DOSE ADJUSTMENTS DUE TO INTERACTIONS
- Manufacturer advises reduce dose to one-quarter of the usual dose with concurrent use of allopurinol.

DOSE EQUIVALENCE AND CONVERSION
- Mercaptopurine tablets and *Xaluprine*® oral suspension are **not** bioequivalent, haematological monitoring is advised when switching formulations.

- **UNLICENSED USE** Not licensed for use in severe ulcerative colitis and Crohn's disease.

  Not licensed for use in children for acute lymphoblastic lymphoma or T-cell non-Hodgkins lymphoma.

IMPORTANT SAFETY INFORMATION

SAFE PRACTICE

Mercaptopurine has been confused with mercaptamine; care must be taken to ensure the correct drug is prescribed and dispensed.

RISKS OF INCORRECT DOSING OF ORAL ANTI-CANCER MEDICINES

See Cytotoxic drugs p. 551.

- **CONTRA-INDICATIONS** Absent thiopurine methyltransferase activity
- **CAUTIONS** Reduced thiopurine methyltransferase activity

CAUTIONS, FURTHER INFORMATION
- Thiopurine methyltransferase The enzyme thiopurine methyltransferase (TPMT) metabolises thiopurine drugs (azathioprine, mercaptopurine, tioguanine); the risk of myelosuppression is increased in patients with reduced activity of the enzyme, particularly for the few individuals in whom TPMT activity is undetectable. Patients with absent TPMT activity should not receive thiopurine drugs; those with reduced TPMT activity may be treated under specialist supervision.

- **INTERACTIONS** → Appendix 1: mercaptopurine
- **SIDE-EFFECTS**
- **Common or very common** Anaemia · appetite decreased · bone marrow depression · diarrhoea · hepatic disorders · hepatotoxicity (more common at high doses) · leucopenia · nausea · oral disorders · thrombocytopenia · vomiting
- **Uncommon** Arthralgia · fever · increased risk of infection · neutropenia · pancreatitis · rash
- **Rare or very rare** Alopecia · face oedema · intestinal ulcer · neoplasms · oligozoospermia
- **Frequency not known** Hypoglycaemia · photosensitivity reaction

- **CONCEPTION AND CONTRACEPTION** Contraceptive advice required, see *Pregnancy and reproductive function* in Cytotoxic drugs p. 551.
- **PREGNANCY** Avoid (teratogenic). See also *Pregnancy and reproductive function* in Cytotoxic drugs p. 551.
- **BREAST FEEDING** Discontinue breast-feeding.
- **HEPATIC IMPAIRMENT**

  Dose adjustments May need dose reduction.
- **RENAL IMPAIRMENT**

  Dose adjustments Manufacturer advises consider reducing dose.
- **PRE-TREATMENT SCREENING** Consider measuring thiopurine methyltransferase (TPMT) activity before starting mercaptopurine therapy.
- **MONITORING REQUIREMENTS**
- Monitor liver function—discontinue if jaundice develops.
- When used for Severe ulcerative colitis or Severe Crohn's disease Monitor for toxicity throughout treatment. Monitor full blood count weekly (more frequently with higher doses or if severe hepatic or renal impairment) for first 4 weeks (manufacturer advises weekly monitoring for 8 weeks but evidence of practical value unsatisfactory), thereafter reduce frequency of monitoring to at least every 3 months.

- **PRESCRIBING AND DISPENSING INFORMATION** Flavours of oral liquid formulations may include raspberry.

- **MEDICINAL FORMS** There can be variation in the licensing of different medicines containing the same drug. Forms available from special-order manufacturers include: tablet, capsule, oral suspension

Oral suspension

EXCIPIENTS: May contain Aspartame
- Xaluprine (Nova Laboratories Ltd)

  Mercaptopurine 20 mg per 1 ml Xaluprine 20mg/ml oral suspension | 100 ml PoM £170.00 DT = £170.00

Tablet
- Mercaptopurine (Non-proprietary)

  Mercaptopurine 10 mg Mercaptopurine 10mg tablets | 100 tablet PoM Ⓢ

  Mercaptopurine 50 mg Mercaptopurine 50mg tablets | 25 tablet PoM £49.15 DT = £49.15

Methotrexate

01-Feb-2019

- **DRUG ACTION** Methotrexate inhibits the enzyme dihydrofolate reductase, essential for the synthesis of purines and pyrimidines.

- **INDICATIONS AND DOSE**

Severe Crohn's disease
- BY SUBCUTANEOUS INJECTION, OR BY INTRAMUSCULAR INJECTION
- Child 7–17 years: 15 mg/m^2 once weekly (max. per dose 25 mg)

Maintenance of remission of severe Crohn's disease
- BY MOUTH, OR BY SUBCUTANEOUS INJECTION, OR BY INTRAMUSCULAR INJECTION
- Child 7–17 years: 15 mg/m^2 once weekly (max. per dose 25 mg), dose reduced according to response to lowest effective dose

Juvenile idiopathic arthritis | Juvenile dermatomyositis | Vasculitis | Uveitis | Systemic lupus erythematosus | Localised scleroderma | Sarcoidosis
- BY MOUTH, OR BY SUBCUTANEOUS INJECTION, OR BY INTRAMUSCULAR INJECTION
- Child: Initially 10–15 mg/m^2 once weekly, then increased if necessary up to 25 mg/m^2 once weekly

Maintenance and remission of acute lymphoblastic leukaemia, lymphoblastic lymphoma
- BY MOUTH
- Child: (consult local protocol)

Treatment of early stage Burkitt's lymphoma, non-Hodgkin's lymphoma, osteogenic sarcoma, some CNS tumours including infant brain tumours, acute lymphoblastic leukaemia
- BY INTRAVENOUS INJECTION, OR BY INTRAVENOUS INFUSION
- Child: (consult local protocol)

Meningeal leukaemia, treatment and prevention of CNS involvement of leukaemia
- BY INTRATHECAL INJECTION
- Child: (consult local protocol)

Severe psoriasis unresponsive to conventional therapy (specialist use only)
- BY MOUTH
- Child 2–17 years: Initially 200 micrograms/kg once weekly (max. per dose 10 mg), then increased if necessary to 400 micrograms/kg once weekly (max. per dose 25 mg), adjusted according to response, stop treatment if inadequate response after 3 months at the optimum dose

- **UNLICENSED USE** *Metoject*® is licensed for use in children over 3 years for polyarticular forms of juvenile idiopathic