general practitioners, who are both qualified in maharishi vedic medicine, treat me as an equal, and we exchange views frankly and freely. I can take their advice on issues I raise, and they can suggest options without the slightest hint of offence if I decline. My use of maharishi ayurveda herbal preparations, lifestyle changes (diet, frequent swimming, etc), and regular meditation mean that I minimise the possibility of side effects and maximise my resistance to future problems.

My only real criticism of this paper by Lewis and colleagues is that such a small number of people were interviewed. Based on my own experience, I would like to amplify some points from their research.

- True dialogue between patient and doctor is essential, and patients' preference and values must be respected
- Patients want to make decisions to maximise their quality of life, and negotiated prescribing will yield better outcomes than imposed treatment
- Doctors will tend to have different values from patients, but the imbalance of power in the doctor-patient relationship causes them to have undue
influence. To counter this, I would recommend that greater emphasis be placed on listening skills in doctor training and that more opportunities for "expert patient" training be provided on a routine basis
- People dislike unnecessary drug taking and would prefer lifestyle changes to "imperfect treatment." (Is there such a thing as perfect treatment?) Unnecessary drug taking, which could include preventive treatment, can lead to the feeling of loss of control over health and reduce wellbeing, with subsequent negative impact on physical and mental health
- There is an urgent need to research those who decline treatment, and to provide alternative options including complementary therapies as required
- Finally, the cost of treatment is a huge issue. Cost is the biggest problem facing me, as I am living on a low income from incapacity benefit and income support. NHS treatments would be free, but herbal options and lifestyle choices cost money. Perhaps the NHS should fund well researched and patient friendly solutions such as transcendental meditation and maharishi ayurveda for those with chronic conditions.


# Changes in use of hormone replacement therapy after the report from the Women's Health Initiative: cross sectional survey of users 

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In 2002 the Women's Health Initiative reported the results of a study on the effects of combined oestrogen plus progestogen on healthy postmenopausal women. They found increased rates of breast cancer, coronary heart disease, stroke, and venous thromboembolism and decreased rates of hip fracture and colorectal disease but no "global" benefit. They concluded that combined oestrogen and progestogen is not suitable for the prevention of chronic diseases. ${ }^{1}$ The subsequent extensive media coverage came at a time when the prevalence, ${ }^{23}$ duration, ${ }^{24}$ and use of hormone replacement therapy (HRT) for the prevention of chronic disease had been increasing. ${ }^{24}$ After the report, government regulatory authorities issued advice to health professionals and women, and guidelines relating to the postmenopausal use of hormone replacement therapy were updated. ${ }^{5}$ We examined changes in HRT use since the publication of the report.

## Participants, methods, and results

Between January 2000 and November 2002, 3500 women were screened from 23 general practices in four New Zealand centres as part of the recruitment process for the women's international study of long duration oestrogen after menopause (WISDOM) and a New Zealand observational study. We surveyed 998 women who were using HRT at the time they were
screened but who were ineligible or unwilling to join the international study.

We sent participants an information sheet and questionnaire by post six months after the trial results were published. One reminder questionnaire was sent to non-responders, and 810 surveys ( $81 \%$ ) were completed and returned. In total 776 respondents were taking HRT when the trial results were published and were eligible for inclusion. No significant differences were observed between non-responders ( $\mathrm{n}=188$ ) and responders ( $\mathrm{n}=776$ ) regarding age $\left(\chi^{2}=2.89, \mathrm{df}=3, \mathrm{P}=0.41\right)$ and education $\left(\chi^{2}=1.78\right.$, $\mathrm{df}=3, \mathrm{P}=0.62$ ). Non-responders were more likely than responders to have taken HRT for less than five years $\left(\chi^{2}=9.71, \mathrm{df}=2, \mathrm{P}=0.008\right.$ ). The table shows the analyses for the 734 respondents for whom we had complete data on HRT use.

We analysed data using SAS Insight and estimated associations between a range of independent variables and the dependent variables (stopping and restarting HRT) from a generalised linear model with a log link and binomial errors. Independent variables included women's age at the time of the survey, type of HRT, years of HRT use, hysterectomy status, education, and reasons for starting HRT.

Of the 734 respondents, 423 ( $58 \%$ ) stopped taking HRT. Of the 423 who stopped when the results were published, 132 (18\%) had restarted at the time of our survey and 291 ( $40 \%$ ) had not. Most respondents (610, $83 \%$ ) reported that they had discussed HRT with a

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Factors associated with stopping hormone replacement therapy in six months after oestrogen and progestogen trial report

|  | All respondents ( $\mathrm{n}=734$ ) |  |  |
| :--- | :---: | :---: | :---: |
|  | No (\%) of women <br> who stopped <br> $(\mathrm{n}=423)$ | Total No of <br> women | Relative risk of <br> stopping ( $95 \% \mathrm{CI})$ |
| Age at survey* (years): | $66(49)$ | 134 | Reference |
| $49-54$ | $137(55)$ | 249 | $1.13(0.91$ to 1.40$)$ |
| $55-59$ | $121(61)$ | 197 | $1.32(1.03$ to 1.68$)$ |
| $60-64$ | $99(64)$ | 154 | $1.42(1.09$ to 1.86$)$ |
| $\geq 65$ |  |  |  |
| Type of HRT regimen†: | $169(52)$ | 323 | Reference |
| Oestrogen only | $182(63)$ | 291 | $1.27(1.06$ to 1.54$)$ |
| Combined HRT | $72(60)$ | 120 | $1.19(0.93$ to 1.53$)$ |
| Other |  |  |  |

Years since starting

| HRT: |  |  |  |
| :--- | ---: | ---: | :---: |
| $<5$ | $101(49)$ | 207 | Reference |
| $5-9$ | $144(60)$ | 239 | $1.29(1.05$ to 1.58$)$ |
| $\geq 10$ | $176(62)$ | 284 | $1.35(1.10$ to 1.64$)$ |
| Not known/bypass |  |  | 4 |
| Age when HRT was started: |  |  |  |
| $<49$ years | $129(53)$ | 244 | Reference |
| $49-54$ years | $218(62)$ | 354 | $1.23(1.02$ to 1.48$)$ |
| $\geq 55$ years | $73(56)$ | 130 | $1.07(0.85$ to 1.36$)$ |
| Not known |  | 6 |  |

Reasons for starting HRT $\ddagger$ :

| Symptom relief | $212(55)$ | 385 | Reference |
| :--- | :---: | :---: | :---: |
| Disease <br> prevention | $171(61)$ | 279 | $1.16(0.97$ to 1.40) |
| Other | $40(57)$ | 70 | $1.05(0.78$ to 1.40) |
| Hysterectomy: | $196(55)$ | 356 | Reference |
| Yes | $227(60)$ | 378 | $1.13(0.95$ to 1.33) |
| No |  |  |  |
| Education level: | $223(59)$ | 376 | Reference |
| Non-tertiary | $180(56)$ | 323 | $0.92(0.77$ to 1.09) |
| Tertiary | $14(54)$ | 26 | $0.88(0.57$ to 1.36) |
| Other | - | 9 | - |
| Not known |  |  |  |

*Cochran-Armitage test for trend $\mathrm{z}=2.88, \mathrm{P}=0.004$ (for women who stopped).
$\dagger$ Oestrogen only=unopposed oestrogen preparations; combined
HRT=continuous oestrogen and progestogen preparations; other=vaginal
treatment, monthly bleed preparations.
$\ddagger$ Data collected at collected at time of this survey, rather than at time participants were screened for WISDOM and New Zealand observational study
health professional. Older age, use of combined HRT, and longer duration of HRT were associated with stopping HRT. The association between stopping HRT and increased age was explained by the duration of HRT use (table).

Restarting HRT was associated with taking oestrogen only, use for relief of symptoms, and having a hysterectomy. Of the 132 women who restarted, 100 did so because of the return of symptoms, 16 because they "felt better" on HRT, and 15 for other reasons.

## Comments

After the publication of the results from the oestrogen plus progestogen trial there was a substantial change in HRT use among the women we surveyed: $58 \%$ initially stopped taking HRT and $18 \%$ of them subsequently restarted, leaving $40 \%$ stopped at the time of this survey. Data suggest that stopping HRT was consistent with updated international guidelines. Our survey has limitations as we did not use a random sample of HRT users, nor is the background rate of stopping HRT known.

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Contributors: All authors developed the idea for the study and participated in the questionnaire design. SR drafted the questionnaire, reviewed the literature, and coordinated the survey. BL and SR wrote the introduction, SR and DM carried out the analysis and interpretation of the data and wrote the participants, method, and results sections. All authors edited and were responsible for the final version of the paper. BL will act as the guarantor.

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Competing interests: BL is a member of a New Zealand Guidelines committee focusing on the appropriate prescribing of hormone replacement therapy and has separately received conference and research grants from pharmaceutical companies. BL and AD were the principal investigators and SR a coinvestigator of WISDOM in New Zealand.

Ethical approval: The survey was approved by the Wellington Regional Ethics Committee, accredited by the Health Research Council of New Zealand.

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"These slimming tablets are not for eating, Mr Smith. Pour them all over the floor three times a day and pick them up, one by one."

