Phenytoin

**GENERIC AND PROPRIETARY NAMES**
- Phenytoin.
- Epanutin.

**ACTION**
- Decreases the likelihood of convulsions by reducing abnormal electrical discharges within the brain.

**CLASSIFICATION**
- Control of epilepsy.

**INDICATIONS**
- All forms of epilepsy except absence seizures.
- Trigeminal neuralgia if carbamazepine inappropriate.

**CONTRAINDICATIONS**
- Porphyria.

**CAUTIONS**
- Hepatic impairment.
- Pregnancy.
- Breastfeeding.

**COMMON SIDE-EFFECTS**
- Nausea, vomiting.
- Mental confusion.
- Dizziness, headache.
- Tremor.
- Transient nervousness.
- Insomnia.

**RARE SIDE-EFFECTS**
- Dyskinesias.
- Peripheral neuropathy.
- Rashes.
- Gingival hypertrophy and tenderness.
- Acne and hirsutism.
- Fever.
- Hepatitis.
- Lupus erythematosus.
- Stevens-Johnson syndrome.
- Toxic epidermal necrolysis.
- Polyarteritis nodosa.
- Lymphadenopathy.
- Haematological effects.

**INTERACTIONS**
- Interactions between antiepileptics are complex and may enhance toxicity without increasing effect.
- The BNF should be consulted regarding interactions.

**ADMINISTRATION**
- Tablet, capsule, chewable tablets, suspension, injection.
- The frequency of administration should be kept as low as possible to encourage better patient compliance.

**NURSING CONSIDERATIONS**
- On the basis of single dose tests there are no clinically relevant differences in bioavailability between available phenytoin sodium tablets and capsules but there may be a pharmacokinetic basis for maintaining the same brand of phenytoin in some patients.
- Doses should be adjusted carefully, starting with low doses and increasing gradually until seizures are controlled or there are overdose effects.
- Leukopenia that is severe, progressive or associated with clinical symptoms requires withdrawal.
- Side-effects such as acne or hirsutism may be particularly undesirable in adolescent patients.
- Monitoring plasma concentration greatly assists adjustment. A few missed doses or a small change in absorption may result in a marked change in plasma concentration. Small dosage increases in some patients may produce large rises in plasma concentrations with acute toxic side-effects.
- Ataxia, slurred speech, nystagmus and blurred vision are signs of overdose.
- Avoid sudden withdrawal.

**PATIENT TEACHING**
- Take after or preferably with food.
- Patients or their carers should be told how to recognise signs of blood or skin disorders, and advised to seek immediate medical attention if symptoms such as fever, sore throat, rash, mouth ulcers, bruising or bleeding develop.

**REFERENCES**

Nurses should refer to manufacturer’s summary of product characteristics and to appropriate local guidelines.