

Hormone replacement therapy: the basics

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Overview

- Introduction
- Diagnosis of menopause
- Types of HRT
- Benefits and risk
- Common side effects

History of the menopause

- Age of menopause is 51 years
- Life expectancy is 82 years
- 30% of life post menopausal
- 25% have severe symptoms



- ‘Female hormone deficiency syndrome with health risks’

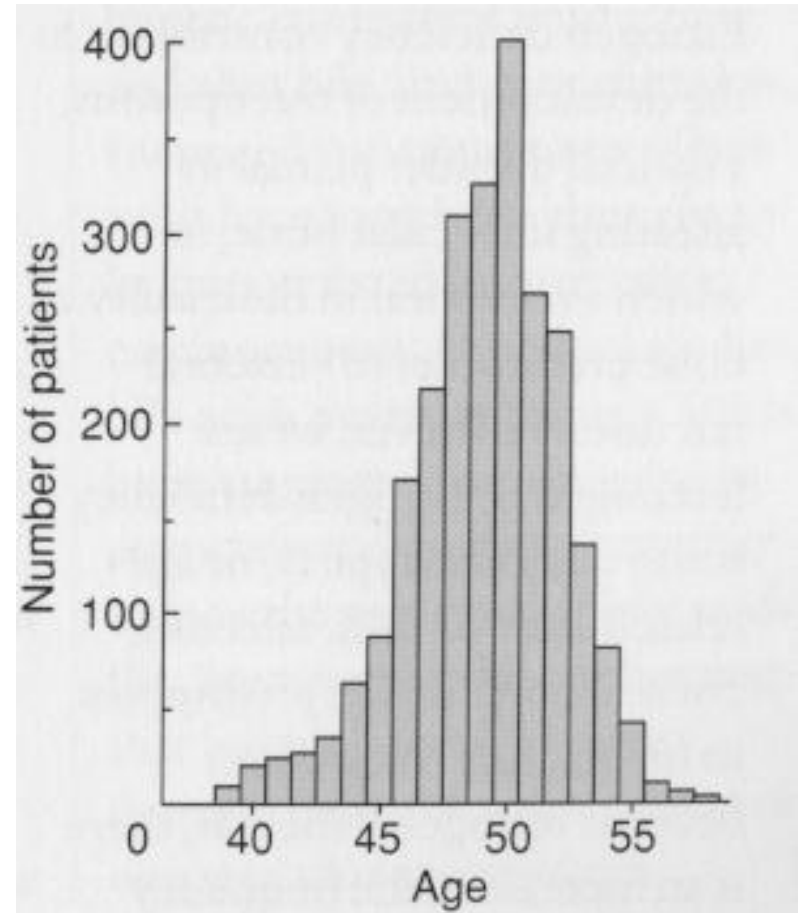
Diagnosis of menopause = 12 months after your last natural period

Average age: 51-52 years

Age range: 45 to 55 years

Early menopause: 40-45 yrs

Premature ovarian insufficiency:
under 40 years (1% UK pop)



The influence of oestrogen

fluctuating moods

While menopause is sometimes stereotyped as a time of irritability, this isn't the case all the time. You can have different moods that fluctuate between happiness, irritability, and depression.

problems sleeping

Changes in hormone levels can make it difficult to fall asleep at night. This can also make it difficult to make it through the day.

insomnia

Hot flashes and night sweats can disrupt your sleep by waking you up frequently in the middle of the night. Trouble sleeping can also be due to drops in estrogen that help regulate your natural sleep patterns.

weight gain

You may gain some weight as your body retains fat more easily.

stopping of your periods

Menopause basically means your period has stopped. You shouldn't have any symptoms of your monthly flow whatsoever, including spotting.

lowered sex drive

A drop in estrogen combined with vaginal dryness and other discomforts can lower your libido.

hot flashes

A hot flash is a sudden temperature hike. It can make your face red and feel flushed. While hot flashes sometimes occur with night sweats, these can strike at any time of day or night.

night sweats

Night sweats refer to excessive perspiration at night, which can coincide with hot flashes. You may wake up in the middle of the night drenched in sweat.

frequent urination

If you're hitting the bathroom more frequently, this could be due to dropping estrogen levels that increase the number of times you have to urinate.

painful sex

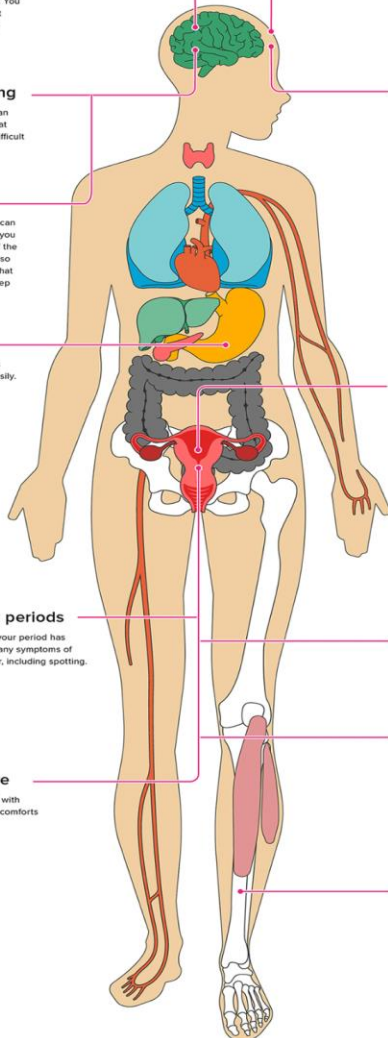
Even if you do have the drive to get it on, intercourse can be painful for some women.

vaginal dryness

When you're no longer in a reproductive state, your body doesn't produce as much natural lubrication. You may have some vaginal dryness as a result.

bone fractures

Bone density decreases with menopause, which puts you at a higher risk of bone fractures.



- Brain
- Heart
- Liver
- Bones
- Skin
- Joints and muscles
- Bowel
- Nerves
- Bladder
- Vagina

Psychological symptoms of menopause

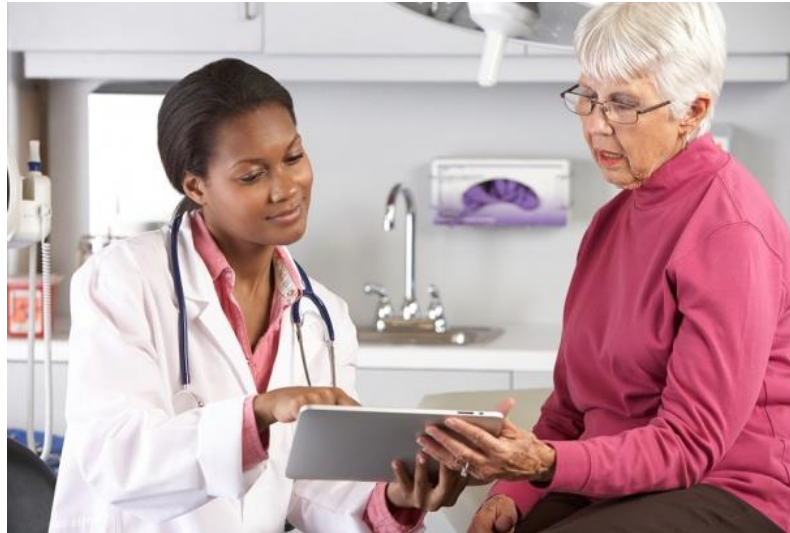
- Anxiety
- Irritability
- Panic attacks
- Feeling low
- Mood swings
- Feel frustrated
- Tearful
- Loss of self-esteem
- Loss of self-confidence

Risks to health with menopause

- Bone loss
- Osteoporosis
- Heart disease
- Type 2 diabetes
- Obesity
- Cognitive decline and early dementia
- Depression

Menopause should be 'an opportunity'

- Medical intervention at this point of life offers women years of benefits from preventative health care



Menopause symptom questionnaire



Dr Louise Newson
www.menopausedoctor.co.uk

Please can you indicate if you have any of the following symptoms and the severity of them.

This will be really useful to assess you and also to evaluate your response to any treatment.

Name : Date :

Email Address :

Please tick box if you are NOT happy to be contacted via email, many thanks:

Greene Climacteric Scale

Please indicate the extent to which you are bothered at the moment by any of these symptoms by placing a tick in the appropriate box:

SYMPTOMS	Not at all 0	A little 1	Quite a bit 2	Extremely 3	Comment
Heart beating quickly or strongly					
Feeling tense or nervous					
Difficulty in sleeping					
Excitable					
Attacks of anxiety, panic					
Difficulty in concentrating					
Feeling tired or lacking in energy					
Loss of interest in most things					
Feeling unhappy or depressed					
Crying spells					
Irritability					
Feeling dizzy or faint					
Pressure or tightness in head					
Parts of body feel numb					
Headaches					
Muscle and joint pains					
Loss of feeling in hands or feet					
Breathing difficulties					
Hot flushes					
Sweating at night					
Loss of interest in sex					
SCORE					

HRT Guide

Post NICE Guidance for Healthcare Professionals



Introduction:
The safety of HRT largely depends on age. Healthy women younger than 60 years should not be concerned about the safety profile of HRT.

For most women, the potential benefits of HRT given for a clear indication are many and the risks are few when initiated within a few years of menopause.

For the different types of systemic HRT currently available and treatment options please refer to the algorithms overlaid.

Vaginal Oestrogen

Indications	Options
> When vaginal and/or bladder symptoms of urogenital atrophy predominate, vaginal oestrogen alone can be used.	> Vaginal tablet – estradiol – Vagifem 10 > Creams – estradiol – Ovestin (0.1%) and Gynest (0.01%) > Ring – estradiol – Estring – change 3 monthly
> Vaginal oestrogen may also be required in addition for some women taking systemic HRT. May be considered in women with urogenital atrophy in whom systemic oestrogen is contraindicated, after seeking specialist advice.	Tablets and creams should be used nightly for 2 weeks and then twice weekly. Once weekly maintenance dose can be continued long term. Symptoms frequently recur on cessation of therapy. Systemic absorption is minimal and progestogen is not required.

Systemic HRT

Indications	Options
Symptom control	For as long as it is felt that benefits of symptom control and improvement in quality of life outweigh any risks, there are NO arbitrary limits.
Treatment of Premature Ovarian Insufficiency (POI)	At least until average age of menopause (51 in UK)
Prevention and treatment of Osteoporosis	Therapy for several years may be required, followed by consideration of use of other bone-protective therapy
Proven benefits:	> CVD risk not increased when starting in women under 60 > Breast cancer combined HRT may be associated with an extra 5 breast cancers per 1,000 women after 75 years use over the age of 50. Risk associated with oestrogen alone is very much less. Mortality is not increased. Risk returns to baseline after stopping HRT, suggesting HRT acts as a promoter rather than an initiator.
Known risks:	NB postmenopausal obesity or 2 or more units alcohol per day associated with greater breast cancer risk than 5 years combined HRT.

2 PAGES

NICE: Menopause, Diagnosis and Management – from Guideline to Practice Top Ten Tips



- 1 Do not use FSH for diagnosis in women > 45
- 2 Offer women HRT as first line treatment for vasomotor symptoms and low mood/anxiety related to menopause after discussing the short-term and longer-term benefits and risks
- 3 Consider CBT to alleviate low mood or anxiety that arise as a result of the menopause
- 4 Offer vaginal oestrogen to women with urogenital atrophy (including those on systemic HRT) and continue treatment for as long as needed to relieve symptoms
- 5 Offer women who are stopping HRT a choice of gradually reducing or immediately stopping treatment. There is no arbitrary time limit.
- 6 Women with POI should be advised to continue HRT until at least the age of natural menopause
- 7 Consider transdermal rather than oral HRT for menopausal women who are at increased risk of VTE, including those with a BMI over 30 kg/m²
- 8 HRT does not increase cardiovascular disease risk when started in women aged under 60 years
- 9 Any increase in the risk of breast cancer is related to treatment duration and reduces after stopping HRT
- 10 Refer women to a healthcare professional with expertise in menopause if:
 - > treatments do not improve their menopausal symptoms
 - > they have ongoing troublesome side effects
 - > they have contraindications to HRT
 - > there is uncertainty about the most suitable treatment options for their menopausal symptoms.



For further details - please visit
www.thebms.org.uk or telephone **01628 890 199**



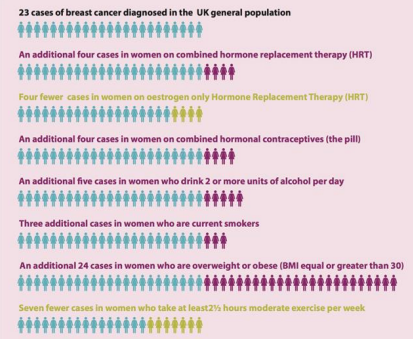
BMS

Meeting the challenge of menopause

Understanding the risks of breast cancer



A comparison of lifestyle risk factors versus Hormone Replacement Therapy (HRT) treatment.
Difference in breast cancer incidence per 1,000 women aged 50-59.
Number of women developing breast cancer over the next five years.



Women's Health Concern is the patient arm of the BMS. We provide an independent service to advise, reassure and educate women of all ages about their health, wellbeing and lifestyle concerns.
Go to www.womens-health-concern.org



Summary of menopause guidelines

- Individualised care
- Women need to be informed of the benefit and risk of HRT so that they can make appropriate treatment choices
- For the majority of women **the benefits of HRT outweigh any risk**
- There is no maximum length of time for taking HRT
- Lifestyle is important
- Only around 12% women take HRT

HORMONE REPLACEMENT THERAPY

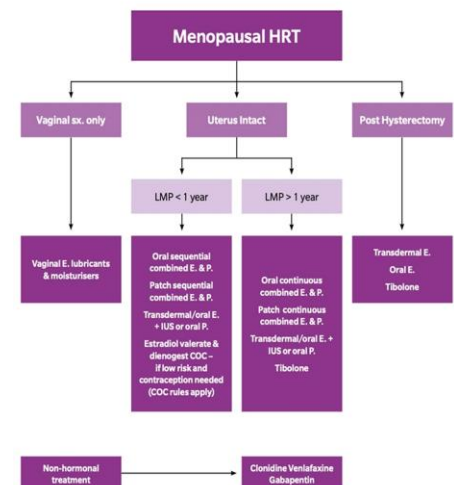


Why are so few women taking HRT?

- Women are worried
- Health care professionals are worried

Hormone replacement therapy - HRT

- Not a 'one size fits all'
- Numerous different preparations
- Oestrogen/ Progesterone/ Testosterone
- Pills/ patches/ gels / spray



Benefits and risks of HRT

- **Benefits**

- Symptom control
- Maintenance of bone density & reduced risk of fracture
- Improved lipid profile
- Improved glucose tolerance
- Reduced risk of colon cancer
- Dementia prevention?

- **Risks**

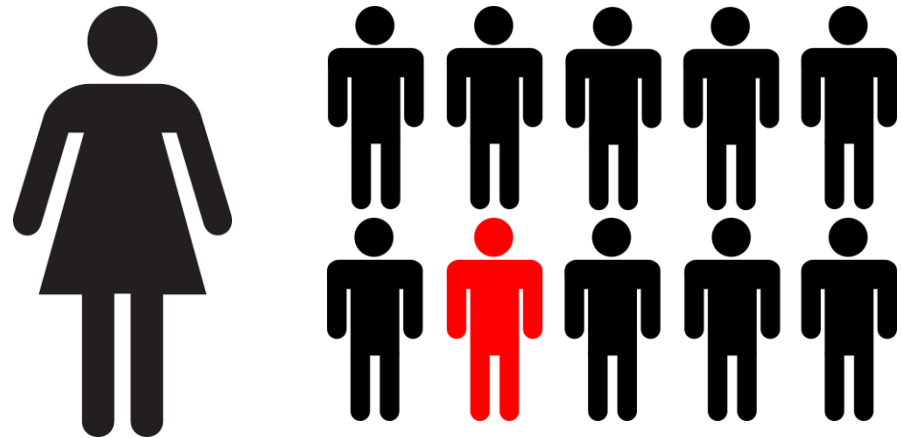
- Side effects
- Bleeding
- Endometrial cancer
- VTE
- Breast cancer
- Coronary heart disease & stroke (when initiated in older women)

Breast cancer and HRT

- No increased risk of breast cancer in women who are young
- Lower risk of breast cancer in women who only take oestrogen
- Risk associated with the older progestogens
- No risk shown in research with body identical HRT

Breast cancer

- Breast cancer is common
- Increased risk of breast cancer with:
- Increasing age
- Family history
- Obesity
- Alcohol
- Reduced exercise



Understanding the risks of breast cancer



A comparison of lifestyle risk factors versus Hormone Replacement Therapy (HRT) treatment.

Difference in breast cancer incidence per 1,000 women aged 50-59.
Number of women developing breast cancer over the next five years.

November 2015

23 cases of breast cancer diagnosed in the UK general population



An additional four cases in women on combined hormone replacement therapy (HRT)



Four fewer cases in women on oestrogen only Hormone Replacement Therapy (HRT)



An additional four cases in women on combined hormonal contraceptives (the pill)



An additional five cases in women who drink 2 or more units of alcohol per day



Three additional cases in women who are current smokers



An additional 24 cases in women who are overweight or obese (BMI equal or greater than 30)



Seven fewer cases in women who take at least 2½ hours moderate exercise per week



www.womens-health-concern.org
Reg Charity No: 279651
Company Reg No: 1432023

Women's Health Concern is the patient arm of the BMS.
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www.thelms.org.uk
Reg Charity No: 1015144
Company Reg No: 02759439

Venous thromboembolism (VTE) in women

- Incidence increases with age
- Risk factors include:
 - Past history of DVT
 - Obesity
 - Inherited thrombophilias
 - Oral contraceptive

VTE risk and HRT

- **Oral oestrogen**
 - Risk of clot increased
 - Usually quoted as double increased risk
 - Risk highest in first year of taking oral HRT
- **Oestrogen as patch/gel/ spray (transdermal)**
 - Risk of clot not increased
- **Vaginal oestrogens**
 - No absorption in to body
 - No clot risk

Progestogens and clot risk

- Progestogens or progesterone are needed as part of HRT for women with their womb
- Progestogens are synthetic progesterone
- Risk of clot increase by around 50% in women using oestrogen with progestogen compared to oestrogen only use (2-3/1000)
- Risk varies depending on type of progestogen

BMS Tools for clinicians:
HRT-Practical prescribing
Progestogens and endometrial protection

Micronised progesterone (mP)

- Derived from wild yams
- Exact duplicate of progesterone produced by humane body ie 'body-identical'
- Utrogestan given either orally or vaginally

- No risk of clot
- Lower risk breast cancer

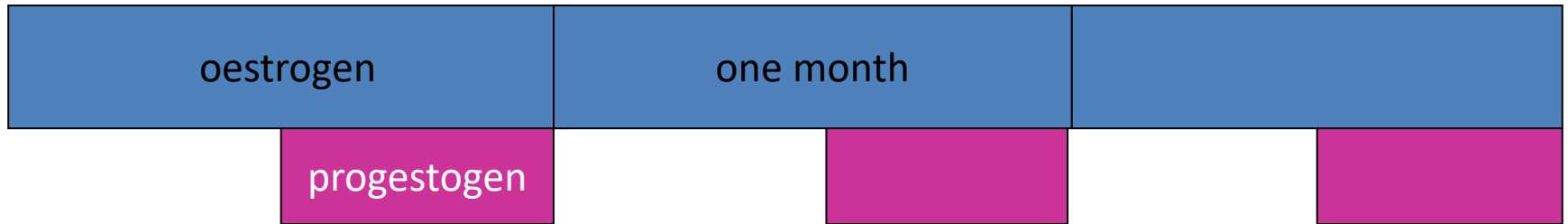
Patient information for women with high risk of clots

- Newson Health leaflet on 'Menopause and clots'
- Thrombosis UK and Menopause charity leaflet 'Menopause and clots'
- My Menopause Doctor (www.newsonhealth)
personal stories: 'My Story: sticky blood, menopause and me'

What is in HRT?

- Oestrogen only
 - ‘Natural’ from soya or yam
 - body-identical to compounds – estradiol E2, estrone E1, estriol E3, estetol E4
 - Equine (horse) oestrogens: 65% oestrone sulphate +10 other biologically active substances
 - Synthetic
- Oestrogen and progestogen combined
 - Sequential/cyclical (regular bleeds) or continuous (no-bleed)

HRT Regimes

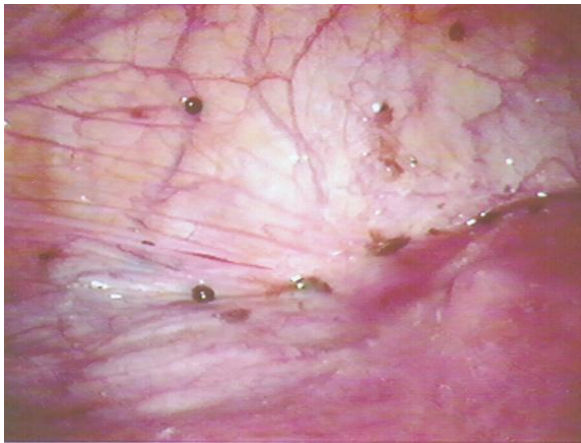


Contraindications to HRT

- Estrogen dependant tumours
- Undiagnosed abnormal vaginal bleeding
- Pregnancy
- Severe active liver disease

Relative contraindications

- Previous venous thrombosis (avoid oral HRT)
- Untreated hypertension
- Fibroids
- Endometriosis



Common side effects

- Related to Estrogen
 - Often transient
 - Breast tenderness
 - Nausea
 - Headaches
 - Legs cramps
 - Fluid retention
- Related to Progestogen
 - PMS type symptoms
 - Bloating
 - Headache
 - Greasy skin
 - Irritability
 - Irregular bleeding
 - Abdominal pain

Managing side effects

- Establish if oestrogenic or progestogenic
- Check using product correctly
- Realistic expectations
- Change dose, type or route (oral/transdermal/vaginal/IU)



Estradiol – equivalent doses

	ultralow	low	medium	high
Oral	0.5mg	1mg	2mg	3-4mg
Patch	Half 25	25	50	75-100
Gel pump	½ pump	1 pump	2 pumps	3-4 pumps
Gel sachet	½ 0.5mg sachet	0.5mg	1-1.5mg	2-3mg
spray	1 spray	2 sprays	3 sprays	-

Bone sparing dose may be 0.5mg in some women, aim for 300-500 pmol/L

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Tablets

- First-pass effect on liver – larger doses & variable bioavailability (E1 oestrone)
- Avoid if migraine, liver disease, VTE risk , diabetes (preferably use transdermal)



Gel

- Oestradiol 0.06% in pump dispenser Oestrogel
- Oestradiol 0.1% in sachets Sandrena (0.5mg & 1mg)
- 1-2 measures per day (up to 4)
- Spread widely & thinly to clean dry skin.
Away from breasts & partner!



Patches

- Oestradiol ranges 90-120 pmol/L with a 50 mcg patch. Estradot is smallest
- Bioavailability can be a problem
- Allergic reaction – 10 - 40 % women
- Alternate sites



Estradiol spray 1.53mg

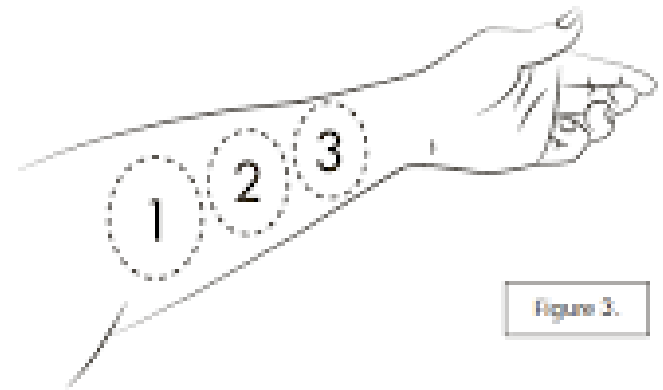


Figure 3.

HRT dilemmas

- Deciding when to start it
- (Unhelpful clinicians)
- Knowing when to adjust the dose
- How to monitor HRT
- When/ how to stop HRT

HRT Problems

- Managing unscheduled bleeding
- Managing side effects
- What to do when standard HRT isn't working
- What to prescribe for people who can't take HRT
- (Testosterone)
- HRT shortages

'Take home' messages

- Women should receive individualised care for their menopause
- Menopause can lead to many different symptoms
- There are health risks of the menopause
- Most types of HRT are safe
- Women with risk of clot can still take most types of HRT
- Evidence based information is critical

Any questions?

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