



# When the Patient Seeks Cure: Challenging Chemotherapy and Radiation Side Effects Requiring Creative Solutions

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When undergoing concomitant chemotherapy and radiation therapy for anal cancer, patients often experience significant side effects, including grade 1 or 2 radiation dermatitis, pain, exudate, and diarrhea. This case study presents a grade 3 reaction complicated by complex medical conditions. In addition to an evidence-based skin care treatment and side effect management plan that support patients during this intense period, this article offers creative strategies to provide a cost-effective healing option.

## At a Glance

- Patients receiving concomitant chemotherapy and radiation therapy for anal cancer may experience erythema and dry desquamation (grade 1), moist desquamation and blistering (grade 2), pain, and diarrhea, all of which present nursing challenges.
- Patient education regarding prophylactic skin care is of paramount importance for these patients to prevent or minimize severe radiation dermatitis.
- Grade 3 radiation dermatitis includes confluent moist desquamation and bleeding, requiring a break from treatment; this situation often requires the consultation of a wound care specialist.

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When R.B., a 56-year-old man with a history of Crohn's colitis and chronic perirectal abscess, was diagnosed with a new anal fistula and squamous cell carcinoma of the anal canal, he was put on a curative regimen. R.B. was treated concomitantly with 5-fluorouracil (Adrucil®) and mitomycin (Mutamycin®) and a six-week course of external proton beam therapy

(XRT). This course was complicated by a methicillin-resistant *Staphylococcus aureus* perirectal abscess. On the day of admission to the hospital, R.B. presented to the XRT center to receive the 26th of 30 planned radiation treatments and was found to have a fever with chills and lightheadedness. He had a grade 2 skin reaction in the perianal area from the XRT. He was assessed by the radiation oncol-

ogy nurse practitioner (NP) and sent to the emergency department for additional acute care assessment and management. R.B. was then admitted to the inpatient medical oncology unit for management. Once admitted, the palliative care service, pain service, and wound care clinical nurse specialist (CNS) were consulted for recommendations on management of his extensive perianal wounds.

## Treatment

The first priority was to determine a dressing regimen that was cost-effective and would protect R.B.'s skin because the buttocks and groin areas were involved. Because the ongoing concurrent chemotherapy and radiation therapy would cause his wound to continue to worsen, preventing further infection was important.

As expected, soon after admission, R.B.'s skin reaction in the radiation treatment field progressed to a grade 3 confluent moist desquamation with bleeding. The dark, dead, thin skin that was covering the area flaked off to reveal glistening, open, clean areas that were quite painful. Initially, exudate was minimal but quickly progressed to involve a considerable amount of serous exudate. The wound care CNS recommended resuming treatment previously ordered by the radiation oncology NP, which involved R.B.'s taking room temperature saline sitz baths and ointment and dressings being applied to the affected areas following drying. In addition, cool saline compresses were used to soothe and cover the underlying skin. The protocol used in radiation oncology was followed (see Figure 1). When R.B. was first admitted with grade 2-3 radiation dermatitis, the wound care CNS