

## Corticosteroids with cancer treatment

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### **1. Does being put on dexamethasone or prednisone during chemotherapy pose any risks to patients? Would this depend on the dose or duration of the corticosteroid?**

Corticosteroids such as dexamethasone and prednisone may be used for different purposes in patients with cancer. They are used for cancer treatment, as an antiemetic, or are already in use for a pre-existing non-cancer condition. Cancers that are often treated with corticosteroids include lymphoid cancers (lymphoma, myeloma, chronic lymphocytic leukemia) and metastatic hormone refractory prostate cancer.

Corticosteroids expose the patient to multiple potential adverse effects. Although the risk of adverse effects exists whether a corticosteroid is used to treat a cancer or as an antiemetic, each indication for a corticosteroid should be considered individually for its potential benefits and harms. In general, a higher dose and prolonged exposure are associated with a higher risk of complications. Monitoring patients for adverse effects is important, and dosage adjustments can be made based on the patient's ability to tolerate prescribed corticosteroid doses.

Adverse effects that tend to be problematic for patients taking dexamethasone as an antiemetic include hyperglycemia in patients without pre-existing diabetes, loss of blood glucose control in patients with preexisting diabetes, stomach upset and hyperacidity, palpitations, or insomnia.

Prednisone or dexamethasone taken continuously for longer periods of time, or for short, high-dose treatment courses that are repeated regularly (e.g., dexamethasone 40 mg daily for 4 days, or prednisone 75 mg daily for 5 days), may also be associated with adverse effects such as osteoporosis, weight gain, electrolyte imbalances, hypertension, opportunistic infections, glaucoma, severe mood swings (e.g., mania and/or depression), and suppression of the hypothalamic-pituitary-adrenal axis.

## **2. Can a patient who is already taking prednisone also take dexamethasone when on chemotherapy?**

If a patient is already taking low-dose prednisone for a pre-existing condition other than cancer, the prednisone could be continued without change while the antiemetic dexamethasone is being taken.

Circumstances are more complex in patients taking prednisone as part of their cancer treatment and are also prescribed dexamethasone as an antiemetic. Each corticosteroid or each indication should be considered individually. Often the dose or duration may help the clinician in deciding how to approach this type of situation. In general, if a patient is taking prednisone as part of their cancer treatment (e.g., CHOP for lymphoma, or GUPDOC for prostate), and dexamethasone has been prescribed as an antiemetic, both agents could be continued. If one corticosteroid is discontinued or dropped simply because another has been started, there is a chance that the original corticosteroid will not be resumed when required.

## **3. How long should it take for side effects of dexamethasone to subside after it is used as an antiemetic?**

Side effects related to antiemetic doses of dexamethasone can be expected to subside within 24 to 48 hours after taking the last dose. Suppression of the hypothalamic-pituitary-adrenal axis is not a concern with a short course of dexamethasone used as an antiemetic.

*Revised: February 22, 2023*

### **Reference:**

J. Oliver, L. Ferrier. Systemic Therapy Update. Vol.11 July-August 2008