

Prior Authorization DRUG Guidelines

MESNEX (Mesna)

Effective Date: 7/28/05

Date Developed: 7/11/05 by C. Wilhelmy MD

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Mesnex is an antidote. In blood, mesna is oxidized to dimesna which in turn is reduced in the kidney back to mesna, supplying a free thiol group which binds to and inactivates acrolein, the urotoxic metabolite of ifosfamide and cyclophosphamide.

This medication is used only for patients receiving ifosfamide or cyclophosphamide cancer treatment.

This medication is used to reduce the risk of bleeding in the bladder (hemorrhagic cystitis), which is a very serious side effect of treatment with a cancer chemotherapy drug called ifosfamide. Mesna helps to protect the lining of the bladder against damage from ifosfamide. The body breaks down ifosfamide to form a product that can harm the bladder, and mesna works by making this product less harmful. However, mesna does not change ifosfamide's anti-cancer effects.

This drug may also be used to reduce the risk of bleeding in the bladder caused by another cancer chemotherapy drug called cyclophosphamide.

Pre-Authorization Criteria:

Mesnex is used for the prevention of hemorrhagic cystitis induced by ifosfamide.

VCHCP requires that Mesnex be prescribed by an oncologist.

MONITORING PARAMETERS — Urinalysis

DOSING: ADULTS

I.V./Oral: Recommended dose is 100% of the ifosfamide dose, given as 20% of the ifosfamide dose I.V. at hour 0, followed by 40% of the ifosfamide dose given orally 2 and 6 hours after start of ifosfamide

DOSING: PEDIATRIC — Refer to adult dosing.

DOSING: ELDERLY — Refer to adult dosing.

DOSAGE FORMS

Injection, solution: 100 mg/mL (10 mL) [contains benzyl alcohol]

Tablet: 400 mg

CONTRAINDICATIONS — Hypersensitivity to mesna or other thiol compounds, or any component of the formulation

WARNINGS / PRECAUTIONS — Examine morning urine specimen for hematuria prior to ifosfamide or cyclophosphamide treatment; if hematuria (>50 RBC/HPF) develops, reduce the ifosfamide/cyclophosphamide dose or discontinue the drug; will not prevent or alleviate other toxicities associated with ifosfamide or cyclophosphamide and will not prevent hemorrhagic cystitis in all patients. Allergic reactions have been reported; patients with autoimmune disorders may be at increased risk. Symptoms ranged from mild hypersensitivity to systemic anaphylactic reactions. I.V. formulation contains benzyl alcohol; do not use in neonates or infants.

DRUG INTERACTIONS — Decreased effect: Warfarin: Questionable alterations in coagulation controlThis medication may interfere with a certain laboratory test (for urinary ketones), possibly causing false test results.

PREGNANCY RISK FACTOR — B

PREGNANCY IMPLICATIONS — Teratogenic effects were not observed in animal studies. There are no adequate and well-controlled studies in pregnant women. Use during pregnancy only if clearly needed.

LACTATION — Excretion in breast milk unknown/not recommended

REFERENCES

- 1. Ben Yehuda, A, Heyman, A, Steiner Salz, D. False Positive Reaction for Urinary Ketones With Mesna. Drug Intell Clin Pharm 1987; 21:547.
- 2. Brock, N, Pohl, J. The Development of Mesna for Regional Detoxification. Cancer Treat Rev 1983; 10(Suppl A):33.
- 3. Cancer Chemotherapy. Med Lett Drugs Ther 1989; 31:49.
- 4. Pohl, J. Toxicology, Pharmacology, and Interactions of Sodium 2-Mercaptoethane Sulfonate (Mesna). Curr Chemotherapy 1981; 2:1387.
- 5. Schoenike, SE, Dana, WJ. Ifosfamide and Mesna. Clin Pharm 1990; 9:179.
- 6. Siu, LL, Moore, MJ. Use of Mesna to Prevent Ifosfamide-Induced Urotoxicity. Support Care Cancer 1998; 6:144.

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