Scalp Cooling

The prevention of chemotherapy-induced alopecia

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Hair loss (alopecia) from chemotherapy is one of the most feared side effects of many patients, particularly women. Many patients and their healthcare providers believe that cryotherapy can help prevent or mitigate these changes. Scalp cooling has been used for more than 30 years to prevent alopecia caused by chemotherapy, particularly taxanes and anthracyclines. This article presents an overview of the evidence for this strategy, as well as its impact on nursing care provision.

**AT A GLANCE**

- Alopecia is a distressing side effect of chemotherapy that affects men and women.
- The U.S. Food and Drug Administration approved one device (the Dignicap® system) to reduce the incidence of hair loss related to chemotherapy.
- The use of scalp cooling devices requires additional chair time that may affect patient flow in chemotherapy units.

Scalp cooling has been used for years to prevent alopecia induced by chemotherapy. The prevention of chemotherapy-induced alopecia is effective, particularly for patients receiving taxanes or anthracyclines, the 53 studies reviewed were small and poorly designed. The authors noted that great variation exists in scalp cooling success rates, which may be related to different cooling times and temperatures, as well as different chemotherapy regimens. A more recent review (Komen, Smorenburg, van den Hurk, & Nortier, 2013) of 32 studies revealed the same conclusions. Kadakia, Rozell, Butala, and Loprinzi (2014) included eight studies

**KEYWORDS**

scalp cooling; chemotherapy-induced alopecia; hair loss; metastases

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