

## Intrathecal Methotrexate for haematological malignancies

### INDICATIONS FOR USE:

INDICATION	ICD10	Regimen Code	HSE approved Reimbursement Status*
Central Nervous System (CNS) prophylaxis and treatment in patients with Acute Myeloid Leukaemia (AML)	C92	00869a	N/A
CNS treatment in patients with Acute Lymphoblastic Leukaemia (ALL)	C91	00869b	N/A
Prophylaxis and treatment of CNS disease in Non-Hodgkin Lymphomas	C83, C85	00869c	N/A

\* This applies to post 2012 indications

### TREATMENT:

*The starting dose of the drugs detailed below may be adjusted downward by the prescribing clinician, using their independent medical judgement, to consider each patient's individual clinical circumstances.*

CSF should be sampled prior to intrathecal (IT) administration.

The **day** of administration will depend on the indication and concurrent systemic anti-cancer therapy (SACT) regimen.

Facilities to treat anaphylaxis MUST be present when the SACT is administered

**Refer to NCCP Guidance on the Safe Use of Intrathecal Chemotherapy in the Treatment of Cancer**

<https://www.hse.ie/eng/services/list/5/cancer/profinfo/medonc/safetyreview/itcguidance.pdf>

There should be a register for the Hospital of named personnel who are trained and certified competent to participate in intrathecal chemotherapy tasks.

Day	Drug	Dose	Route	Diluent & Rate	Cycle
1 <sup>a</sup>	Methotrexate	12.5mg	Intrathecal	N/A	As per concurrent SACT regimen

<sup>a</sup> Day of administration may vary depending on concurrent SACT regimen or at the discretion of the treating physician.

### ELIGIBILITY:

- Indications as above

### EXCLUSIONS:

- Hypersensitivity to methotrexate or any of the excipients
- Raised intracranial pressure (ICP) or impending herniation
- Local Infection at the puncture site

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Tumour Group: Lymphoma and Other Lymphoproliferative Disorders, Leukaemia and Myeloid Neoplasms NCCP Regimen Code: 00869	IHS Contributor: Amjad Hayat	Page 1 of 4
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- Severe thrombocytopenia and coagulopathy that is not correctable

## PREScriptive AUTHORITY:

The treatment plan must be initiated by a Consultant Medical Oncologist or by a Consultant Haematologist working in the area of haematological malignancies.

## TESTS:

### Baseline tests:

- FBC, renal and liver profile
- Coagulation screen as per local policy.

### Regular tests:

- Coagulation screen as per local policy prior to each dose.

### Disease monitoring:

Disease monitoring should be in line with the patient's treatment plan and any other test/s as directed by the supervising Consultant.

## DOSE MODIFICATIONS:

- Dose modifications are not usually recommended.

## SUPPORTIVE CARE:

### EMETOGENIC POTENTIAL:

- As outlined in NCCP Classification Document for Systemic Anti-Cancer Therapy (SACT) Induced Nausea and Vomiting- [Available on the NCCP website](#)

Antiemetics are not routinely required with this regimen (**Refer to local policy**)

### For information:

Within NCIS regimens, anti-emetics have been standardised by the Medical Oncologists and information is available in the following document:

- NCCP Supportive Care Antiemetic Medicines for **Inclusion in NCIS** (Medical Oncology) - [Available on the NCCP website](#)
- NCCP Supportive Care Antiemetic Medicines for **Inclusion in NCIS** (Haemato-oncology) - [Available on the NCCP website](#)

**PREMEDICATIONS:** Not usually required.

### OTHER SUPPORTIVE CARE:

- Anticoagulants and antiplatelets can increase the risk of bleeding when intrathecal therapy is given during lumbar puncture. Consider the risk of bleeding versus the risk of thrombosis and hold

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anticoagulants and antiplatelets prior to intrathecal treatment as per local guidelines.

- Refer to local guidelines for management of patients post lumbar puncture.
- Headaches may occur post lumbar puncture. Analgesic cover should be considered.

## ADVERSE EFFECTS:

- Please refer to the relevant Summary of Product Characteristics (SmPC) for full details.

## REGIMEN SPECIFIC COMPLICATIONS:

- Post procedure: headache, dizziness, bruising, swelling and discomfort at injection site; less common – arachnoiditis, fever, infection and rarely leucoencephalopathy
- Intrathecal methotrexate can reach the blood stream and can have systemic effects.
- Prolonged cytopenias are known to occur in rare cases following intrathecal administration which may affect stem cell harvesting.

## DRUG INTERACTIONS:

- Current drug interaction databases should be consulted for more information.

## REFERENCES:

1. Kuitunen H, et al. Impact of central nervous system (CNS) prophylaxis on the incidence of CNS relapse in patients with high-risk diffuse large B cell/follicular grade 3B lymphoma. *Annals of Hematology*, 2020. 99: 1823–1831.
2. McKay P, et al. The prevention of central nervous system relapse in diffuse large B-cell lymphoma: a British Society for Haematology good practice paper. *British Journal of Haematology*, 2020. 190: 708–714.
3. McMillan A, et al. Guideline on the prevention of secondary central nervous system lymphoma: British Committee for Standards in Haematology. *British Journal of Haematology*, 2013. 163: 168–181.
4. Dodd KC, Emsley HCA, Desborough MJR, et al. Periprocedural antithrombotic management for lumbar puncture: Association of British Neurologists clinical guideline. *Pract Neurol* 2018; 18:436–446.
5. NCCP Classification Document for Systemic Anti-Cancer Therapy (SACT) Induced Nausea and Vomiting. V6 2025. Available at: <https://www.hse.ie/eng/services/list/5/cancer/profinfo/chemoprotocols/nccp-classification-document-for-systemic-anti-cancer-therapy-sact-induced-nausea-and-vomiting.pdf>
6. Methotrexate 50mg/2mL Summary of Product Characteristics. Last Updated 30/05/2024. Accessed August 2024. Available at: [https://www.hpra.ie/img/uploaded/swedocuments/Licence\\_PA0822-206-002\\_30052024165736.pdf](https://www.hpra.ie/img/uploaded/swedocuments/Licence_PA0822-206-002_30052024165736.pdf)

Version	Date	Amendment	Approved By
1	22/07/2025		Dr Amjad Hayat

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