All staff using the Fluid & Medication Management policies *must* first familiarise themselves with the contents of:

- **Roles & Responsibilities Policy,**
- **Basic Infection Prevention & Control Principles related to Fluid & Medication**
- **Patient Identification Policy (Volume 11)**

1 Cytotoxic and Biotherapy Medication Management

Policy

To ensure safe staff handling, administration and disposal of cytotoxic and biotherapy drugs and related waste to prevent or minimise occupational exposure to cytotoxic and biotherapy drugs.

To ensure the safety of all patients within a cytotoxic or biotherapy environment

Criteria

Cytotoxic medications may be used for two purposes:

- Treating cancer
- As immunosuppressant agents used to treat non-malignant conditions e.g. rheumatoid arthritis, immunological conditions

Associated Documents

- Vol 2 Quality and Legal http://intraweb.cdhb.local/corp-quality/settingstandards/volume2.htm
- Vol 6 Health and Safety Manual http://intraweb.cdhb.local/manuals/firstline/volume6.pdf
- Vol 10 Infection Control http://www.cdhb.govt.nz/cdhbpolicies/vol10.htm
- Generic Cytotoxic SLP http://www.cdhb.govt.nz/cytotoxic/self.htm
- Cytotoxic and Biotherapy Credentialing Programme http://www.cdhb.govt.nz/cytotoxic/iv.htm
- Casual Staff "Here for the day booklet" Blood and Cancer Service
- Area specific individualised prescriptions
- Peripheral IV Therapy Policy Vol 12 http://www.cdhb.govt.nz/cdhbpolicies/documents/vol12/4749-peripheral-iv.pdf
- CVAD policy Vol 12 http://www.cdhb.govt.nz/cdhbpolicies/documents/vol12/4741-cvad%20inserter%20addition%202012.pdf

1.1 Scopes and Credentialing

Oral/Intramuscular/Subcutaneous Cytotoxic

- Senior Medical Officer (SMO)
- Speciality Registrar
- RN's who have successfully completed the generic cytotoxic self-learning package.
- EN's who have successfully completed the generic cytotoxic self-learning package **may double independent check and administer oral** cytotoxic agents only.
- Restricted scope EN's who have successfully completed the generic cytotoxic self-learning package may only double check **oral** cytotoxic agents **(not administer)**
- Verification will be placed on the CDHB Training Database

IV Cytotoxic

- Senior Medical Officer (SMO)
- Speciality Registrar
- Registered Nurses who are at least Level 1 IV Certificated and have successfully completed the IV Cytotoxic and Biotherapy Competency
- Verification will be placed on the CDHB Competency Database
- IV recertification is required every 3 years

Please Note: Ganciclovir and Pentamidine - RNs who have completed the generic cytotoxic SLP may check and administer ganciclovir and pentamidine IV. No other IV cytotoxic agents are covered.

Intrathecal Cytotoxic

This scope is limited to CDHB staff on the Intrathecal Register

Refer to Pharmacy Intranet site for the register and policy
http://intranet.cdhb.local/division/ms/om/ph/ch/Lists/Services/Attachments/2/Intrathecal%20Chemotherapy%20Policy.pdf

Verification will be placed on the Intrathecal Register or the Pharmacy Services website

Intravenous Biotherapy

Level one IV certification is required.

Refer to roles and responsibilities policy
http://www.cdhb.govt.nz/cdhbpolicies/documents/vol12/4721-roles-responsibilities.pdf

Scope for other cytotoxic routes

Staff must follow local area policy and consider their scope of practice and educational requirements prior to approval to administer in the following areas.

Bladder – Limited to Urology service

Intraocular – Limited to Theatre and Ophthalmology service

Trans arterial chemo embolisation – Limited to DSA

Topical – Limited to Theatre

Intra pleural – Limited to Respiratory

1.2 Environmental and Safety Requirements

- IV cytotoxic or biotherapy administration must be undertaken in designated clinical areas that are equipped to deal with any emergencies that might arise from the treatment i.e. spills, extravasations', hypersensitivity reactions
- The designated clinical areas staff must have knowledge of the potential side effects or hazards of handling cytotoxic or biotherapy drugs and cytotoxic waste
- All patients receiving cytotoxic drugs should be identified as receiving these drugs by displaying a cytotoxic bedside card available from medical illustrations
- Personal Protective Equipment (PPE) appropriate for cytotoxic/biotherapy administration must be worn. This is considered to be a long sleeved cuffed fluid impermeable gown, long cuffed gloves. Mask and goggles are optional.
- Spills/contamination/waste management must be managed as stated in 1.7 and 1.8

1.2.1 Nurses who are Pregnant or Breastfeeding

- Registered Nurses who have cytotoxic and biotherapy competency and are pregnant, breastfeeding or planning pregnancy have the right to decline handling cytotoxic or biotherapy drugs
- Are still able to act as a double independent checker

1.2.2 Casual Nursing Staff

To ensure casual staff safety when deployed to areas where cytotoxic/ biotherapy drugs are present, the CNM/NIC must make the nurse aware of the safe handling and disposal of waste precautions

1.3 Informed Consent for Chemotherapy

1.3.1 SMO/Registrar Responsibilities

The SMO is ultimately responsible for ensuring sufficient information is provided to the patient prior to obtaining written informed consent

1.3.2 Nurses Responsibilities

The Nurse must ensure the informed consent process has been undertaken and the patient family/whānau/significant others possess

appropriate knowledge prior to administration of cytotoxic or biotherapy drugs

1.4 Patient and Family/Whānau Education

The Nurse must ensure that the patient and their family/whanau know what action is to be taken if problems are encountered both in hospital and on discharge and have contact details

1.5 IV Administration Safety Considerations

For further information refer to cytotoxic and biotherapy website
http://www.cdhb.govt.nz/cytotoxic/default.htm

1.6 Procedural Considerations

For further information refer to cytotoxic and biotherapy website
http://www.cdhb.govt.nz/cytotoxic/default.htm

1.6.1 Complications

Flare Reactions

Refer to complications of IV therapy section
http://www.cdhb.govt.nz/cdhbpolicies/documents/vol12/4746-iv-complications.pdf

Extravasation Requirements

- Extravasation kits must be available in clinical areas administering cytotoxic and biotherapy drugs
- Refer to complications of IV therapy section for general requirements http://www.cdhb.govt.nz/cdhbpolicies/documents/vol12/4746-iv-complications.pdf
- Refer to cytotoxic and biotherapy website for procedural management of extravasation.

1.7 Waste Management

- Refer to Cytotoxic/Biotherapy website for further training and procedural information http://www.cdhb.govt.nz/cytotoxic/default.htm
- All cytotoxic waste needs to be handled and disposed of in accordance with OSH guidelines and Volume 2 Legal and Quality CDHB manual
- All staff required to handle cytotoxic waste have received education on safe handling.
- Most cytotoxic drugs are primarily eliminated by renal and faecal excretion although other routes of excretion may include sweat, saliva, vomit and other body fluids.
- Cytotoxic drugs or the metabolites may remain in body fluids for up to 7 days after treatment. Generally the majority have been excreted within 48-72 hours of administration. Biotherapy and their metabolites are excreted within 48hrs.
- Therefore the use of personal protective equipment and precautions should continue as standard practice when handling body fluids at all times. Equipment containing or contaminated by cytotoxic/biotherapy waste: pans, jugs, urinals, potties, catheter bags must be emptied immediately. This reduces the risk of exposure to potential contaminants.

1.7.1 Disposal of Patient Waste

- When handling cytotoxic excreta wear non-sterile gloves and a long sleeved disposable gown
- Cytotoxic patient waste should be flushed twice when in health care facilities.
- Patients outside health care facilities should flush with a full flush after use with the lid down where possible or flush twice if water pressure is low.
- Nappies should be weighed in a sealed impermeable bag.
- Pans, urinals, jugs, potties contaminated by cytotoxic waste should be sanitised immediately after use. This equipment must be sanitised separately and if waiting for sanitation, this equipment should be covered with a plastic-backed absorbent cover, labelled with cytotoxic stickers and set aside from other equipment.

1.7.2 Disposal of Equipment

- Immediately after use, place all cytotoxic/biotherapy contaminated sharps, into a cytotoxic sharps container.

- IV administration sets should not be disconnected from infusion bags. On completion of infusion, discard complete unit into a cytotoxic waste bag.
- Place all materials used in the preparation and administration of cytotoxic/biotherapy drugs such as gloves, gowns and syringes in a cytotoxic waste bag.

1.7.3 Management of Contaminated Hospital Linen/Clothing

- Linen/clothing contaminated with cytotoxic/biotherapy drugs, blood, vomit or excreta from a patient who has received cytotoxic drugs within 48 hours should be treated as hazardous, requiring specific handling measures.
- Personnel handling this linen/clothing should wear protective gloves and long sleeve disposable gowns when handling this material
- All contaminated hospital linen/clothing should be bagged in an alginate liner inside a red laundry bag and sent immediately to the laundry.

1.7.4 Management of Contaminated Personal Laundry

- Personal clothing that is contaminated must be double bagged in plain plastic bags and washed as soon as possible at home or at ward level. It should be washed separately from other non contaminated items in hot water twice.
- Education of persons handling personal laundry should be undertaken to minimise risk of exposure.

Please Note: If contamination of items is very extensive disposal of items may need to be considered

1.7.5 Management of Deceased Patients

- Patients who have received cytotoxic agents within 7 days of death should be handled post mortem using cytotoxic precautions.
- A purple cytotoxic label should be placed on the mortuary envelope and orderly and mortuary staff made aware of safe handling requirements.
- The mortuary will notify undertakers of precautions required and supply cytotoxic waste resources as required.

1.8 Cytotoxic/Biotherapy Spills

- A spill situation includes any cytotoxic/biotherapy drug or body fluid which may inadvertently leak or spill in any way.
- All staff required to handle a spill situation must have received information/education on how to manage a spill
- A spill involving a cytotoxic/biotherapy drug may present a higher risk than a body fluid spill. However, unchanged drug or active metabolites may be present in body fluids in high concentrations within the first 48-72 hours of cytotoxic/biotherapy drugs being administered and therefore should be treated in the same manner as a drug spill. The full spill procedure should be followed in these situations
- Refer to the cytotoxic and biotherapy website for procedural information on managing a spill situation http://www.cdhb.govt.nz/cytotoxic/default.htm
- Greater than 48 hours after administration may present a lower risk. Staff should remain vigilant and wear PPE appropriate to the situation.

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