Prevalence of post-menopausal hormone use in New Zealand women

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Post-menopausal hormone (previously called hormone replacement therapy or HRT) use was first introduced in the 1940s for the treatment of postmenopausal symptoms, and was oestrogen-based. An increase in the risk of endometrial cancer was observed among postmenopausal hormone (PMH) users, and in the 1980s, progesterone was added to counter this effect. PMH use increased when it was shown in observational studies to confer protection against cardiovascular disease, dementia, loss of bone mineral density and osteoporosis. The findings of the Women's Health Initiative (WHI), a large randomised clinical trial in 2002, that PMH does not decrease the risk of cardiovascular disease and may instead increase the risk of both cancer and cardiovascular disease, led to a widespread decline in the use of PMH.

In New Zealand, an increase in the use of PMH was noted from 1991 to 1997 among women aged 45 to 64 years (from 12% to 20% for current use and from 19% to 32% for ever-use). The most common indication for use, in both 1991 and 1997, was symptomatic relief, followed by prevention of osteoporosis. Of the women surveyed in 1991 and 1997, 26% and 27% respectively had undergone hysterectomy, and women in these groups were 2–3 times more likely to be current users of PMH than those with intact uteri. In addition, there was a change in the type of PMH used. Current use of oestrogen-progestin (EPT) preparations increased from 0.4% in 1991 to 29% in 1997, and use of oestrogen-only (ET) preparations in women with intact uteri decreased from 33% to 11%; in contrast there was a decrease in current use of EPT among women with history of hysterectomy from 21% to 15%.

Following the publication of the findings of the WHI trial, a study was conducted to assess whether the WHI findings had affected use of PMH among New Zealand women. The study observed a decline in current use of PMH among women aged 45–64 years (from 15% in June 2002 to 11% in December 2002). The most common reason for use was symptomatic relief, and for discontinuation of use was the findings of the WHI study. Among current PMH users, 64% had had hysterectomy in December 2002 and 58% in June 2002. In addition, ET was used by a higher proportion of women than was EPT and discontinuation of use was more common among EPT users. In these two studies participants were randomly selected from the electoral roll, and PMH included ET and EPT.

We conducted a New Zealand nationwide population-based study between 1 May 2013 and 31 October 2015, in which women aged 35–69 years were randomly selected from the electoral roll to reflect the age structure of New Zealand women at the 2013 census (the participants in this study were part of the control arm of a population-based case-control study investigating the association between use of contraceptives and ovarian cancer). Controls were identified using the electoral roll; they were sent a self-administered postal questionnaire, with telephone follow-up of non-respondents to two postal questionnaires. The response proportion among controls was 47% and, apart from having a higher level of education, the sociodemographic characteristics of the respondents were similar to those of the New Zealand female, usually resident population aged 35–69 years. Of 225 women aged 45–64 years who responded to the question on use of PMH, 11.6% (26/225) had ever-used PMH, and of them 46.2% (12/26) had had a hysterectomy. This is lower than the prevalence of ever-use in the study by Bilgrami et al, of
33% in June 2002 and 34% in December 2002. In our study we asked only about ever-use, so we were unable to compare results for current use of PMH with the earlier studies. The response proportion in our study was lower than in earlier studies, probably partly due to population mobility and declining use of landlines in New Zealand. It is possible that selection bias associated with the lower response proportion has caused our estimate of the prevalence of ever-use of PMH to be over- or under-estimated.

The prevalence of ever-use of PMH in 2013–2015 in New Zealand women aged 45–64 years was 11.6% (95% CI 7.7–16.5), compared with previous estimates of 19% in 1991, 32% in 1999 and 34% in 2002. In view of the risks associated with PMH, PMH should only be used briefly by symptomatic women and this use should be closely monitored. Population-based estimates of the prevalence of PMH use are useful for calculating population attributable fractions for diseases related to use of PMH.

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