been appropriate. Antibiotics were initially grouped together then later divided into the categories of cotrimoxazole and β-lactams. When Carter and colleagues concluded 14 years ago that antibiotics could be harmful, they also included all antibiotics regardless of class.6 Shortly thereafter, my colleagues and I published evidence that a specific group of agents recognized to be effective in shigellosis did not have a detrimental effect.7 Our subsequent studies indicated that prolonged use of similar agents was associated with a lesser risk of hemolytic-uremic syndrome.3,4

One obvious reason for the discrepancies between studies could be the categorization of antibiotics. We initially chose our stratification for shigellosis on the basis that there is considerable evidence that certain antimicrobials do not have any beneficial effect and perhaps have a detrimental effect (for example, antibiotics to which the bacterium is resistant).8 If shigellosis investigators had pooled all β-lactam agents they may never have seen a benefit attributable to ampicillin, because first-generation oral cephalosporins were ineffective.9 A wide spectrum of antibiotics may be used to treat patients infected with E. coli O157:H7, including erythromycin and metronidazole. Would it be logical to pool such antibiotics or even cephalosporins with cotrimoxazole or ampicillin in analyses, and would they ever be considered as trial agents in a prospective study? Is it logical to pool all medications as shown in Table 1 of the paper by Wong and colleagues?2 Furthermore, although patient recruitment was delayed, the study by Proulx and colleagues did not show a detrimental effect for cotrimoxazole.10

Some in vitro studies have found increased toxin liberation from verotoxigenic *E. coli* isolates exposed to antibiotics. ^{11,12} While the latter studies continue to be used as arguments against antibiotic use, recent evidence has indicated that the results are considerably dependent on the methodology. ¹³

Therefore, there is still a need for a prospective, randomized controlled

study of ampicillin and placebo as suggested over a decade ago.7 This study should include sufficient numbers of patients, and patients should be recruited early in the course of the illness. The argument for choosing ampicillin over cotrimoxazole in such a trial rests with the unknown but theoretical risk of administering a moderately soluble sulfonamide during an evolving nephropathy. Ampicillin resistance among verotoxigenic E. coli remains reasonably low in most regions. Without such studies, the role of some antibiotics in protecting against or complicating verotoxigenic E. coli infections will continue to be uncertain.

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References

- Farquhar D. E. coli, antibiotics and hemolyticuremic syndrome in children. CMAJ 2000; 163(4):438
- Wong CS, Jelacic S, Habeeb RL, Watkins SL, Tarr PI. The risk of hemolytic-uremic syndreome after antibiotic treatment of *Escherichia* coli O157:H7 infections. N Engl J Med 2000; 342:1930-6.
- Cimolai N, Carter JE, Morrison BJ, Anderson JD. Risk factors for the progression of *Escherichia* coli O157:H7 enteritis to hemolytic-uremic syndrome. J Pediatr 1990;116:589-92.
- Cimolai N, Basalyga S, Mah DG, Morrison BJ, Carter JE. A continuing assessment of risk factors for the development of *Escherichia coli* O157:H7-associated hemolytic uremic syndrome. *Clin Nephrol* 1994;42:85-9.
- Bell BP, Griffin PM, Lozano P, Christie DL, Kobayashi JM, Tarr PI. Predictors of hemolytic uremic syndrome in children during a large outbreak of Escherichia coli O157:H7 infections. Pediatrics 1997;100(1):E12.
- Carter AO, Borczyk AA, Carlson JAK, Harvey B, Hockin JC, Karmali MA, et al. A severe outbreak of Escherichia coli O157:H7-associated colitis in a nursing home. N Engl J Med 1987; 317:1496-500.
- Cimolai N, Anderson JD, Morrison BJ. Antibiotics for Escherichia coli O157:H7 enteritis? J Antimicrob Chemother 1989;23:807-8.
- Butler T, Islam MR, Azad MAK, Jones PK. Risk factors for development of hemolytic uremic syndrome during shigellosis. J Pediatr 1987; 110:894-7.
- Nelson JD, Haltalin KC. Comparative efficacy of cephalexin and amipicillin for shigellosis and other types of acute diarrhea in infants and children. Antimicrob Agents Chemother 1975;4:415-20.
- Proulx F, Turgeon JP, Delage G, Lafleur L, Chicoine L. Randomized, controlled trial of antibiotic therapy for *Escherichia coli* O157:H7 enteritis. *J Pediatr* 1991;121:299-303.

- Karch H, Goroncy-Bermes P, Opferkuch W, Kroll HP, O'Brien A. Subinhibitory concentrations of antibiotics modulate amount of shigalike toxin produced by Escherichia coli. In: Adam D, Hahn H, Opferkuch W, editors. The influcence of antibiotics on the host-parasite relationship II. Berlin: Springer-Verlag; 1985. p. 239-45.
- Walterspeil JN, Ashkenazi S, Morrow AA, Cleary TG. Effect of subinhibitory concentrations of antibiotics on extracellular shiga-like toxin I. Infection 1992;20:25-9.
- Grif K, Ďierich MP, Karch H, Allerberger F. Strain-specific differences in the amount of Shiga toxin released from enterohemorrhagic Escherichia coli O157 following exposure to subinhibitory concentrations of antimicrobial agents. Eur J Clin Microbiol Infect Dis 1998; 17:761-6.

I read with interest Donald Farquhar's summary¹ of a recently published article on the risk of hemolytic-uremic syndrome after antibiotic treatment of *Escherichia coli* infections.² I was a bit perplexed by Farquhar's last sentence: "The findings of this study strongly suggest that these drugs should be withheld in children with acute diarrheal illness until stool cultures confirm growth of an organism for which antibiotic therapy is indicated (e.g., *Campylobacter pylori*)."

Did Farquhar mean *Campylobacter je-juni? Campylobacter pylori* has been renamed *Helicobacter pylori*. It does not cause a diarrheal illness, nor is it routinely grown from stool cultures.

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References

- Farquhar D. E. coli, antibiotics and hemolyticuremic syndrome in children. CMAJ 2000; 163(4):438.
- Wong CS, Jelacic S, Habeeb RL, Watkins SL, Tarr PI. The risk of hemolytic-uremic syndreome after antibiotic treatment of *Escherichia* coli O157:H7 infections. N Engl J Med 2000; 342:1930-6.

A view from the front line

As one of many Canadian physicians working at the front line with little immediate hope of replacement, I note with bemusement that Morris Barer, the coauthor of the Barer–Stoddart report, which recommended that medical school enrolment be slashed, has been

appointed the scientific director of the new Institute of Health Services and Policy Research of the Canadian Institutes of Health Research. Please, no more cuts.

Ian Hammond

Department of Radiology Ottawa Hospital – General Campus Ottawa, Ont.

Reference

 Sinclair A. Heads of new institutes to set tone for Canadian research. CMAJ 2001;164(2):254.

One hundred pennies for your thoughts

I find it difficult to believe that this [Ad-Q] survey was mandated by *CMAJ*. It has more to do with drug advertising than anything else. Frankly, I find the enclosure of a US\$1 bill insulting and not dignified.

Constant Nucci

Obstetrician-Gynecologist Montreal, Que.

C an you please explain the enclosure of an American dollar bill for the completion of a survey issued by CMA?

Darlene Hammell

Physician Victoria, BC

[The Editor of *CMAJ* responds:]

The costs associated with producing CMAJ (and most other general medical journals) are largely offset by advertising by pharmaceutical firms. Occasionally readers complain about the number of ads in CMAJ, and some suggest that we cut advertising completely. But this is not a reasonable option for an association journal that is received as a benefit of membership by more than 50 000 CMA physicians and wants to remain affordable to subscribers such as libraries, researchers and physicians in other countries.

Without advertising the only alternative would be to increase CMA membership dues and journal subscription prices.

Information on the types and numbers of physicians who see their advertisements in various journals helps companies to decide how to spend their advertising dollars. *CMAJ* participates in 2 surveys a year to get feedback from readers on both advertising and editorial content. The latter gives us some information on the types of articles that *CMAJ* readers like and dislike. We value this feedback, and thank those of you who have participated for your comments (positive or otherwise).

The surveys are conducted by Harvey Research of Fairport, NY; no Canadian company offers a comparable program. The firm's decision to offer *CMAJ* readers a US\$1 bill as a token of thanks for participating in the survey is unfortunate. Thank you for bringing this to our attention. We thought of asking the firm to use a Canadian loonie, but this would be clunky. (Or we could suggest a Canadian \$5 bill, which might shortly be equivalent to a US\$1 bill ... but I digress.) We've forwarded your comments to Harvey Research.

You've each returned to us the US dollar you received. We've included them in our contribution to a local charity.

Pity the NHS

In his review of the report of the commission on the British National Health Service (NHS), Terrence Sullivan says that the United Kingdom spends a third less on health care than Canada but provides broader coverage. The coverage may indeed be broader, but it is spread a great deal thinner.

The NHS has been starved of money almost from its inception, and I am sure that Canadians would not accept the strictures imposed by spending a third less on their own health care system. Somehow, health care policy

planners in Canada have felt that savings of this magnitude have been achieved in Britain by the panacea of capitation and salary as the payment options for physicians. This is not the case.

First, these savings have been achieved by avoiding necessary hospital upgrades. For example, until the early 1990s, the main referral hospital for the county of Somerset was still using Quonset huts for its wards. They were erected by the Americans in 1944, prior to the D-Day invasion.

Second, staff salaries were saved by employing foreign graduates, which robbed developing countries of the physicians and nurses they had used so much of their limited resources to train.

The third saving in the NHS involves rationing by death. By keeping elderly patients waiting many years for their operations, the NHS avoids a large percentage of hip replacements and other operations.

The commission that Sullivan reviewed sounds like the changing of the officers on the bridge after the *Titanic* has hit the iceberg. The NHS has tried everything from fund-holding practices to a Charter of Rights for patients, but it will remain a second-class service for most users unless it receives dramatically more funding. Unfortunately, this is unlikely to happen in an elitist society where efficient, fee-forservice private care is always available for the affluent.

Paul Cary

Physician Cambridge, Ont.

Reference

 Sullivan T. New life or green poultice? CMAJ 2000;163(10):1317-8.

[The author responds:]

P aul Cary makes several important and worthwhile points. However, in discussing why the British spend one-third less on health care than Canadians, he suggests that "health care policy planners in Canada have felt that savings of this magnitude have