

Comparing Clinical Practice Guidelines on the Prevention and Management of Chemotherapy Induced Hand Foot Syndrome

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Grade 1



Grade 2



Grade 3



Adapted from McLellan B et. al 2015⁸

Background:

- Hand-foot syndrome (HFS) or palmar-plantar erythrodysesthesia, is a painful, quality-of-life-limiting side effect of chemotherapy.¹
- HFS is common with 5 fluorouracil, capecitabine, and other agents.
- HFS typically begins with numbness, tingling, or burning in the palms and soles, followed by redness, swelling, or peeling.²
- Guidelines help clinicians manage and prevent HFS but vary significantly.

Objective:

- The aim of this review was to critically compare the recommendations of international guidelines on HFS guide future guidelines.

Methods:

- Searched PubMed and Google (inception–Feb 2025).
- Included English-language clinical guidelines.
- Extracted data on prevention, assessment, and management recommendations.

Future directions for guidelines

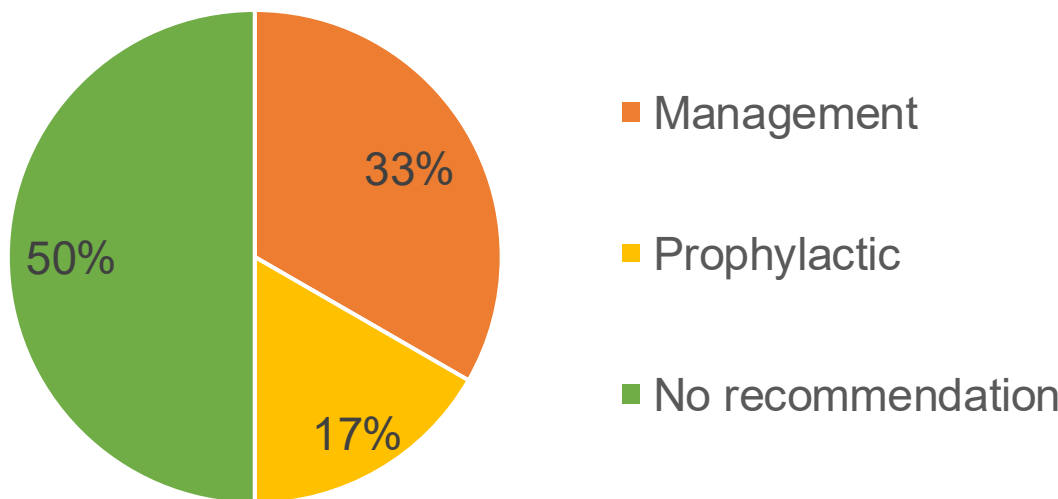
- Address resource/risk-based tailoring of recommendations, promoting relevance for Low-and Middle-Income Countries.^{3,4}
- Address racial presentation differences and geographic bias.⁵⁻⁷

Identified Guidelines (6): BC Cancer (BCC)⁹, European Society of Medical Oncology (ESMO)¹⁰, Cancer Institute NSW (eviQ)¹¹, Oncology Nursing Society (ONS)¹², United Kingdom Oncology Nursing Society and Acute Oncology (UKONS AO)¹³, United Kingdom North Cancer Alliance (UKNCA)¹⁴

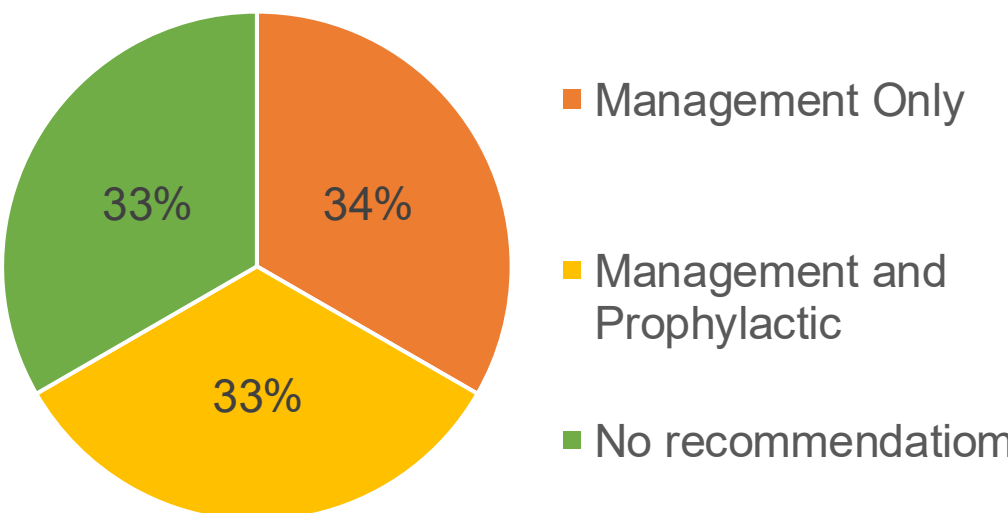
Key Takeaway Message

- *HFS guidelines agree on general skin care and dose adjustment.*
- *Pharmacologic recommendations vary significantly.*
- *More research needed on emerging treatments (e.g., topical diclofenac, S-1 substitution).^{15,16}*

HFS Guidelines Topical/Oral Corticosteroids use Recommendation



HFS Guidelines Urea Cream use Recommendation



Results

HFS Causing Chemotherapy Agents:

Capecitabine (6/6 guidelines), 5-Fluorouracil (6/6), PEGylated liposomal, doxorubicin (5/6), Cytarabine (4/6), Docetaxel (3/6), Paclitaxel and Etoposide (2/6).

Grading HFS: NCI CTCAE used (except ONS).

Strength of Evidence: ESMO and ONS graded strength of recommendations using ESCAT and GRADE approach respectively.

Skin cooling:

- ESMO, eviQ, and ONS recommended for prophylactic use.
 - Specifically for taxane-induced HFS by ESMO and ONS.
- BCC and ESMO recommended for management

NSAIDs: ESMO, eviQ, and BCC recommended COX-2 inhibitors such as oral celecoxib for capecitabine-induced HFS.

Skin care:

- BCC, eviQ, & ONS recommend sunscreen use
- Most guidelines (5/6, 83%) recommend avoiding chemical and/or physical stresses to the hands and feet.
- Alcohol-free moisturizers/emollients with urea (10–40%,) and/or salicylic acid (5–10%):
 - Recommended for management use by ESMO, BCC, eviQ, & UKONS AO
 - ESMO & eviQ recommend prophylactic use

Topical/oral steroids:

- eviQ recommended for prevention use.
- ESMO & BCC recommend corticosteroids for management
 - Specifically oral dexamethasone for PEGylated doxorubicin induced HFS

Dosage interruption: 5/6 (83%) guidelines recommend suspending chemo at grade 2–3; resume at grade 1

References

