THOMSON REUTERS™

PRUSSIAN BLUE

MICROMEDEX® DRUGPOINTS SUMMARY

DrugPoints Summaries provide information on dosage, pharmacokinetics, cautions, interactions, clinical applications, adverse effects, comparative efficacy, and drug of choice information.

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Information valid as of March 17, 2011.

Prussian blue

DrugPoint® Summary

DOSING & INDICATIONS

Adult Dosing

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- Toxic effect of cesium, Radioactive: 3 g ORALLY 3 times daily, minimum of 30 days; after internal radioactivity is substantially reduced, may reduce dose to 1 to 2 g ORALLY 3 times daily to improve gastrointestinal tolerance [1]
- Toxic effect of cesium, Radioactive: [1]
- Toxic effect of thallium: 3 g ORALLY 3 times daily [1]
- Toxic effect of thallium: [1]

Pediatric Dosing

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- Toxic effect of cesium, Radioactive: 12 y of age and older, 3 g ORALLY 3 times daily, minimum of 30 days; after internal radioactivity is substantially reduced, may reduce dose to 1 to 2 g ORALLY 3 times daily to improve gastrointestinal tolerance [1]
- Toxic effect of cesium, Radioactive: 2 to 12 y of age, 1 g ORALLY 3 times daily, mimimum of 30 days [1]
- Toxic effect of thallium: 12 y of age and older, 3 g ORALLY 3 times daily [1]
- Toxic effect of thallium: 2 to 12 y of age, 1 g ORALLY 3 times daily [1]

FDA-Labeled Indications

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- Toxic effect of cesium, Radioactive
- Toxic effect of thallium

CONTRAINDICATIONS/WARNINGS

Contraindications

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- none

Precautions

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- impaired intestinal motility
- preexisting electrolyte imbalances

Pregnancy Category

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- C[14](FDA)

Breast Feeding

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- Thomson: Infant risk is minimal.

ADVERSE EFFECTS

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Common

- **Endocrine metabolic:** Hypokalemia
- **Gastrointestinal:** Constipation, High-fiber laxatives and/or diet advised

IV COMPATIBILITY (SINGLE)

Solution

Common Solutions

Common Solutions

D5W (D5W-Dextrose 5%)	Not Tested
D10W (Dextrose 10%)	Not Tested
D5LR (Dextrose 5% in lactated Ringers)	Not Tested
D5NS (Dextrose 5% in sodium chloride 0.9%)	Not Tested

D5W - 1/2 NS (Dextrose 5% in sodium chloride 0.45%)	–	Not Tested
NS (Normal saline- Sodium chloride 0.9%)	–	Not Tested
1/2 NS (Sodium chloride 0.45%)	–	Not Tested

Other Solutions

No other drug-solution combinations have been tested.

Y-Site

"Not Tested"

Admixture

"Not Tested"

Syringe

"Not Tested"

TPN/TNA

TPN (2-in-1)

There are no TPN Results.

TNA (3-in-1)

There are no TNA Results.

Definitions

Compatible IV compatibility is compatible.	Incompatible IV compatibility is incompatible.	Caution: Variable Caution: IV compatibility is variable.	Uncertain IV compatibility is uncertain.	Not Tested IV compatibility is not tested.

NAME INFO

US Trade Names

- Radiogardase

All Trade Names

Class

View Detailed information in DRUGDEX

- Pigmentation Agent

Regulatory Status

- RX

Generic Availability

- No

MECHANISM OF ACTION/PHARMACOKINETICS

Mechanism of Action

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- Oral-Local: Chelating agent—Prussian blue has a strong affinity for thallium and cesium [2]and binds with them in the intestine [2][3][4][5][6][7][8][9]to form a complex, [10][2][11][5] which is eliminated via the feces. [2][12][3][11][5]

Pharmacokinetics

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Absorption

- Oral-Local: Poorly absorbed [2][12][11][4][6][7]

Metabolism

- Oral-Local: Metabolite: cyanoferrate 7% [11]

Excretion

- Oral-Local: Prussian blue—Fecal [10][2][12][11][13][6]
- Cyanoferrate—Renal [11]

ADMINISTRATION/MONITORING

Administration

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Oral

- capsules may be opened and mixed with bland foods or liquids [1]
- administration with food is preferred to stimulate the excretion of cesium or thallium [1]

Monitoring

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- reduction in signs and symptoms of thallium/cesium toxicity and/or radiation poisoning
- CBC and electrolytes; weekly[1]
- constipation [1]
- systemic radiation levels
- radioactivity counts in urine and fecal samples; recorded weekly [1]

HOW SUPPLIED

Radiogardase

- Oral Capsule: 0.5 GM

CLINICAL TEACHING

- Advise patient that stools may be blue-tinted during therapy.

- Instruct patient on proper handling and disposal of bodily fluids/waste during drug therapy to minimize radiation exposure to others.
- Whenever possible, patient should use a toilet instead of a urinal. Flush several times after each use [1].
- This drug may cause constipation.
- Patient should take drug with food to stimulate the excretion of cesium or thallium.

REFERENCES

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