Perioperative Management of Hormone Replacement Therapy (HRT)

TARGET AUDIENCE	Board-Wide
PATIENT GROUP	All patients on HRT requiring emergency or elective surgery

Clinical Guidelines Summary

Elective Surgery:

- **Transdermal HRT or Pessary – Continue perioperatively**
- **Testosterone – Continue perioperatively**
- **Oral HRT (except Tibolone) – Continue for minor or intermediate surgery. Ideally stop 4 weeks prior to major surgery including orthopaedics and vascular. Surgical/primary care teams can consider transition from oral to transdermal HRT preoperatively. If cannot be stopped should be considered for compression stockings and unfractionated or low molecular weight heparin during period of immobilisation.**
- **Tibolone – Continue perioperatively**

Emergency Surgery:

- **Transdermal HRT or Pessary – Continue perioperatively**
- **Testosterone – Continue perioperatively**
- **Oral HRT (except Tibolone) – If high risk of prolonged immobilisation consider stopping on admission. Standard Hepma VTE risk assessment should be performed**
- **Tibolone – Continue perioperatively**

Guideline Body

Contents:

Background

HRT is associated with an increased risk of Venous Thromboemobolism (VTE). This risk is increased in the first year of use and influenced by the preparation (i.e. oral or transdermal preparation) and type of HRT (Oestradiol only or Combined). Surgery increases risk 1-3 fold.

Other risk factors that increase risk should be considered e.g. age, weight, previous VTE, inherited thrombophilia, smoking

Risk of recurrence of menopausal symptoms (e.g. hot flushes) if discontinued preoperatively.

Preoperative Guidance

For planned surgery, consideration can be given to transitioning women off oral HRT preparations onto transdermal ones as these can be continued perioperatively and can alleviate side effects. This is out with the remit of the preassessment department but can be considered by surgical teams in conjunction with primary care.

Transdermal Preparations:

HRT through transdermal route can be continued as there is no evidence that this increases risk of VTE.

Pessary Preparations:

Continue vaginal pessaries. They have a similar risk profile to transdermal preparations and do not need to be discontinued.

Oral Preparations:

Continue for minor or intermediate surgical procedures.

For major elective surgery, including orthopaedic and vascular, preferably discontinue 4 weeks prior to date. In emergency setting if risk of prolonged immobilisation is high then consider discontinuing on admission.
If HRT is continued prophylaxis with unfractionated or low molecular weight heparin and graduated compression stockings is advised. (1) This assessment should consider other risk factors as described in background information.
Gradual stopping rather than abruptly may limit rebound symptoms.

Exception: Tibolone – Can be continued perioperatively. Limited data does not suggest an increased risk of thromboembolism with tibolone compared with combined HRT or women not taking HRT. (1)

Testosterone:

Can be continued in the perioperative period. (3)

Perioperative Medicine Cautions

Etoricoxib slightly increases the exposure to conjugated oestrogens from HRT

NSAIDS - The findings of one observational study raise the possibility that the risk of myocardial infarction might be higher with the concurrent use of NSAIDs and HRT

Tibolone may increase blood fibrinolytic activity and enhance the effect of anticoagulants such as warfarin. Limited data suggest that Tibolone may interact with cytochrome P450 3A4 substrates such as Midazolam.(4)

Post Operative Guidance

If stopped pre-operatively restart after full mobilisation or as per surgical plan.

References/Evidence

(1) Joint Formulary Committee. British National Formulary (online) London: BMJ Group and Pharmaceutical Press. www.medicinescomplete.com

(2) Handbook of Perioperative Medication UKCPA

(3) Kotamarti VS, Greige N, Heiman AJ, et al. Risk for Venous Thromboembolism in Transgender Patients Undergoing Cross-Sex Hormone Treatment: A Systematic Review. J Sex Med 2021;18:1280–1291.

(4) Tibolone benefits and risks- 11/12/2014- Medicines and Healthcare products Regulatory Agency

Appendices

1. Governance information for Guidance document

Lead Author(s):	Dr Shona McConnell
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CHANGE RECORD			
Date	**Lead Author**	**Change**	**Version No.**
		e.g. Review, revise and update of policy in line with contemporary professional structures and practice	1
			2
			3
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2.You can include additional appendices with complimentary information that doesn't fit into the main text of your guideline, but is crucial and supports its understanding.

e.g. supporting documents for implementation of guideline, patient information, specific monitoring requirements for secondary and primary care clinicians, dosing regimen/considerations according to weight and/or creatinine clearance