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Policy Name: Administration of Intrathecal Chemotherapy

Policy No: MHS-MAH-005

PRINCIPLE:

Intrathecal chemotherapy is an effective and important part of the treatment for a variety of malignancies (particularly haematological).

Accidental intrathecal administration of the vinca alkaloid vincristine has been well described and continues to occur in a very low but nevertheless disturbing frequency.

ACCIDENTAL INTRATHECAL ADMINISTRATION OF VINCA ALKALOIDS IS INVARIABLY FATAL

These accidents should be preventable with appropriate policies in place.

This policy is designed to facilitate the expeditious administration of intrathecal chemotherapy while eliminating the risks of an inadvertent administration error ever occurring.

This policy document must be read by all medical, nursing and pharmacy staff involved in the prescribing, preparation and administration of chemotherapy on commencement of employment at the Mater Health Services.

POLICY:

Intrathecal chemotherapy should, wherever possible, be administered within working hours. If administration occurs outside normal working hours then ALL procedures within this policy must be followed.

Authorised persons are defined as:

- A doctor who has completed the Intrathecal Chemotherapy Administration Competency Assessment
- A pharmacist who has current oncology/haematology competency and experience
- A specialist or Fellow Haematologist/Oncologist
- A Registered Nurse who has a current chemotherapy competency

1. Training to prescribe, dispense and administer intrathecal chemotherapy

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- 1.1. ALL DOCTORS who administer intrathecal chemotherapy must have been trained and deemed competent to do so.
 - 1.2. Competency for existing clinicians delivering intrathecal therapy will be determined by the respective department heads (based on their experience and recent history of intrathecal administration) and this current list will be documented. These doctors may then act as supervisors of new doctors at **the discretion of the haematology/oncology consultant**
 - 1.3. New doctors will be asked to perform a competency consisting of at least 2 supervised procedures on 2 separate occasions.
 - 1.4. A designated intrathecal chemotherapy competency form will be completed and signed by the doctor who is being assessed and their supervisor in the respective unit after this training is complete. These forms will be kept on file in the respective departments to create a register of doctors deemed competent to administer intrathecal therapy.
 - 1.5. ALL Nursing staff required to administer intrathecal chemotherapy via an Ommaya reservoir must have been trained and deemed competent to do so.
- 2. Prescribing intrathecal chemotherapy**
- 2.1. Only methotrexate, cytarabine (cytosine arabinoside), hydrocortisone and (rarely) thiotepa may be given intrathecally.
 - 2.2. Intrathecal chemotherapy may only be prescribed by a consultant, fellow or trained registrar in haematology/oncology.
 - 2.3. Prescriptions for intrathecal chemotherapy must specify the route of administration as **"INTRATHECAL"** written in full, in capitals and in bold for computer generated proformas. The abbreviation IT will be deemed unacceptable.
- 3. Dispensing intrathecal chemotherapy**
- 3.1. A register of pharmacy staff who are authorised as competent to clinically verify chemotherapy prescriptions and who are authorised to dispense, release and issue or deliver intrathecal chemotherapy will be maintained and kept in the Mater Pharmacy (Cancer Services).
 - 3.2. All intrathecal doses must be dispensed and packaged separately from other chemotherapy
 - 3.3. All vinca alkaloids for administration to adult patients (attending an adult ward) must be prepared and supplied in an infusion bag. The volume will be 50ml. to be administered over 10-15 minutes

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- 3.4. All vinca alkaloids for administration to paediatric patients (attending a paediatric ward) must be prepared in a volume of no less than 20ml and supplied in a syringe to be administered over 5 minutes. Paediatric patients greater than 50kg should receive the infusion volume of 50ml.
- 3.5. The intended route of administration should be specified as "intrathecal" on the label on the syringe
- 3.6. Distinctive warning labels are to be placed on Vina alkaloids syringes, "FOR INTRAVENOUS USE ONLY. FATAL IF ADMINISTERED BY ANY OTHER ROUTE"

4. Distribution and storage of intrathecal chemotherapy

- 4.1. All intrathecal chemotherapy shall be stored IN THE PHARMACY until the patient is ready to have their lumbar puncture.
- 4.2. The pharmacy will be called WHEN THE INTRATHECAL CHEMOTHERAPY IS IMMINENTLY REQUIRED so that it may be either be delivered or picked-up

For adult patients:-

- 4.3. The intrathecal chemotherapy must be delivered directly to the authorised nurse or doctor attending to the patient for the intrathecal administration. It is NOT to be placed with other chemotherapy stock in the ward or clinic.
- 4.4. A signature will be required on receipt of the intrathecal dose by either the authorised nurse or doctor attending to the patient for the intrathecal administration.
- 4.5. In unforeseen circumstances where the lumbar puncture has been delayed for a short period of time (eg 1-2 hours) the intrathecal chemotherapy must be placed in a designated and clearly labelled storage container in the chemotherapy fridge until use. This container must only be used for storage of intrathecal doses.
- 4.6. Intrathecal therapy should not be stored in the ward or clinical areas for a period greater than 2 hours and should be returned to pharmacy where practical. If this time period occurs out of hours then the dose must be returned to pharmacy immediately on the next working day.

For paediatric patients:-

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- 4.7. The intrathecal chemotherapy must be collected from pharmacy by an authorised nurse or doctor accompanying the patient to theatre. It is NOT to be delivered to the ward or clinic.
- 4.8. A signed chemotherapy order is required by pharmacy to release the intrathecal dose to the nurse or doctor
- 4.9. Pharmacy will sign the chemotherapy chart with a date and time to confirm that the dose has been released
- 4.10. No other chemotherapy will accompany the patient to theatre
- 4.11. In unforeseen circumstances where the lumbar puncture has been delayed the intrathecal chemotherapy must be placed in a designated and clearly labelled storage container and should be returned to pharmacy where practical. If this time period occurs out of hours then the dose must be returned to pharmacy immediately on the next working day.

5. Administration of Intrathecal chemotherapy

- 5.1. Intrathecal chemotherapy must be administered by a doctor whose competence has been determined as above. In the instance of intrathecal chemotherapy being administered via an Ommaya reservoir it may be administered by either a doctor or a nurse with competency for this specific route of administration.
- 5.2. Only intrathecal chemotherapy should be taken to operating theatres or radiology departments.
- 5.3. At the patient's bedside the doctor must check (with a chemotherapy competent registered nurse, pharmacist or another doctor who is competent in intrathecal drug administration) the patient's name and UR number, correlating the details on wrist band with the prescription, chemotherapy syringe and where possible with the patient themselves.
- 5.4. Immediately prior to administration the doctor must then check (with a chemotherapy competent registered nurse, pharmacist or another doctor who is competent in intrathecal drug administration) that the drug, dose, route of administration and the intended date of administration correlate to the details on the chemotherapy prescription.
- 5.5. The doctor and second authorised person checking must then both sign the prescription to confirm that these checks have been made and are satisfactory

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5.6. After the procedure the doctor must sign the prescription to confirm administration has been completed and indicate the time of administration on the prescription

6. Points for the attention of nursing staff

- 6.1. Registered Nurses deemed competent to administer intravenous chemotherapy may be required to check intrathecal chemotherapy with a doctor immediately prior to administration.
- 6.2. A register of such chemotherapy-competent nurses is maintained and is accessible at all times.
- 6.3. Registered Nurses may be required after appropriate training and competency to administer intrathecal chemotherapy via an Ommaya reservoir.
- 6.4. Vinca alkaloids are classed as vesicants. Nursing staff must be aware of the procedure for preventing and treating extravasation including the checking of IV sites and the specific treatment used for extravasation of vinca alkaloids.

LINKS:

Intrathecal Chemotherapy Administration Competency Assessment

<http://172.30.20.29/DocCube/default.asp?Id=3084>