BC Cancer Protocol Summary for Management of Hypersensitivity Reactions to Chemotherapeutic Agents

Protocol Code: SCDRUGRX

Tumour Group: Supportive Care

Definition of Hypersensitivity Reaction
An adverse reaction occurring generally within seconds or minutes of drug administration with features of an anaphylactic (antibody mediated) or anaphylactoid (not antibody mediated) reaction. Reactions may include urticaria, dyspnea, bronchospasm, angioedema, hypotension, tachycardia, back or abdominal discomfort/pain or occasionally cardiorespiratory arrest.

TREATMENT
1. General Management: It is recommended that patients are assessed by a physician if having a reaction requiring the administration of medications or as patient condition warrants.

<table>
<thead>
<tr>
<th>Moderate</th>
<th>Severe (potentially life threatening)</th>
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<tbody>
<tr>
<td>e.g., moderate rash, flushing, pruritis, mild dyspnea, chest discomfort, abdominal discomfort, lower back pain, mild hypotension</td>
<td>i.e., to be used if reaction escalates (e.g., one or more of respiratory distress requiring treatment, angioedema, hypotension requiring therapy)</td>
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</tbody>
</table>

- Stop infusion.
- Give diphenhydrAMINE 25-50 mg IV push and/or hydrocortisone sodium succinate 100 mg IV push per physician orders.
- After recovery of symptoms, resume infusion at a rate per protocol. If no direction in protocol consider resuming at 25% of previous rate for at least 5 minutes, 50% for a least 5 minutes, 75% for at least 5 minutes and then full rate if no reaction.
- Depending on severity of reaction, may increase to full rate at physician's discretion.
- Premedicate for all future cycles (see Prophylaxis section). Initiate infusion at slower rate (consider 50% of full rate) per physician orders.

- Stop infusion and do not restart.
- Give epinephrine 0.5 mg* intramuscularly STAT. Repeat epinephrine at 5 minute intervals twice more as needed (ie if breathing becomes more laboured or level of consciousness decreases) Note: Administer a maximum of three doses of epinephrine
- Give diphenhydrAMINE 50 mg IV push and/or hydrocortisone sodium succinate 100 mg IV push per physician orders.
- Oxygen if needed for dyspnea (see below).
- Normal saline if needed for hypotension (see below).
- Bronchodilators if indicated (see below).
- Either permanently discontinue the drug that caused the reaction or attempt to retreat on another occasion after premedication (see prophylaxis section) and using slower infusion rate indicated under moderate section.
- Initiate Emergency Response System appropriate for facility if patient condition warrant.

*Note: epinephrine 1:1,000 = 1 mg/mL and epinephrine 1:10,000 = 1 mg/10 mL

BC Cancer Protocol Summary SCDRUGRX
Activated: 1 Dec 2005 Revised: 1 Jan 2011 (TALLman lettering, institutional name)

Warning: The information contained in these documents are a statement of consensus of BC Cancer professionals regarding their views of currently accepted approaches to treatment. Any clinician seeking to apply or consult these documents is expected to use independent medical judgement in the context of individual clinical circumstances to determine any patient’s care or treatment. Use of these documents is at your own risk and is subject to BC Cancer’s terms of use available at www.bccancer.bc.ca/terms-of-use.
2. **Hypotension**: Administer normal saline to maintain blood pressure per physician orders (e.g., 300 mL/h).

3. **Dyspnea**: Administer oxygen to maintain oxygen saturations per physician orders and/or provide patient comfort.

4. **Bronchospasm**:

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th><strong>BC Cancer Administration Guideline</strong></th>
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<tbody>
<tr>
<td>salbutamol</td>
<td>5 mg</td>
<td>by nebuliser per facility standard</td>
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<tr>
<td>Add if severe bronchospasm:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ipratropium bromide (ATROVENT®)</td>
<td>0.5 mg</td>
<td>by nebuliser per facility standard</td>
</tr>
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**PROPHYLAXIS**

- Determine if the drug or route is essential or if an alternative can be used (e.g., substitute **DOCETaxel** for **PACLitaxel**, **CISplatin** for **CARBOplatin**, oral etoposide for parenteral etoposide).
- If the drug or route is essential, pre-treat according to allergic prophylaxis protocol by which patient is being treated.
- If no protocol available consider the following:

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<tr>
<td>dexamethasone</td>
<td>20 mg given 12 h and 6 h pre-chemo AND/OR</td>
<td>PO</td>
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<tr>
<td>diphenhydrAMINE</td>
<td>50 mg given 30 min pre-chemo</td>
<td>IV in 50 mL NS over 20 min (compatible 3 h when mixed in bag)</td>
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<tr>
<td>ranitidine</td>
<td>50 mg given 30 min pre-chemo</td>
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**References**:


