Effective Health Care

Managing Symptoms of Chemotherapy
Nomination Summary Document

Results of Topic Selection Process & Next Steps

The nominator has narrowed this topic to two symptoms that are associated with anti-cancer agents used increasingly in cancer care and for which a comparative effectiveness review of available interventions is needed: 1) epidermal growth factor receptor inhibitor (EGFRI)-associated dermatological toxicity and 2) chemotherapy-induced neuropathy.

- Managing EGFRI-associated dermatological toxicity is not feasible for a full systematic review due to the limited data available for a review at this time.

- Ongoing research or activities focused on managing chemotherapy-induced neuropathy are underway that impact the timing for developing a portion of this topic. Therefore, managing symptoms of chemotherapy-induced neuropathy will be revisited in the future when more data become available.

Topic Description

Nominator: Organization

Nomination Summary: The nominator is interested in the comparative effectiveness of different strategies to manage symptoms (side effects) of chemotherapy for improving net health outcome. Of most interest are symptoms of chemotherapy-induced neuropathy (CIN) and dermatological toxicity associated with epidermal growth factor receptor inhibitors (EGFRIs). In both cases, modifying the chemotherapeutic regimen is a strategy that may alleviate symptoms, but potentially at the expense of treatment effectiveness. The interventions of interest are strategies that avoid dose modification of chemotherapy.

Staff-Generated PICO: Chemotherapy-induced neuropathy
Population(s): For prevention, adults with cancer who are about to undergo chemotherapy. For treatment of symptoms, adults with cancer who are undergoing or have completed chemotherapy and have experienced symptoms of CIN.
Intervention(s): "Stop and Go" strategy; nutritional supplements, e.g., glutamine, vitamin E, drug therapy such as glutathione, calcium/magnesium infusion, gabapentine, xaliproden.
Comparator(s): Usual management strategies, including chemotherapy dose modification and no intervention.
Outcome(s): Prevention or reduction in symptoms of CIN, adverse effects associated with symptom treatment, changes in chemotherapy dose or regimen, health-related quality of life (HR-QOL), survival.

Staff-Generated PICO: EGFRI-associated dermatological toxicity
Population(s): For prevention, adults with cancer who are about to undergo chemotherapy with EGFRIs. For treatment of symptoms, adults with cancer who are undergoing chemotherapy with EGFRIs and have experienced dermatological toxicity.
Intervention(s): Antibiotics such as oral minocycline or doxycycline; topical preparations such as topical steroids, topical vitamin K; topical devices.
Comparator(s): Usual management strategies, including chemotherapy dose modification and no intervention.
Outcome(s): Prevention or reduction in symptoms of EGFRI-associated dermatological toxicity, adverse effects associated with symptom treatment, changes in chemotherapy dose or regimen, HRQOL, survival.

Key Questions from Nominator:

1. For cancer patients, what is the comparative effectiveness of different strategies to manage the symptoms of chemotherapy for improving net health outcomes?

Considerations

- The topic meets EHC Program appropriateness and importance criteria. (For more information, see http://effectivehealthcare.ahrq.gov/index.cfm/submit-a-suggestion-for-research/how-are-research-topics-chosen/.)

- There are two areas of this topic of most interest to the nominator: 1) EGFRI-associated dermatological toxicity, and 2) Chemotherapy-induced neuropathy.

  - Very few studies have been conducted on the strategies to reduce EGFRI-associated dermatological toxicity; therefore, this topic is not feasible for a full systematic review due to the limited data available for a review at this time.

  - There is currently insufficient data to draw conclusions about optimal treatment alternatives for chemotherapy-induced neuropathy. However, there is considerable clinical trial activity on various pharmacologic and nonpharmacologic interventions for prevention and treatment of chemotherapy-induced neuropathy that will be reported within the next two years; therefore, this topic will be reconsidered when these trial results are available.

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