A call for collaboration on inflammatory bowel disease in New Zealand

Russell Walmsley

In this edition of the Journal the first attempt at calculating the financial burden of inflammatory bowel disease (IBD) in either New Zealand or Australia is described.1 The Christchurch group of Tim Eglinton and his team—building on their reputation for sturdy epidemiological studies—have chosen just two categories of Crohn’s disease (CD) patients where the burden to healthcare providers and patients and their families are perhaps the highest, namely paediatric and perineal disease.

The combined indirect and direct costs of one year of care for a paediatric case of Crohn’s disease in 2009 was calculated to be NZ$14,375 and for a patient with perineal disease to be NZ$20,366.

The paper by Eglinton et al is timely in a number of ways. The contract for provision of Humira™ (Abbott) as the preferred anti-TNF agent with Pharmaceutical Management Agency in New Zealand (PHARMAC) is to be renegotiated this year; the move for PHARMAC to take over hospital pharmacies is underway, with anxiety over the consequent ability for clinicians and health authorities to decide on the use of other anti-TNF agents and emerging ‘biologicals’.2 Thirdly, and not least, the patient support group Crohn’s and Colitis New Zealand has reorganised and relaunched themselves last year with renewed vigour to help promote IBD patients’ care.3 Tim Eglinton and his team have extrapolated their calculations to suggest that the total cost (in 2009) of paediatric Crohn’s disease to the nation was NZ$25.9 million, and for perineal disease was NZ$36.7 million.1

These conclusions should be taken with caution, however. The patients were seen at the tertiary IBD clinics at Christchurch Hospital, which serves an official population of 502,000 in the South Island of New Zealand. The cases, therefore, are likely to be the extreme end of the spectrum. It is not clear how they were chosen—e.g. whether they were consecutive cases, or what the response rate was from those contacted to fill in the indirect cost questionnaires.

Retrospective recall of hours of work and income lost is bound to be fragile data. It should be noted, however, that the indirect costs at 8% and 9.7% of total costs for paediatric and perineal disease respectively is much lower than results from previous studies attempting the same calculation, as the authors point out.

When one looks closely at where the money is being spent you will see that 68% of outpatient costs and 46% of hospital-associated costs for perineal Crohn’s disease was due to pharmaceuticals, and that 61% of the cost of this was due to anti-TNF therapies. We have good data based on 2008 prices in Europe that show that healthcare costs incurred in the first year of diagnosis of CD can vary by 30% between the UK and the rest of Europe where the use of biological agents is acknowledged to be quite different.4
If we are to extrapolate these findings to help inform the Ministry of Health on what the burden of cost to the nation is likely to be then we also have to realise that the prescribing of these agents is also far from uniform across New Zealand.

From a survey of members of the New Zealand Society of Gastroenterology, also undertaken in 2009, but before the subsidised access to Humira, Canterbury had the highest use of anti-TNF agents per capita (Figure 1).5

**Figure 1. Prescription of biological agents for IBD, per 100,000 for the New Zealand District Health Boards serving populations of over 125,000 for the year ending June 2009.**

![Graph showing prescription of biological agents for IBD per 100,000 for New Zealand District Health Boards]

**Note:** No data available for Northland and Waitemata. Full survey reported at the Annual Scientific Meeting of the New Zealand Society of Gastroenterology, 2009.

There is not space to debate the economics of using these treatments, but it is argued that they result in less hospital admissions and maybe less surgical episodes, so in the long run are economically ‘viable’.6,7 Could it be that the indirect costs are higher but pharmaceutical costs are less in DHBs such as Hutt Valley, where the use of biological agents is 10 times less? Additional information on the outcomes of the use of these expensive treatments in New Zealand, using our access criteria, is now required to help plan how best they are to be used from here on.

Another missing piece of the national IBD jigsaw that makes further extrapolation of the Christchurch information difficult is the lack of data on the prevalence of Crohn’s disease in the rest of the country. The excellent epidemiological data from Canterbury for 2004–5 found an incidence of 16.5 per 10,5 which is amongst the highest recently reported anywhere in the world, with only Canada (20.2) and the Australian state of Victoria reporting higher (29.3).8 Compared to the previous New Zealand data published in 1986 this is a near 7-fold increase, and similar to trends seen around the world.
Crohn’s disease predominantly affects people from Northern Europe as well as Jewish people, particularly those of Ashkenazi (Eastern European) descent. According to the 2006 New Zealand Census, 77.4% of people in Canterbury belonged to the European (mainly British and Irish) ethnic grouping, compared to 67.6% for New Zealand as a whole.\(^9\)

If 20% of Crohn’s patients have significant enough perineal disease to be treated in the same way that Christchurch treats these 26 examined cases, and the prevalence of Crohn’s is taken as 140 per 10\(^5\) (10% less than Canterbury data) with a population now nearer 4.43 million, then the annual cost to at 2009 prices might be nearer $25 million.

This paper puts a figure on the personal and national economic burden of a proportion of the growing number of predominantly young, potentially economically vital, people who have Crohn’s disease. Attempting to extrapolate the findings to the rest of New Zealand highlights the deficiencies in epidemiological data, information on clinical outcomes and access of patients to expensive but internationally recognised treatments.

Surely now is the time for all interested parties, including the Ministry of Health, PHARMAC, the New Zealand Society of Gastroenterology and a revitalised Crohn’s and Colitis New Zealand and the pharmaceutical companies to come together to fill these gaps in our knowledge of IBD in NZ and begin to grasp the problems of this increasingly relevant group of chronic diseases.

I feel 2012 could be an interesting year.

**Competing interests:** Member of the advisory boards for Humira (Abbott) and Remicade (Janssen). Member of PHARMAC Gastrointestinal sub-Committee.

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