



CLINICAL GUIDELINE

HRT and Cardiovascular Disease, Gynaecology

A guideline is intended to assist healthcare professionals in the choice of disease-specific treatments.

Clinical judgement should be exercised on the applicability of any guideline, influenced by individual patient characteristics. Clinicians should be mindful of the potential for harmful polypharmacy and increased susceptibility to adverse drug reactions in patients with multiple morbidities or frailty.

If, after discussion with the patient or carer, there are good reasons for not following a guideline, it is good practice to record these and communicate them to others involved in the care of the patient.

Version Number:	1
Does this version include changes to clinical advice:	N/a
Date Approved:	24 th June 2019
Date of Next Review:	1 st June 2024
Lead Author:	Jennifer Sassarini
Approval Group:	Gynaecology Clinical Governance Group

Important Note:

The Intranet version of this document is the only version that is maintained. Any printed copies should therefore be viewed as 'Uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

HRT and Cardiovascular disease

Introduction

Cardiovascular disease is common; therefore we will inevitably see women with cardiovascular disease who wish to use hormone replacement therapy (HRT).

Until the late 1990s oestrogen was thought to protect against coronary heart disease (CHD). However, an RCT, the Women's Health Initiative (WHI) found an early, transient increase in coronary events in the combined HRT (oestrogen plus progestogen) arm. However, the average age of participants in WHI was 63 years old, and more recent subgroup analyses of data from the WHI trials have questioned these results. HRT use was stratified by age and time since menopause, and this analysis demonstrated more favourable results for all-cause mortality and myocardial infarction in women aged 50-59, and those starting HRT close to menopause (1). The Danish Osteoporosis Prevention Study (DOPS) (2), an open label RCT, showed that HRT was associated with a reduction in cardiovascular disease in women of the same age group.

The **NICE Guideline on Menopause (NG23)** provides guidance on the use of HRT and the risk of cardiovascular risk, and this is summarized below.

1. Women with no previous cardiovascular events/stroke

- HRT does not increase the risk of coronary heart disease when started in women aged under 60 years
- Taking oral (but not transdermal) oestrogen is associated with a small increase in the risk of stroke
- There is no increase in the risk of haemorrhagic stroke associated with HRT.

2. Women with no previous cardiovascular events/stroke, but who have cardiovascular risk factors

- HRT is not contraindicated in this group
- Optimise cardiovascular risk factors – control hypertension (HRT is not associated with an increase in blood pressure, but hypertension should be controlled before commencing treatment), decrease BMI, stop smoking
- Use transdermal preparations

3. Women with a Past History of MI (3-6)

- HRT should be discontinued after myocardial infarction (MI). This is the current recommendation despite there being no evidence that a cardiovascular event takes a more serious course in HRT users than in non-users. Future studies may provide enough evidence to change this recommendation.
- Any decision to initiate HRT after MI should be made after full discussion between the woman, menopause specialist and a cardiologist.

4. Past History of Stroke (7)

- Initiating HRT after stroke or TIA is contraindicated.

Alternative treatments for vasomotor symptoms

See RCOG Guidance (link) and below for other reading.

Other reading

NICE guidance: ng23. Diagnosis and management of menopause.

<https://www.nice.org.uk/guidance/ng23/>

BMS Consensus Statements – www.thebms.org.uk

Alternatives to HRT for the Management of Symptoms of the Menopause (SAC Opinion Paper 6). RCOG; 2010. <http://www.rcog.org.uk/womens-health/clinical-guidance/alternatives-hrt-management-symptoms-menopause>

Key words

Menopause, HRT, Cardiovascular disease

Lead Author

Dr. Jenifer Sassarini (Consultant Gynaecologist)

Implementation / Review Dates

Implementation date: June 2019

Review date: June 2024

Approval

Dr. R. Jamieson, Clinical Director ...R Jamieson..... Date 25/6/19.....

References

1. Manson JE, Chlebowski RT, Stefanick ML, *et al.* Menopausal hormone therapy and health outcomes during the intervention and extended poststopping phases of the Women's Health Initiative randomized trials. *JAMA*. 2013 Oct 2;310(13):1353-68. PubMed PMID: 24084921. Pubmed Central PMCID: 3963523.
2. Schierbeck LL, Rejnmark L, Tofteng CL, *et al.* Effect of hormone replacement therapy on cardiovascular events in recently postmenopausal women: randomised trial. 2012 2012-10-09 22:32:25;345.
3. Windler E, Stute P, Ortman O, Mueck AO. Is postmenopausal hormone replacement therapy suitable after a cardio- or cerebrovascular event? *Archives of Gynecology and Obstetrics*. 2015;291(1):213-7.
4. Shlipak MG, Angeja BG, Go AS, *et al.* Hormone Therapy and In-Hospital Survival After Myocardial Infarction in Postmenopausal Women. *Circulation*. 2001;104(19):2300-4.
5. Tackett AH, Bailey AL, Foody JM, *et al.* Hormone replacement therapy among postmenopausal women presenting with acute myocardial infarction: Insights from the GUSTO-III trial. *American Heart Journal*. 2010 10//;160(4):678-84.
6. Mikkola TS, Tuomikoski P, Lyytinen H, *et al.* Increased Cardiovascular Mortality Risk in Women Discontinuing Postmenopausal Hormone Therapy. *J Clin Endocrinol Metab*. 2015 Dec;100(12):4588-94. PubMed PMID: 26414962.
7. Renoux C, Dell'aniello S, Garbe E, Suissa S. Transdermal and oral hormone replacement therapy and the risk of stroke: a nested case-control study. *BMJ*. 2010;340:c2519. PubMed PMID: 20525678.