Mitomycine

Class: Antibiotic

Indications:

_ Treatment of adenocarcinoma of stomach or pancreas
_Bladder cancer, nonmuscle invasive (unlabeled)
_Anal carcinoma (unlabeled use)
Available dosage form in the hospital:10 MG , 20 MG VIAL

Trade name : Mutamycin

Doses: Details concerning dosing in combination regimens should also be consulted.

-Stomach or pancreas adenocarcinoma (manufacturer's labeling): I.V.: 20 mg/m^2 every 6-8 weeks

-Anal carcinoma (unlabeled use): I.V.: 10 mg/m^2 as an I.V. bolus on days 1 and 29 (maximum: 20 mg/dose) in combination with fluorouracil and radiation therapy

-Bladder cancer, nonmuscle invasive (unlabeled use/route): Intravesicular instillation:

-Low risk of recurrence (uncomplicated): 40 mg as a single dose postoperatively; retain in bladder for 2 hours

-Increased risk of recurrence: 20 mg weekly for 6 weeks, followed by 20 mg monthly for 3 years; retain in bladder for 1-2 hours

Geriatric
Refer to adult dosing.

Renal Impairment:

The manufacturer's labeling states to avoid use in patients with serum creatine>1.7 mg/dL, but no dosage adjustments are provided. The following adjustments have been used by some clinicians (Aronoff, 2007): Adults:

- Cl_{cr} <10 mL/minute: Administer 75% of dose.
- Continuous ambulatory peritoneal dialysis (CAPD): Administer 75% of dose.

Hepatic Impairment:
No dosage adjustment provided in manufacturer's labeling (has not been studied).

Dosing: Obesity
ASCO Guidelines for appropriate chemotherapy dosing in obese adults with cancer: Utilize patient's actual body weight (full weight) for calculation of body surface area- or weight-based dosing, particularly when the intent of therapy is curative; manage regimen-related toxicities in the same manner as for nonobese patients; if a dose reduction is utilized due to toxicity, consider resumption of full weight-based dosing with subsequent cycles, especially if cause of toxicity (eg, hepatic or renal impairment) is resolved (Griggs, 2012).

Dosing: Adjustment for Toxicity

- Leukocytes 2000 to <3000/mm^3: Hold therapy until leukocyte count ≥4000/mm^3; reduce to 70% of dose in subsequent cycles

- Leukocytes <2000/mm^3: Hold therapy until leukocyte count ≥4000/mm^3; reduce to 50% of dose in subsequent cycles
- Platelets 25,000 to <75,000/mm^3: Hold therapy until platelets ≥100,000/mm^3; reduce to 70% of dose in subsequent cycles
- Platelets <25,000/mm^3: Hold therapy until platelets ≥100,000 mm^3; reduce to 50% of dose in subsequent cycles

Common side effect :

>10%:

Central nervous system: Fever (14%)

Gastrointestinal: Nausea, vomiting and anorexia (14%)

Hematologic: Myelosuppression (64%; onset: 4 weeks; recovery: 8-10 weeks)

Miscellaneous: Thrombotic thrombocytopenic purpura (TTP)/hemolytic uremic syndrome (HUS) (≤15%)

1% to 10%:

Dermatologic: Alopecia, mucous membrane toxicity (4%)

Gastrointestinal: Stomatitis (4%)

Renal: Serum creatinine increased (2%)

Pregnancy category : Teratogenic effects have been observed in animal reproduction studies