Thames Valley
Strategic Clinical Network

CYTARABINE INTRATHECAL (MYELOID)

INDICATION

CNS disease in AML or ALL.

ALL INTRATHECAL DRUGS TO BE ADMINISTERED IN ACCORDANCE WITH NATIONAL GUIDANCE AND LOCAL POLICY

TREATMENT INTENT

Curative

PRE-ASSESSMENT

1. Blood tests - FBC, U&Es, LFTs, coagulation screen.
2. Ensure histology is confirmed prior to administration of chemotherapy and document in notes
3. Record stage of disease
4. Urine pregnancy test - for all women with childbearing potential before each new chemotherapy course.
5. Record performance status (WHO/ECOG)
6. Consent - ensure patient has received adequate verbal and written information regarding their disease, treatment and potential side effects. Document in medical notes all information that has been given. Obtain written consent on the day of treatment
7. Fertility - it is very important the patient understands the potential risk of infertility, all patients should be offered fertility advice (see Fertility Guidelines)
8. Treatment should be agreed in the relevant MDT

DRUG REGIMEN / CYCLE FREQUENCY

Use in combination with Intrathecal Methotrexate/systemic chemotherapy.

If a patient presents with physical signs suggesting CNS disease and a lumbar puncture can safely be performed:

CYTARABINE 70mg INTRATHECAL **STAT**

Then if blast cells are identified in the CSF sample:

CYTARABINE 70 mg INTRATHECAL on **Day 1 and 4** each week until there is a clear CSF sample.

Thereafter repeat treatment at approximately 2 weekly intervals until consolidation treatment is completed.

DOSE MODIFICATIONS

Schedule may need modification if the platelet count is very low or coagulation is abnormal. If platelets <40x10^9/L give 1-2 pools of platelets (depending on prior platelet increments) just before/during procedure. Correct any coagulation abnormality.

CONTRAINDICATIONS

Hypersensitivity to the active substance or to any of the excipients
Anaemia, leucopenia and thrombocytopenia of non-malignant aetiology (e.g. bone marrow aplasia), unless the benefits outweigh the risk.
Degenerative and toxic encephalopathies, especially after the use of other neurotoxic drugs, including neurotoxic chemotherapy and/ or treatment with ionizing radiation. Particular attention must be paid to concurrent administration of high-dose cytarabine with or without fludarabine. Careful risk benefit analysis should be conducted.
Pregnancy – administer on strict indication, where benefits to mother are weighed against possible hazards to the fetus.

SPECIAL WARNINGS / PRECAUTIONS / MONITORING

Mutagenicity and carcinogenicity, hyperuricaemia, abdominal tenderness (peritonitis) and guaiac positive colitis, with concurrent neutropenia and thrombocytopenia; anaphylaxis
Concurrent granulocyte-transfusion should be avoided as severe respiratory insufficiency has been reported.
Vaccination with a live vaccine should be avoided.
Rare neurological effects reported predominantly associated with intrathecal administration.

INVESTIGATIONS

- FBC

CONCURRENT MEDICATION

See individual treatment protocol

EMETIC RISK

Low

ADVERSE EFFECTS / REGIMEN SPECIFIC COMPLICATIONS

Very commonly reported:
Headache, nausea, cytarabine syndrome (immunoallergic effect)

For all other adverse effects, refer to SPC.

TREATMENT RELATED MORTALITY

Less than 1%

REFERENCES

1. Working Parties on Leukaemia in Adults and Children (2011). Triial in Acute Myeloid Leukaemia or High Risk Myelodysplastic Syndrome 17 (AML17). Version 7.1 June 2017.
2. Estcourt et al (2017) BSH Guidelines for the use of platelet transfusions. BJH 176:365-394.
3. Hospira UK.Cytarabine Injection 02mg/mL Summary of product characteristics. Last updated: 26/4/2021. Accessed on: 31/10/2022. Available at http://www.medicines.org.uk/emc
4. Department of Health (2008) Updated national guidance on the safe administration of intrathecal chemotherapy, Health Service Circular ,HSC 2008/001. Available at http://webarchive.nationalarchives.gov.uk/20130107105354/http:/www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_086844.pdf. Accessed 22/03/2017.
5. National Patient Safety Agency (2008) Using vinca alkaloid minibags (Adult/Adolescent units) Rapid response report NPSA/2008/RRR004. Available at http://www.nrls.npsa.nhs.uk/resources/?entryid45=59890. Accessed 23/09/2019

REVIEW

Name	Revision	Date	Version	Review date
Julia Wong	New protocol	March 2017	1.0	
Cheuk-kie Cheung	General formatting	May 2017	1.1	
Cheuk-kie Jackie Cheung, Haematology Pharmacist. NSSG Myeloid Group	Annual protocol meeting	Oct 2019	1.2	Oct 2021
Yen Lim, Haematology Pharmacist Andy Peniket, Consultant Haematologist NSSG Myeloid Group	Annual protocol meeting. Dosing and frequency updated.	Nov 2022	2.0	Nov 2024