fluenzae may be increasing in incidence.[2] Since the presence of a type b capsule does not appear to be necessary for the development of neonatal sepsis, further study is needed to define the properties of *H. influenzae* biotypes II and III that allow colonization of the maternal genital tract and subsequent infection of the neonate.

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References

1. FOTHERGILL LD, WRIGHT J: Influenzal meningitis: the relation of age incidence to the bactericidal power of blood against the causal organism. *J Immunol* 24: 273, 1933
2. KHURI-BULOS N, MCINTOSH K: Neonatal *Haemophilus influenzae* infection. Report of eight cases and review of the literature. *Am J Dis Child* 129: 57, 1975
3. ALBRITTON WL, PENNER S, SLANEY L, et al: Biochemical characteristics of *Haemophilus influenzae* in relationship to source of isolation and antibiotic resistance. *J Clin Microbiol* 7: 519, 1978
4. KILIAN M: Taxonomic study of the genus Haemophilus with proposal of a new species. *J Gen Microbiol* 93: 9, 1976
5. LILIEN LD, YEH TF, NOVAK GM, et al: Early-onset Haemophilus sepsis in newborn infants — clinical, roentgenographic and pathologic features. *Pediatrics* 62: 299, 1978
6. KILIAN M, SØRENSEN I, FREDERIKSEN W: Biochemical characteristics of 130 recent isolates from *Haemophilus influenzae* meningitis. *J Clin Microbiol* 9: 409, 1979
7. OBERHOFER TR, BACK AE: Biotypes of *Haemophilus* encountered in clinical laboratories. *J Clin Microbiol* 10: 168, 1979
8. ALBRITTON WL, HAMMOND GW, RONALD AR: Bacteremic *Haemophilus influenzae* genitourinary tract infections in adults. *Arch Intern Med* 138: 1819, 1978

Shigella sonnei resistant to cotrimoxazole

To the editor: During the past 7 months we have isolated cotrimoxazole (trimethoprim–sulfamethoxazole)-resistant strains of *Shigella sonnei* from 18 patients. Except for one instance the infections appear to have been acquired in Canada, the exception being in a Korean child who was probably infected while travelling outside Canada.

Epidemiologic data concerning the indigenous cases are not yet complete. In two instances resistant strains were isolated from two members of one family. While in the remaining patients no immediate family relationships have been discerned, at least five unrelated patients were from the same Indian reserve. Other patients were from other parts of Alberta or adjacent areas of the Northwest Territories.

Antibiotic resistance patterns of *Shigella* strains isolated in Alberta last winter indicate two dominant lines of *S. sonnei* originating in distinct geographic areas. The strain from northwestern Alberta was resistant to ampicillin, sulfonamides and tetracyclines, and that from eastern Alberta was resistant to sulfonamides and tetracyclines but sensitive to ampicillin. Cotrimoxazole-resistant strains have been isolated from patients infected with each type of strain. More recently the northwestern strain appears to have been replaced by the eastern one.

The minimum inhibitory concentrations of trimethoprim are generally low, ranging between 50 and 100 μg/ml. Thus far we have been unable to either transfer the trimethoprim resistance to *Escherichia coli* K 12 or to mobilize it for transfer by adding two different plasmids to the in vitro transfer test system, although some of the accompanying resistances have readily been transferred. Detailed studies of the Korean strain have yet to be undertaken.

Routine monitoring of antibiotic resistance in the enteric investigative unit of the Provincial Laboratory of Public Health in Edmonton has revealed rare instances of cotrimoxazole resistance in *Salmonella* and in one serotype of *E. coli* that is part of the "normal" fecal flora of children in hospital. There is good evidence that the resistant *Salmonella* strains were acquired outside Canada.

Bannatyne and colleagues[1] and Taylor, Keystone and Devlin[2] have also reported the isolation of trimethoprim-resistant shigellae. Our

findings differ from theirs in two respects. In their studies the minimum inhibitory concentrations of trimethoprim were much greater and trimethoprim resistances were readily transferred to *E. coli* K 12.

As Taylor and associates[2] suggested, we need to be aware of the possibility of encountering trimethoprim-resistant shigellae and, when indicated, be prepared to adjust therapy appropriately.

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References

1. BANNATYNE M, TOMA S, CHEUNG R, et al: Resistance to trimethoprim and other antibiotics in Ontario shigellae (C). *Lancet* 1: 426, 1980
2. TAYLOR DE, KEYSTONE JS, DEVLIN HR: Resistance to trimethoprim and other antibiotics in Ontario shigellae (C). Ibid, p 426

The Cairbed v. British airbed

To the editor: In her article on the Cairbed Anne Gilmore suggested that the British airbed (Low Air Loss Bed System, Mediscus Products Ltd.) is not designed for the control of bacteria (*Can Med Assoc J* 120: 1172, 1979). On the contrary, its cushions, or air sacs, are designed with a micromesh feature that allows the atomic particles of perspiration to be carried away but allows no bacteria through. Ms. Gilmore infers that the Cairbed does not need cleaning, not even between patients, since virtually no bacteria exist.

The problem of incontinent patients being nursed on the British airbed has been of deep concern to us; we have produced a drawsheet made of the air sac material to counteract this. The amount of airflow into the bed is based on the maximum average weight of the patient. The lower the airflow and the lower the pressure, the less weight can be supported. The picture in Ms. Gilmore's article is captioned: "Canada's airbed: more advanced than the British version". The British airbed is inflated by a control console that can be in the