursing home physicians, and pharmacists have a fairly positive attitude and have become more tolerant over the years.<sup>2</sup> We investigated the effect of increasing acceptance on the number of and underlying reasons for requests for E/PAS in Dutch general practice from 1977 to 2001.

### Methods and results

The data were derived from the Dutch Sentinel Practice Network, which constitutes a sample of about 60 general practitioners, covers about 1% of the Dutch population, and is fairly representative of the total population (16 million) with regard to age, sex, geographical distribution, and level of urbanisation.<sup>3</sup> Every year general practitioners reported data on requests for E/PAS from terminally ill patients, including age, sex, underlying disease, reasons for request, and presence of a living will. We estimated trends with multilevel analysis.

Over the 25 years the network received 915 requests (equivalent to 3660 requests/year; 2.6 requests/year/10 000 inhabitants). General practitioners in cities received 3.3 requests per 10 000 patients compared with 1.9 requests in rural areas. Over half (503) of the requests were from men (mean age 67 years, range 31-96 years); the mean age of women was 68 years (range 32-88 years). Most patients (769) were nursed at home; 503 had stated a wish for E/PAS in a living will (increasing from 15% in 1984 to 87% in 2001), with no differences in age and sex. The mean proportion of requests for PAS, separately recorded from 1987 onwards, was 6.7%, decreasing from 9.5% in 1988 to none in 2001.

The number of requests increased from 1600 in 1979 to 4000 in 1985 (extrapolated data, figure). The number then stabilised at about 5000 requests a year. Most patients (74%) had cancer, mainly gastrointestinal and lung cancer. Less common were cardiovascular diseases (7%) and chronic obstructive pulmonary disease (5%). Among the other diseases, those of the musculoskeletal system, neurological diseases, and AIDS were most frequently mentioned. Fear of pain (37%), deterioration (31%), hopelessness (22%), and dyspnoea (15%) were the most important

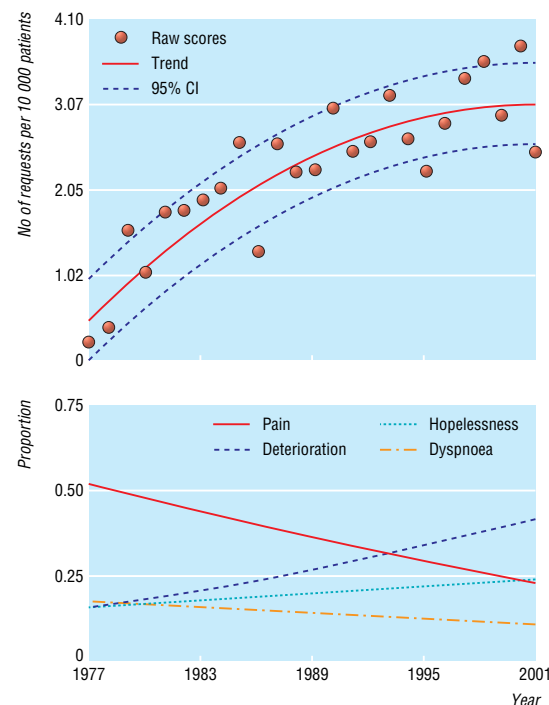
reasons for requests. The figure shows the trends in the reasons for requests. Pain became significantly less important, whereas deterioration became more important. The other trends (hopelessness and dyspnoea) were not significant.

The responses from the same practice over the years were positively correlated. In addition, the data were unbalanced because several sentinel practices participated only during a certain number of years. The correlation between sentinels indicated that 18% of the total unexplained variance in the dependent variable (after we controlled for the yearly trend) was due to differences between practices.

Netherlands  
Institute for Health  
Services Research  
(NIVEL), Utrecht,  
Netherlands  
R L Marquet  
senior investigator  
A Bartelds  
sentinel network  
director  
G J Visser  
senior investigator  
P Spreeuwenberg  
statistician  
L Peters  
senior investigator

Correspondence to:  
R L Marquet  
r.marquet@nivel.nl

BMJ 2003;327:201-2



Number of requests for euthanasia/physician assisted suicide (E/PAS) per 10 000 patients (raw scores and trend; multilevel continuous regression techniques used to estimate trends with 95% confidence intervals calculated on basis of variance between years) and major reasons for requesting E/PAS (multilevel regression technique used to estimate trends)

## Comment

The number of requests for euthanasia or physician assisted suicide increased in the first decade of registration in the Netherlands, but from 1995 onwards stabilised at about 5000 requests per year. The increase probably reflected the process of liberalisation in the early years, boosted by broad publicity on lawsuits and the foundation of the Dutch Society for Voluntary Euthanasia. Mainly due to the activities of this society the number of living wills has increased substantially over the years.

The importance of pain in such requests decreased significantly, paralleled by a proportional increase in the importance of deteriorating health. Improvements in pain management and the increasing importance of feelings like self esteem are obvious reasons for these changes.<sup>4</sup> Over the past decades the willingness of both physicians and the general public in the Netherlands to accept E/PAS has increased. This attitude resulted in the acceptance of a law tolerating E/PAS performed in compliance with strict regulations.<sup>5</sup> Some people feared that the lives of increasing numbers of patients would end through medical intervention, without their consent and before all palliative options were

exhausted. Our results, albeit based on requests only, suggest that this fear is not justified.

We thank the general practitioners from the Dutch Sentinel Network for their invaluable contributions over the years and Marianne Heshusius for her secretarial support.

Contributors: RLM was responsible for the overall conduct of the study and for writing the paper. AB initiated the survey and is guarantor. GJV was responsible for data analysis. PS undertook the statistical analysis. LP was the data manager.

Funding: None.

Competing interests: None declared.

Ethical approval: The ethical committees of the Dutch General Practitioners Association and NIVEL approved the investigation.

- 1 Hughes J. Consequentialism and the slippery slope: a response to Clark. *J Appl Philos* 2000;17:213-9.
- 2 Onwuteaka-Philipsen BD, Van der Heide A, Koper D, Keij-Deerenberg I, Rietjens JAC, Rurup ML, et al. Van der Maas PJ, van de Wal G, Havekate I, de Graaff CLM, Kester JGC, Onwuteaka-Philipsen BD, et al. Euthanasia, and other end-of-life decisions in the Netherlands 1990, 1995, and 2001. *Lancet* <http://image.thelancet.com/extras/03art3297web.pdf> (accessed 26 Jun 2003).
- 3 De Wit MA, Koopmans MP, Kortbeek LM, van Leeuwen NJ, Bartelds AI, van Duynhoven YT. Gastroenteritis in sentinel general practices, the Netherlands. *Emerg Infect Dis* 2001;7:82-91.
- 4 Lavery JV, Boyle J, Dickens BM, Maclean H, Singer PA. Origins of the desire for euthanasia and assisted suicide in people with HIV-1 or AIDS: a qualitative study. *Lancet* 2001;358:362-7.
- 5 Thynne K. Implications of legalising euthanasia in the Netherlands: greater regulatory control? *J Law Med* 2002;10:232-8. (Accepted 6 June 2003)

## National survey of medical decisions at end of life made by New Zealand general practitioners

Kay Mitchell, R Glynn Owens

Department of Psychology,  
University of Auckland, Private Bag 92019, Auckland, New Zealand

Kay Mitchell  
*research fellow*

University of Wales, Bangor, Gwynedd LL57 2AS

R Glynn Owens  
*professor of forensic clinical psychology*

Correspondence to: K Mitchell  
k.mitchell@auckland.ac.nz

BMJ 2003;327:202-3

Several attempts have been made in New Zealand to liberalise laws prohibiting euthanasia. Surveys in other countries where legalisation of euthanasia was being considered have found illegal provision of physician assisted death.<sup>1-3</sup> However, none of these studies investigated the availability of palliative care services, which arguably make euthanasia unnecessary.<sup>4</sup> We investigated the prevalence of physician assisted death in New Zealand within the context of availability of palliative care services.

### Participants, methods, and results

We obtained an English version of the anonymous questionnaire previously used in Dutch and Australian studies<sup>1-3</sup> and sent it to 2602 general practitioners. The general practitioners were in a commercially supplied address list, comprising 87% of the general practitioners in New Zealand in 2000. To retain consistency with previous studies, we sought details of medical decisions made for the last death attended in the preceding 12 months.

Of 1302 returned questionnaires, 1255 were usable. An interdisciplinary palliative care team was available in 1116 (89%) cases. Eleven hundred (88%) doctors reported attending a death in the past 12 months, and 693 (63%) had made a medical decision that could hasten death (table).

In 39 (5.6%) cases, death was attributed to actions consistent with physician assisted suicide or euthanasia. In 17 of these cases there was no discussion with the patient, and in 34 (87%) palliative care services were available (table). The doctor alone administered the drug in 13 cases, the nurse alone in 15 cases, the patient alone in two cases, and more than one person in eight cases; no information was available for one case.

Ninety four respondents (13.6%) reported final actions that were taken partly with the intent of hastening death. Fifty (53%) had not discussed this with the patient beforehand. A further 132 (19%) had withdrawn or withheld treatment explicitly to hasten death, 63 (48%) without discussion with the patient. Palliative care was available in over 85% of cases. Other actions were defensible under the principle of double effect—withholding or withdrawing treatment (55) or increasing medication to alleviate symptoms (373) knowing that death could be hastened (table).

Providers of physician assisted death were significantly older and less religious than those who had made other medical decisions. No other significant demographic differences were noted.

### Comment

Thirty nine respondents had provided some form of physician assisted death, and 226 had taken actions