

Wakefield District Women's Health Leads

Case Study

Measurement of Oestradiol Levels whilst on HRT



Patient:

46 year old perimenopausal woman on HRT

Presenting issue:

concerned that she required a higher dose of oestrogen as was anxious and had poor sleep



Current Medication

Estradiol gel 3 pumps daily and Mirena IUS

Question?

Would measuring oestradiol levels be helpful to determine next steps?

Advice

- Most women will respond to licensed doses of HRT, and symptoms like low mood and anxiety may have other causes, requiring different treatments.
- The MHRA advises using the lowest effective dose of oestrogen for menopausal symptoms. Increasing oestrogen doses beyond the licensed recommendation or combining different forms is not supported by guidelines.
- Routine testing of oestradiol levels is unnecessary, as response to HRT should be based on symptom control, not serum levels, which can be influenced by various factors.

Conclusion

- Routine oestradiol testing is not generally recommended but may be helpful to check for absorption issues with transdermal preparations.
- A target oestradiol level of 150-400 pmol/L is usually sufficient for symptom control. Levels above 600 pmol/L may lead to adverse effects like tachyphylaxis or endometrial issues.
- If oestradiol levels are within the target range, increasing the dose is unlikely to improve symptoms, and other causes should be explored with non-hormonal treatments like lifestyle changes and CBT.
- If oestradiol is low (below 100 pmol/L), switching from transdermal to oral HRT may be considered, if no contra-indication.
- Any dose increase should remain within licensed recommendations, and higher oestrogen doses require higher progestogen levels for adequate endometrial protection.



MHRA

