

## Triple Intrathecal Therapy

### INDICATIONS FOR USE:

INDICATION	ICD10	Regimen Code	HSE approved Reimbursement Status*
Triple Intrathecal Therapy for treatment of Central Nervous System (CNS) disease in patients with Acute Lymphoblastic Leukaemia.	C91	00873a	N/A
Treatment of Central Nervous System (CNS) disease in patients with Acute Myeloid Leukaemia (AML)	C92	00873b	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.

Patients typically receive weekly or twice weekly triple intrathecal therapy until CSF is clear in two consecutive samples, or as per concurrent systemic anti-cancer therapy (SACT) regimen, or at the discretion of the treating physician.

Facilities to treat anaphylaxis MUST be present when 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	12mg	Intrathecal	N/A	Up to twice weekly at the discretion of the treating clinician.
1 <sup>a</sup>	Cytarabine	40mg	Intrathecal	N/A	Up to twice weekly at the discretion of the treating clinician.
1 <sup>a</sup>	<sup>i</sup> Hydrocortisone <sup>b</sup>	50mg	Intrathecal	N/A	Up to twice weekly at the discretion of the treating clinician.
<sup>a</sup> Day of administration may vary based on concurrent SACT regimen and at the discretion of the prescribing physician.					
<sup>b</sup> Preparations must not contain benzyl alcohol or other preservatives.					

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Tumour Group: Lymphoma and Other Lymphoproliferative Disorders, Leukaemia and Myeloid Neoplasms NCCP Regimen Code: 00873	IHS Contributor: Dr Amjad Hayat, Dr. Nina Orfali	Page 1 of 4
<p>The information contained in this document is a statement of consensus of NCCP and ISMO or IHS professionals regarding their views of currently accepted approaches to treatment. Any clinician seeking to apply or consult these documents is expected to use independent medical judgement in the context of individual clinical circumstances to determine any patient's care or treatment. Use of these documents is the responsibility of the prescribing clinician, and is subject to HSE's terms of use available at <a href="http://www.hse.ie/eng/Disclaimer">http://www.hse.ie/eng/Disclaimer</a></p> <p><i>This information is valid only on the day of printing, for any updates please check <a href="http://www.hse.ie/NCCPSACTregimens">www.hse.ie/NCCPSACTregimens</a></i></p>		

## ELIGIBILITY:

- Indications as above

## EXCLUSIONS:

- Hypersensitivity to methotrexate, hydrocortisone, cytarabine or any of the excipients
- Raised intracranial pressure (ICP) or impending herniation
- Local Infection at the puncture site
- Severe thrombocytopenia and coagulopathy that is not correctable

## PRESCRIPTIVE AUTHORITY:

The treatment plan must be initiated 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](#)

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- 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 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 leukoencephalopathy.
- 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:

- SA Health Cancer Drug Committee. Triple Intrathecal Therapy for prophylaxis of CNS Disease in B-ALL (in combination with blinatumomab ozogamicin). May 2024. Accessed March 2025. Available at: <https://www.sahealth.sa.gov.au/wps/wcm/connect/2d482a34-9501-453c-bc70-96d71b14e325/Triple+Intrathecal+Therapy+for+Prophylaxis+of+CNS+disease+in+B-ALL+%281%29.pdf?MOD=AJPERES&CACHEID=ROOTWORKSPACE-2d482a34-9501-453c-bc70-96d71b14e325-p0A08q1>
- Cancer Care Ontario Drug Formulary. CYTAMTRX(IT) Regimen. May 2019. Accessed March 2025. Available at: <https://www.cancercareontario.ca/en/drugformulary/regimens/47351>
- NHS Thames Valley Strategic Clinical Network. Methotrexate Intrathecal. v4 July 2022. Accessed March 2025. Available at: <https://nssg.oxford-haematology.org.uk/lymphoma/documents/lymphoma-chemo-protocols/L-85-methotrexate-intrathecal.pdf>

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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. Accessed March 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 26/02/2025. Accessed March 2025. Available at: <https://www.medicines.ie/medicines/methotrexate-50-mg-2-ml-injection-32842/spc>
7. Cytarabine 20mg/mL Summary of Product Characteristics. Last Updated 24/04/2024. Accessed March 2025. Available at: [https://assets.hpra.ie/products/Human/27656/Licence\\_PA2315-082-002\\_24042024150256.pdf](https://assets.hpra.ie/products/Human/27656/Licence_PA2315-082-002_24042024150256.pdf)
8. Hydrocortisone (Solu-Cortef) Powder for Injection or Infusion 100mg. Summary of Product Characteristics. Last updated 16/10/2024. Accessed March 2025. Available at: <https://www.medicines.ie/medicines/solu-cortef-powder-for-solution-for-injection-or-infusion-100-mg-33789/patient-info>

Version	Date	Amendment	Approved By
1	22/07/2025		NCCP ALL CAG

Comments and feedback welcome at [oncologydrugs@cancercontrol.ie](mailto:oncologydrugs@cancercontrol.ie).

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