

BC Cancer Inpatient Protocol Summary for Oxaliplatin Desensitization

Protocol Code

SCOXRX

Tumour Group

Supportive Care

ELIGIBILITY¹

- **The practice of rechallenging after severe life-threatening reactions is usually discouraged, although desensitization protocols have been successful in some patients. The benefit of continued treatment must be weighed by the treating physician against the risk of severe or life threatening reactions occurring with challenge.**
- Infusion reactions with features of anaphylaxis
- Recurrent severe infusion related reactions despite slower rates of infusion and premedications
 - Most common signs and symptoms of infusion reactions are:
 - Flushing, itching, various types of skin rashes
 - Alterations in heart rate and blood pressure, dizziness and/or syncope
 - Dyspnea or chest discomfort, throat tightening, hypoxia
 - Back or abdominal pain
 - Fever and/or shaking chills
 - Nausea, vomiting, and/or diarrhea
 - Seizure

CAUTIONS¹

- Desensitization is contraindicated in patients with a history of oxaliplatin-induced blistering or exfoliative dermatitis, Stevens-Johnson syndrome, or toxic epidermal necrolysis
- Desensitization is not effective in preventing recurrence of other idiosyncratic immunologic reactions (e.g., serum sickness, hemolytic anemia, drug fever)
- SCOXRX is an Inpatient Protocol. Desensitization should be carried out under close medical supervision by experienced individuals familiar with emergency management of anaphylaxis. A Hypersensitivity Reaction Tray and the SCDRUGRX protocol should be available.

PREMEDICATIONS

Starting 24 to 48 hours before oxaliplatin infusion:

- dexamethasone 20 mg PO every 6 hours
 - ranitidine 150 mg PO every 8 hours
 - diphenhydramine 50 mg PO every 6 hours
- Optional: salbutamol MDI 2 puffs every 6 hours prn

For patients with flushing during initial hypersensitivity reactions ^{1,2}:

- ASA 325 mg PO
 - at bedtime the night before oxaliplatin
 - on the morning of and evening after oxaliplatin
- montelukast 10 mg PO
 - at bedtime the night before oxaliplatin
 - on the morning of and evening after oxaliplatin

Immediately before oxaliplatin infusion:

- dexamethasone 20 mg IV starting 45 minutes pre-oxaliplatin
- famotidine 20 mg IV starting 30 minutes pre-oxaliplatin
- diphenhydramine 50 mg IV starting 30 minutes pre-oxaliplatin
- Optional on the morning of and evening after oxaliplatin:
 - LORazepam 0.5 mg IV
 - ondansetron 8 mg IV

DESENSITIZATION:

- **See original Gastrointestinal Protocol Summary for bloodwork parameters and dose of oxaliplatin.**
- Prepare calculated total oxaliplatin dose in **500 mL D5W (= Solution A)**.
- Administer in a series of dilutions and rates as below. **Must administer the 5 bags in sequence:**

Drug	Dose	BC Cancer Administration Guidelines
Bag #1 (0.01% dose)	0.05 mL of Solution A	IV in 100 mL D5W over 1 hour
Bag #2 (0.1% dose)	If tolerated, 0.5 mL of Solution A	IV in 100 mL D5W over 1 hour
Bag #3 (1% dose)	If tolerated, 5 mL of Solution A	IV in 100 mL D5W over 1 hour
Bag #4 (10% dose)	If tolerated, 50 mL of Solution A	IV in 100 mL D5W over 1 hour
Bag #5	If tolerated, administer the remaining solution from Solution A	IV over 2 to 4 hours (over 4 hours for first desensitization)

References:

1. Castells MC, Matulonis UA. Infusion reactions to systemic chemotherapy. UpToDate. November 2015. Available at: www.uptodate.com. Accessed on: 20 January 2016.
2. Breslow RG, Caiado J, Castells MC. Acetylsalicylic acid and montelukast block mast cell mediator-related symptoms during rapid desensitization. *Ann Allergy Asthma Immunol.* 2009;102:155-60.
3. Gammon D, Bhargava P, McCormick MJ. Hypersensitivity reactions to oxaliplatin and the application of a desensitization protocol. *Oncologist* 2004;9:546-9.
4. Focus on: Oxaliplatin Hypersensitivity Reactions. *Systemic Therapy Update.* Volume 11. No 11 Nov 2008.