# Women's use of hormone replacement therapy for disease prevention; results of a community survey

Karen Ballard

### **SUMMARY**

This study investigated whether an increased use of hormone replacement therapy (HRT) is attributable to a growing motivation among women to use the therapy for disease prevention. Compared with earlier studies, results from this community survey of women aged 51 to 57 years revealed an increased use of HRT; 60% of women had tried HRT, with a median of four years' duration of use. The most frequently cited primary use for HRT was symptom relief, although many women also took the therapy for the prevention of osteoporosis. While women generally commence HRT for symptom relief, the extended use of the therapy is, in part, likely to be attributable to an increased motivation among women to remain on HRT for its 'added' benefit of preventing osteoporosis.

**Keywords:** hormone replacement therapy; disease prevention; menopausal symptoms.

K Ballard, RGN, MSc, PhD, course convenor for MSc in general practice, Department of General Practice and Primary Care, Guy's, King's & St Thomas' School of Medicine, London.

# Address for correspondence

Dr Karen Ballard, Department of General Practice and Primary Care, Guy's, King's & St Thomas' School of Medicine, 5 Lambeth Walk, London SE11 6SP. E-mail: karen.ballard@kcl.ac.uk

Submitted: 18 September 2001; Editor's response: 27 November 2001; final response: 1 February 2002.

©British Journal of General Practice, 2002, **52**, 835-837.

### Introduction

OVER the past two decades, there has been a considerable rise in both the numbers of women taking hormone replacement therapy (HRT) and also the length of time that they take it. In Britain, the Royal College of General Practitioners' Oral Contraceptive Study¹ reported a threefold increase in HRT use between 1981 and 1990, with 19% of women (mean age = 52 years) taking the therapy in 1990. Less than ten years later, a national birth cohort study found that 45% of women had tried HRT by the age of 50 years.² Data collected in 1993 showed that almost one-third of all women in a community sample had taken HRT for four years or more.³ Reporting on data collected in 1996, Kuh *et al*² found that 23% of women had taken HRT for four years or more by the time they were aged 50 years, suggesting that duration of HRT use is increasing.

Although HRT was initially developed for the treatment of menopausal symptoms, oestrogen has subsequently been found to be beneficial for the treatment and prevention of osteoporosis,<sup>4</sup> coronary heart disease (CHD)<sup>5</sup> and, more recently, Alzheimer's disease.<sup>6</sup> While widespread use of HRT for prevention remains under debate, in Britain the medical profession generally recommends its use for the prevention of osteoporosis.<sup>7</sup> However, in the past, studies have shown that women have not been enthusiastic about the use of HRT for prevention.<sup>8</sup>

This study investigates whether there is a continuing increase in use of HRT and, if so, whether this can be attributed to a change in women's desire to take the therapy for prevention.

# Method

Following ethics committee approval, a random selection of general practitioners (GPs) practising in West Surrey health authority were approached for consent to send a postal survey about the menopause and use of HRT, to female patients aged 51 to 57 years. The mean age of onset of the menopause is 51 years; the aim was to obtain a sample of women whose experiences of the menopause transition were either ongoing or were very recent. In total, 65 (37%) GPs from 25 different practices gave permission for their patients to be contacted. Following a pilot study conducted in March 1999, a postal questionnaire was sent to a randomly selected sample of 650 women. Non-responders were followed up with a maximum of two further questionnaires

The questionnaire included questions about women's experiences of the menopause and their use of HRT. Having been presented with a list of possible reasons for taking

## **HOW THIS FITS IN**

What do we know?

Over the past decade there has been an increase in the uptake of HRT. Women have largely taken HRT for symptom relief and have been reluctant to take it on a long term basis for disease prevention.

What does this paper add?

The uptake and duration of HRT use continues to rise. Although the primary reason for commencing HRT is for symptom relief, many women remain on the therapy for its 'added' benefit of preventing osteoporosis.

HRT, women were asked to select up to four reasons as to why they took HRT and to rank them in order of importance. Additional space was provided for adding any reasons not on the list. The data were entered into SPSS for Windows. For the purpose of this paper, a Mann–Whitney *U*-test was used to detect differences in duration of HRT use and simple frequency distributions of different uses for HRT are presented.

# Results

A total of 413 (66%) women returned completed questionnaires. Of these, 248 (60%) women had tried HRT and 174 (42%) were taking it at the time of survey. The data were not normally distributed, being positively skewed. The median length of time that women took HRT was 4.0 years (interquartile range [IQR] = 1.9 to 6.5), although women who had had a hysterectomy took the therapy for longer (median duration = 4.5 years [IQR = 2.05 to 8.90], compared with 3.65 years, [IQR = 1.275 to 6.000] in women who had not had a hysterectomy; U = 4730.0; P = 0.007). The majority (81%) of women took HRT for more than one year (Figure 1), with almost half (47%) taking it for over four years.

The most frequently cited reason for taking HRT was for the relief of hot flushes, with 70% of women stating that this was a reason for taking the therapy (Table 1). Many women

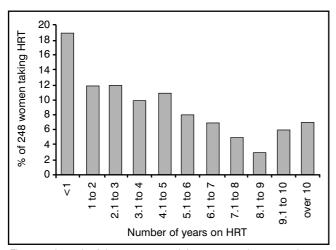


Figure 1. Length of time women took hormone replacement therapy (HRT). Median = 4.0, interquartile range = 1.0 to 6.5.

(58%) stated that they took HRT for the prevention of osteoporosis, whereas only 20% stated that they took it for the prevention of CHD and just 3% took it for the prevention of Alzheimer's disease. Ranked reasons for HRT use revealed that the most frequently cited primary reason for taking HRT was for the relief of hot flushes (38%). Fourteen per cent of women reported taking HRT primarily for the prevention of osteoporosis. Only one (0.4%) woman stated that she took HRT primarily for the prevention of CHD and none of the women in the study stated that they took the therapy primarily for the prevention of Alzheimer's disease.

## **Discussion**

A 66% response rate is usually considered adequate for a postal survey, although a higher response would reduce responder bias. The rate of HRT use was considerably higher than that found in the 1990 data of the RCGP Oral Contraception Study. This might be because of a general increase in HRT use over the past decade, but may also be owing to geographical differences. However, recent results drawn from a younger national cohort of women (age 50 years) also indicate an increasing use of HRT.

The duration of HRT use by women in this study was found to be higher than has been reported over the past decade,<sup>3</sup> with almost half of women taking it for four years or more.

Although the main reason for using HRT was the relief of menopausal symptoms, many women also cited the prevention of osteoporosis as a reason for taking the therapy. However, when asked to prioritise their reasons for HRT use, the majority of women rated symptom relief as a more important reason for taking HRT than prevention of osteoporosis. Nevertheless, compared with earlier work<sup>8</sup> this study shows that the proportion of women taking HRT primarily for the prevention of osteoporosis has increased. While the key reason for taking HRT is symptom relief, the results of this study suggest that the extended use of the therapy is, in part, attributable to an increased motivation among women to remain on the therapy for its 'added' benefit of preventing osteoporosis.

Table 1. Reported reasons for taking HRT.

	Reasons for taking HRT (%) (n = 248)	Primary reason for taking HRT (%) (n = 248)
Relief of hot flushes	70	38
Prevent osteoporosis	58	14
Suggestion by the doctor	41	14
Feeling over tired	38	4
Relieve irritability	23	7
Prevent heart disease	20	0.4
Help sleep	20	4
Inability to remember things	18	0.8
Following hysterectomy	17	9
An early menopause	12	4
Improve sex	12	0.8
Help stay looking young	9	0.4
Prevent Alzheimer's disease	3	0
Heavy bleeding	3	2
Aching joints	1	0.8

# References

- Moorhead T, Hannaford P, Warskyi M. Prevalence and characteristics associated with use of hormone replacement therapy in Britain. Br J Obstet Gynaecol 1997; 104: 290-297.
- Kuh DJ, Hardy R, Wadsworth MEJ. Social and behavioural influences on the uptake of hormone replacement therapy among younger women. Br J Obstet Gynaecol 2000; 107(6): 731-739.
- Griffiths F, Convery B. Women's use of hormone replacement therapy for relief of menopausal symptoms, for prevention of osteo-porosis, and after hysterectomy. Br J Gen Pract 1995; 45: 355-358
- Pitt FA, Brazier J. Hormone replacement therapy for osteoporosis. *Lancet* 1990; 335: 978.
- Stampfer MJ, Colditz GA. Estrogen replacement therapy and coronary heart disease: A quantitative assessment of the epidemiologic evidence. *Prev Med* 1991; 20: 47-63.
- Tang M, Jacobs D, Stern Y. Effects of oestrogen during menopause on risk and age at onset of Alzheimer's disease. *Lancet* 1996, 348: 429-432.
- Ettinger B, Genant HK, Cann CE. Long-term estrogen replacement therapy prevents bone loss and fractures. *Ann Int Med* 1985; 102: 319-324
- Roberts PJ. The menopause and hormone replacement therapy: Views of women in general practice receiving hormone replacement therapy. Br J Gen Pract 1991; 41: 421-424.
- McKinlay SM, Brambilla DJ, Posner JG. The normal menopause transition. *Maturitas* 1992; 14: 103-115.

# **Acknowledgements**

I would like to acknowledge the help of my supervisors, Dr Mary Ann Elston and Dr Jonathan Gabe, and all of the women who kindly agreed to take part in the research. This study was carried out as part of a doctoral thesis, funded by the Economic and Social Research Council.