**Introduction:**

* Hormonal replacement therapy is any form of hormonal therapy of a patients who is in course of medical treatment receives hormone either for supplement of naturally occurring hormones or to substitute other hormone for naturally occurring hormones.
* Common forms of hormone replacement therapy.
* For menopause
* Androgen replacement therapy for male
* Hormone replacement therapy (HRT), also known as menopausal hormone therapy (MHT) or postmenopausal hormone therapy (PHT, PMHT), is a form of hormone therapy used to treat symptoms associated with female menopause. Hormone replacement therapy is used to help balance oestrogen and progesterone in women around the time of menopause. Hormone replacement therapy (HRT) can help relieve sweating, hot flashes, and other symptoms of menopause. It can also reduce the risk of osteoporosis. Some types of HRT contain both progesterone and oestrogen, some only oestrogen, and sometimes testosterone is used. Hormone replacement treatments are also used in male hormonal therapy and treatment for individuals who undergo a sex change.

**Uses**

* + **Perimenopause**: For some time, a woman will continue to menstruate, although the changes are happening. This is called perimenopause. It can last from 3 to 10 years. Average duration is 4 years.
  + **Menopause**: When the last period occurs, at an average age of 51 years, the woman is in menopause.
  + **Post menopause**: One full year after the last period, menopause ends, and the woman enters the postmenopausal stage. Symptoms normally decline within 2 to 5 years, but it can take 10 years or more. The increased risk of osteoporosis continues after menopause. Apart from the natural aging process, menopause can be triggered by a hysterectomy that includes removal of the ovaries, or cancer treatment. Smoking can also speed up the arrival of menopause.

**Types of HRT in women**

Common types of HRT use different combinations and delivery of the hormones.

• **Estrogen-only** **HRT**: Women who have had a hysterectomy where their uterus, or womb, and ovaries have been removed do not need progesterone.

• **Cyclical** **or** **sequential** **HRT**: Women who are still menstruating but have perimenopausal like symptoms can use this. Cycles may be monthly, with an oestrogen plus progesterone dose at the end of the menstrual cycle for 14 days, or a daily dose of oestrogen and progesterone for 14 days every 13 weeks.

• **Continuous** **HRT**: This is used during postmenopausal. The patient takes a continuous combination of oestrogen and progesterone.

• **Local** **oestrogen**: This includes vaginal tablets, creams, or rings. It can help with urogenital problems, including dry vagina and irritations.

**Hormone Replacement Therapy for Men**

* Because men do not go through a well-defined period referred to as menopause, some doctors refer to this problem as androgen (testosterone) decline in the aging male -- or low testosterone.
* **Indication for HRT in male:**
* Fatigue
* Weakness
* Depression
* Sexual problems.

**Types of hormone therapy for men**

**Intramuscular** **testosterone** injections: inject these into the muscles of buttocks every two to

three weeks.

• **Testosterone** **patches**: apply these each day to back, arms, buttocks, or abdomen. Be sure to

rotate the application sites.

• **Topical** **testosterone** **gel**: apply this each day to shoulders, arms, or abdomen.

**Testosterone is required for:**

* male sexual development
* reproductive function
* building muscle bulk
* maintaining healthy levels of red blood cells
* maintaining bone density
* However, the natural decrease of this hormone in men typically doesn’t affect overall health any more than the aging process does.

**Ways of delivering HRT include:**

• intramuscular injection

* creams or gels

• vaginal rings

• tablets

• skin patches

**Contraindication of HRT**

HRT may not be suitable for women who have a history of:

• Uncontrolled hypertension, or high blood pressure

• Severe migraines

• Thrombosis or blood clots

• Stroke

• Heart disease

• Endometrial, ovarian or breast cancer.

**In male**

* Prostate cancer
* Uncontrolled heart failure
* Myocardial infraction or cerebrovascular accident within the past six months
* Haematocrit over 48 %
* Men planning fertility.

**Side effect of HRT in female**

* Bloating
* Breast tenderness or swelling
* Swelling in other part of the body
* Feeling sick
* Leg cramps
* Headache
* Indigestion
* Vaginal bleeding

**Side effect of HRT in Male**

• breast enlargement

• decreased testicle size

• worsening of existing sleep apnea

• increased cholesterol levels

• decreased sperm count

• infertility

• increased number of red blood cell

**Long term side effect of HRT**

Cardiovascular disease

Blood clots

Breast cancer

Headache

Hot flashes

Memory problem

Mood swings

Breast pain

Hair thinning

Stroke

**Nursing implication**

1) **Prior to administration:**

* Obtain complete history
* Family history
* Disease condition
* Drug allergy

2**) During HRT**

* Nurses must have current knowledge of hormonal replacement therapy to counsel the patients .
* Monitor for thromboembolic disease and instruct client to report shortness of breath,chest pain feeling of heaviness etc.
* Monitor for abnormal uterine bleeding and instruct client to report excessive bleeding that may occur during menstruation .
* Unscheduled bleeding in first 6 months normal but it persisting beyond 6 months, rule out other causes.
* Encourage to take HRT for 2 to 5 years to finish the symptoms of menopause.
* Monitor breast health and educate patient to have regular breast examination .
* Monitor the effectiveness by improvement in symptoms.
* Screening for mammography and cervical smear if not altered,to be continued.

**3) Education**

* Teach for exercise 30 minutes 5 times per week/ minimum of 3 times per week
* No smoking
* Maintain a normal blood pressure
* Maintain a normal weight.
* Eat a healthy diet.
* Remain mentally active.
* Prevent diabetes.
* Deal with depression.

**References**

* Mandal G.N(2010). *A textbook of Adult Nursing. (*5th ed), Makalu Publication House, Kathmandu.
* Thapa U(2010 *).A textbook of Common Health Problems of Adulthood*.(3rd ed).Makalu Prsess P. Ltd, Dillibazar, Kathmandu.
* Hailes J, Hormone Replacement Therapy, Menopause, February 2018,Available on: <https://www.betterhealth.vic.gov.au/health/conditionsandtreatments/hormone-replacement-therapy-hrt-and-menopause>
* Brazier Y, What do you mean by HRT, April 2020, Available on:

<https://www.medicalnewstoday.com/articles/181726>

* https//www.ncbi.nlm.nih.gov.