

Women's use of hormone replacement therapy for relief of menopausal symptoms, for prevention of osteoporosis, and after hysterectomy

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SUMMARY

Background. *Hormone replacement therapy is used for the relief of menopausal symptoms. In the United Kingdom, guidelines have been developed for the use of hormone replacement therapy in the prevention of osteoporosis, and in the United States of America its use has also been recommended for cardiovascular disease prevention. However, compliance has been found to be a problem, and rates of prescribing vary between general practitioners.*

Aim. *This study set out to describe the prescribing of hormone replacement therapy in one general practice, to enable doctors to plan future prescribing and promotion of hormone replacement therapy, taking into account constraints on its use.*

Method. *The patient records of users of hormone replacement therapy were examined to collect data on menopausal status, reason for use, length of use, breaks from therapy and reasons for stopping therapy. Women with a history of hysterectomy and with risk factors for osteoporosis were identified from the practice morbidity register. Their use of hormone replacement therapy was recorded.*

Results. *Of women aged 40–59 years on the practice list, 348 were taking hormone replacement therapy (20%). Of 107 women aged under 52 years who had had a hysterectomy and bilateral oophorectomy 76 were taking therapy (71%). Of 158 women under the age of 52 years who had had a hysterectomy with preservation of the ovaries 39 were taking therapy (25%). Among women taking hormone replacement therapy for the relief of menopausal symptoms, the highest rate of use was among those aged 50–54 years where 93 were on therapy (24% of women in that age group in the practice). Twenty out of 47 women with a recorded risk factor for osteoporosis were taking therapy. More than three quarters of women using hormone replacement therapy appeared to be taking it continuously.*

Conclusion. *The uptake of hormone replacement therapy was found to be high for women with a surgical menopause, the group most easily identifiable as at risk of osteoporosis. Women who decided to take therapy appeared to take it continuously, and therefore effectively for prevention. Rate of uptake, rather than compliance, is more likely to constrain its use in prevention.*

Keywords: *hormone replacement therapy; menopause; hysterectomy; prescribing patterns.*

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Introduction

HORMONE replacement therapy has been shown to improve the quality of life of women with menopausal symptoms.¹ Guidelines have been developed in the United States of America for its use in the prevention of osteoporosis and cardiovascular disease.² In the United Kingdom it is recommended for the prevention of osteoporosis in women with a premature menopause and in postmenopausal women who have several risk factors for osteoporosis.³

There is variation in the reported rates of prescribing of hormone replacement therapy in general practice.^{4,5} One practice actively encourages its use by inviting women to an osteoporosis prevention clinic, and 20% of women patients aged between 40 and 60 years in this practice are using hormone replacement therapy.⁶

Poor compliance may reduce the effectiveness of hormone replacement therapy. An Australian study showed that 27% of women who had started taking therapy for menopausal symptoms stopped taking it after 12 months.⁷ In a study involving screening for osteoporosis, 28% of the women who started therapy as advised had stopped before a year of treatment was complete.⁸ These studies did not ask whether the women had taken breaks from therapy.

A study was undertaken to examine the amount and pattern of prescribing of hormone replacement therapy in one general practice. Understanding current prescribing enables general practitioners to plan future prescribing and any necessary promotion of hormone replacement therapy. It also enables doctors to take into account potential constraints on its effective use for prevention of osteoporosis and any future use in the UK for the prevention of cardiovascular disease.

Method

The study practice is in Stockton-on-Tees, and has a practice population of 14 500 patients. In December 1993 data were collected from the case notes and computerized medical records of women recorded as having received hormone replacement therapy on repeat prescription, either currently or in the past. Women who had received one prescription for hormone replacement therapy but who had not continued with repeat prescriptions were not included. At the time of the data collection, records of past repeat prescriptions had been kept for eight years. For patients joining the practice since these records were kept, all current users were included, but not those who had been on hormone replacement therapy and had stopped before joining the practice.

Data were available on the frequency of prescriptions being requested by the women. From this information it was possible to calculate whether women appeared to be taking breaks from therapy. The length of apparent breaks was calculated as a percentage of total length of time on therapy.

Data were collected from the practice morbidity register on the number of women with a history of hysterectomy, with or without bilateral oophorectomy. The number of women who had had

a hysterectomy was verified by cross-checking with cervical cytology records. For the women taking hormone replacement therapy and who had had a hysterectomy, the time of starting therapy was established. Continuity of treatment was estimated and any recorded reasons for stopping therapy noted.

A search was made for women with risk factors for osteoporosis. Women with a previous fracture of the hip or forearm before the age of 65 years were identified from the morbidity register, updated from hospital reports. Bone densitometry results and the computerized records of family history of osteoporosis were searched. An attempt was made to identify women at risk through their use of oral steroids but this proved complex and was abandoned. The use of hormone replacement therapy by women at risk of osteoporosis was recorded.

For women taking therapy for menopausal symptoms the records were searched for menopausal status on starting therapy. The length and continuity of treatment were estimated and any recorded reasons for stopping therapy noted.

For the analysis, women who had received hormone replacement therapy were divided into groups according to whether they had had a hysterectomy, and if so, whether their ovaries had been preserved and whether the hysterectomy had been done before or at the average age for the menopause (52 years) or after, and whether they were using hormone replacement therapy primarily for menopausal symptoms or for other reasons.

Results

There were 608 women in the practice with a record of having taken hormone replacement therapy at some time, of whom 141 had stopped taking it (23.2%). Of the women on the practice list aged between 40 and 59 years, a total of 348 (19.9%) were currently taking therapy.

For the 608 women, the main reason recorded for starting hormone replacement therapy was menopausal symptom relief for 321 women (52.8%), post-hysterectomy for 225 (37.0%), prevention of osteoporosis for 24 (3.9%) and prevention of cardiovascular disease for one woman (0.2%); other reasons were recorded for 25 women (4.1%) and no clear reason was recorded in 12 cases (2.0%). Included in the total group of 608 women are 275 women who had used hormone replacement therapy and had had a hysterectomy — 225 had started on the therapy because of the hysterectomy, 37 had done so to relieve menopausal symptoms, seven for prevention of osteoporosis and six for menstrual problems.

Hormone replacement therapy use by women who had had a hysterectomy

There were 265 women who had had a hysterectomy when aged under 52 years. Of these, 107 had had their ovaries removed and 158 had not.

Of the women who had had a bilateral oophorectomy 76 were currently taking therapy (71.0%), nine had taken it in the past but had then stopped (8.4%), and 22 had never taken it (20.6%). Hormone replacement therapy had been started before the operation for 14 women (16.5%), immediately afterwards for 43 (50.6%), within one year for 16 (18.8%) and more than a year later for 12 women (14.1%).

Of the 158 women who had not had their ovaries removed 39 were currently taking therapy (24.7%), 11 had taken it in the past but had then stopped (7.0%), and 108 had never taken it (68.4%). Hormone replacement therapy had been started before the operation for 14 women (28.0%), immediately afterwards for four women (8.0%), within one year for 24 women (48.0%) and more than one year later for eight women (16.0%).

For the 20 women who had had a hysterectomy before the age of 52 years and who had stopped therapy, the reasons recorded for stopping were breast symptoms (two women), side effects (two) and other reasons (three). No reason was recorded for 13 women.

There were 92 women who had had a hysterectomy and bilateral oophorectomy when aged 52 years and over and 48 women who had had a hysterectomy with preservation of the ovaries when aged 52 years and over who were taking or had taken hormone replacement therapy. The timing of starting therapy in relation to surgery was similar to that for the women aged under 52 years.

For women of all ages who had had a hysterectomy and had taken hormone replacement therapy, 214 had taken it continuously (77.8%). This proportion varied little when women were divided into groups of current and past users, women with or without ovaries, and women aged under 52 years or older. For the 52 current intermittent users, the estimated break times were as follows: 10% or less of total time on therapy for 18 women (34.6%), between 10% and 20% for eight (15.4%), between 20% and 50% for 14 (27.0%), and over 50% for 12 women (23.1%).

Hormone replacement therapy use for relief of menopausal symptoms

A total of 321 women had taken hormone replacement therapy for menopausal symptoms at some time. A date for the woman's menopause was found in only 13 records.

The proportion of women in each age group in the practice taking hormone replacement therapy is shown in Table 1. The use of therapy was highest in the 50–54 years age group but a substantial number of women continued to take it when aged 60 years or more. Five women aged 70 years or more were taking hormone replacement therapy. The majority of women took hormone replacement therapy continuously for up to five years (Table 2). Of the 69 women who took it intermittently, the estimated break times were as follows: 10% or less of total time on

Table 1. Women taking hormone replacement therapy (HRT) for menopausal symptoms.

Age (years)	No. of women (% in age group on practice list) taking HRT
35–39	4 (0.8)
40–44	22 (4.9)
45–49	78 (15.6)
50–54	93 (23.7)
55–59	67 (16.5)
60–64	30 (7.4)
65–69	22 (7.2)

Table 2. Length of time women took hormone replacement therapy (HRT) for menopausal symptoms.

No. of years of continuous use	% of 321 women taking HRT for menopausal symptoms over time period
<1	5.6
1–3	40.2
4/5	23.1
6–9	8.7
10+	0.9
Intermittent use	21.5

therapy for 20 women (29.0%), between 10% and 20% for 16 (23.2%), between 20% and 50% for 14 (20.3%) and over 50% for 14 women (20.3%); data missing for five women.

For the 89 women who had stopped hormone replacement therapy no reason was recorded for 54 women (60.7%). Recorded reasons were: weight gain (seven women), return of monthly bleeds (four), breast symptoms (three), other side effects (14), concern over long-term side effects (two), and other reasons (five).

Risk of osteoporosis and use of hormone replacement therapy

There were 47 women aged between 45 and 59 years with a risk factor for osteoporosis recorded in their notes: fracture of arm when aged less than 65 years (34 women), past history of osteoporosis (eight women), fracture of hip when aged less than 65 years (three) and family history of osteoporosis (two). Of these, 20 were on therapy but for other reasons. However, there were 24 other women who had taken hormone replacement therapy for whom the recorded indication was osteoporosis but no specific risk factor had been recorded. Of the 24 women, four had stopped taking it (one because of side effects, no reason was recorded for the other three). Of those women still taking it, 17 had taken it continuously, of whom two had taken it for less than one year, eight had taken it for between one and three years and seven had taken it for four or five years. Of the three women who had taken it intermittently, estimated break time was 10% or less of total time on therapy for one woman and between 20% and 50% for two women.

Discussion

Uptake of hormone replacement therapy, rather than compliance, is likely to be the main constraining factor on its use for osteoporosis prevention. This may also apply to any future use in the UK for cardiovascular disease prevention.

The present study highlights gaps in the recording of data that would be useful in any future survey of hormone replacement therapy use. Recording of a woman's menopausal status when starting hormone replacement therapy may be important if the therapy goes on to be used for osteoporosis prevention. However, as the menopause can only be defined after the event, by the last menstrual period, recording of this would not always be possible. Some women who had had a hysterectomy may have been receiving hormone replacement therapy implants from the hospital before transferring to prescriptions from the practice. The practice is rarely informed of when implants are given. The lack of information on women receiving implants at the hospital may have caused an underestimation of the number of women on therapy following hysterectomy. The recording of family history of osteoporosis was probably incomplete as this has not been systematically recorded by all members of the practice team. It is recorded mainly at new patient checks and well woman checks. For women using therapy for osteoporosis there was a low level of recording of risk factors. The reasons for stopping therapy may never be known to the doctor as women may not return for review. Questionnaire surveys of reasons for stopping hormone replacement therapy are likely to give a more accurate picture.^{7,8} The estimates of compliance are probably overestimates as not all prescriptions collected are then redeemed⁹ and those redeemed will not all be taken. The use of vaginal oestrogen cream by women was not included in this study.

The proportion of women taking hormone replacement therapy is similar to that reported by Coope and Marsh in 1992⁶ and is

considerably higher than has been reported elsewhere.^{4,5} Coope may have pioneered an uptake of therapy that has now risen everywhere over time. However, the rates are reported from different areas and different data collection methods, so direct comparison is difficult.

The proportion of women who had had a hysterectomy and bilateral oophorectomy when aged under 52 years who were taking hormone replacement therapy was 71%, which was much higher than the 30% reported by Spector in 1989.⁴ Since 1989 the study practice has had a nurse-run hormone replacement therapy/menopause clinic enabling women to access information about the menopause and hormone replacement therapy. The clinic was advertised in the practice but patients were not usually systematically invited to attend. However, in response to Spector's report the practice actively looked for appropriate women for therapy. This may account for some of the women starting hormone replacement therapy more than one year after their operation, but the number of women started on therapy as a result of this one-off search was not recorded. Hospital doctors may be recommending more often the use of hormone replacement therapy. The high profile of hormone replacement therapy in the media may also account for some of the increase in use as women become more aware of it and accustomed to the idea of taking it.

When women are taking hormone replacement therapy for menopausal symptoms compliance is not a worrying issue as the therapy is for relief of symptoms. Each woman can decide for herself if the symptoms she is experiencing warrant taking therapy. However, when it is intended for prevention, poor compliance may reduce effectiveness. If the risks and benefits of therapy are understood by women, they can control for themselves the balance between effective prevention and any worries or problems about taking it. General practitioners need to ensure that the risks and benefits are explained clearly to women so that they can make informed decisions. However, for health policy and planning, a measure of likely compliance with long-term therapy is important for estimating effectiveness. As well as knowing how many women start but do not continue with therapy, this study provides data on whether women seem to be taking the therapy continuously or not. The indication for long-term therapy is clearest for women with a premature menopause. In this study, among the women with a surgical premature menopause, the uptake rate was high and three quarters of women then took it continuously. There was only a small number of women taking therapy for osteoporosis prevention who had not had a hysterectomy so these estimates of compliance are limited. There may have been women for whom therapy was initially prescribed for menopausal symptoms but who continued it with osteoporosis prevention in mind. None of these was identified from the records. Only a fifth of women taking therapy for menopausal symptoms apparently used it intermittently so the continuity of therapy would be effective for prevention, although the duration may not.

For some women, menopausal symptoms can persist for many years¹⁰ so some long-term use, apparently for menopausal symptoms, is to be expected. However, the two issues, symptom control and prevention, may not yet be clearly differentiated and recorded.

Available guidelines advise a consideration of risks and benefits for each individual.^{2,11} Therefore, clear discussion and recording of these are needed when hormone replacement therapy is started or continued for prevention. Women who have decided to take therapy appear to take it consistently and so effectively for prevention. Whether women want to take hormone replacement therapy at all will constrain its use in prevention.

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Snoring

THE possibility that snoring during sleep is a risk factor or marker for heart attacks and strokes has provoked much interest in recent years. Cross-sectional studies have indicated an association between habitual snoring and such risk, but the extent of confounding by well-established cardiovascular risk factors, such as smoking, remains uncertain. Moreover, cross-sectional studies cannot provide evidence of causal relationships.

This paper from Copenhagen, Denmark, is based on the follow up of a cohort of 804 men and women aged 70 years who, in 1984, provided questionnaire information about lifestyle and about snoring habits; they also had a brief medical examination. In 1990, information about hospital admissions and death certificate diagnoses of coronary heart disease and stroke was obtained from the Danish national health service register.

Snoring was reported by nearly a third of women and nearly half of men. During the six-year follow-up period, no association was found between snoring and coronary heart disease, stroke risk, or all causes mortality — reassuring news for snorers.

However, the validity of self-reported information about snoring is uncertain: surprisingly perhaps, there is some evidence that those who do not snore are more likely to report that they do than vice versa. The findings in this study are at variance with those from some others, but epidemiologists elsewhere will envy the access that their Danish colleagues have to a national database which records all contacts with hospital services.

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Source: Jennum P, Schultz-Larsen K, Davidsen M, Christensen NJ, *et al.* Snoring and risk of stroke and ischaemic heart disease in a 70 year old population. A 6 year follow-up study. *Int J Epidemiol* 1994; **23**: 1159-1163.

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