

C. difficile strain 20 times more virulent

The strain of *Clostridium difficile* circulating in Quebec and reported in *CMAJ* last year [171: 19-21] was associated with a greater severity of illness than is typical of the organism.

Evidence presented at the Apr. 11, 2005, meeting of the Society for Healthcare Epidemiology of America demonstrates the *C. difficile* strain in Quebec produced 20 times the levels of toxins A and B than previously studied strains.

“The ability of this emerging strain to produce high levels of toxins A and B in the laboratory may explain its virulence in patients,” says Michel Warny, director of bacterial process development for Cambridge, Mass.-based Acambis.

Dr. Jacques Pépin, an infectious disease expert at the Centre hospitalier universitaire de Sher-

brooke (CHUS) and a coauthor of the study, says the research “just confirms what clinicians had been seeing for the last couple of years.” Acambis is developing a vaccine against *C. difficile* and worked with the US Centers for Disease Control, using samples from Sherbrooke patients.

The hypervirulent strain is identical to one that caused outbreaks in hospitals in 6 US states. It has also been identified at Toronto’s Princess Margaret Hospital, where it caused a cluster of cases and a death last fall.

Although the US outbreak was sizeable, hospitals were able to bring it under control more quickly. Almost 2 years after the outbreak began in Quebec, hospitals still experience cases caused by the same strain.

“The question is why did it reach such dramatic proportions

here?” Pépin asks. “I think it has to do with the decay of our hospital infrastructure.”

Earlier this year, the Quebec Ministry of Health allocated \$20 million for infection control at affected hospitals. The Sherbrooke region got \$900 000. Most of it was spent on bills for measures implemented in the previous 6 months, Pépin says.

This past winter, the CHUS had a third to half the number of cases, compared with the previous 2 years, when 100 patients died, says Pépin. But the proportion of people who required colectomies or died has remained the same, he says.

“I think this hypervirulent strain is more transmissible than other strains,” he says. “I don’t see why it would go away — I think it’s going to stay here.” — *Laura Eggertson, CMAJ*

DOI:10.1503/cmaj.050470

PHARMACEUTICAL SPENDING

Canadians spending more on drugs

Canadians spent an estimated \$22 billion on prescription and non-prescription drugs in 2004 — the fastest-growing segment of health care spending, according to a new report from the Canadian Institute for Health Information.

Drug costs, which rose 9% over 2003, continue to grow faster than hospital or physician spending, states *Drug Expenditure in Canada, 1985–2004*. The figures are extrapolations based on spending in 2002, the last year for which the Institute has data.

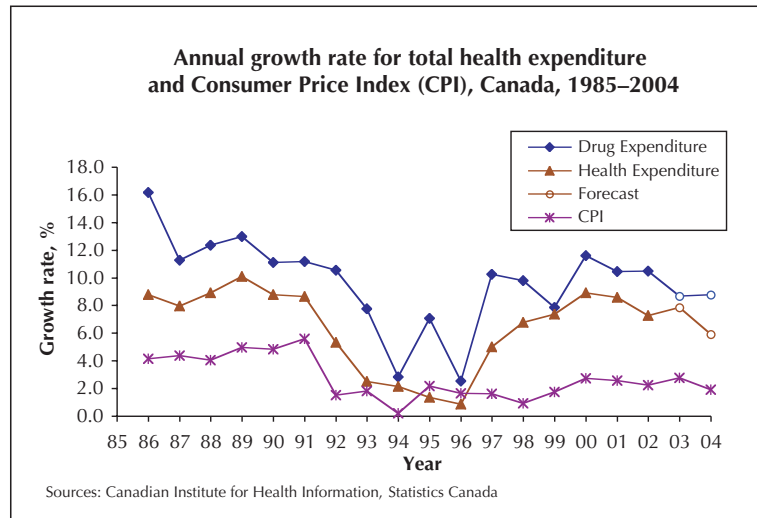
Individual Canadians spent an average of \$681 on drugs in 2004, an increase of 8% over the previous year, states the report. The highest costs were \$718 per person in New Brunswick, compared with a low of \$542 per person in British Columbia.

The differences in per capita spending are affected by provincial drug subsidy programs as well as population demographics, the report notes.

“Across the country ... public drug coverage for Canadians varies,” Michael Hunt, manager of pharmaceutical programs at the Institute, said. “To better understand what is driving the variation in drug expenditure, CIHI is building a system to collect prescribed drug claim information. This information will assist in understanding the factors that influence drug use and, ultimately, drug expenditure.”

Prescription drugs are taking an increasingly large bite out of both the overall increase and the rising costs. They account for 83% of total drug spending in Canada and a 10% price growth

Annual growth rate for total health expenditure and Consumer Price Index (CPI), Canada, 1985–2004



over the previous year. Spending on nonprescription drugs rose only 3% year-over-year.

The increase in spending on drugs is related to the entry of new drugs into the market at higher prices and the volume of drug use, the report states. — *Laura Eggertson, CMAJ*

DOI:10.1503/cmaj.050436