**Clinical Question**

What are the optimum prevention approaches in the management of chemotherapy-induced neuropathies in adult cancer survivors?

**Recommendation**

There are no established agents recommended for the prevention of CIPN in cancer patients undergoing treatment with neurotoxic agents. This is based on the paucity of high-quality, consistent evidence and a balance of benefits versus harms.

Clinicians should not offer the following agents for the prevention of CIPN to cancer patients undergoing treatment with neurotoxic agents:

- acetyl-L-carnitine (ALC)
- amifostine
- amitriptyline
- CaMg for patients receiving oxaliplatin-based chemotherapy
- diethyldithio-carbamate (DDTC)
- glutathione (GSH) for patients receiving paclitaxel/carboplatin chemotherapy
- nimodipine
- Org 2766
- all-\textit{trans} retinoic acid
- rhuLIF
- vitamin E

**Evidence Rating**

Type: Evidence-based
Harms outweigh benefits
Evidence quality: Ranges from low to high
Strength of Recommendation: Ranges from inconclusive to strong against
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| **Continued,**                                                                                       | Venlafaxine is not recommended for routine use in clinical practice. While the venlafaxine data supports its potential utility, the data were not strong enough to recommend its use in clinical practice, until additional supporting data become available. | Type: Evidence-based  
Balance of benefits and harms  
Evidence quality: Intermediate  
Strength of Recommendation: Inconclusive |
| What are the optimum prevention approaches in the management of chemotherapy-induced neuropathies in adult cancer survivors? | No recommendations can be made on the use of N-acetylcysteine, carbamazepine, glutamate, glutathione for patients receiving cisplatin or oxaliplatin-based chemotherapy, goshajinkigan (GJG), omega-3 fatty acids, or oxycarbazepine for the prevention of CIPN at this time. | Type: Evidence-based  
Balance of benefits and harms  
Evidence quality: Low  
Strength of recommendation: Inconclusive |
| What are the optimum treatment approaches in the management of chemotherapy-induced neuropathies in adult cancer survivors? | For cancer patients experiencing CIPN, clinicians may offer duloxetine.                                                                                                                                       | Type: Evidence-based  
Benefits outweigh harms  
Evidence quality: Intermediate  
Strength of Recommendation: Moderate |
|                                                                                                                                                              | No recommendations can be made on the use of acetyl-L-carnitine, noting that a positive phase III abstract supported its value, but this work has not yet been published in a peer-reviewed journal and a prevention trial suggested that this agent was associated with worse outcomes. | Type: Evidence-based  
Harms outweigh benefits  
Evidence quality: Low  
Strength of Recommendation: Inconclusive |
### Prevalence and Management of Chemotherapy-Induced Peripheral Neuropathy in Survivors of Adult Cancers: American Society of Clinical Oncology Clinical Practice Guideline

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| **Continued,** What are the optimum treatment approaches in the management of chemotherapy-induced neuropathies in adult cancer survivors? | No recommendations can be made on the use of tricyclic antidepressants. However, based on the limited options that are available for this prominent clinical problem and the demonstrated efficacy of these drugs for other neuropathic pain conditions, it is reasonable to try a tricyclic antidepressant (e.g., nortriptyline or desipramine) in patients suffering from CIPN following a discussion with the patients about the limited scientific evidence for CIPN, potential harms, benefits, cost, and patient preferences. | Type: Evidence-based  
Balance of benefits and harms  
Evidence quality: Intermediate  
Strength of Recommendation: Inconclusive |
| | No recommendations can be made on the use of gabapentin, noting that the available data were limited regarding its efficacy for treating CIPN. However, the panel felt that this agent is reasonable to try for selected patients with CIPN pain given that only a single negative randomized trial for this agent was completed, given the established efficacy of gabapentin and pregabalin for other forms of neuropathic pain, and given the limited CIPN treatment options. Patients should be informed about the limited scientific evidence for CIPN, potential harms, benefits, and costs. | Type: Evidence-based  
Balance of benefits and harms  
Evidence quality: Intermediate  
Strength of Recommendation: Inconclusive |
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|                   | No recommendations can be made on the use of a topical gel treatment containing baclofen (10 mg), amitriptyline HCL (40 mg), and ketamine (20 mg), noting that a single trial supported that this product did decrease CIPN symptoms. Given the available data, the panel felt that this agent is reasonable to try for selected patients with CIPN pain. Patients should be informed about the limited scientific evidence for the treatment of CIPN, potential harms, benefits, and costs. | Type: Evidence-based  
Benefits outweigh harms  
Evidence quality: Intermediate  
Strength of Recommendation: Inconclusive |