

Sir,

re: Survival of *Campylobacter* species

For some years *Campylobacter jejuni* has been recognized all over the world as a common cause of human diarrhoea; *Campylobacter fetus* and *Campylobacter intestinalis* are opportunistic bacteria which are seldom isolated in compromised hosts. They can produce septicemia, meningitis, septic abortion, thrombophlebitis, etc. (1). The *Campylobacter* species are microaerophilic bacteria. For their isolation, the optimal growth condition is incubation in an anaerobic incubator in which 70% of the air volume has been replaced by a mixture of 10% carbon dioxide and 90% nitrogen. The Fortner method as well as prefabricated microaerophilic systems (e. g. CampyPak II, BBL) are also useful. Blaser et al. (2) were able to demonstrate the survival of *Campylobacter jejuni* for some weeks in biological milieus like human bile, feces, urine, milk and surface water. The bacteria survived longer when the milieus were kept at 4° C rather than at 24° C. The most important factor for the transportation of human specimens for *Campylobacter* screening is the oxygen tolerance of these microorganisms. This has been investigated using strains of *C. fetus*, *C. intestinalis* and *C. jejuni* which were cultured for three days in Tarozzi's liver

broth. Seventy-two swabs were dipped into these cultures, and eight swabs from each species were put in Stuart's transport media, eight in Port-a-Cul-Tubes (BBL) and eight in glass tubes under atmospheric conditions. All the test tubes were maintained at room temperature. The swabs were removed from the milieus after 6 hours, 1, 2, 3, 4, 5, 6 and 7 days. The experiment showed that after seven days all three *Campylobacter* species could be isolated from the Stuart media, the Port-a-Cul-Tube and even from the completely desiccated swabs. Accordingly, *Campylobacter* shows oxygen and desiccation tolerance. This observation is important with respect to the transport of specimens and the epidemiology of campylobacteriosis, because lifeless vectors can also be a source of infection.

Literature

1. Ullmann, U.: Methods in *Campylobacter*. In: Bergan, T., Norris, J. K. (eds.): Methods in microbiology, Academic Press, London, New York, Toronto, Sydney, San Francisco, Vol. 13 (1979) 435-452.
2. Blaser, M. J., Hardesty, H. L., Powers, B., Wang, W. L.: Survival of *Campylobacter fetus* subsp. *jejuni* in biological milieus. J. Clin. Microbiol. 11 (1980) 309-313.

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Sir,

re: Interaction between Cephalosporins and Alcohol

With reference to the statement of B. Kemmerich and H. Lode in Infection 9 (1981) 110, we wish to report our experience with cefoperazone and cefotaxime.

Interactions between cefamandole, moxalactam, and cefoperazone with alcohol have been described by Neu and Prince (1), Portier et al. (2), and Reeves and Davies (3). Portier et al. (2) wondered if such a reaction could result with other β -lactam antibiotics as well.

During the clinical investigation of cefotaxime, no interaction between cefotaxime and alcohol was observed in 168 patients. Such an interaction was noted twice, however, in 40 patients treated with cefoperazone. One 45-year-old female patient, treated with 2 x 1 g cefoperazone per day for an urinary tract infection with *Escherichia coli*, experienced two such episodes on the

3rd and 5th days after the termination of treatment with cefoperazone. On the 3rd day after the end of treatment with cefoperazone, the patient drank a glass of beer and had a severe peripheral flush approximately 15 min later. On the 5th day after the end of treatment with cefoperazone a similar, but milder reaction occurred after drinking a glass of beer.

Literature

1. Neu, H. C., Prince, A. S.: Interaction between moxalactam and alcohol. Lancet I (1980) 1422.
2. Portier, H., Chalopin, J. M., Freysz, M., Tanter, Y.: Interaction between cephalosporins and alcohol. Lancet II (1980) 263.
3. Reeves, D. S., Davies, A. J.: Antabuse effect with cephalosporins. Lancet II (1980) 540.

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