Cytotoxic and Biotherapy Medication Management protocol

Contents

Purpose

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 according to NZ standard for antineoplastic drug administration.

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

The CDHB Canterbury Regional Cancer & Haematology Service (CRCHS) utilises resources developed by eviQ. Critical notes highlight local practice requirements on the Cytotoxic and Biotherapy Resources website. Critical notes must be read in conjunction with procedures and resources.

Criteria

Cytotoxic therapy has the potential to cause carcinogenic, mutagenic and teratogenic changes and therefore require safe handling measures.

Biological therapy involves the use of living organisms, substances derived from living organisms, or laboratory-produced versions of such substances. Some do not target cancer cells directly. Other biological therapies do target cancer cells directly. Biological therapies that interfere with specific molecules involved in tumour growth and progression are also referred to as targeted therapies.

Both of these groups of therapies may be used to treat malignant or non-malignant conditions.

Other drugs may be classified as hazardous (e.g. ganciclovir) and require precautions. Please refer to cytotoxic and biotherapy resources website for information.

Associated documents

National standards for antineoplastic drug administration NZ

Legal and Quality Policies and Procedures

Health, Safety and Wellbeing Policies and Procedures

Infection Prevention and Control Policies and Procedures

eviQ Antineoplastic Drug Administration Courses on healthLearn eviQ Immunotherapies course on healthLearn

Peripheral IV Therapy Policy (CDHB Fluid and Medication policies)

CVAD policy (CDHB Fluid and Medication policies)

Area specific individualised prescriptions

Cytotoxic and Biotherapies Resources website

Definitions

Cytotoxic Personal Protective Equipment (PPE) consists of:

- Long sleeved impermeable gown that is cuffed and can be tied at the back
- Chemo protectant gloves are gloves that are non-sterile and have reinforced finger tips and a long cuff.

Standard PPE consists of:

- Plastic apron
- Non-sterile disposable gloves

Scopes and Credentialing

Cytotoxic Prescribing

- Senior Medical Officer
- Speciality Registrar
- Nurse Practitioner (NP)

Cytotoxic Drug Administration in Non-Cancer Settings

- RN's who have successfully completed the eviQ Antineoplastic Drug Administration Course (ADAC) for non-cancer settings can administer cytotoxic drugs that are relevant to their area of work/clinical practice. This may include administration of intravenous (IV), intramuscular (IM), sub cutaneous (SC), topical and oral drugs. Each clinical area is responsible for determining this and ensuring the appropriate competence assessment is completed.
- EN's who have successfully completed the eviQ ADAC for non-cancer settings can double independent check and administer oral cytotoxic agents only.
- Restricted scope EN's who have successfully completed the eviQ ADAC for non-cancer settings can double check oral cytotoxic agents **ONLY**.
- Recertification is not required. Please see the Cytotoxic and Biotherapy Resources website for further information.

Cytotoxic Drug Administration in Cancer Settings

Child Health

- RN's who have successfully completed the eviQ Paediatric ADAC course, can administer cytotoxic drugs via the following routes IV, IM, SC and oral.

Adult Areas

- RN's who have successfully completed the eviQ Adult ADAC course, can administer cytotoxic drugs via the following routes IV, IM, SC, topical and oral.
- EN's who have successfully completed Modules 1-6 of the eviQ Adult ADAC course can independent double check and administer oral cytotoxic drugs.
- Restricted scope EN's who have successfully completed Modules 1-6 of the eviQ Adult ADAC course can independent double check oral cytotoxic drugs only.

Recertification

- Verification will be placed on the CDHB Competency Database and recertification is required every 3 years.

Intrathecal Cytotoxic Administration

Scope for intrathecal administration is limited to CDHB staff on the Intrathecal Register. Training for this scope is outlined in the CDHB preparation, distribution and administration of intrathecal chemotherapy policy.

Refer to Pharmacy Intranet site for the policy and the Intrathecal Register.

Intraventricular Cytotoxic Administration

Intraventricular administration is exceptionally rare and should be undertaken by a Senior Medical Officer familiar with the procedure.

Intravenous Biotherapy and Immunotherapy Administration

RN's with IV endorsed certification at level 1 for peripheral IV therapy and level 2 for CVAD therapy, as per the Roles and Responsibilities policy, can administer biotherapies/immunotherapies.

Successful completion of the eviQ Immunotherapies e-learning course is recommended but not essential for administration.

Refer to Cytotoxic and Biotherapy Resources website for safe handling and waste management of biotherapy/immunotherapies

Please note: Biotherapies/immunotherapies that are conjugated with cytotoxic agents must be treated as 'cytotoxic'.

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 the Ophthalmology service

Trans arterial chemo embolisation – Limited to Interventional Radiology

Intra pleural – Limited to Respiratory

Environmental and Safety Requirements

- IV cytotoxic 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, infusion related reactions.
- Clinical staff working in designated areas must have knowledge of the potential side effects and hazards when handling cytotoxic and/or biotherapy drugs and associated waste.
- All patients receiving cytotoxic drugs should be identified as receiving these drugs by displaying a cytotoxic icon on any patient information board (Floview).
- Personal Protective Equipment (PPE) appropriate for cytotoxic/biotherapy administration must be worn. Refer to the CDHB Cytotoxic and Biotherapy Resources website here.
- Spills/contamination/waste management must be managed as per the CDHB Cytotoxic and Biotherapy Resources website here.

Nurses who are Pregnant or Breastfeeding

- Registered Nurses who have completed ADAC certification 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.

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.

Informed Consent for cytotoxic and biotherapy treatment

SMO/Registrar/NP Responsibilities

The SMO/NP or their delegate is responsible for ensuring sufficient information is provided to the patient prior to obtaining written informed consent.

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.

Patient and Family/Whānau Education

Education is a continuous process throughout any treatment undertaken. The patient and their family/whanau should be provided with oral and written information.

The nurse must ensure 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.

IV Administration Safety Considerations

Administration of Vesicant Drugs

- Vesicant drugs may only be infused through a CVAD or administered as a bolus through a peripheral cannula.
- Exception: Vinca alkaloids that are in a minibag may be administered via a peripheral cannula using gravity. An ADAC credentialed nurse must remain with the patient throughout the infusion.

Administration of Irritant Drugs

- Irritant drugs may be administered by gravity infusion or using a volumetric pump (pressure setting must be at maximum of L3).

For further information refer to Cytotoxic and Biotherapy Resource website.

Procedural Considerations

Refer to the Cytotoxic and Biotherapy Resource website here.

All patients must have a baseline set of bloods within one month of commencing treatment. This should include a complete blood count (including differential), renal function and liver function tests as a minimum (ONCO+AST or HEMA profile). If the patient has received any other treatment e.g. radiation please consult with SMO/NP to clarify if further blood tests are required.

Closed IV administration systems

IV chemotherapy may be administered using a closed IV system.

Complications

Refer to the CDHB Cytotoxic and Biotherapy Resources website here.

Waste Management

- All staff required to handle cytotoxic waste must complete education on safe handling. Refer to health Learn for eviQ e-learning module on safe handling.
- All cytotoxic waste needs to be handled and disposed of in accordance with OSH guidelines and CDHB Legal and Quality policies and procedures.

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.

Cytotoxic Spills

- Refer to the CDHB Cytotoxic and Biotherapy Resources website for spill management here
- A spill includes any cytotoxic drug or body fluid which may inadvertently leak or be spilt in any way.
- All staff required to handle a spill situation must have received education on how to manage a spill

- A cytotoxic spill may present a higher risk than a normal body fluid spill. Unchanged cytotoxic drug or the active metabolites may be present in body fluids within 48-72 hours of administration and therefore should be treated in the same manner as a drug spill. The full spill procedure should be followed in these situations
- Greater than 48 hours after administration may present a lower risk. Staff should remain vigilant and wear PPE appropriate to the situation.

Accidental Contamination

This may include contamination of clothing, PPE, penetrating injuries (needle stick), skin and other body contact and mucosal exposure

Refer to Cytotoxic and Biotherapies Resource website for further information.

Measurement or Evaluation

Audits may be undertaken by nursing staff against this policy and supporting procedure documents for chemotherapy administration.

Safety First Incident Management process

References

Guide for handling cytotoxic drugs and related waste. Office of Industrial Relations Workplace Health and Safety, 2018.

eviQ clinical resources, 2018

Chemotherapy and Biotherapy Guidelines and Recommendations for Practice. Eds. Polovich, M., White, J.M., Kelleher, L.O., (4th Ed), Oncology Nursing Society: Pittsburgh, 2014

Policy Owner	Canterbury Regional Cancer and Haematology Service CNS
Policy Authoriser	Chief Medical Officer & Executive Director of Nursing
Date of Authorisation	9 October 2018