

## Chemotherapy Administration in Children – Physician Issues

See also BC Cancer Agency guidelines:

<http://www.bccancer.bc.ca/HPI/ChemotherapyProtocols/Policies.htm>

The Pharmacy Department of the BC Children's Hospital developed and publishes a book for Pediatric Drug Dosage Guidelines: The 4<sup>th</sup> Edition (2002/2003) BC Children's Hospital Pediatric Drug Dosage Guidelines is the latest, and is available from Lynne Taylor (604-875-2345 ext 6821). This book is a useful reference for ensuring safe dosage administration of pediatric drugs (excluding chemotherapy agents) and for supportive care.

To avoid prescription errors a standard safe prescribing format is recommended.

Name: _____
Chart #: _____
Date: _____
Ht: _____ Wt: _____ M2: _____
Rx Regimen (e.g COG 9999 Reg A wk 32) _____
Medication: (e.g. Vincristine) _____
Dose: (e.g. (1.5 mg/m <sup>2</sup> ) = 1.37 mg i.v. push) _____
Name of Physician: _____
MSIP: _____
Signature: _____

Please see page 3 of this document for more information on Safe Prescribing Practices.

All chemotherapy orders must be signed by a physician and, preferably, countersigned by a pharmacist or second physician.

Information on most Chemotherapy Drugs is found in the BC Cancer Agency Cancer Drug Manual: <http://www.bccancer.bc.ca/HPI/DrugDatabase/DrugIndexPro/default.htm>

Some agents are classed as Investigational New Drugs (IND) and are only available for patients on a research study or may be available under the Special Access Program (SAP) [http://www.hc-sc.gc.ca/dhp-mps/acces/drugs-droques/index\\_e.html](http://www.hc-sc.gc.ca/dhp-mps/acces/drugs-droques/index_e.html)

Many of the chemotherapeutic agents used for children are the same as those used for adults. However, because of the different treatment regimens used and children's smaller size the doses used may be different. Many chemotherapy drugs are calculated according to the child's body surface area (BSA), although for young infants, dose/kg may be recommended.

$$BSA (m^2) = \sqrt{\frac{\text{height (cm)} \times \text{weight (kg)}}{3600}}$$

### **Protocol Specific vs Standardization**

It is not unusual for the same chemotherapeutic agent to be given in a different way depending on the protocol being used (eg. push vs infusion, over 4-6 hours vs 24 hour infusion).

Where possible, a uniform method of administration is recommended using “standard orders” as a guide. These “standard orders” are supplied by BC Children’s Hospital on an individual patient need basis.

### **Chemotherapy Mishaps**

For extravasation of vesicant or for contact with cytotoxic drugs refer to the BC Cancer Agency policy, Prevention and Management of Extravasation of Chemotherapy (<http://www.bccancer.bc.ca/HPI/ChemotherapyProtocols/Policies.htm>).

Vesicants commonly used in Pediatrics: vincristine; vinblastine; dactinomycin; doxorubicin; daunorubicin