

PYRAZINAMIDE (PZA) Fact Sheet

PZA is another simple molecule related to vitamin B₃ (niacin).

Dose: 15-30 mg/kg/day, 50-70 mg/kg/day twice weekly

Administration: Oral

Excretion: Hepatically metabolized, 40% urinary

Distribution: Good concentration in liver, lung, kidney and CSF. PZA penetrates macrophages, therefore, it is beneficial early in therapy.

Adverse Reactions

Hepatotoxicity

1. More frequent with higher doses in older patients and when used with other hepatotoxic agents.
2. Uncommon if used in 15 mg/kg doses.
3. Transient asymptomatic rise in liver enzymes during early weeks is not necessarily an indication for stopping therapy.
4. Hepatotoxicity may occur at any time during therapy.

Arthralgia

1. Hyperuricemia seen in 25% of patients. Acute gout may or may not develop. Do not treat unless symptomatic.
2. Shoulders, fingers and knees are most common sites of joint pain.
3. Symptoms occur more often when the serum uric acid level is rising or falling rapidly, as may occur with intermittent therapy.

Other Adverse Reactions

1. GI symptoms (nausea, anorexia) and hypersensitivity are rarely reported.
2. Difficulty in managing diabetes mellitus may occur.

Drug Interactions

Isoniazid

Hepatotoxicity may be increased by this combination, but may be avoided by using lower doses of PZA (15 mg/kg).

Rifampin

Hepatotoxicity may be increased by this combination, but may be avoided by using lower doses of PZA (15 mg/kg).

Probenecid

Probenecid is not effective in reversing PZA-induced Hyperuricemia.

Insulin
Oral Hypoglycemics

PZA makes the control of diabetes mellitus more difficult by antagonizing the action of insulin and oral hypoglycemic drugs.

Urine Dip Sticks

PZA has been reported to interfere with Acetest and Ketostix urine tests to produce a pink-brown color.

Monitoring

1. Monthly clinical assessment for signs and symptoms of hepatitis.
2. Liver enzyme monitoring especially if the patient has underlying liver disease, alcoholism and in older patients.
3. Monitoring serum uric acid if patient is symptomatic with joint pain. The presence of an elevated uric acid is a good indication of compliance with therapy.