On average, women have a menstrual period every 28 days with bleeding (menstruation) lasting approximately four to seven days. During this time, the muscles of the uterus contract in response to hormone-like substances called prostaglandins, produced by the lining of the uterus. The levels of the prostaglandins increase prior to menstruation, and peak at the start of the menses. The levels decline again as a woman menstruates, resulting in less uterine discomfort or cramps after the first few days of the menstrual period.

Most women experience some pain or discomfort during the menses. However, some experience dysmenorrhoea (painful periods) or “difficult menstrual flow”, which may present as moderate to severe cramps or pain in the lower abdomen or lower back, diarrhoea or constipation, heavy menstrual flow, frequent urination, nausea, vomiting, headache or dizziness.

### Risk factors

Predisposing conditions for dysmenorrhoea include the following:

- Age under 20 years
- Early onset of puberty (age 11 years or younger)
- Nulliparity (no history of pregnancy or childbirth)
- Heavy menstrual bleeding (menorrhagia)
- Irregular menstrual bleeding
- Smoking
- Family history of dysmenorrhoea.

Dysmenorrhoea is also more prevalent in women who suffer from premenstrual syndrome (PMS).

### Causes

There are two types of dysmenorrhoea: primary (of unknown cause) and secondary (when an underlying condition can be identified).

#### Primary dysmenorrhoea

Primary dysmenorrhoea refers to recurrent, crampy lower abdominal pain that occurs during menstruation in the absence of other underlying conditions/disorders.

#### Secondary dysmenorrhoea

Secondary dysmenorrhoea refers to painful menstruation related to underlying conditions and is more common among women in their forties and fifties.

Secondary dysmenorrhoea may be caused by:

- Endometriosis (the presence of fragments of endometrial tissue outside the endometrial cavity, e.g. pelvis or abdomen)
- Blood and tissue being discharged through a narrow cervix
- Uterine fibroids or ovarian cysts
- Infections of the uterus (endometritis)
- Pelvic inflammatory disease
- Intrauterine device
- Ovarian cancer
- Retained tampon
- Ectopic pregnancy.

Secondary dysmenorrhoea may have serious implications on a woman’s health such as impacting on fertility and possibly predisposing her to invasive surgical procedures in the future. As such, it is essential that women with suspected secondary dysmenorrhoea are referred to the doctor.

Other instances where patients with menstrual pain should be referred include the following:

- If nonsteroidal anti-inflammatory drugs (NSAIDs) and/or oral contraceptives have not alleviated symptoms
- If vaginal discharge is present
- If the patient has a fever
- If the bleeding is irregular or abnormal in volume
- If normal daily activities are disrupted.

### Management

NSAIDs and/or oral contraceptives are considered first-line treatment in the management of dysmenorrhoea.

#### Nonsteroidal anti-inflammatory drugs

NSAIDs provide analgesia by inhibiting prostaglandin synthesis and reducing the volume of menstrual flow. NSAIDs
Some NSAIDS that may be considered in managing menstrual pain are listed in Table I.

### Oral contraceptives

There is some evidence that combined oral contraceptives are effective in the management of menstrual pain.

### Other treatments

Various other therapies have been investigated in the treatment of dysmenorrhoea. These include levonorgestrel-releasing intrauterine device (Mirena®), progestogens, acupuncture and heat therapy.

### Conclusion

Menstrual pain affects as many as 90% of menstruating women, yet the majority do not seek medical advice. In the absence of treatment, many continue to be adversely affected resulting in a negative impact on daily activities or even absence from school or work. The pharmacy staff may have a significant role in advising girls and women with regards to treatment options. In addition, they may be instrumental in identifying those that should be referred for further gynaecological assessment.

### Bibliography