# Letters to the Editor

The Journal welcomes Letters to the Editor; if found suitable, they will be published as space allows. Letters should be typed double-spaced, should not exceed 400 words, and are subject to abridgment and other editorial changes in accordance with journal style.

## Cimetidine Drug Interactions

To the Editor:

In the June 1983 issue of *The Journal of Family Practice,* in an article reviewing cimetidine drug interactions, Greene, Self, and Levinson[1] state that:

> The interaction with diazepam and chlordiazepoxide results in clinically appreciable increased sedation, and there appears to be no interaction with oxazepam or lorazepam. On this basis it is recommended that when a benzodiazepine is needed in combination with cimetidine, oxazepam or lorazepam should be considered as agents of first choice.

This is not completely accurate. A number of reports and comments have appeared in the literature regarding the interaction between benzodiazepines and cimetidine.[2-16] For the most part, these have been pharmacokinetic studies, with little or no attention paid to clinical effects. In fact, of the older studies, only Klotz and Reimann[3,5] and Patwardhan[11] mention clinical effects. Klotz and Reimann note that after a single intravenous dose of diazepam (Valium), ". . . five of six patients experienced pronounced sedation and slept for one to three hours when pretreated with cimetidine." Patwardhan et al, on the other hand, found that after a single intravenous dose of chlordiazepoxide (Librium) ". . . all subjects remained asymptomatic during the course of the investigation."

It appears that an interaction between cimetidine and benzodiazepines does occur. However, the important fact is that *no significant clinical effects* have been demonstrated to date, a fact further demonstrated by the recently published study by Gough et al.[15]

Dr. David Greenblatt has conducted a study titled "Clinical Implication of a Cimetidine-Diazepam Interaction." The study has been completed, and although the statistics are not in final form, he has stated the following based on preliminary observation (personal communication, December 13, 1982):

> Coadministration of cimetidine to patients receiving diazepam causes an increase in steady-state plasma concentrations of diazepam and desmethyldiazepam, but this causes no detectable change in the therapeutic effects of diazepam; nor is there any unwanted drowsiness or excessive sedation. Our study shows that the diazepam-cimetidine pharmacokinetic interaction is not clinically important.

Good medical practice dictates that patients receiving prescription drugs (either singly or in combination), including the drugs in question, be closely monitored.

Finally, it is important to note that indications for the various benzodiazepines do vary, and choice, therefore, cannot be made based on a pharmacokinetic interaction alone. Only some are indicated in alcohol withdrawal, as adjunctive therapy in convulsive disorders, and only one as adjunctive therapy in muscle spasm.

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## Treatment of Giardiasis

To the Editor:

We would like to make additional comments concerning the treatment of giardiasis in children, prompted by a communication, "Giardia Lamblia: A Clinical-Epidemiological Case Report," by Sim S. Galazka *(J Fam Pract 15:1165, 1982)*. This article stated that quinacrine is the drug of choice for giardiasis in both adults and children, with metronidazole as a second-line agent. We would like to expand on the treatment options based on a review of recent literature.

While quinacrine has been chosen as the drug of choice by many experts,[1,2] with 90 to 95 percent cure rates, its use has been accompanied by many side effects including nausea, vomiting, diarrhea, bitter taste, and yellow skin discoloration, particularly in young children.[1,3] In adults it is generally well tolerated and most effective. The product is available as a tablet only.

Metronidazole is 85 to 90 percent effective in conventional doses. Its use is limited by frequent nausea, vomiting, and metallic taste. It is generally better tolerated than quinacrine in children, though its potential teratogenicity has not been resolved. Liquid suspensions for pediatric use are available only outside the United States.

Furazolidone is available in both tablet and suspension forms. It is reported to be 77 to 92 percent effective in young children,[1,3] and it is better tolerated than quinacrine or metronidazole in this age group. Its usefulness for routine therapy in young children is limited by relatively frequent nausea and vomiting, local availability, and high cost.

Other effective treatments not currently available in the United States include tinidazole, ornidazole, and nimorazole.

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## Hospital Privileges for Family Physicians

To the Editor:

In his article about hospital privileges for family physicians in the July 1983 issue *(Pugno PA: Hospital privileges for family physicians: Rights, rationale, and resources. J Fam Pract 17:77, 1983)*, Dr. Pugno omitted an important restrictor of hospital privileges—state law. On moving from Michigan to New York, I was distressed to discover that under New York state law, "physicians permitted to perform all types of obstetric procedures and deliveries shall be limited to qualified obstetricians. . . . physicians permitted to perform deliveries of a normal, uncompli-

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cated nature shall be required to hold consultations with a qualified obstetrician under the conditions listed below; and, such physicians shall transfer responsibility to a qualified obstetrician for those procedures which are not encompassed in their privileges" (NY Hosp Code, title 10, chap V, §405.8). There follows a list of 12 specific situations, including use of oxytocin and labors longer than 12 hours, to which these restrictions apply. This indeed is a case for the action of organized family practice.

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## Bacterial Contamination of Sheathed Thermometers

To the Editor:

A variety of infectious diseases may be transmitted to patients by cross-contamination from oral secretions and oral lesions. One mode of transmission may be facilitated by medical instruments or materials.

Mercury-in-glass thermometers are commonly used in medical practice and often remain contaminated or are recontaminated before they are reused.[1] In 1972, a thermometer sheath was marketed to reduce cross-contamination. The current annual distribution of this sheath (according to Steridyne Corporation) is estimated at over 50 million units. Litsky[2] reported that the thermometer sheath is effective in preventing cross-contamination when utilized for taking rectal temperatures. Later, Valenti and Takacs[3] reported the thermometer sheath is frequently perforated when used for taking oral temperatures. However, in this latter study the oral placement time was not standardized, the presence or absence of teeth was not reported, and contamination of the thermometer was not evaluated.

We conducted a study to evaluate mercury-in-glass sheathed thermometers for bacterial contamination after being used for taking 6-minute and 11-minute oral temperatures. One hundred mercury-in-glass thermometers were sterilized in buffered glutaraldehyde (Cider) for 24 hours. Using sterile technique, the thermometers were packaged individually in Steritemp Thermometer Sheaths. A control group of 25 thermometers were evaluated to determine whether they remained sterile after the packaging procedures. Results showed that all 25 thermometers from the control group remained sterile after the packaging procedures.

In a second group, the outer surfaces of 25 Steritemp Sheaths were evaluated for sterility and their permeability to oral bacteria from whole saliva in vitro. Results showed that the outer surfaces of all 25 sheaths were sterile and that each sheath was impermeable to oral bacteria when tested in vitro.

A third group of 25 sheathed thermometers were evaluated for contamination after being used for 11-minute oral temperatures from dentulous patients. Results showed that 80 percent of the thermometers (20/25) were contaminated.

A fourth group of 25 sheathed thermometers were evaluated for contamination after being used for taking 6-minute oral temperatures. Results showed that 80 percent of the thermometers (20/25) were contaminated.

The findings from this study indicate that the thermometer sheath does not prevent bacterial contamination of the mercury-in-glass

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thermometer when used for taking oral temperatures from dentulous patients. Patients tend not to comply with the request to avoid tooth contact with the sheathed-thermometer. Results showed that 80 percent of the sheaths had been perforated by the dentition and that all the respective thermometers were contaminated. Therefore, if the thermometer is not effectively sterilized after each use, the potential for cross-contamination may be as high as 80 percent.

In consideration of this potential for cross-contamination, we recommend that all sheathed thermometers be resterilized after each use using chlorine, iodophor, buffered glutaraldehyde preparations, or ethylene oxide.[1,2,4,5,6]

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## Drug Interactions With Furosemide

To the Editor:

In the March 1983 issue of *The Journal of Family Practice*, we reported a case of an interaction between furosemide and indomethacin resulting in decreased effectiveness of furosemide.[1] In the discussion we pointed out that "diflunisal apparently causes no deleterious effect on the action of furosemide." Recent work has been done, however, to dispute this fact. Favre et al[2] studied the effects of diflunisal (in addition to indomethacin) on the action of furosemide, hydrochlorothiazide, triamterene, and spironolactone. Results of those studies indicate that diflunisal may indeed have an effect on furosemide similar to that of indomethacin, ie, an inhibitory effect on the action of furosemide. Further, it appears from this study that hydrochlorothiazide and triamterene are not significantly affected by indomethacin or diflunisal. This is in contrast to previous reports.[3]

It is not uncommon to see conflicting reports to the medical literature. This emphasizes the need to be especially cautious using drug combinations and to interpret the literature very carefully. The combination of any nonsteroidal anti-inflammatory drug and diuretic deserves careful monitoring and follow-up.

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