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<th>Product Stability</th>
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<tr>
<td><strong>AGS-16C3F</strong>&lt;br&gt;30 mg (Astellas) (F)(PFL) do not shake no preservative&lt;sup&gt;1&lt;/sup&gt;</td>
<td>5.1 mL SWI&lt;sup&gt;1&lt;/sup&gt; swirl gently; do NOT shake&lt;sup&gt;1&lt;/sup&gt; allow foam to clear before proceeding&lt;sup&gt;1&lt;/sup&gt; record time of reconstitution</td>
<td>6 mg/mL&lt;sup&gt;1&lt;/sup&gt;</td>
<td>discard unused portion&lt;sup&gt;1&lt;/sup&gt; (PFL)&lt;sup&gt;1&lt;/sup&gt;</td>
<td>≥ 0.3 mg/mL&lt;sup&gt;1&lt;/sup&gt; 100 mL D5W&lt;sup&gt;2,3&lt;/sup&gt; mix by gentle inversion&lt;sup&gt;1&lt;/sup&gt;</td>
<td>complete administration within 6 h RT of reconstitution&lt;sup&gt;1&lt;/sup&gt; <strong>(PFL)</strong></td>
<td>- unopened vials may be kept at RT for up to 4h prior to use if protected from light&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Aldesleukin</strong>&lt;br&gt;22 million units (1.3 mg) (Novartis) (F)(PFL) no preservative&lt;sup&gt;4&lt;/sup&gt;</td>
<td>1.2 mL SWI&lt;sup&gt;4,5&lt;/sup&gt; direct diluent against side of vial during reconstitution&lt;sup&gt;4&lt;/sup&gt; do NOT shake&lt;sup&gt;4&lt;/sup&gt;</td>
<td>18 million unit/mL (1.1 mg/mL)&lt;sup&gt;4,5&lt;/sup&gt;</td>
<td>48 h F&lt;sup&gt;4&lt;/sup&gt;</td>
<td>50 mL D5W&lt;sup&gt;4&lt;/sup&gt; 30 – 70 mcg/mL&lt;sup&gt;4&lt;/sup&gt; Less than 30 mcg/mL: dilute in D5W containing human albumin 0.1%&lt;sup&gt;5&lt;/sup&gt;</td>
<td>48 h F&lt;sup&gt;4&lt;/sup&gt;</td>
<td>- do not use in-line filter&lt;sup&gt;4,5&lt;/sup&gt; - avoid bacteriostatic water for injection or NS due to increased aggregation&lt;sup&gt;4&lt;/sup&gt;</td>
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SC syringe<sup>6,7</sup> 14 d F<sup>7</sup> **(PFL)**
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<tr>
<td>Alemtuzumab 30 mg/mL (Genzyme/Bayer) (F)(PFL) do not shake no preservative</td>
<td>N/A</td>
<td>filter NOT required</td>
<td>discard unused portion</td>
<td>SC syringe</td>
<td>discard at the end of the day F, RT</td>
<td>- do NOT shake</td>
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<tr>
<td></td>
<td></td>
<td>30 mg/mL</td>
<td></td>
<td></td>
<td>100 mL NS, D5W</td>
<td><strong>(PFL)</strong></td>
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<tr>
<td>Amsacrine 75 mg/1.5 mL (Erfa Canada) (RT) no preservative</td>
<td>glass syringes preferred during reconstitution; max. time in plastic syringe: 15 min 13.5 mL supplied diluent (L-lactic acid) transfer 1.5mL from ampoule into the diluent vial</td>
<td>5 mg/mL</td>
<td>24 h RT (<strong>PFL)</strong></td>
<td>500 mL D5W (plastic or glass container)</td>
<td>7 d F, 48 h RT</td>
<td>- contains DMA***</td>
</tr>
<tr>
<td>Arsenic trioxide 10 mg/10 mL (Lundbeck/Teva) (RT) no preservative</td>
<td>N/A</td>
<td>1 mg/mL (use filter needle to withdraw from ampoule)</td>
<td>discard unused portion</td>
<td>100-250 mL NS, D5W</td>
<td>24 h RT, 48 h</td>
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## BC CANCER CHEMOTHERAPY PREPARATION AND STABILITY CHART

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<tr>
<td>Asparaginase (asparaginase E. coli) 10,000 units (CGF/EUSA) (F) no preservative&lt;sup&gt;16&lt;/sup&gt;</td>
<td>4 mL SW&lt;sup&gt;16&lt;/sup&gt; do NOT shake; rotate gently&lt;sup&gt;16&lt;/sup&gt;</td>
<td>2500 units/mL</td>
<td>72 h F, 3 h RT&lt;sup&gt;16&lt;/sup&gt;</td>
<td>syringe</td>
<td>complete administration within 72 h F, 3 h RT&lt;sup&gt;16&lt;/sup&gt;</td>
<td>50-250 mL NS or D5W&lt;sup&gt;17&lt;/sup&gt; complete administration within 3 h RT&lt;sup&gt;16,18&lt;/sup&gt;</td>
</tr>
<tr>
<td>Erwinia asparaginase (asparaginase <em>Erwinia chrysanthemi</em>) 10,000 units (CGF/EUSA) (F) no preservative&lt;sup&gt;19&lt;/sup&gt;</td>
<td>1-2 mL NS&lt;sup&gt;19&lt;/sup&gt; do NOT shake; mix gently to minimize bubbles and contact with stopper&lt;sup&gt;19&lt;/sup&gt;</td>
<td>10 000-5000 units/mL (use 5 micron filter needle to withdraw from vial)&lt;sup&gt;20&lt;/sup&gt;</td>
<td>15 min RT&lt;sup&gt;19&lt;/sup&gt;</td>
<td>glass or polypropylene syringe&lt;sup&gt;19&lt;/sup&gt;</td>
<td>4 h RT&lt;sup&gt;19&lt;/sup&gt;</td>
<td>- contact with the rubber stopper may denature the reconstituted drug, creating filaments of insoluble material&lt;sup&gt;19&lt;/sup&gt; - discard if particulate matter is present&lt;sup&gt;20&lt;/sup&gt; - do not use sterile water for reconstitution as the resulting product is not isotonic&lt;sup&gt;19&lt;/sup&gt;</td>
</tr>
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Activation Date: 2 March 2006

Revised Date: 1 September 2019
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<tr>
<td>PEG-asparaginase - see pegaspargase in L-Z chart (pegylated asparaginase E. coli)</td>
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<tr>
<td>Atezolizumab 1200 mg/20 mL (Hoffman-La Roche) (F)(PFL) do not shake no preservative</td>
<td>N/A</td>
<td>60 mg/mL&lt;sup&gt;21&lt;/sup&gt;</td>
<td>discard unused portion&lt;sup&gt;21&lt;/sup&gt;</td>
<td>250 mL NS only&lt;sup&gt;22&lt;/sup&gt; mix by slow inversion&lt;sup&gt;22&lt;/sup&gt; complete administration within 24 h F, 8 h RT&lt;sup&gt;21&lt;/sup&gt;</td>
<td>- discard vial if cloudy, discoloured (should be clear to pale yellow), or visible particles&lt;sup&gt;22&lt;/sup&gt; - do NOT shake&lt;sup&gt;22&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Avelumab 200 mg/10 mL (EMD) (F)(PFL) no preservative</td>
<td>N/A</td>
<td>20 mg/mL&lt;sup&gt;23&lt;/sup&gt;</td>
<td>discard unused portion&lt;sup&gt;18&lt;/sup&gt; if refrigerated, bring vial to RT prior to use&lt;sup&gt;23&lt;/sup&gt;</td>
<td>250 mL NS, 0.45% sodium chloride&lt;sup&gt;23&lt;/sup&gt; mix by gentle inversion&lt;sup&gt;23&lt;/sup&gt; complete administration within 24 h F, 8 h RT&lt;sup&gt;23&lt;/sup&gt; if refrigerated, bring bag to RT prior to administration&lt;sup&gt;23&lt;/sup&gt;</td>
<td>- do NOT shake&lt;sup&gt;23&lt;/sup&gt; - use 0.2 micron inline filter to administer&lt;sup&gt;23&lt;/sup&gt;</td>
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<tr>
<td>azaCITIDine 100 mg (Celgene) (RT) no preservative</td>
<td>4 mL SWI&lt;sup&gt;24&lt;/sup&gt; shake vigorously&lt;sup&gt;24&lt;/sup&gt; record time of reconstitution</td>
<td>25 mg/mL&lt;sup&gt;24&lt;/sup&gt;</td>
<td>45 min RT, 8 h&lt;sub&gt;F&lt;/sub&gt;&lt;sup&gt;24&lt;/sup&gt;</td>
<td>SC syringe&lt;sup&gt;24&lt;/sup&gt;</td>
<td>45 min RT (including preparation time), 8 h&lt;sub&gt;F&lt;/sub&gt;&lt;sup&gt;24&lt;/sup&gt; refrigerate syringe immediately after preparation if not to be used within 45 minutes of reconstitution&lt;sup&gt;25&lt;/sup&gt; - discard if contains large particles&lt;sup&gt;24&lt;/sup&gt; - re-suspend syringe contents before injection by vigorously rolling syringe between palms&lt;sup&gt;24&lt;/sup&gt; - if cold diluent reconstitution is used to extend stability, minimize exposure to RT; ensure proper refrigeration of diluent, reconstituted vial, and final product</td>
<td></td>
</tr>
<tr>
<td>cold diluent reconstitution: 4 mL SWI at 2-8°C&lt;sup&gt;26,27&lt;/sup&gt;</td>
<td>25 mg/mL&lt;sup&gt;24&lt;/sup&gt;</td>
<td>22 h&lt;sub&gt;F&lt;/sub&gt;&lt;sup&gt;26,27&lt;/sup&gt;</td>
<td>22 h&lt;sub&gt;F&lt;/sub&gt;&lt;sup&gt;26,27&lt;/sup&gt;</td>
<td>Refrigerated syringes&lt;sup&gt;24&lt;/sup&gt;: • allow up to 30 min prior to administration to reach a temperature of ~20-25°C • discard syringe if time elapsed at RT is greater than 30 min</td>
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<tr>
<td>azaCITIDine 100 mg (Dr. Reddy's) (RT) no preservative</td>
<td>4 mL SWI&lt;sup&gt;28&lt;/sup&gt; shake vigorously&lt;sup&gt;28&lt;/sup&gt;</td>
<td>25 mg/mL&lt;sup&gt;28&lt;/sup&gt;</td>
<td>45 min RT, 8 h F&lt;sup&gt;28&lt;/sup&gt;</td>
<td>SC syringe&lt;sup&gt;28&lt;/sup&gt;</td>
<td>45 min RT (including preparation time), 8 h F&lt;sup&gt;28&lt;/sup&gt; refrigerate syringe immediately after preparation if not to be used within 45 minutes of reconstitution&lt;sup&gt;28&lt;/sup&gt; - do not filter&lt;sup&gt;28&lt;/sup&gt; - discard if contains large particles&lt;sup&gt;28&lt;/sup&gt; - re-suspend syringe contents before injection by vigorously rolling syringe between palms&lt;sup&gt;28&lt;/sup&gt;</td>
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**Refrigerated syringes<sup>28</sup>:**
- allow up to 30 min prior to administration to reach a temperature of approximately 20-25°C
- discard syringe if time elapsed at RT is greater than 30 min
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<td><strong>BCG (Tice substrain)</strong> intravesical 50 mg = 1 to 8 x 10⁸ CFU (Merck Canada) (F)(PFL) no preservative²⁹</td>
<td>1 mL preservative-free NS²⁹ allow to stand for a few minutes, then gently swirl to suspend²⁹ record time of reconstitution</td>
<td>1 to 8 x 10⁸ CFU/vial²⁹</td>
<td>2 h F²⁹ <strong>(PFL)²⁹</strong></td>
<td>transfer from vial to 60 mL syringe, rinse vial with another 1 mL NS; add rinse to same 60 mL syringe and qs to 50 mL with NS²⁹ if a closed system transfer device is used: transfer from vial to 60 mL syringe and qs to 50 mL with NS; do NOT rinse vial²⁹</td>
<td>use within 2 h F of reconstitution²⁹,³⁰ <strong>(PFL)²⁹</strong></td>
<td>- auxiliary info: biohazard³⁰ - do NOT filter²⁹ - do NOT shake²⁹</td>
</tr>
<tr>
<td><strong>BCG (Tice substrain)</strong> intravesical 50 mg = 1 to 8 x 10⁸ CFU (Merck USA) (F)(PFL) no preservative³¹</td>
<td>1 mL preservative-free NS³¹ allow to stand for a few minutes, then gently swirl to suspend³¹ record time of reconstitution</td>
<td>1 to 8 x 10⁸ CFU/vial³¹</td>
<td>2 h F³¹ <strong>(PFL)³¹</strong></td>
<td>transfer from vial to 60 mL syringe and qs to 50 mL with NS³¹</td>
<td>use within 2 h F of reconstitution³⁰,³¹ <strong>(PFL)³¹</strong></td>
<td>- auxiliary info: biohazard³⁰ - do NOT filter³¹ - do NOT shake³¹</td>
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<tr>
<td>BCG intravesical 81 mg (Sanofi Pasteur) (F)(PFL) preservative</td>
<td>do NOT shake; roll to reconstitute&lt;sup&gt;32&lt;/sup&gt; 3 mL supplied diluent&lt;sup&gt;32&lt;/sup&gt; record time of reconstitution</td>
<td>10.5 ± 8.7×10&lt;sup&gt;8&lt;/sup&gt; CFU/vial (Connaught strain)&lt;sup&gt;32&lt;/sup&gt;</td>
<td>2 h F, RT&lt;sup&gt;32&lt;/sup&gt;</td>
<td>50 mL NS&lt;sup&gt;32&lt;/sup&gt;</td>
<td>2 h F or RT after reconstitution&lt;sup&gt;32&lt;/sup&gt; **(PFL)&lt;sup&gt;32&lt;/sup&gt;</td>
<td>- auxiliary info: biohazard&lt;sup&gt;18&lt;/sup&gt;</td>
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<tr>
<td>BCG intravesical 81 mg (Sanofi Pasteur) (F)(PFL) preservative</td>
<td>do NOT shake; roll to reconstitute&lt;sup&gt;32&lt;/sup&gt; 3 mL supplied diluent&lt;sup&gt;32&lt;/sup&gt; record time of reconstitution</td>
<td>10.5 ± 8.7×10&lt;sup&gt;8&lt;/sup&gt; CFU/vial (Connaught strain)&lt;sup&gt;32&lt;/sup&gt;</td>
<td>2 h F, RT&lt;sup&gt;32&lt;/sup&gt;</td>
<td>50 mL NS&lt;sup&gt;32&lt;/sup&gt;</td>
<td>2 h F or RT after reconstitution&lt;sup&gt;32&lt;/sup&gt; **(PFL)&lt;sup&gt;32&lt;/sup&gt;</td>
<td>- auxiliary info: biohazard&lt;sup&gt;18&lt;/sup&gt;</td>
</tr>
<tr>
<td>Belinostat 500 mg (Spectrum) (RT) no preservative</td>
<td>9 mL SWI&lt;sup&gt;33&lt;/sup&gt;</td>
<td>50 mg/mL&lt;sup&gt;33&lt;/sup&gt;</td>
<td>12 h RT&lt;sup&gt;33&lt;/sup&gt;</td>
<td>250 mL NS&lt;sup&gt;33&lt;/sup&gt;</td>
<td>complete administration within 36 h RT&lt;sup&gt;33&lt;/sup&gt;</td>
<td>- use 0.22 micron inline filter to administer&lt;sup&gt;33&lt;/sup&gt;</td>
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<td>Belinostat 500 mg (Spectrum) (RT) no preservative</td>
<td>9 mL SWI&lt;sup&gt;33&lt;/sup&gt;</td>
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<td>250 mL NS&lt;sup&gt;33&lt;/sup&gt;</td>
<td>complete administration within 36 h RT&lt;sup&gt;33&lt;/sup&gt;</td>
<td>- use 0.22 micron inline filter to administer&lt;sup&gt;33&lt;/sup&gt;</td>
</tr>
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<td>Bendamustine 25 mg 100 mg (Lundbeck/Teva) (RT,F)(PFL) no preservative</td>
<td>25 mg vial: add 5 mL SWI&lt;sup&gt;34&lt;/sup&gt; 100 mg vial: add 20 mL SW&lt;sup&gt;34&lt;/sup&gt; shake well; dissolves completely in 5 minutes&lt;sup&gt;34&lt;/sup&gt;</td>
<td>5 mg/mL&lt;sup&gt;34&lt;/sup&gt;</td>
<td>30 minutes&lt;sup&gt;34&lt;/sup&gt;</td>
<td>0.2-0.6 mg/mL NS, D2.5-½NS&lt;sup&gt;34&lt;/sup&gt; 250* - 500 mL&lt;sup&gt;34&lt;/sup&gt;</td>
<td>complete administration within 24 h F, 3 h RT&lt;sup&gt;35&lt;/sup&gt;</td>
<td></td>
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<tr>
<td>Bendamustine 25 mg 100 mg (Lundbeck/Teva) (RT,F)(PFL) no preservative</td>
<td>25 mg vial: add 5 mL SWI&lt;sup&gt;34&lt;/sup&gt; 100 mg vial: add 20 mL SW&lt;sup&gt;34&lt;/sup&gt; shake well; dissolves completely in 5 minutes&lt;sup&gt;34&lt;/sup&gt;</td>
<td>5 mg/mL&lt;sup&gt;34&lt;/sup&gt;</td>
<td>30 minutes&lt;sup&gt;34&lt;/sup&gt;</td>
<td>0.2-0.6 mg/mL NS, D2.5-½NS&lt;sup&gt;34&lt;/sup&gt; 250* - 500 mL&lt;sup&gt;34&lt;/sup&gt;</td>
<td>complete administration within 24 h F, 3 h RT&lt;sup&gt;35&lt;/sup&gt;</td>
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| **Bevacizumab**  
100 mg/4 mL  
400 mg/16 mL  
(Roche)  
(F)(PFL)  
do not shake  
no preservative | N/A | 25 mg/mL<sup>36</sup> | discard unused portion<sup>36</sup> | 1.4-16.5 mg/mL<sup>37</sup> 100-250 mL <strong>NS only</strong><sup>36,37</sup> | 48 h <strong>F, RT</strong><sup>36-38</sup> | - do NOT shake<sup>36</sup> |
| **Bleomycin**  
15 units (NB: dose in units only)  
(Fresenius Kabi)  
(F)(PFL)  
o no preservative | 6 mL* NS<sup>39</sup> | 2.5 units/mL | 48 h <strong>F</strong><sup>39</sup> | 50 mL* NS<sup>39</sup> | 24 h <strong>RT</strong><sup>39</sup> |
| **Bleomycin**  
15 units (NB: dose in units only)  
(Pfizer/Hospira)  
(F)(PFL)  
o no preservative | 6 mL* <strong>NS, SW</strong><sup>40</sup> | 2.5 units/mL | 48 h F, 24 h <strong>RT</strong><sup>40</sup> | 50 mL* NS(14216)} | 4 h <strong>RT</strong><sup>41</sup> |
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<tr>
<td><strong>Blinatumomab</strong>&lt;br&gt;38.5 mcg&lt;br&gt;(Amgen)&lt;br&gt;(F)(PFL)&lt;br&gt;do not shake no preservative&lt;sup&gt;42&lt;/sup&gt;</td>
<td>3 mL SW&lt;sup&gt;42&lt;/sup&gt;&lt;br&gt;do NOT use supplied IV solution stabilizer to reconstitute vials&lt;sup&gt;42&lt;/sup&gt;&lt;br&gt;direct diluent against side of vial during reconstitution&lt;sup&gt;42&lt;/sup&gt;&lt;br&gt;gently swirl to avoid excess foaming&lt;sup&gt;42&lt;/sup&gt;</td>
<td>12.5 mcg/mL&lt;sup&gt;42&lt;/sup&gt;</td>
<td>24 h F, 4 h RT&lt;sup&gt;42&lt;/sup&gt;</td>
<td>250 mL NS&lt;sup&gt;42&lt;/sup&gt;&lt;br&gt;add supplied IV solution stabilizer to NS bag and gently mix to avoid foaming&lt;sup&gt;42&lt;/sup&gt;&lt;br&gt;add reconstituted drug to bag following addition of IV solution stabilizer&lt;sup&gt;42&lt;/sup&gt;</td>
<td>complete administration within 10 d F, 96 h RT&lt;sup&gt;42&lt;/sup&gt;</td>
<td>- use non-DEHP bag and IV administration set&lt;sup&gt;42&lt;/sup&gt;&lt;br&gt;- use 0.2 or 0.22 micron in-line filter&lt;sup&gt;42&lt;/sup&gt;&lt;br&gt;- prime lines with blinatumomab solution; do NOT use NS</td>
</tr>
<tr>
<td><strong>Bortezomib</strong>&lt;br&gt;SC injection&lt;br&gt;3.5 mg&lt;br&gt;(Actavis)&lt;br&gt;(RT)(PFL)&lt;br&gt;no preservative&lt;sup&gt;43&lt;/sup&gt;</td>
<td>1.4 mL NS&lt;sup&gt;43&lt;/sup&gt;</td>
<td>2.5 mg/mL&lt;sup&gt;43&lt;/sup&gt;</td>
<td>2 d F, RT&lt;sup&gt;44,45&lt;/sup&gt;</td>
<td>SC syringe&lt;sup&gt;43&lt;/sup&gt;</td>
<td>14 d F, 48 h RT&lt;sup&gt;44,45&lt;/sup&gt;</td>
<td>- auxiliary info: WARNING: SUBCUTANEOUS use only. Fatal if given by other routes.</td>
</tr>
<tr>
<td><strong>Bortezomib</strong>&lt;br&gt;3.5 mg&lt;br&gt;(Actavis)&lt;br&gt;(RT)(PFL)&lt;br&gt;no preservative&lt;sup&gt;43&lt;/sup&gt;</td>
<td>3.5 mL NS&lt;sup&gt;43&lt;/sup&gt;</td>
<td>1 mg/mL&lt;sup&gt;43&lt;/sup&gt;</td>
<td>2 d F, RT&lt;sup&gt;44,45&lt;/sup&gt;</td>
<td>IV syringe&lt;sup&gt;43&lt;/sup&gt;</td>
<td>14 d F, 48 h RT&lt;sup&gt;44,45&lt;/sup&gt;</td>
<td>- auxiliary info: WARNING: INTRAVENOUS use only. Fatal if given by other routes.</td>
</tr>
<tr>
<td>DRUG &amp; STRENGTH (Storage Prior to Use, Manufacturer, Preservative Status)</td>
<td>Reconstitute With:</td>
<td>To Give:</td>
<td>Vial Stability</td>
<td>Product</td>
<td>Product Stability</td>
<td>Special Precautions/Notes</td>
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<tr>
<td>Bortezomib SC injection 3.5 mg (Apotex) (RT)(PFL) no preservative</td>
<td>1.4 mL NS</td>
<td>2.5 mg/mL</td>
<td>2d F, RT</td>
<td>SC syringe</td>
<td>14 d F, 48 h RT</td>
<td>- auxiliary info: WARNING: SUBCUTANEOUS use only. Fatal if given by other routes.</td>
</tr>
<tr>
<td>Bortezomib 3.5 mg (Apotex) (RT)(PFL) no preservative</td>
<td>3.5 mL NS</td>
<td>1 mg/mL</td>
<td>2d F, RT</td>
<td>IV syringe</td>
<td>14 d F, 48 h RT</td>
<td>- auxiliary info: WARNING: INTRAVENOUS use only. Fatal if given by other routes.</td>
</tr>
<tr>
<td>Bortezomib SC injection 3.5 mg (Janssen) (RT)(PFL) no preservative</td>
<td>1.4 mL NS</td>
<td>2.5 mg/mL</td>
<td>2 d F, RT</td>
<td>SC syringe</td>
<td>14 d F, 48 h RT</td>
<td>- auxiliary info: WARNING: SUBCUTANEOUS use only. Fatal if given by other routes.</td>
</tr>
<tr>
<td>Bortezomib 3.5 mg (Janssen) (RT)(PFL) no preservative</td>
<td>3.5 mL NS</td>
<td>1 mg/mL</td>
<td>2 d F, RT</td>
<td>IV syringe</td>
<td>14 d F, 48 h RT</td>
<td>- auxiliary info: WARNING: INTRAVENOUS use only. Fatal if given by other routes.</td>
</tr>
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<td>DRUG &amp; STRENGTH (Storage Prior to Use, Manufacturer, Preservative Status)</td>
<td>Reconstitute With:</td>
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<td>Vial Stability</td>
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<tr>
<td><strong>Bortezomib</strong>&lt;br&gt;SC injection&lt;br&gt;3.5 mg (Teva) (RT)(PFL) no preservative&lt;sup&gt;49&lt;/sup&gt;</td>
<td>1.4 mL NS&lt;sup&gt;49&lt;/sup&gt;</td>
<td>2.5 mg/mL&lt;sup&gt;49&lt;/sup&gt;</td>
<td>2 d F, RT&lt;sup&gt;44,45&lt;/sup&gt;</td>
<td>SC syringe&lt;sup&gt;49&lt;/sup&gt;</td>
<td>14 d F, 48 h RT&lt;sup&gt;44,45&lt;/sup&gt;</td>
<td>- auxiliary info: WARNING: SUBCUTANEOUS use only. Fatal if given by other routes.</td>
</tr>
<tr>
<td><strong>Bortezomib</strong>&lt;br&gt;3.5 mg (Teva) (RT)(PFL) no preservative&lt;sup&gt;49&lt;/sup&gt;</td>
<td>3.5 mL NS&lt;sup&gt;49&lt;/sup&gt;</td>
<td>1 mg/mL&lt;sup&gt;49&lt;/sup&gt;</td>
<td>2 d F, RT&lt;sup&gt;44,45&lt;/sup&gt;</td>
<td>IV syringe&lt;sup&gt;49&lt;/sup&gt;</td>
<td>14 d F, 48 h RT&lt;sup&gt;44,45&lt;/sup&gt;</td>
<td>- auxiliary info: WARNING: INTRAVENOUS use only. Fatal if given by other routes.</td>
</tr>
<tr>
<td><strong>Brentuximab vedotin</strong>&lt;br&gt;50 mg (GMD/Seattle Genetics) (F)(PFL) no preservative&lt;sup&gt;50&lt;/sup&gt;</td>
<td>10.5 mL SWI&lt;sup&gt;50&lt;/sup&gt; direct diluent against side of vial during reconstitution&lt;sup&gt;50&lt;/sup&gt; do NOT shake&lt;sup&gt;50&lt;/sup&gt;</td>
<td>5 mg/mL&lt;sup&gt;50&lt;/sup&gt;</td>
<td>24 h F&lt;sup&gt;50&lt;/sup&gt;</td>
<td>0.4-1.8 mg/mL in NS, D5W, Lactated Ringer's 100-250 mL&lt;sup&gt;50&lt;/sup&gt;</td>
<td>24 h F&lt;sup&gt;50&lt;/sup&gt;</td>
<td>- solution should be clear to slightly opalescent, colorless, and free of visible particulates&lt;sup&gt;50&lt;/sup&gt;</td>
</tr>
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<td>DRUG &amp; STRENGTH (Storage Prior to Use, Manufacturer, Preservative Status)</td>
<td>Reconstitute With:</td>
<td>To Give:</td>
<td>Vial Stability</td>
<td>Product</td>
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<td>Special Precautions/Notes</td>
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| **Busulfan**  
60 mg/10 mL (PMS)  
(F)  
nom preservative<sup>51</sup> | N/A | 6 mg/mL<sup>51</sup> | discard unused portion<sup>10,51</sup> | NS, D5W (dilute to volume 10 times drug volume to achieve final concentration of ~0.5 mg/mL)<sup>51</sup> | complete administration within 12 h F, 8 h RT<sup>51</sup> | - contains DMA***  
- always add busulfan to diluent to mix; do not add diluent to busulfan<sup>51</sup> |
| **Busulfan**  
60 mg/10 mL (SteriMax)  
(F)  
nom preservative<sup>52</sup> | N/A | 6 mg/mL<sup>52</sup> | discard unused portion<sup>10,52</sup> | NS, D5W (dilute to volume 10 times drug volume to achieve final concentration of ~0.5 mg/mL)<sup>52</sup> | in NS: complete administration within 12 h F, 8 h RT<sup>52</sup>  
in D5W: complete administration within 8 h RT<sup>52</sup> | - contains DMA***  
- always add busulfan to diluent to mix; do not add diluent to busulfan<sup>52</sup> |
<table>
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<th>To Give:</th>
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<th>Product</th>
<th>Product Stability</th>
<th>Special Precautions/Notes</th>
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</thead>
<tbody>
<tr>
<td>Cabazitaxel 60 mg/1.5 mL (sanofi-aventis) (RT) no preservative&lt;sup&gt;53&lt;/sup&gt;</td>
<td>supplied diluent: withdraw entire contents of diluent vial and inject into the concentrate vial&lt;sup&gt;53&lt;/sup&gt; slowly direct diluent against inside of vial to limit foaming&lt;sup&gt;53&lt;/sup&gt; mix by repeated inversions for 45 sec&lt;sup&gt;53&lt;/sup&gt; do NOT shake&lt;sup&gt;53&lt;/sup&gt; let sit for 5 min&lt;sup&gt;53&lt;/sup&gt;</td>
<td>10 mg/mL&lt;sup&gt;53&lt;/sup&gt;</td>
<td>1 h RT&lt;sup&gt;53&lt;/sup&gt;</td>
<td>0.10 – 0.26 mg/mL NS, D5W&lt;sup&gt;53&lt;/sup&gt; (e.g., 250 mL*)</td>
<td>complete administration within 48 h F, 8 h RT&lt;sup&gt;53&lt;/sup&gt;</td>
<td>- concentrate and diluent vials contain overfill&lt;sup&gt;53&lt;/sup&gt; - use non-DEHP bag and tubing&lt;sup&gt;53&lt;/sup&gt; - use 0.22 micron in-line filter&lt;sup&gt;53&lt;/sup&gt; - diluent contains 13% (w/w) ethanol in water&lt;sup&gt;53&lt;/sup&gt; - discard if crystallization occurs&lt;sup&gt;53&lt;/sup&gt;</td>
</tr>
<tr>
<td>CARBOplatin</td>
<td>50 mg/5 mL 150 mg/15 mL 450 mg/45 mL 600 mg/60 mL (Accord) (RT)(PFL) no preservative&lt;sup&gt;54&lt;/sup&gt;</td>
<td>N/A</td>
<td>10 mg/mL&lt;sup&gt;54&lt;/sup&gt;</td>
<td>discard unused portion&lt;sup&gt;54&lt;/sup&gt;</td>
<td>0.5-10 mg/mL&lt;sup&gt;54&lt;/sup&gt; NS, D5W&lt;sup&gt;54&lt;/sup&gt;</td>
<td>24 h F, 8 h RT&lt;sup&gt;54&lt;/sup&gt;</td>
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<td>CARBOplatin</td>
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<td>150 mg/15 mL</td>
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<td>600 mg/60 mL</td>
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<tr>
<td>(Omega)</td>
<td>(Pfizer/Hospira)</td>
<td>(Teva/Novopharm)</td>
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<tr>
<td>(RT)(PFL)</td>
<td>(RT)(PFL)</td>
<td>(RT)(PFL)</td>
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<tr>
<td>no preservative</td>
<td>no preservative</td>
<td>no preservative</td>
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<table>
<thead>
<tr>
<th>Reconstitute With:</th>
<th>10 mg/mL</th>
<th>discard unused portion</th>
<th>0.3-10 mg/mL</th>
<th>48 h F, 24 h RT</th>
<th>- do NOT use aluminum-containing needle, syringe or tubing</th>
</tr>
</thead>
<tbody>
<tr>
<td>To Give:</td>
<td>10 mg/mL</td>
<td>discard unused portion</td>
<td>0.3-10 mg/mL</td>
<td>48 h F</td>
<td>- do NOT use aluminum-containing needle, syringe, or tubing</td>
</tr>
<tr>
<td>Vial Stability</td>
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<tr>
<td>Product</td>
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<tr>
<td>Product Stability</td>
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<td>Special Precautions/Notes</td>
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</table>
### BC CANCER CHEMOTHERAPY PREPARATION AND STABILITY CHART

<table>
<thead>
<tr>
<th>DRUG &amp; STRENGTH (Storage Prior to Use, Manufacturer, Preservative Status)</th>
<th>Reconstitute With:</th>
<th>To Give:</th>
<th>Vial Stability</th>
<th>Product</th>
<th>Product Stability</th>
<th>Special Precautions/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carfilzomib 10 mg 30 mg 60 mg (Amgen) (F)(PFL) no preservative</td>
<td>10 mg: 5 mL SWI (^{62}) 30 mg: 15 mL SWI (^{62}) 60 mg: 29 mL SWI (^{62})</td>
<td>2 mg/mL (^{62})</td>
<td>24 h F, 4 h RT (^{62})</td>
<td>50-100 mL D5W only (^{62}) do NOT dilute in NS (^{62})</td>
<td>complete administration within 24 h F, 4 h RT after reconstitution (^{62})</td>
<td>- if a closed system transfer device is not used for compounding, a 21 gauge (or larger gauge) needle is recommended to prevent coring of the vial stopper (^{62-64})</td>
</tr>
</tbody>
</table>

- Direct diluent against side of vial during reconstitution \(^{62}\)
- Swirl gently; do NOT shake \(^{62}\)
- If foaming occurs, allow to settle until clear (about 5 minutes) \(^{62}\)
- Record time of reconstitution

\(^{62}\)
<table>
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<tr>
<th>DRUG &amp; STRENGTH (Storage Prior to Use, Manufacturer, Preservative Status)</th>
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<th>Special Precautions/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carmustine 100 mg (Bristol Labs) (F) no preservative</td>
<td>3 mL diluent (supplied)</td>
<td>3 mL diluent to reach RT, then dissolve drug with 3 mL diluent; add 27 mL SWI</td>
<td>3.3 mg/mL in 10% ethanol</td>
<td>glass or polyolefin container</td>
<td>24 h F: in glass or polyolefin container use within 4 h of reconstitution</td>
<td>- do not use if product has oily droplets</td>
</tr>
<tr>
<td>Cemiplimab 250 mg/5 mL 350 mg/7 mL (sanofi) (F)(PFL) do not shake no preservative</td>
<td>N/A</td>
<td>50 mg/mL</td>
<td>discard unused portion</td>
<td>1-20 mg/mL NS, D5W</td>
<td>complete administration within 8 h RT, 24 h F</td>
<td></td>
</tr>
<tr>
<td>Cetuximab 100 mg/50 mL 200 mg/100 mL (Imclone/Lilly) (F) do not shake no preservative</td>
<td>N/A</td>
<td>2 mg/mL</td>
<td>12 h F, 8 h RT</td>
<td>syringe evacuated container or bag</td>
<td>12 h F, 8 h RT</td>
<td>- administer using 0.22 micron filter</td>
</tr>
</tbody>
</table>

BC Cancer Chemotherapy Preparation and Stability Chart© version 2.00. All rights reserved. This document may not be reproduced in any form without the express written permission of BC Cancer Provincial Pharmacy. Activation Date: 2 March 2006 Revised Date: 1 September 2019
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<th>DRUG &amp; STRENGTH (Storage Prior to Use, Manufacturer, Preservative Status)</th>
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<tr>
<td>CISplatin 10 mg/10 mL 50 mg/50 mL 100 mg/100mL (Accord) (RT)(PFL) no preservative</td>
<td>N/A</td>
<td>1 mg/mL</td>
<td>discard unused portion</td>
<td>Less than or equal to 60 mg: 100 mL* NS Greater than 60 mg: 250 mL* NS 2 L of D5 in one-half or one-third NS containing 37.5 g of mannitol</td>
<td>24 h RT</td>
<td>- do NOT use aluminum-containing needle, syringe or tubing</td>
</tr>
<tr>
<td>CISplatin 50 mg/50 mL 100 mg/100mL (Pfizer/Hospira) (RT)(PFL) no preservative</td>
<td>N/A</td>
<td>1 mg/mL</td>
<td>discard unused portion</td>
<td>Less than or equal to 60 mg: 100 mL* NS Greater than 60 mg: 250 mL* NS 2 L of D5 in one-half or one-third NS containing 37.5 g of mannitol</td>
<td>24 h RT</td>
<td>- do NOT use aluminum-containing needle, syringe or tubing</td>
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<tr>
<td>CISplatin 10 mg/10 mL 50 mg/50 mL 100 mg/100mL (Sandoz) (RT)(PFL) no preservative</td>
<td>N/A</td>
<td>1 mg/mL$^{71}$</td>
<td>48 h RT$^{71,72}$</td>
<td>Less than or equal to 60 mg: 100 mL NS$^{<em>}$ Greater than 60 mg: 250 mL NS$^{</em>}$ NS, 0.45% sodium chloride with or without mannitol$^{73}$ 2 L of D5 in one-half or one-third NS containing 37.5 g of mannitol$^{71}$</td>
<td>24 h RT$^{71}$</td>
<td>- do NOT use aluminum-containing needle, syringe or tubing$^{71}$</td>
</tr>
<tr>
<td>CISplatin 10 mg/10 mL 50 mg/50 mL 100 mg/100mL (Teva) (RT)(PFL) no preservative</td>
<td>N/A</td>
<td>1 mg/mL$^{74}$</td>
<td>discard unused portion$^{18}$</td>
<td>Less than or equal to 60 mg: 100 mL$^{<em>}$ NS Greater than 60 mg: 250 mL$^{</em>}$ NS 2 L of D5 in one-half or one-third NS containing 37.5 g of mannitol$^{74}$</td>
<td>24 h RT$^{74}$</td>
<td>- do NOT use aluminum-containing needle, syringe or tubing$^{74}$</td>
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<tr>
<td>Cladribine 10 mg/10 mL (Fresenius Kabi) (F)(PFL) no preservative</td>
<td>N/A</td>
<td>1 mg/mL&lt;sup&gt;75&lt;/sup&gt;</td>
<td>discard unused potion&lt;sup&gt;75&lt;/sup&gt;</td>
<td>SC syringe&lt;sup&gt;76&lt;/sup&gt;</td>
<td>discard end of day&lt;sup&gt;13,75,77&lt;/sup&gt;</td>
<td></td>
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<tr>
<td></td>
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<td>500 mL NS only</td>
<td>24 h RT</td>
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<td>do NOT use D5W</td>
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<td>Cassette: qs to 100 mL with bacteriostatic NS only via SIMS DELTEC INC. MEDICATION CASSETTES&lt;sup&gt;75&lt;/sup&gt; filter drug and diluent through 0.22 micron filter as each solution is being introduced into the cassette</td>
<td>at least 7 days&lt;sup&gt;75&lt;/sup&gt;</td>
<td></td>
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<tr>
<td>Cyclophosphamide 200 mg 500 mg 1000 mg 2000 mg (Baxter) (RT)(PFL) no preservative</td>
<td>200 mg: 10 mL NS 500 mg: 25 mL NS 1000 mg: 50 mL NS 2000 mg: 100 mL NS</td>
<td>20 mg/mL*</td>
<td>48 h F, 72,78,80 24 h RT*</td>
<td>Less than or equal to 1 g: 100 mL NS* Greater than 1 g: 250 mL NS* high dose in BMT: may need 500 NS*</td>
<td>72 h F, 78,80 24 h RT*</td>
<td></td>
</tr>
<tr>
<td>Cytarabine 1000 mg/10mL 2000 mg/20mL (Pfizer/Hospira) (RT)(PFL) no preservative</td>
<td>N/A</td>
<td>100 mg/mL*</td>
<td>discard unused portion*</td>
<td>0.1-37.5 mg/mL NS, D5W, SWI* 100 mL* NS, D5W, SWI</td>
<td>10 d F, 48 h RT* **(PFL)</td>
<td></td>
</tr>
<tr>
<td>Cytarabine IT injection 1000 mg/10mL 2000 mg/20mL (Pfizer/Hospira) (RT)(PFL) no preservative</td>
<td>N/A record time of puncture</td>
<td>100 mg/mL*</td>
<td>use within 4 h of initial vial puncture*</td>
<td>diluents containing preservatives should NOT be used for intrathecal administration* qs to 6 mL with preservative free NS*</td>
<td>use within 4 h of initial vial puncture* **(PFL)</td>
<td>- auxiliary info: IT injection* - label to include route in full (i.e., INTRATHecal injection) attached to both syringe and outer ziplock bag*</td>
</tr>
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<td>DRUG &amp; STRENGTH</td>
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</tr>
<tr>
<td>Cytarabine SC injection</td>
<td>N/A</td>
<td>100 mg/mL&lt;sup&gt;81&lt;/sup&gt;</td>
<td>discard unused portion&lt;sup&gt;30,81&lt;/sup&gt;</td>
<td>syringe</td>
<td>10 d F, 48 h RT&lt;sup&gt;81&lt;/sup&gt;</td>
<td><strong>(PFL)</strong></td>
</tr>
<tr>
<td>1000 mg/10mL 2000 mg/20mL (Pfizer/Hospira) (RT)(PFL) no preservative&lt;sup&gt;64&lt;/sup&gt;</td>
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<tr>
<td>Cytarabine IT injection</td>
<td>N/A</td>
<td>100 mg/mL&lt;sup&gt;85&lt;/sup&gt;</td>
<td>discard unused portion&lt;sup&gt;30,85&lt;/sup&gt;</td>
<td>0.1-37.5 mg/mL NS, D5W, SWI&lt;sup&gt;85&lt;/sup&gt; 100 mL* NS, D5W, SWI</td>
<td>10 d F, 48 h RT&lt;sup&gt;85&lt;/sup&gt;</td>
<td><strong>(PFL)</strong></td>
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<tr>
<td>1000 mg/10mL 2000 mg/20mL (PMS) (RT)(PFL) no preservative&lt;sup&gt;65&lt;/sup&gt;</td>
<td></td>
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<td></td>
<td>use within 4 h of initial vial puncture&lt;sup&gt;30&lt;/sup&gt;</td>
<td></td>
<td>- auxiliary info: IT injection&lt;sup&gt;30&lt;/sup&gt; - label to include route in full (i.e., INTRATHECAL injection) attached to both syringe and outer ziplock bag&lt;sup&gt;41&lt;/sup&gt;</td>
</tr>
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</table>

<sup>30</sup> - label to include route in full (i.e., INTRATHECAL injection) attached to both syringe and outer ziplock bag<sup>41</sup>
<table>
<thead>
<tr>
<th>DRUG &amp; STRENGTH</th>
<th>Reconstitute With:</th>
<th>To Give:</th>
<th>Vial Stability</th>
<th>Product</th>
<th>Product Stability</th>
<th>Special Precautions/Notes</th>
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<tbody>
<tr>
<td><strong>Cytarabine</strong></td>
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<tr>
<td>SC injection</td>
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<tr>
<td>1000 mg/10mL</td>
<td>N/A</td>
<td>100 mg/mL</td>
<td>discard unused portion</td>
<td>syringe</td>
<td>10 d F, 48 h RT</td>
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<tr>
<td>2000 mg/20mL</td>
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<tr>
<td>85</td>
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<td>100 mg/mL</td>
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<tr>
<td><strong>Dacarbazine</strong></td>
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<tr>
<td>100 mg</td>
<td>100 mg:</td>
<td>10 mg/mL</td>
<td>72 h F, 8 h RT</td>
<td>250-1000 mL* NS,</td>
<td>24 h F, 8 h RT</td>
<td>- protect container from light during storage and administration - no overfill</td>
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<tr>
<td></td>
<td>9.9 mL SWI</td>
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<td>D5W</td>
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<tr>
<td>200 mg</td>
<td>200 mg:</td>
<td>10 mg/mL</td>
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<td></td>
<td>19.7 mL SWI</td>
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<td>86</td>
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<td>12 h F, 8 h RT</td>
<td>0.19–3.0 mg/mL</td>
<td>24 h F</td>
<td>- protect container from light during storage and administration - no overfill</td>
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<tr>
<td>600 mg</td>
<td>600 mg:</td>
<td>10 mg/mL</td>
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<td></td>
<td>59.1 mL SWI</td>
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<tr>
<td>88</td>
<td></td>
<td>8 h RT, 48 h F</td>
<td>0.19-3.0 mg/mL in D5W or NS</td>
<td>24 h F</td>
<td>- protect container from light during storage and administration</td>
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<tr>
<td>200 mg</td>
<td>200 mg:</td>
<td>10 mg/mL</td>
<td>8 h RT, 48 h F</td>
<td>0.19-3.0 mg/mL in D5W or NS</td>
<td>24 h F</td>
<td>- protect container from light during storage and administration</td>
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<td></td>
<td>19.7 mL SWI</td>
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<tr>
<td>600 mg</td>
<td>600 mg:</td>
<td>10 mg/mL</td>
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<tr>
<td></td>
<td>59.1 mL SWI</td>
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<tr>
<td>91</td>
<td></td>
<td>24 h F, 8 h RT</td>
<td>0.19-3.0 mg/mL in D5W or NS</td>
<td>24 h F</td>
<td>- protect container from light during storage and administration</td>
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<tr>
<td>(Pfizer)</td>
<td>(F)(PFL)</td>
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<td>no preservative</td>
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<tr>
<td>91</td>
<td></td>
<td>10 mg/mL</td>
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<tr>
<td>DRUG &amp; STRENGTH (Storage Prior to Use, Manufacturer, Preservative Status)</td>
<td>Reconstitute With:</td>
<td>To Give:</td>
<td>Vial Stability</td>
<td>Product</td>
<td>Product Stability</td>
<td>Special Precautions/Notes</td>
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<tr>
<td>DACTINomycin 0.5 mg (GMD Pharma for Recordati) (RT)(PFL) no preservative</td>
<td>1.1 mL SWI (preservative-free)</td>
<td>0.5 mg/mL (500 mcg/mL)</td>
<td>discard unused portion</td>
<td>syringe</td>
<td>use within 4 h of initial vial puncture</td>
<td>- drug loss reported with some cellulose ester membrane in-line filters</td>
</tr>
<tr>
<td>Daratumumab 100 mg/5mL 400 mg/20mL (Janssen) (F)(PFL) do not shake no preservative</td>
<td>N/A</td>
<td>20 mg/mL</td>
<td>discard unused portion</td>
<td>500-1000 mL NS dilute to final volume by withdrawing volume from bag equal to volume of drug to be added</td>
<td>24 h F, followed by 15 h infusion (total 39 h)</td>
<td>- administer with a 0.22 or 0.2 micron in-line filter - discard if visible particles are observed - complete infusion within 15 hours</td>
</tr>
</tbody>
</table>
| DAUNOrubicin 20 mg (Erfa Canada Inc.) (RT)(PFL) no preservative | 4 mL SWI | 5 mg/mL | 48 h F, 24 h RT | 100-250 mL in isotonic solution e.g., NS | 48 h F, 24 h RT | - }
<table>
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<tr>
<th>DRUG &amp; STRENGTH (Storage Prior to Use, Manufacturer, Preservative Status)</th>
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</thead>
<tbody>
<tr>
<td>DAUNOrubicin 20 mg (Teva/Novopharm) (RT)(PFL) no preservative&lt;sup&gt;99&lt;/sup&gt;</td>
<td>4 mL SWI&lt;sup&gt;99&lt;/sup&gt;</td>
<td>5 mg/mL&lt;sup&gt;99&lt;/sup&gt;</td>
<td>48 h F, 24 h RT&lt;sup&gt;99&lt;/sup&gt; **(PFL)&lt;sup&gt;99&lt;/sup&gt;</td>
<td>100-250 mL NS or D5W&lt;sup&gt;60&lt;/sup&gt;</td>
<td>48 h F, 24 h RT&lt;sup&gt;99&lt;/sup&gt; **(PFL)&lt;sup&gt;99&lt;/sup&gt;</td>
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<tr>
<td>Degarelix 80 mg 120 mg (Ferring) (RT) do not shake&lt;sup&gt;100&lt;/sup&gt; no preservative&lt;sup&gt;101&lt;/sup&gt;</td>
<td>80 mg: 4.2 mL SWI (supplied diluent)&lt;sup&gt;100&lt;/sup&gt;</td>
<td>20 mg/mL&lt;sup&gt;100&lt;/sup&gt;</td>
<td>2 h RT&lt;sup&gt;100&lt;/sup&gt;</td>
<td>SC syringe&lt;sup&gt;100&lt;/sup&gt;</td>
<td>2 h RT&lt;sup&gt;100&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>DRUG &amp; STRENGTH (Storage Prior to Use, Manufacturer, Preservative Status)</td>
<td>Reconstitute With:</td>
<td>To Give:</td>
<td>Vial Stability</td>
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</tbody>
</table>
| Denosumab (XGEVA) 120 mg/1.7 mL (Amgen) (F)(PFL) do not shake no preservative<sup>102</sup> | N/A | 71 mg/mL<sup>102</sup> | discard unused portion<sup>72,102</sup> | SC syringe<sup>102</sup> | use within 4 h of initial puncture<sup>72</sup> | - not interchangeable with PROLIA<sup>102</sup>  
- do not use if solution is cloudy; trace amounts of translucent to white proteinaceous particles are acceptable<sup>102</sup>  
- avoid vigorous shaking<sup>102</sup>  
- bring to room temperature 15-30 minutes prior to administration<sup>102</sup> |
| Dexrazoxane 250 mg 500 mg (Pfizer) (RT) no preservative<sup>103</sup> | 250 mg: 25 mL SWI<sup>103</sup>  
500 mg: 50 mL SWI<sup>103</sup> | 10 mg/mL<sup>103</sup> | 3 h F, 30 min RT<sup>104</sup> | MUST BE FURTHER DILUTED With Lactated Ringers Injection to 1.3 – 3.0 mg/mL<sup>103</sup> | 4 h F, 1 h RT<sup>103</sup> |
<table>
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<tr>
<th>DRUG &amp; STRENGTH (Storage Prior to Use, Manufacturer, Preservative Status)</th>
<th>Reconstitute With:</th>
<th>To Give:</th>
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</tr>
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<tbody>
<tr>
<td>Dinutuximab 17.5 mg/5 mL (Unither/United Therapies) (F)(PFL) do not shake no preservative</td>
<td>N/A</td>
<td>3.5 mg/mL&lt;sup&gt;105&lt;/sup&gt;</td>
<td>discard unused portion&lt;sup&gt;30&lt;/sup&gt;</td>
<td>100 mL NS&lt;sup&gt;105&lt;/sup&gt;</td>
<td>initiate infusion within 4 h of dilution; refrigerate bag if not hung immediately complete administration within 24 h of dilution&lt;sup&gt;105&lt;/sup&gt;</td>
<td>- do NOT shake&lt;sup&gt;105&lt;/sup&gt;</td>
</tr>
<tr>
<td>DRUG &amp; STRENGTH (Storage Prior to Use, Manufacturer, Preservative Status)</td>
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<tr>
<td>DOCETaxel 20 mg/2 mL 80 mg/8 mL 160 mg/16 mL (Pfizer/Hospira) (F, RT)(PFL) preservative&lt;sup&gt;106&lt;/sup&gt;</td>
<td>N/A</td>
<td>10 mg/mL&lt;sup&gt;106&lt;/sup&gt;</td>
<td>20 mg/2 mL vial: discard unused portion&lt;sup&gt;18,106&lt;/sup&gt; 80 mg/8 mL or 160 mg/16 mL vial&lt;sup&gt;106&lt;/sup&gt; (maximum number of punctures: up to 3 doses can be removed when a venting needle is also inserted, i.e., 6 punctures total)&lt;sup&gt;106&lt;/sup&gt; 14 d F&lt;sup&gt;18,106&lt;/sup&gt; **(PFL)&lt;sup&gt;106&lt;/sup&gt;</td>
<td>0.3-0.74 mg/mL&lt;sup&gt;106&lt;/sup&gt; 250 mL* NS, D5W&lt;sup&gt;106&lt;/sup&gt;</td>
<td>complete administration within 14 d F, 48 h RT&lt;sup&gt;18,107,108&lt;/sup&gt;</td>
<td>- use non-DEHP bag and IV administration set&lt;sup&gt;106&lt;/sup&gt;</td>
</tr>
<tr>
<td>DOCETaxel 20 mg/2 mL 80 mg/8 mL 160 mg/16 mL (Sandoz) (F,RT)(PFL) preservative&lt;sup&gt;109&lt;/sup&gt;</td>
<td>N/A</td>
<td>10 mg/mL&lt;sup&gt;109&lt;/sup&gt;</td>
<td>14 d F, RT&lt;sup&gt;18,110&lt;/sup&gt;</td>
<td>0.3-0.74 mg/mL&lt;sup&gt;109&lt;/sup&gt; 250 mL* NS, D5W&lt;sup&gt;109&lt;/sup&gt;</td>
<td>complete administration within 24 h F, 4 h RT&lt;sup&gt;109,111&lt;/sup&gt;</td>
<td>- use non-DEHP bag and IV administration set&lt;sup&gt;109&lt;/sup&gt;</td>
</tr>
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<td>DRUG &amp; STRENGTH (Storage Prior to Use, Manufacturer, Preservative Status)</td>
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<tr>
<td>DOCEtaxel 20 mg/0.5 mL 80 mg/2 mL (sanofi-aventis) (F, RT)(PFL) no preservative</td>
<td>supplied diluent: - if vials were refrigerated, allow to warm for 5 min at RT. Withdraw entire contents of the diluent and inject the entire contents of the syringe into the corresponding concentrate vial. Mix by repeated inversions for 45 sec. do NOT shake. Let sit for 5 minutes.</td>
<td>10 mg/mL(^{112})</td>
<td>14 d F, RT(^{18,112,113})</td>
<td>0.3-0.74 mg/mL(^{112}) 250 mL NS, D5W(^{112})</td>
<td>complete administration within 4 h F,(^{112}) 48 h RT(^{18,113})</td>
<td>- use non-DEHP bag and IV administration set(^{112})</td>
</tr>
<tr>
<td>DOXOrubicin 10 mg/5 mL 20 mg/10 mL 50 mg/25 mL 200 mg/100 mL (Accord) (F)(PFL) no preservative</td>
<td>N/A</td>
<td>2 mg/mL(^{114})</td>
<td>8 h(^{114})</td>
<td>syringe(^{114})</td>
<td>24 h F, RT from initial vial puncture(^{114})</td>
<td>- for ULYEPOCHR protocol, see entry for EPOCHR (3-in-1 solution containing etoposide, DOXOrubicin, vinCRIStine)</td>
</tr>
<tr>
<td>DRUG &amp; STRENGTH (Storage Prior to Use, Manufacturer, Preservative Status)</td>
<td>Reconstitute With:</td>
<td>To Give:</td>
<td>Vial Stability</td>
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<tr>
<td>DOXOrubicin 10 mg 50 mg 150 mg (Hospira) (RT)(PFL) no preservative</td>
<td>10 mg: 5 mL NS, SWI, D5W</td>
<td>2 mg/mL</td>
<td>48 h F, 24 h RT</td>
<td>syringe</td>
<td>48 h F, 24 h RT</td>
<td>- for ULYEPOCHR protocol, see entry for EPOCHR (3-in-1 solution containing etoposide, DOXOrubicin, vinCRISTine)</td>
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<td>50 mg: 25 mL NS, SWI, D5W</td>
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<td>150 mg: 75 mL NS, SWI, D5W</td>
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<td>(NS reconstitution takes longer)</td>
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<tr>
<td>DOXOrubicin 10 mg/5 mL 20 mg/10 mL 50 mg/25 mL 200 mg/100 mL (Teva/Novopharm) (F)(PFL) no preservative</td>
<td>N/A record time of puncture</td>
<td>2 mg/mL</td>
<td>8 h</td>
<td>syringe</td>
<td>48 h F, 24 h RT from initial vial puncture</td>
<td>- for ULYEPOCHR protocol, see entry for EPOCHR (3-in-1 solution containing etoposide, DOXOrubicin, vinCRISTine)</td>
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<tr>
<td>DRUG &amp; STRENGTH (Storage Prior to Use, Manufacturer, Preservative Status)</td>
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<tr>
<td>DOXOrubicin 10 mg/5 mL 50 mg/25 mL 200 mg/100 mL (Pfizer) (F) no preservative&lt;sup&gt;118&lt;/sup&gt;</td>
<td>N/A</td>
<td>2 mg/mL&lt;sup&gt;118&lt;/sup&gt;</td>
<td>discard unused portion&lt;sup&gt;72,118&lt;/sup&gt;</td>
<td>syringe&lt;sup&gt;118&lt;/sup&gt;</td>
<td>48 h F, 24 h RT&lt;sup&gt;118&lt;/sup&gt;</td>
<td>- for ULYEPOCHR protocol, see entry for EPOCHR (3-in-1solution containing etoposide, DOXOrubicin, vinCRIStine)</td>
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<tr>
<td>DOXOrubicin Pegylated Liposomal 20 mg/10 mL (Janssen) (F) no preservative&lt;sup&gt;119&lt;/sup&gt;</td>
<td>N/A</td>
<td>2 mg/mL&lt;sup&gt;119&lt;/sup&gt;</td>
<td>discard unused portion&lt;sup&gt;119&lt;/sup&gt;</td>
<td>Less than 90 mg: 250 mL D5W only&lt;sup&gt;119&lt;/sup&gt; Greater than or equal to 90 mg: 500mL D5W only&lt;sup&gt;119&lt;/sup&gt;</td>
<td>24 h F&lt;sup&gt;119&lt;/sup&gt;</td>
<td>- do not filter&lt;sup&gt;119&lt;/sup&gt;</td>
</tr>
<tr>
<td>Durvalumab 120 mg/2.4 mL 500 mg/10 mL (AstraZeneca) (F)(PFL) do not shake no preservative&lt;sup&gt;120&lt;/sup&gt;</td>
<td>N/A</td>
<td>50 mg/mL&lt;sup&gt;120&lt;/sup&gt;</td>
<td>discard unused portion&lt;sup&gt;120&lt;/sup&gt;</td>
<td>1-15 mg/mL NS, D5W&lt;sup&gt;120&lt;/sup&gt; (e.g., 100 mL* NS, D5W) mix by gentle inversion&lt;sup&gt;120&lt;/sup&gt;</td>
<td>24 h F, 4 h RT&lt;sup&gt;120&lt;/sup&gt;</td>
<td>- do NOT shake&lt;sup&gt;120&lt;/sup&gt; - use 0.2-0.22 micron in-line filter to administer&lt;sup&gt;120&lt;/sup&gt;</td>
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<td>DRUG &amp; STRENGTH (Storage Prior to Use, Manufacturer, Preservative Status)</td>
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<tr>
<td>Epirubicin 10 mg/5 mL 20 mg/10 mL 50 mg/25 mL 150 mg/75 mL 200 mg/100 mL (Teva/Novopharm) (F)(PFL) no preservative</td>
<td>N/A</td>
<td>2 mg/mL&lt;sup&gt;121&lt;/sup&gt;</td>
<td>8 h&lt;sup&gt;121&lt;/sup&gt; F, RT</td>
<td>syringe&lt;sup&gt;121&lt;/sup&gt;</td>
<td>48 h&lt;sup&gt;121&lt;/sup&gt; F, 24 h RT from initial vial puncture</td>
<td></td>
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<tr>
<td>Epirubicin 10 mg/5 mL 50 mg/25 mL 200 mg/100 mL (Fresenius Kabi) (F)(PFL) no preservative</td>
<td>N/A record time of puncture</td>
<td>2 mg/mL&lt;sup&gt;122&lt;/sup&gt;</td>
<td>8&lt;sup&gt;122&lt;/sup&gt;</td>
<td>syringe&lt;sup&gt;122&lt;/sup&gt;</td>
<td>48 h F, 24 h RT from initial vial puncture</td>
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<tr>
<td>Epirubicin 10 mg/5 mL 50 mg/25 mL 200 mg/100 mL (Pfizer) (F)(PFL) no preservative</td>
<td>N/A record time of puncture</td>
<td>2 mg/mL&lt;sup&gt;123&lt;/sup&gt;</td>
<td>8&lt;sup&gt;123&lt;/sup&gt;</td>
<td>syringe&lt;sup&gt;123&lt;/sup&gt;</td>
<td>48 h F, 24 h RT from initial vial puncture</td>
<td></td>
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<tr>
<td>DRUG &amp; STRENGTH (Storage Prior to Use, Manufacturer, Preservative Status)</td>
<td>Reconstitute With:</td>
<td>To Give:</td>
<td>Vial Stability</td>
<td>Product</td>
<td>Product Stability</td>
<td>Special Precautions/Notes</td>
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<tr>
<td>EPOCHR (ULYEPOCHR protocol) (RT) no preservative\textsuperscript{18,125-128}</td>
<td>see brand specific entries for: DOXOrubicin as applicable</td>
<td>see brand specific entries for: DOXOrubicin, etoposide, vinCRIStine</td>
<td>see brand specific entries for: DOXOrubicin, etoposide, vinCRIStine</td>
<td>etoposide dose ≤125 mg/24 h: in 500 mL NS</td>
<td>etoposide concentration ≤0.25 mg/mL: complete administration within 72 h RT</td>
<td>- final product is a 3-in-1 solution containing etoposide, DOXOrubicin, vinCRIStine (refer to ULYEPOCHR protocol) - use non-DEHP bag and tubing only - use 0.22 micron inline filter</td>
</tr>
<tr>
<td>eriBULin 1 mg/2 mL (Eisai Limited) (RT)(PFL)\textsuperscript{129} no preservative\textsuperscript{18}</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<td>- do not administer through dextrose containing lines\textsuperscript{129} - vials contain dehydrated alcohol USP (5% v/v)\textsuperscript{129}</td>
</tr>
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<td>DRUG &amp; STRENGTH (Storage Prior to Use, Manufacturer, Preservative Status)</td>
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<tr>
<td>Etoposide 100 mg/5 mL 200 mg/10 mL 500 mg/25 mL 1000 mg/50 mL (Sandoz) (RT) (PFL) preservative&lt;sup&gt;130&lt;/sup&gt;</td>
<td>N/A</td>
<td>20 mg/mL&lt;sup&gt;130&lt;/sup&gt;</td>
<td>14 d RT&lt;sup&gt;130&lt;/sup&gt;</td>
<td>0.2-0.4 mg/mL&lt;sup&gt;NS&lt;/sup&gt;, D5W&lt;sup&gt;130&lt;/sup&gt; 500 mL*&lt;sup&gt;NS&lt;/sup&gt;, D5W</td>
<td>0.2 mg/mL: 7 d F, RT&lt;sup&gt;130&lt;/sup&gt; 0.4 mg/mL: 12 h F, RT&lt;sup&gt;130&lt;/sup&gt;</td>
<td>- use non-DEHP bag and tubing only  - use 0.22 micron inline filter&lt;sup&gt;131&lt;/sup&gt;  - for ULYEPOCHR protocol, see entry for EPOCHR (3-in-1 solution containing etoposide, DOXOrubicin, vinCRIStine)</td>
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</table>
## BC CANCER CHEMOTHERAPY PREPARATION AND STABILITY CHART

<table>
<thead>
<tr>
<th>DRUG &amp; STRENGTH (Storage Prior to Use, Manufacturer, Preservative Status)</th>
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<th>Product</th>
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</table>
| **Etoposide**  
100 mg/5 mL  
200 mg/10 mL  
500 mg/25 mL  
1000 mg/50 mL  
(Teva/Novopharm)  
(RT)(PFL)  
no preservative<sup>132</sup> | N/A | 20 mg/mL<sup>132</sup> | discard unused portion<sup>132</sup> | NS  
Stability is concentration dependent | 0.2-0.3 mg/mL: 7 d F<sup>133</sup> 2 d RT<sup>133,134</sup>  
0.4-0.5 mg/mL: 1 d F<sup>133</sup> 1 d RT<sup>133</sup>  
0.6-9.0 mg/mL: generally unstable  
9.5 mg/mL: 2 d F<sup>133</sup> 1 d RT<sup>133</sup>  
10-12 mg/mL: 7 d F<sup>133</sup> 2 d RT<sup>133,134</sup> | - use non-DEHP bag and tubing only  
- use 0.22 micron in-line filter<sup>131</sup>  
- for ULYEPOCHR protocol, see entry for EPOCHR (3-in-1solution containing etoposide, DOXOrubicin, vinCRIStine) |
| **Etoposide phosphate**  
ETOPOPHOS®  
100 mg  
(BMS)  
(F)(PFL)  
no preservative<sup>136</sup> | 5 mL NS, D5W, SWI, BWI<sup>136,137</sup> | 20 mg/mL<sup>136,137</sup> | 48 h F<sup>18,136,137</sup> 24 h RT<sup>136,137</sup> | NS  
250 mL<sup>*</sup> NS, D5W<sup>136,137</sup> (do not dilute to less than 0.1 mg/mL)<sup>136,137</sup> | 24 h F, RT<sup>136,137</sup> |  

<sup>131</sup>  
<sup>132</sup>  
<sup>133</sup>  
<sup>134</sup>  
<sup>135</sup>  
<sup>136</sup>  
<sup>137</sup>  

<sup>*</sup>  

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BC Cancer Chemotherapy Preparation and Stability Chart© version 2.00. All rights reserved.  
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Activation Date: 2 March 2006  
Revised Date: 1 September 2019
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<tbody>
<tr>
<td>Filgrastim (NEUPOGEN®) 300 mcg/1 mL 480 mcg/1.6 mL (Amgen) (F)(PFL) do not shake no preservative</td>
<td>N/A</td>
<td>300 mcg/mL&lt;sup&gt;138&lt;/sup&gt;</td>
<td>discard unused portion&lt;sup&gt;18&lt;/sup&gt;</td>
<td>SC syringe&lt;sup&gt;138&lt;/sup&gt;</td>
<td>14 d F&lt;sup&gt;18,139&lt;/sup&gt;</td>
<td>- albumin is added to D5W to prevent filgrastim adsorption to plastic&lt;sup&gt;138&lt;/sup&gt; - incompatible with saline&lt;sup&gt;138,140&lt;/sup&gt; - do NOT dilute to less than 5 mcg/mL&lt;sup&gt;138&lt;/sup&gt;</td>
</tr>
<tr>
<td>Fludarabine 50 mg (Berlex) (F) no preservative&lt;sup&gt;141&lt;/sup&gt;</td>
<td>2 mL SW&lt;sup&gt;141&lt;/sup&gt;</td>
<td>25 mg/mL&lt;sup&gt;141&lt;/sup&gt;</td>
<td>48 h F, RT&lt;sup&gt;13,124&lt;/sup&gt;</td>
<td>dilute to maximum of 1 mg/mL&lt;sup&gt;141,142&lt;/sup&gt; 50-100 mL NS, D5W&lt;sup&gt;141&lt;/sup&gt;</td>
<td>48 h F, RT&lt;sup&gt;13,124&lt;/sup&gt;</td>
<td></td>
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<tr>
<td>Fludarabine 50 mg (Teva/Novopharm) (F) no preservative&lt;sup&gt;143&lt;/sup&gt;</td>
<td>N/A</td>
<td>25 mg/mL&lt;sup&gt;143&lt;/sup&gt;</td>
<td>discard unused portion&lt;sup&gt;143&lt;/sup&gt;</td>
<td>dilute to maximum of 1 mg/mL&lt;sup&gt;143&lt;/sup&gt; (e.g., 50-100 mL&lt;sup&gt;14&lt;/sup&gt; NS, D5W)</td>
<td>48 h F, 24 h RT&lt;sup&gt;143&lt;/sup&gt;</td>
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<tr>
<td>Fluorouracil 5000 mg/100 mL (Accord) (RT)(PFL) no preservative&lt;sup&gt;144&lt;/sup&gt;</td>
<td>N/A</td>
<td>50 mg/mL&lt;sup&gt;144&lt;/sup&gt;</td>
<td>48 h RT&lt;sup&gt;18,145&lt;/sup&gt;</td>
<td>syringe&lt;sup&gt;144&lt;/sup&gt;</td>
<td>48 h RT&lt;sup&gt;18,145&lt;/sup&gt;</td>
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<td>0.5-10 mg/mL&lt;sup&gt;145&lt;/sup&gt; (e.g., 50-1000 mL&lt;sup&gt;*&lt;/sup&gt; D5W)</td>
<td>48 h RT&lt;sup&gt;18,145&lt;/sup&gt;</td>
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<td></td>
<td></td>
<td>CIVI: ambulatory pump&lt;sup&gt;146&lt;/sup&gt;</td>
<td>complete within 8 d&lt;sup&gt;145&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Fluorouracil 5000 mg/100 mL (Pfizer/Hospira) (RT)(PFL) no preservative&lt;sup&gt;147&lt;/sup&gt;</td>
<td>N/A</td>
<td>50 mg/mL&lt;sup&gt;147&lt;/sup&gt;</td>
<td>8 h RT&lt;sup&gt;147&lt;/sup&gt;</td>
<td>syringe&lt;sup&gt;147&lt;/sup&gt;</td>
<td>8 h RT&lt;sup&gt;30,147&lt;/sup&gt;</td>
<td></td>
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<td></td>
<td>0.5-10 mg/mL&lt;sup&gt;148&lt;/sup&gt; (e.g., 50-1000 mL&lt;sup&gt;*&lt;/sup&gt; D5W)</td>
<td>24 h RT&lt;sup&gt;147&lt;/sup&gt;</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CIVI: ambulatory pump&lt;sup&gt;146&lt;/sup&gt;</td>
<td>complete within 8 d&lt;sup&gt;13,60,149,150&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>DRUG &amp; STRENGTH (Storage Prior to Use, Manufacturer, Preservative Status)</td>
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<tr>
<td>Fluorouracil 500 mg/10 mL 5000 mg/100 mL (Sandoz) (RT)(PFL) no preservative</td>
<td>N/A</td>
<td>50 mg/mL(^{151})</td>
<td>48 h RT(^{30,152})</td>
<td>syringe</td>
<td>48 h RT(^{30,151})</td>
<td>0.35 – 15 mg/mL(^{152}) (300-500 mL D5W)(^{151})  CIVI: ambulatory pump(^{146})  complete within 8 d (^{13,60,149,150})</td>
</tr>
<tr>
<td>Gemcitabine 200 mg 1000 mg 2000 mg (Accord) (RT) no preservative</td>
<td>200 mg: 5 mL NS(^{153})  1000 mg: 25 mL NS(^{153})  2000 mg: 50 mL NS(^{153})</td>
<td>38 mg/mL(^{153})</td>
<td>24 h RT(^{153})</td>
<td>syringe(^{153})</td>
<td>24 h RT(^{153})</td>
<td>0.1-38 mg/mL NS(^{153})  48 h RT(^{18,154,155})</td>
</tr>
<tr>
<td>Gemcitabine 200 mg/5.3 mL 1000 mg/26.3 mL 2000 mg/52.6 mL (Pfizer/Hospira) (F) no preservative</td>
<td>N/A</td>
<td>38 mg/mL(^{157})</td>
<td>discard unused portion(^{156})</td>
<td>syringe(^{157})</td>
<td>24 h RT(^{156})</td>
<td>0.1–38 mg/mL NS, D5W(^{156})</td>
</tr>
<tr>
<td>DRUG &amp; STRENGTH (Storage Prior to Use, Manufacturer, Preservative Status)</td>
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</tbody>
</table>
| **Gemcitabine** (NOTE: concentration)  
200 mg/5 mL  
1000 mg/25 mL  
2000 mg/50 mL  
(Sandoz)  
(F)  
no preservative<sup>158</sup> | N/A | 40 mg/mL<sup>158</sup> | discard unused portion<sup>158</sup> | syringe<sup>158</sup> | 24 h RT<sup>158</sup> | CAUTION: alternative concentration |
| **IDArubcin**  
5 mg  
10 mg  
(Pfizer)  
(RT)(PFL)  
no preservative<sup>159</sup> | 5 mg:  
5 mL SWI<sup>159</sup>  
10 mg:  
10 mL SWI<sup>159</sup>  
vial contents under negative pressure<sup>159</sup>  
do NOT use BWI to reconstitute<sup>159</sup> | 1 mg/mL<sup>159</sup> | 48 h F, 24 h RT<sup>159</sup>  
**(PFL)<sup>159</sup> | syringe<sup>159</sup> | 48 h F, 24 h RT<sup>159</sup> | - avoid alkaline solutions<sup>159</sup> |
| **IDARubcin PFS**  
5 mg/5 mL  
10 mg/10 mL  
20 mg/20 mL  
(Pfizer)  
(F)(PFL)  
no preservative<sup>159</sup> | N/A | 1 mg/mL<sup>159</sup> | 48 h F, 24 h RT,  
**(PFL)<sup>159</sup> | syringe<sup>159</sup> | 4 h from initial puncture<sup>18</sup> | - avoid alkaline solutions<sup>159</sup> |
<table>
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<tr>
<th>DRUG &amp; STRENGTH (Storage Prior to Use, Manufacturer, Preservative Status)</th>
<th>Reconstitute With:</th>
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<th>Product</th>
<th>Product Stability</th>
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</table>
| **IDArubicin**  
5 mg/5 mL  
10 mg/10 mL  
20 mg/20 mL  
(Fresenius Kabi)  
(F)(PFL)  
nos preservative<sup>160</sup> | N/A | 1 mg/mL<sup>160</sup> | discard unused solution<sup>160</sup> | syringe<sup>160</sup> | 4 h from initial puncture<sup>18</sup> | - avoid alkaline solutions<sup>160</sup> |
| **Ifosfamide**  
1000 mg  
3000 mg  
(Baxter)  
(RT)  
nos preservative<sup>161</sup> | 1000 mg:  
20 mL SWI<sup>161</sup>  
3000 mg:  
60 mL SWI<sup>161</sup>  
shake well | 50 mg/mL<sup>161</sup> | 48 h F, 24 h RT<sup>18,161</sup> | 0.6–20 mg/mL<sup>161</sup>  
500–1000 mL<sup>*</sup> NS, D5W, Lactated Ringer’s<sup>161</sup> | 72 h F, 24 h RT<sup>161</sup>  
24 h F, RT when mixed with mesna<sup>60</sup> |
| **Ifosfamide**  
1000 mg  
3000 mg  
(Fresenius Kabi)  
(RT)  
nos preservative<sup>162</sup> | 1000 mg:  
20 mL SWI<sup>162</sup>  
3000 mg:  
60 mL SWI<sup>162</sup>  
shake well | 50 mg/mL<sup>162</sup> | 48 h F, 24 h RT<sup>18,162</sup> | 0.6-20 mg/mL<sup>162</sup>  
500-1000 mL<sup>*</sup> NS  
D5W, Lactated Ringer’s<sup>162</sup> | 72 h F, 24 h RT<sup>162</sup>  
24 h F, RT when mixed with mesna<sup>60</sup> |
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<tr>
<td><strong>Iniparib</strong> 100 mg/10 mL (sanofi-aventis) (F) no preservative</td>
<td>N/A</td>
<td>10 mg/mL(^{163})</td>
<td>discard unused portion(^{163})</td>
<td>250 mL NS, D5W dilute to 250 mL final volume by withdrawing volume from bag equal to volume of drug to be added*(^{163})</td>
<td>24 h RT(^{163})</td>
<td>*may also use empty IV bag and qs to final volume of 250 mL with NS, D5W(^{163})</td>
</tr>
<tr>
<td><strong>Inotuzumab ozogamicin</strong> 0.9 mg (Pfizer) (F)(PFL) no preservative</td>
<td>4 mL SWI(^{164}) gently swirl vial to mix(^{164})</td>
<td>0.25 mg/mL(^{164})</td>
<td>4 h F(^{164})</td>
<td>0.01 – 0.1 mg/mL NS(^{164}) (50 mL NS)(^{164}) mix by gentle inversion(^{164})</td>
<td>complete administration within 8 h of reconstitution RT,F(^{164}) (PFL)(^{164}) if refrigerated, bring bag to RT over 1 h prior to administration(^{164})</td>
<td>do NOT shake(^{164}) protect container from UV and fluorescent light during storage and administration(^{164,165}) protect administration line from light ONLY if hang time will be longer than 1 h(^{164,165})</td>
</tr>
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<tr>
<td>Interferon Alfa -2b 10 million units/1 mL (Merck) (F) preservative&lt;sup&gt;166,167&lt;/sup&gt;</td>
<td>N/A</td>
<td>10 million units/mL&lt;sup&gt;166&lt;/sup&gt;</td>
<td>7 d F&lt;sup&gt;166&lt;/sup&gt;</td>
<td>syringe&lt;sup&gt;166&lt;/sup&gt;</td>
<td>7 d F&lt;sup&gt;18&lt;/sup&gt;</td>
<td>- vials can be kept at RT for up to 7 days before use; discard if not used within this time&lt;sup&gt;166&lt;/sup&gt;</td>
</tr>
<tr>
<td>Interferon Alfa -2b 18 million units/3 mL (Merck) (F) preservative&lt;sup&gt;166,167&lt;/sup&gt;</td>
<td>N/A</td>
<td>6 million units/mL&lt;sup&gt;166&lt;/sup&gt;</td>
<td>14 d F&lt;sup&gt;18,166&lt;/sup&gt;</td>
<td>syringe&lt;sup&gt;166&lt;/sup&gt;</td>
<td>14 d F&lt;sup&gt;18,167&lt;/sup&gt;</td>
<td>- vials can be kept at RT for up to 7 days before use; discard if not used within this time&lt;sup&gt;166&lt;/sup&gt;</td>
</tr>
<tr>
<td>Interferon Alfa -2b 25 million units/2.5 mL (Merck) (F) preservative&lt;sup&gt;166,167&lt;/sup&gt;</td>
<td>N/A</td>
<td>10 million units/mL&lt;sup&gt;166&lt;/sup&gt;</td>
<td>14 d F&lt;sup&gt;18,166&lt;/sup&gt;</td>
<td>syringe&lt;sup&gt;166&lt;/sup&gt;</td>
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<tr>
<td><strong>Interferon Alfa -2b</strong></td>
<td></td>
<td>1 mL supplied diluent (SWI)&lt;sup&gt;166&lt;/sup&gt;</td>
<td>10 million units/mL&lt;sup&gt;166&lt;/sup&gt;</td>
<td>24 h F&lt;sup&gt;166&lt;/sup&gt;</td>
<td>syringe&lt;sup&gt;166&lt;/sup&gt;</td>
<td>24 h F&lt;sup&gt;18,167&lt;/sup&gt;</td>
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<tr>
<td></td>
<td>do NOT shake; roll to reconstitute&lt;sup&gt;166&lt;/sup&gt;</td>
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<tr>
<td></td>
<td>1 mL BWI&lt;sup&gt;166&lt;/sup&gt;</td>
<td>14 d F&lt;sup&gt;18,166&lt;/sup&gt;</td>
<td></td>
<td></td>
<td>syringe&lt;sup&gt;166&lt;/sup&gt;</td>
<td>14 d F&lt;sup&gt;18,166&lt;/sup&gt;</td>
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<td>do NOT shake; roll to reconstitute&lt;sup&gt;166&lt;/sup&gt;</td>
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<td><strong>Ipilimumab</strong>&lt;br&gt;50 mg/10 mL&lt;br&gt;200 mg/40 mL&lt;br&gt;(BMS Canada)&lt;br&gt;(F)(PFL)&lt;br&gt;no preservative&lt;sup&gt;168&lt;/sup&gt;</td>
<td>N/A</td>
<td>5 mg/mL&lt;sup&gt;168&lt;/sup&gt;</td>
<td>24 h F, RT&lt;sup&gt;168&lt;/sup&gt;</td>
<td>1 – 4 mg/mL NS, D5W&lt;sup&gt;168&lt;/sup&gt; OR undiluted in empty viaflex bag or glass bottle (allow vials to stand at RT for ~5 min prior to withdrawal of contents)&lt;sup&gt;168&lt;/sup&gt;</td>
<td>24 h F, RT&lt;sup&gt;168&lt;/sup&gt;</td>
<td>- do NOT shake&lt;sup&gt;168&lt;/sup&gt; - administer with 0.2 or 0.22 in-line filter&lt;sup&gt;168&lt;/sup&gt; - vials may contain translucent-to-white amorphous particles&lt;sup&gt;168&lt;/sup&gt; - discard if cloudy or has pronounced colour change (should be clear to pale yellow)&lt;sup&gt;168&lt;/sup&gt;</td>
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<tr>
<td><strong>Irinotecan</strong>&lt;br&gt;40 mg/2 mL&lt;br&gt;100 mg/5 mL&lt;br&gt;500 mg/25 mL&lt;br&gt;(Accord)&lt;br&gt;(RT)(PFL)&lt;br&gt;no preservative&lt;sup&gt;169&lt;/sup&gt;</td>
<td>N/A</td>
<td>20 mg/mL&lt;sup&gt;169&lt;/sup&gt;</td>
<td>discard unused portion&lt;sup&gt;169&lt;/sup&gt;</td>
<td>0.12–3 mg/mL D5W&lt;sup&gt;169&lt;/sup&gt; (preferred), NS&lt;sup&gt;169&lt;/sup&gt; 500* mL&lt;sup&gt;60&lt;/sup&gt;</td>
<td>48 h F, 24 h RT** (PFL)&lt;sup&gt;169&lt;/sup&gt;</td>
<td></td>
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<tr>
<td><strong>Irinotecan</strong>&lt;br&gt;40 mg/2 mL&lt;br&gt;100 mg/5 mL&lt;br&gt;300 mg/15 mL&lt;br&gt;500 mg/25 mL&lt;br&gt;(Pfizer/Hospira)&lt;br&gt;(RT)(PFL)&lt;br&gt;no preservative&lt;sup&gt;170,171&lt;/sup&gt;</td>
<td>N/A</td>
<td>20 mg/mL&lt;sup&gt;170,171&lt;/sup&gt;</td>
<td>discard unused portion&lt;sup&gt;170,171&lt;/sup&gt;</td>
<td>0.12-3 mg/mL D5W&lt;sup&gt;170,171&lt;/sup&gt; (preferred), NS&lt;sup&gt;170,171&lt;/sup&gt; 500* mL&lt;sup&gt;60&lt;/sup&gt;</td>
<td>14 d F, 48 h RT** (PFL)&lt;sup&gt;170,171&lt;/sup&gt;</td>
<td></td>
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</tbody>
</table>
## BC CANCER CHEMOTHERAPY PREPARATION AND STABILITY CHART

<table>
<thead>
<tr>
<th>DRUG &amp; STRENGTH (Storage Prior to Use, Manufacturer, Preservative Status)</th>
<th>Reconstitute With:</th>
<th>To Give:</th>
<th>Vial Stability</th>
<th>Product</th>
<th>Product Stability</th>
<th>Special Precautions/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irinotecan Liposome 43 mg/10 mL (Servier) (F)(PFL) no preservative&lt;sup&gt;172&lt;/sup&gt;</td>
<td>N/A</td>
<td>4.3 mg/mL&lt;sup&gt;172&lt;/sup&gt;</td>
<td>discard unused portion&lt;sup&gt;172&lt;/sup&gt;</td>
<td>to a final volume of 500 mL with NS, D5W&lt;sup&gt;172&lt;/sup&gt; mix by gentle inversion&lt;sup&gt;172&lt;/sup&gt;</td>
<td>24 h F, 4 h RT&lt;sup&gt;172&lt;/sup&gt; <strong>(PFL)</strong> (allow product to come to RT prior to administration if stored in F)&lt;sup&gt;172&lt;/sup&gt;</td>
<td>- do not use in-line filter&lt;sup&gt;172&lt;/sup&gt; - expressed as irinotecan free base</td>
</tr>
<tr>
<td>Ixabepilone 15 mg (contains 16 mg) 45 mg (contains 47 mg) (BMS) (F)(PFL) no preservative&lt;sup&gt;173&lt;/sup&gt;</td>
<td>15 mg: 8 mL supplied diluent&lt;sup&gt;173&lt;/sup&gt; 45 mg: 23.5 mL supplied diluent&lt;sup&gt;173&lt;/sup&gt;</td>
<td>2 mg/mL&lt;sup&gt;173&lt;/sup&gt;</td>
<td>1 h RT&lt;sup&gt;173&lt;/sup&gt;</td>
<td>0.2 – 0.6 mg/mL in Lactated Ringer’s Injection USP (use non-DEHP infusion container)&lt;sup&gt;173&lt;/sup&gt;</td>
<td>6 h RT&lt;sup&gt;173&lt;/sup&gt;</td>
<td>- use 0.2-1.2 micron in-line filter&lt;sup&gt;173&lt;/sup&gt; - use non-DEHP bag and administration set&lt;sup&gt;173&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

* Suggested volume based on usual dose range and any concentration range of stability data
** Protect from light means minimizing exposure to direct sunlight over a storage period. More specific information on protection from light (eg, protecting container and tubing during administration) will be indicated in the Special Precautions/Notes column.
*** Contains DMA (N,N dimethylacetamide). Product may be incompatible with closed system transfer devices such as ChemoLock.

Centres are not to change the content locally but should forward suggestions to the Cancer Drug Manual staff.
Explanatory Notes:

*Stability data* assumes products prepared using standard aseptic technique in biological safety cabinet at low risk for contamination according to the classification outlined in USP 797.38,174

*Vial stability:* Stability of solution after first puncture or reconstituted solution.

*Storage temperature:* If information states same stability with refrigerator and room temperature storage, then fridge stability is bolded as preferred (ie, to minimize growth of micro-organisms).

*Discard unused portion:* Unused portion from single use vials should be discarded at the end of the day.

“overfill known” is stated if the manufacturer states overfill that is present is within acceptable limits.

“*Complete administration within ___”* is stated if the manufacturer specifies that the infusion must be completed in a specific time frame following preparation, usually including entire time required for preparation (from first puncture), storage, and administration of infusion.

Abbreviations:

BWI = bacteriostatic water for injection
CIVI: ambulatory pump = Continuous Intravenous Infusion (e.g., elastomeric infusor)
D5W = dextrose 5% in water
DMA = N,N dimethylacetamide
F = refrigerate
Non-DEHP = not containing Di(2-ethylhexyl) phthalate (DEHP)
NS = normal saline
PFL = protect from light
RT = room temperature
SWI = sterile water for injection

References:

8. Rui Paiva. Personal communication. Business Unit Director, Transplant and Oncology; 1 June 2009.
12. Lundbeck Canada Inc. TREANDA® product monograph. Montreal, Quebec; 6 June 2013.