Chemotherapy-Induced Peripheral Neuropathy Assessment Tools: A Systematic Review

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Chemotherapy-induced peripheral neuropathy (CIPN) is a type of neuropathic pain that results from chemotherapy toxicity. A systematic review and meta-analysis involving 4,179 patients revealed a CIPN prevalence of 68% in the first month after chemotherapy, 60% within three months, and 30% within six months or longer, with prevalence associated with different chemotherapy drugs (Seretny et al., 2014). Several chemotherapy agents lead to CIPN, including platinum-based agents, taxanes, epothilones, and vinca alkaloids, as well as more recent agents like bortezomib (Velcade®) and lenalidomide (Revlimgid®) (Hershman et al., 2014). Sensory and motor nerve damages are common features of CIPN that influence individuals’ quality of life (Hausheer, Schilsky, Bain, Berghorn, & Lieberman, 2006). Sensory damages are the predominant symptoms of CIPN, including paresthesia, numbness and tingling, dulled sensations in the peripheral nerves, burning and shooting pain, or electric shock-like pain (Cavaletti & Marmiroli, 2015; Visovsky, Collins, Abbott, Aschenbrenner, & Hart, 2007). Motor damage can be manifested as weakness, gait and balance disturbance, and difficulty with fine motor skills (Visovsky et al., 2007). The incidence of CIPN is influenced by age,