

# ASK A PHARMACIST



## Corticosteroids for infusion reactions; cautions for folic acid use

**Methylprednisolone (Solu-Medrol) and hydrocortisone (Solu-Cortef) are used to treat infusion reactions to chemotherapy and other anti-cancer treatments. Some clinicians seem to favor one over the other. Is there a significant difference between the two or is it just a matter of clinician preference?**

—L. Jouthaan

Methylprednisolone and hydrocortisone are both corticosteroids. Both of these products are available in intravenous formulations, making them very useful for treating infusion reactions. Currently, no clinical trial data compare the effectiveness of

methylprednisolone to hydrocortisone for managing infusion reactions. Which agent a clinician selects is influenced by the different pharmacologic properties of the agents.

Corticosteroids have both anti-inflammatory activity and mineralocorticoid activity. Agents with high mineralocorticoid activity can cause more salt and water retention than agents with lower activity. Methylprednisolone has less mineralocorticoid activity than hydrocortisone; therefore, methylprednisolone may be preferred over hydrocortisone in patients with cardiac issues.

Methylprednisolone is also more potent than hydrocortisone; 4 mg of methylprednisolone is equivalent to 20 mg of hydrocortisone. This does not mean hydrocortisone is less effective, so long as an equivalent dose is given. Hydrocortisone has a longer half-life (8–12 hours) than methylprednisolone (approximately 3 hours), so it may last longer than methylprednisolone. The decision of whether to use hydrocortisone or methylprednisolone should be made after assessing all patient-specific factors. Nurses and other clinicians should be familiar with the dosing of both agents.

**Folic acid can interfere with certain chemotherapy drugs. Is there an acceptable level of folic acid or should it be avoided completely? Some foods, multivitamins, and**

**supplements list folic acid as an active ingredient.**

—Gloria Ramos-Awal, RN

Folic acid, also known as vitamin B<sub>9</sub>, is necessary for many metabolic systems. The dietary nutrient is required for cell division and replication. Folic acid supplementation is necessary to prevent severe toxicities when receiving certain chemotherapy drugs such as pemetrexed (Alimta).

Coadministration of leucovorin (Fuseliv, generics), a folate analogue, with fluorouracil (5-FU) was shown to increase the effectiveness of 5-FU. Administration of folic acid in large doses, such as through supplements, can also cause increased toxicity in patients receiving capecitabine (Xeloda), an oral prodrug of 5-FU, with no increase in effectiveness. Therefore, patients receiving 5-FU or capecitabine are advised to avoid additional folic acid supplementation.

There are no clear guidelines on what is a safe amount of folic acid for patients who are receiving chemotherapy. Generally speaking, patients should not take additional folic acid or B vitamin supplements without first checking with their health care providers. The amounts of folic acid contained in most foods and vitamins are considered to be safe; however, patients should not take prenatal vitamins as they contain higher amounts of folic acid. ■



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