# High Dose Cytarabine Consolidation Therapy (post R-MPV) - 28 day Therapy

## INDICATIONS FOR USE:

| INDICATION | ICD10 | Regimen Code | Reimbursement Status |
|---|---|---|---|
| Consolidation chemotherapy for the treatment of patients with newly diagnosed primary CNS lymphoma (PCNSL) | C85 | 00666a | Hospital |

## 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 patients individual clinical circumstances.*

- Treatment is administered after five to seven cycles of induction chemotherapy with R-MPV (Reference NCCP regimen 00664 riTUXimab, Methotrexate, Procarbazine and vinCRIStine (R-MPV) – 14 Days Induction Therapy) and whole brain radiotherapy.
- Treatment is administered on Days 1 and 2 of a 28 day cycle for two cycles.
    - Treatment with Cycle 2 may proceed on count recovery.

Facilities to treat anaphylaxis MUST be present when the chemotherapy is administered.

| Day | Drug | Dose | Route | Diluent & Rate | Cycle |
|---|---|---|---|---|---|
| 1 and 2 | Cytarabine | 3000mg/m$^2$ | IV infusion | 500mls NaCl 0.9% over 4 hours | Every 28 days for 2 cycles |

## ELIGIBILITY:

- Indications as above
- ECOG status 0-2

## CAUTION:

- May not be suitable for immunodeficient patients

## EXCLUSIONS:

- Hypersensitivity to cytarabine or any of the excipients
- Breast feeding
- Pregnancy

## PRESCRIPTIVE AUTHORITY:

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

## TESTS:

**Baseline tests:**

- FBC, renal and liver profile

**Regular tests:**

- FBC, renal and liver profile prior to each cycle

**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:

- Any dose modification should be discussed with a Consultant.
- Note: Dose modification required in renal impairment (Ref Table 1). Increased neurotoxicity may be seen with CrCl of <60ml/min.
- Consideration should be given to reducing doses of cytarabine in older patients and those with reduced renal or hepatic function. Elevations in liver function tests occur with both standard and high dose cytarabine. Significant liver function abnormalities may require discontinuation or a dose reduction. However doses of cytarabine less than 2 g/m$^2$ may be associated with inferior outcomes.

### Renal and Hepatic Impairment:

**Table 1: Dose modification of cytarabine in renal and hepatic impairment**

| Drug | Renal Impairment | | Hepatic Impairment |
|---|---|---|---|
| **Cytarabine** | **CrCl (ml/min)** | **Dose** | If bilirubin >34micromol/L, give 50% dose. Escalate doses in subsequent cycles in the absence of toxicity. |
| | >60 | 100% | |
| | 46-60 | 60% | |
| | 31-45 | 50% | |
| | <30 | CI | |

## SUPPORTIVE CARE:

**EMETOGENIC POTENTIAL:** Moderate (**Refer to local policy).**

### PREMEDICATIONS:

To prevent a chemical induced conjunctivitis developing with cytarabine, prednisoLONE eye drops (e.g. Pred Mild®) 1-2 drops per eye 4 hourly during waking hours prior to cytarabine and continued 5 days post treatment should be considered.

### OTHER SUPPORTIVE CARE:

- G-CSF prophylaxis required after each cycle, please discuss with consultant **(Refer to local policy)**
- Proton pump Inhibitor**(Refer to local policy)**
- Anti-viral prophylaxis **(Refer to local policy)**
- Anti-fungal prophylaxis **(Refer to local policy)**
- PJP prophylaxis **(Refer to local policy)**

## ADVERSE EFFECTS / REGIMEN SPECIFIC COMPLICATIONS:

*The adverse effects listed are not exhaustive. Please refer to the relevant Summary of Product Characteristics for full details*.

- **Myelosuppression:** Cytarabine is a potent bone marrow suppressant. Patients receiving this drug must be under close medical supervision. G-CSF prophylaxis is recommended.
- **Neurotoxicity:** This may occur in patients treated with high dose cytarabine. Assess cerebellar function prior to each cytarabine dose. The risk of neurotoxicity is enhanced in the presence of renal impairment. Ensure that dose of cytarabine is adjusted in renal impairment (Ref Table 1).
- **Cytarabine syndrome:** Treatment with cytarabine may cause a 'Cytarabine Syndrome' characterised by flu-like symptoms, skin rash and occasionally chest pain.
- **Hand-foot syndrome (HFS):** HFS, also known as palmar-plantar erythrodysaesthesia (PPE), may involve bilateral erythema, tenderness, pain, swelling, tingling, numbness, pruritus, dry rash, or moist desquamation and ulceration of the palms and soles. Symptoms appear to be dose dependent and palms are affected more than soles.
- **Skin Rash:** Anti-cancer drugs can cause a number of changes in the skin with maculo-papular rash the most common type of drug-induced skin reaction. Consider prednisolone prophylaxis on subsequent cytarabine cycles.

## DRUG INTERACTIONS:

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

## REFERENCES:


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2. eviQ. Primary CNS lymphoma (PCNSL) consolidation high dose cytarabine - Part 2. Last updated Mar 2020. Available at: https://www.eviq.org.au/haematology-and-bmt/lymphoma/primary-cns-lymphoma/1906-consolidation-high-dose-cytarabine-part-2
3. Dosage Adjustment for Cytotoxics in Renal Impairment January 2009; North London Cancer Network.
4. Dosage Adjustment for Cytotoxics in Hepatic Impairment January 2009; North London Cancer Network.
5. NCCP Classification Document for Systemic Anti-Cancer Therapy (SACT) Induced Nausea and Vomiting. V4 2022. 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. Cytarabine Summary of Product Characteristics. Last updated: 18/08/2021. Accessed Aug 2022. Available at: https://www.hpra.ie/img/uploaded/swedocuments/Licence_PA2315-082-001_26112020144445.pdf


| Version | Date | Amendment | Approved By |
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