BACKGROUND: Agents targeting the MAPK pathway, including inhibitors of BRAF and MEK, have dramatically transformed the treatment landscape for patients with BRAF-mutant metastatic melanoma. Although generally well tolerated, targeted agents were associated with unique toxicities.

OBJECTIVES: This article aims to provide nurses with an overview of the key toxicities and associated management strategies of the characteristic adverse event (AE) profile associated with agents targeting the MAPK pathway.

METHODS: Data from clinical trials evaluating vemurafenib, dabrafenib, trametinib, and cobimetinib were reviewed and summarized along with research on management of AEs identified in clinical trials.

FINDINGS: The key AEs associated with these agents included pyrexia and cutaneous toxicities. Other notable AEs included arthralgias, ocular toxicities, and cardiac events. Because these agents are administered until progressive disease or unacceptable toxicity, nurses should be aware of management strategies to optimize treatment outcomes.

KEYWORDS melanoma, BRAF, MEK, mitogen-activated protein kinase

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