

# Oral Mucositis

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**Case Study:** Ms. J is a 55-year-old woman who was diagnosed with stage IIIA colon cancer three months ago. Prior to her diagnosis, she experienced an unintentional 17-pound weight loss. She underwent an exploratory laparotomy with colon resection. Following recovery from her surgery, she began an adjuvant chemotherapy regimen of 5-fluorouracil, leucovorin, and oxaliplatin. She presents to the clinic today for her third chemotherapy treatment.

Ms. J reports that she tolerated her last cycle of chemotherapy fairly well and specifically denies any problems with diarrhea or symptoms of peripheral neuropathy. Upon further questioning, however, she reports a several day history of “mild soreness of the mouth and swelling of the gums.” During this period, she avoided flossing her teeth and brushed only once daily. She adds that these symptoms resolved spontaneously after several days.

## Assessment

Before proceeding with the scheduled chemotherapy treatment, a thorough nursing assessment, including history and examination of the oral cavity, must be performed. The following findings are important to note.

- Ms. J has a long-standing history of cigarette smoking (35 pack-years). She had been planning to attend a smoking cessation program, but when she received the diagnosis of colon cancer, the anxiety about her diagnosis and treatment prevented her from proceeding with the plan. She states, “Thinking about quitting now is just too stressful. I’ll think about it again after I am finished with my chemotherapy treatments.”
- Ms. J has not been receiving regular dental care. Her last dental examination was 19 months ago. Her normal oral hygiene regimen consists of brushing twice daily (morning and night) fol-

lowed by an antibacterial mouthwash at night. She flosses, on average, three days per week.

- With the most recent chemotherapy cycle, Ms. J reports some decrease in her oral intake during the immediate period following her treatment (related to mild nausea) and during the interval when she experienced mouth soreness. She estimates that her oral intake was decreased for the first two weeks of her 21-day chemotherapy cycle.
- Ms. J reports that she attempted to visualize her oral mucosa when she experienced mouth soreness. She describes an overall appearance of “mild redness” but denies finding ulceration or any other type of lesion or plaque. She also denies severe dryness of the mouth.
- Ms. J denies any associated symptoms, including hoarseness, pharyngitis, dysphagia, or diarrhea. She also denies any discomfort in the ocular, nasal, or vaginal mucosa.
- Ms. J has a history of hypertension, currently well controlled with a daily dose of triamterene and hydrochlorothiazide.

Significant findings on physical examination include height of 5 feet, 7 inches, and weight at 117 pounds (a decrease of

1.5 pounds during the past three weeks). Examination of the lips and oral cavity is negative for any erythema, plaque, fissures, or lesions of any type. The oral mucous membrane is slightly dry, but saliva production appears to be within normal limits. Dentition is normal. Ms. J is able to swallow on command without difficulty.

Based on the information from the history and physical examination, the most likely diagnosis is oral mucositis. Because Ms. J is currently asymptomatic, the possibility of an infection (bacterial, fungal, or herpetic) cannot be completely ruled out. The spontaneous resolution of the symptoms makes a bacterial or fungal infection unlikely, and the patient’s description of absence of ulcerations would be unusual in a herpetic outbreak.

## Etiology of Oral Mucositis

Oral mucositis is an inflammatory condition of the oral mucous membrane and a relatively common complication in patients receiving chemotherapy. Approximately 40% of patients receiving chemotherapy are estimated to experience the condition, with even higher incidence in patients undergoing high-dose

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