# Impact of HRT +/- testosterone on opioid deprescribing in menopausal women with chronic pain: a cross-sectional study

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### **Background and Aim**

Pain (for example myalgia, arthralgia, and headache) is a common menopausal symptom. As a result, many peri- and postmenopausal women are prescribed painkillers such as opioids, amitriptyline, pregabalin and gabapentin, to relieve pain that arises in the menopause transition Many of these medications are associated with side effects and long-term harms including withdrawal and dependency.

In recent years, the largest increase in long-term opioid use and opioid-related fatalities has been seen among women in midlife. Hormone replacement therapy (HRT) is likely to be a more cost-effective and safer option for the treatment of pain rooted in hormone deficiency. The aim of the current study was to determine the proportion of women who reduced or discontinued opioid painkillers after starting HRT.

### Method

This**retrospective cohort study** was conducted at a UK-based specialist menopause clinic from 1 November 2023 to 31 July 2024. Women were included in the study if they were taking opioid **painkillers** (for example, codeine, dihydrocodeine, or morphine), at

their initial consultation prior to starting HRT. At subsequent follow-upappointments, patients were asked if they had reduced or stopped their painkillers.

### Results

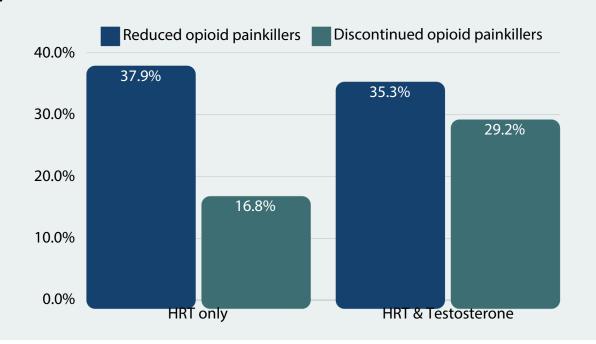
736 women reported using opioid painkillers at baseline, prior to commencing HRT. 575 women (78.1%) initiated HRT with testosterone (transdermal oestradiol and testosterone with micronised progesterone) and 161 women (21.9%) initiated HRT (transdermal oestradiol with micronised progesterone) only. Mean duration of follow-up was 9 months.

**Overall, 457women(62.1%)** 



62.1% of women reduced or discontinued painkillers after starting HRT.

Among women prescribed standard HRT (n=161), 61 women (37.9%) reduced their medication, and 27 women (16.8%) discontinued it. Among those additionally treated with testosterone (n=572), 202 women (35.3%) reduced their medication, while 167 women (29.2%) discontinued it. Discontinuation rates between the two groups were significantly different (p=0.0018): women using testosterone alongside standard HRT discontinued their opioid medication at nearly double the rate compared to those prescribed standard HRT alone.





### Conclusion

These findings suggest that **testosterone-based HRT may be more effective for managing pain symptoms in peri- and postmenopausal women** and that HRT generally helps alleviate such symptoms. Further research is needed to explore how individualised HRT can support the deprescribing of pain-relieving medications.



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## Deprescribing of antidepressant and anxiolytic medications following HRT

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### **Background**

Fluctuating and declining hormone levels during perimenopause and menopause are associated with an increased prevalence of anxiety, low mood and depression in midlife. Around 1 in 3 perimenopausal women are offered or prescribed antidepressants and anxiolytics for negative mood symptoms. However, current guidelines state that there is no clear evidence of benefit for antidepressants when used to treat low mood in perimenopausal women not diagnosed with clinical depression, and HRT should instead be considered. Offering HRT to perimenopausal women with psychological symptoms can improve quality of life and enable deprescribing in women already initiated on antidepressant therapy, reducing the risk of side effects and harms associated with long term antidepressant use.



### Aim

Todetermine the proportion (%) of women who reduced or discontinued their antidepressant or anxiolytic medication after starting HRT.



### **Methods**

Across-sectional study of patients attending a UK-based specialist menopause clinic between 1 October 2023 – 31 May 2024 (8 months). Patients were included if they were receiving antidepressants at the time of their initial consultation, before starting HRT. Patients were asked at the 3-month follow-up appointment whether they had reduced or discontinued their antidepressant/ anxiolytic medication after starting HRT.

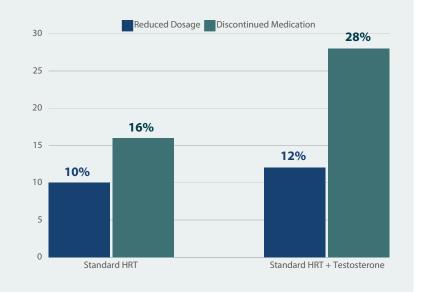
### Results

1,081 patients were taking antidepressants/ anxiolytics prior to starting HRT. The average age of the patients was 51.7 vears (SD 6.5 years).

Overall, 419 women out of 1,081 (39%) either reduced or discontinued their antidepressant/ anxiolytic medication.

Among 92 patients who received oestrogen with or without a progesterone alone, 9 women (10%) reduced their medication, whilst 15/92 (16%) discontinued it.

Among 989 women treated with E+/- P AND testosterone, 119 (12%) reduced their medication, and 276/989 (28%) discontinued, suggesting discontinuation rates were almost double among women using testosterone alongside standard HRT.).





### Conclusion

Our findings suggest that, for some women, HRT is a more appropriate treatment for negative mood symptoms rooted in  $hormone\ deficiency\ and\ may\ avoid\ the\ need\ for\ -\ or\ enable\ deprescribing\ of\ -\ less\ appropriate\ treatments\ that\ can\ be$ associated with side effects and long-term harms. Our results suggest that deprescribing rates in HRT users may be higher in women co-prescribed testosterone. Further research is needed to assess the impact of testosterone on mood.

