



## PIC QUESTION OF THE WEEK: 10/27/08

Q: Please identify the ingredients in ABHR gel and what is it used for?

A: ABHR is an acronym representing the drugs lorazepam (Ativan), diphenhydramine (Benadryl), haloperidol (Haldol), and metoclopramide (Reglan). An alternative preparation also incorporates dexamethasone into the mixture. In the hospice setting, various formulations of these ingredients have been used for the treatment of refractory nausea and vomiting secondary to cancer, opiate use, etc. These drugs are included in the preparation to affect the four chemical pathways responsible for mediating nausea and vomiting. The pathways include the chemoreceptor trigger zone, peripheral sensory impulses, the vestibular apparatus, and conical stimulation. Dosage forms include gels, suppositories, and troches. ABHR gel is often administered to hospice patients because they frequently become refractory to single-agent therapy, have difficulty swallowing, and can be too nauseous to take medications orally. Common sites for application of the gel include the wrist and behind the ear. It is important that the care giver wear gloves to avoid systemic absorption of the ingredients. In most cases, ABHR gel is prepared by compounding pharmacists. Standard formulas incorporate active ingredients in bulk form into vehicles consisting of lecithin:isopropyl palmitate (emollient and spreading agent) and poloxamer 407 (Pluronic F127) gel. There is little published data to support the efficacy of ABHR preparations; however, anecdotal evidence and individual case reports suggest benefit in some patients. The safety of ABHR dosage forms was evaluated in a retrospective cohort study of over 11,000 prescriptions in approximately 8,600 hospice patients. In only 42 cases was the product discontinued due to adverse effects. The authors concluded that ABHR was well tolerated by most patients. In the event a patient has a suspected adverse reaction to one ingredient, the remaining drugs can be reformulated in a new preparation. For example, if a patient develops extra-pyramidal effects due to metoclopramide, the subsequent product might only contain ABH. In summary, ABHR is a popular formulation routinely administered to many hospice patients. Its overall efficacy has yet to be satisfactorily demonstrated and the cost of this product cannot be underestimated.

### References:

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- Allen LJ. ABHR in PLO (formula). *Int J Pharm Comp* 2003;7:183.

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