Hand-foot syndrome, or palmar-plantar erythrodysesthesia, is a side effect of some types of chemotherapy. And it has been the subject of many inquiries lately.

**SYMPTOMS**
Symptoms commonly affect the hands and feet, and can be classified as mild or severe. Mild symptoms include redness, swelling, tingling or burning sensations, tenderness, tightness of skin, and thick calluses and blisters on the palms and soles. Severe symptoms include cracked, flaking and peeling skin; blisters; ulcers; severe pain; and difficulty walking and using hands.

**CAUSES**
Hand-foot syndrome is thought to occur when chemotherapy agents affect the growth of skin cells or capillaries in the hands and feet. Increased severity is correlated with longer chemotherapy protocols and higher doses. Therefore, oncologists are constantly monitoring the symptoms of hand-foot syndrome and adjusting chemotherapy doses. In severe cases, they may delay protocols.

In the majority of calls we have received from members, fluorouracil and/or doxorubicin have been part of the chemotherapy regimen. However, some other actives that could cause hand-foot syndrome are listed below.

**MANAGEMENT**
When managing hand-foot syndrome, patients are advised to:
1. Limit exposure to hot water when bathing and washing dishes.
2. Carefully pat skin dry after bathing.
3. Cool hands and feet with ice packs or cool running water.
4. Avoid exposure to sources of heat.
5. Avoid contact with laundry detergents or household cleaners.
6. Avoid use of rubber or vinyl gloves. If you must use them, wear white cotton gloves underneath them.
7. Avoid using tools or household items that require pressing your hand against a hard surface like a garden tool or knife.
8. Avoid applying friction to hands.
9. Avoid walking barefoot.

**COMPOUNDED THERAPY OPTIONS**
Common therapies for hand-foot syndrome begin with over-the-counter moisturizing products. Consider our ultra-moisturizing product PCCA Aladerm™ (PCCA #30-1142). This base is an oil-in-water emulsion, which contains 20% urea, and is extremely hydrating. Compounders can improve upon these therapies by including agents like urea, ammonium lactate and/or salicylic acid (see PCCA Formulas #10608 and #3669).

Since you want your patients to avoid friction, you can modify the viscosity of a cream or ointment to a lotion consistency. Because of its decreased viscosity, PCCA VersaBase® Lotion (PCCA #30-3653) may make a good vehicle option. Alternatively, you can dilute a cream like PCCA Emollient Cream™ (PCCA #30-3168) to a lotion consistency.

**Quick Tip**: Add 2-3 parts water to 1 part Emollient Cream base to make a beautiful lotion.

You can compound topical NSAIDs or anesthetics for pain if needed (see PCCA Formula #9448). Since PCCA Lipoderm™ (PCCA #30-3338) is also very moisturizing, it would be a good vehicle for these therapy choices.

Hand-foot syndrome is a common condition that can best be treated with the help of a compounding pharmacist. To find out more about oncology, visit the Members-Only Website to see PCCA Document #97874, *Commonly Requested Oncology Compounding Ideas*.

Visit an oncology clinic and share all these great ways you can help patients with hand-foot syndrome.