Hormonal replacement therapy

Oestrogen: there is general agreement now that the patient should be started on the minimum effective dose of oestradiol and increase the dose only if needed. Exogenous oestrogen are associated with increased risk of breast cancer, heart disease and venous thromboembolic risk. It can be given systemically or locally.
the minimum dose of currently available systemic oestrogen are:

- 0.3-0.625 mg oral conjugated equine oestrogen
- 1 mg oral micronized oestradiol
- 25-50 mcg transdermal oestradiol
- 25-50mg implant
- 150mcg nasal oestradiol
- 50mcg oestradiol ring
Exception to this low dose rule are woman with premature ovarian failure who need high dose of oesrogen.

Route of administration:
Oral route partially metabolized in the liver and do not fully restore the natural ratio 2:1 oestradiol:oestrone.
Transdermal patch twice or once weekly.
Transnasal in pulsed manner. The nasal, gel, ring preparation should be combined with progestogen in female with uterus.
Local(vaginal): recent creams contain oestriol do not produce endometrial hyperplasia (0.01% oestriol cream and pessaries). Premarine cream can potentially cause endometrial hyperplasia and should not be used more than 3 months without progestogenic opposition.
Progestogen

The progestogens are added for endometrial protection.

It is generally accepted that female commencing HRT should start on sequential (continuosus oestrogen with 12 to 14 days progesterone.

Types:

C19-testosterone derived progestogen (norethisterone, levonorgestrel, norgestrel)

C21-progestrone derived progestogens (dydrogesrone, medroxy progesrone acetate, cyclogest, crinone gel)

Bleeding problems: if bleeding is heavy either increase the dose or duration to 21 days. Persistent bleeding more than 6 months warrant IX by u/s and endometrial biopsy.
Progestogenic side effects include fluid retention, androgenic side effects such as acne, hirsuitism, mood swings.

To minimise these effects, we either decrease the dose or the duration or use intra-uterine system or drospirenone (spironolactone analogue).
TIBOLONE (LIVIAL):
WORKS BY MIMICKING THE ACTIVITY OF SEX HORMONE OESTROGEN, PROGESTOGENE, AND ANDROGENIC ACTIVITY.
Helps to treat hot flushes and night sweats and to prevent oesteoporosis. Dose is 2.5 mg per day in continuous manner.

Contraindication of HRT:
Personal or family history of breast cancer.
Hormone dependant tumors
Unexplained vaginal bleeding
Liver disaese or renal disease
High level of TG or cholestrol thrombophilia
Angina or MI
Migraine
Gallstone
Porphyria
Patient with history of endometrial cancer??