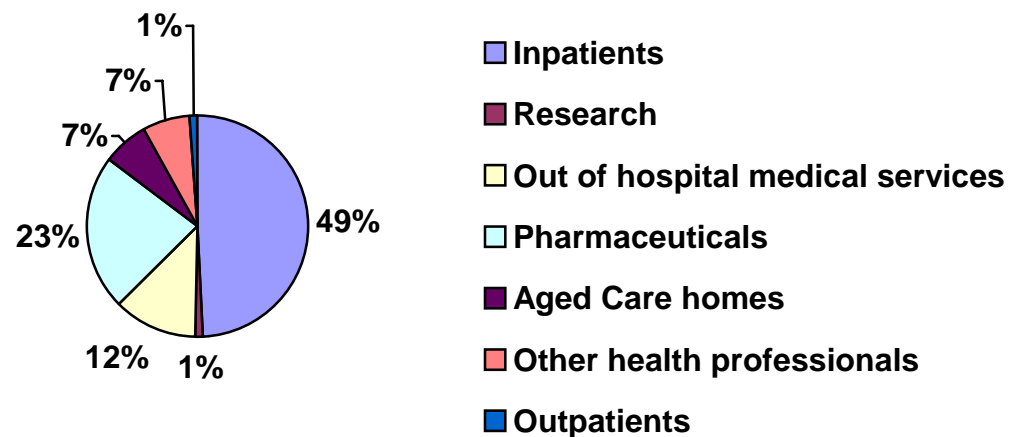


2007 NSW Health Awards Entry

Entry Title (50 characters or less)
Inflammatory bowel disease: Building alliances to help clients manage chronic disease
Abstract (120 Words)
Modern healthcare manages a substantial amount of chronic disease. Inflammatory Bowel Disease, (Crohn's and Colitis) are chronic disorders that cause the intestines to become inflamed. Tailoring access to need is challenging. In 2004 the Gastroenterology Liaison Nurse Service was introduced for patients with ongoing access needs for tertiary gastroenterology services. In 2007, to assess the services' effectiveness for patients with inflammatory bowel disease, the service randomly sampled a group of "frequent fliers"; patients diagnosed before 2003 with severe Inflammatory Bowel Disease and high service use. The frequency of use of key services before and after the Gastroenterology Liaison Nurses' introduction; outpatients (routine and urgent appointments), the emergency department, and inpatient admission were compared. It was found that the Gastroenterology Liaison Nurse service, by addressing the complex needs of these patients, reduced outpatient visits both urgent and routine and inpatient admissions and reduced Emergency Department presentations for "frequent fliers".
Aim (30 Words)
To assess, by sampling high volume consumers, the cost-effectiveness and safety of a Gastroenterology Liaison Nurse Service tailored to the needs of patients with Inflammatory Bowel Disease.
Nature of the Problem (100 words)
For patients with inflammatory bowel disease, prearranged outpatient appointments are problematic. They rarely coincide with relapses, as relapses are unpredictable. Appointments are often unnecessary, costly and inconvenient as the patient is well. Such well patients can delay treatment of unwell patients by blocking outpatient access. Failure to treat active disease when treatment is needed can result in prolonged exposure to medications, adverse side effects, occasionally to surgery and death. From 2002 until 2005 only two staff specialists at John Hunter Hospital were available to provide outpatient gastroenterology services. It was recognised that there was an inability to provide the timely service needed by Inflammatory Bowel Disease patients and service configuration was contemplated.
Extent of the problem (150 words)
Within Australia's population over 60,000 of these people live with inflammatory bowel disease; and 13,000 within NSW. In 2005 allocated health expenditure on Inflammatory Bowel Disease was estimated at \$68.0m per annum (\$1,114 per patient, per year); 49% of this was for inpatient care. (Figure 1)(2)

Figure 1: Australia's Health Expenditure on Inflammatory Bowel Disease
2005



Anecdotal reports indicated that our patients and General Practitioners found it difficult to access care and we found patients with disease flares sometimes waiting until their routine appointment for treatment while others were well at the time of theirs. Delayed access for one young patient resulted in him requiring removal of his large bowel. From a support group for women with Crohn's disease a JHH Gastroenterologist and a JHH Psychiatrist identified service gaps in patient support and education. (3)

A search of the literature found that:

1 "Open access" outpatients for Inflammatory Bowel Disease patients was more cost effective than routine.(4)

2 Self directed management of Inflammatory Bowel Disease reduced outpatient visits and secondary care costs. (5,6,7)

3 Patients, almost universally, preferred self-directed management. (5,7)

4 Many problems that Inflammatory Bowel Disease patients faced could be effectively addressed without an appointment and an Inflammatory Bowel Disease nurse not only reduced outpatient appointments but also improved patient satisfaction. (8,9)

Strategic importance (100 words)

NSW Health in its Future Directions for Health emphasizes fiscal responsibility, service redesign and creating better experience for people using health services all of which are addressed by our initiative. (11). At a national level better management of chronic disease is a high priority for health.

The Hunter New England Annual Operational Report 2006-2007 has, in its balanced score card, the focus areas:

1 - resource accountability including effective management of resources;

2 - internal networking and processes including person -centred care and continuous service review; safe and evidence based healthcare and, disease prevention and health promotion.

3- empowering communities in relation to health, a quality health experience and improved equity of access to services (10). This service redesign has addressed particularly these areas.

Planning and implementing solutions (300 words)

U.K. data showed that patients with Inflammatory Bowel Disease had better outcomes if they were able to access services when they were unwell, not when the service was available in a structured appointment time, often months ahead. The Inflammatory Bowel Disease program was established at John Hunter Hospital in 2004. The Gastroenterology Liaison Nurse service co-ordinates the service and consists of two experienced gastroenterology nurses, who share a position based on the gastroenterology ward and supported by a multi-disciplinary team. On discharge or on outpatient review, patients with chronic disease needing ongoing care, are informed of the service, introduced to a Gastroenterology Liaison Nurse and given a business card with contact details of the Gastroenterology Liaison Nurse. The Gastroenterology Liaison Nurse's key responsibilities are:

- a) To be available by phone for information, advice and assistance when patients are aware that their disease has deteriorated are confused about their disease, medications or need the multidisciplinary team.
- b) To communicate to General Practitioners, consultants and the healthcare team members management problems and promote appropriate intervention including appropriate advice and therapy.
- c) To organise blood tests in the community to monitor deterioration.
- d) To arrange admission, transfusion or other disease management when needed.
- e) To help patients gain access to outpatient review when needed and not according to waiting lists.

The program identified patients with Inflammatory Bowel Disease in outpatients and invited to meet a Gastroenterology Liaison Nurse who, when available comes to outpatients and gives the patient an Inflammatory bowel Disease information folder and a Gastroenterology Liaison Nurse business card. Often their first subsequent contact is by phone for blood results from their appointment. Management supports the service and patients' Gastroenterology Practitioners are over time familiarized with what the service offers. As the service developed we surveyed the patients for their feedback and assessed the service overall. The results were presented at a National Gastroenterology Meeting. (12)

Outcomes and Evaluation (200 words)

Peer review evaluation indicated the service's success overall.(12) In 2007, to assess the services' effectiveness for patients with inflammatory bowel disease, we randomly sampled a group of "frequent fliers"; patients diagnosed before 2003 with severe Inflammatory Bowel Disease and high service use. We compared the frequency of use of key services before and after the Gastroenterology Liaison Nurse introduction. These included routine outpatients, urgent outpatients, admission via the emergency department, and inpatient admissions overall. We randomly selected 32 patients with severe disease (males=15). Twenty patients had Crohn's Disease and 12 had ulcerative colitis. Their mean (range) age was 40 years (16-74). We found post-Gastroenterology Liaison Nurse in 2005 there were almost half the number of routine and urgent outpatient appointments per annum as occurred pre-Gastroenterology Liaison Nurse in 2003 (47 v 84 routine; 10 v 21 urgent). The fall in outpatient visits was not associated with an increase in inpatient or Emergency Department admissions as expected if the service had provided less than optimal care.

Table 1: Gender Demographics

Table 2: Disease type

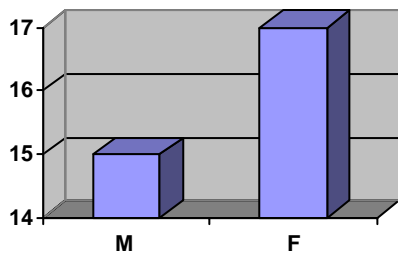


Table 3a: Outpatient Activity: Routine appointments pre and post introduction of the Gastroenterology Liaison Nurse Service

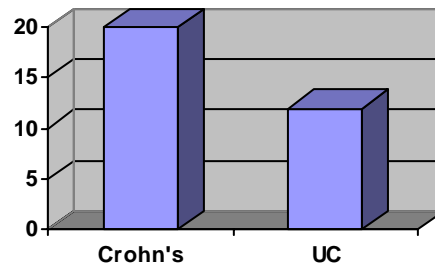


Table 3b: Outpatient Activity: Urgent appointments pre and post introduction of the Gastroenterology Liaison Nurse Service

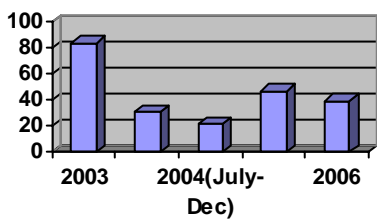


Table 4: Inpatient admissions

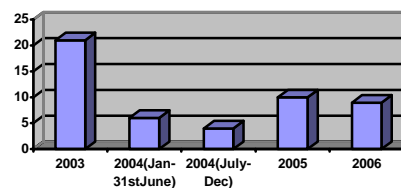
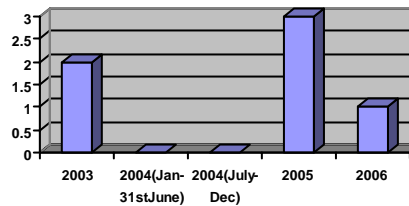
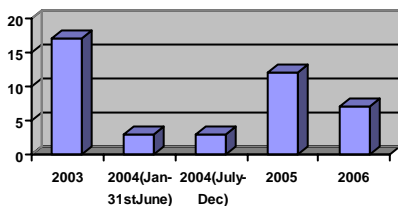


Table 5: Emergency Department admissions



The Gastroenterology Liaison Nurse service was introduced in April 2004. Please note that funding for the service was withdrawn temporarily, for part of 2005.

We assessed patient satisfaction in 2004 (12) and again in 2007 (2007 results to be analysed). No formal economic evaluation was done as we believe the project has face validity for achieving the Hunter New England Health and NSW Health indicators identified above.

Sustaining change (100 words)

The service continues in 2007 confirming its sustainability. There are now over 130 patients on the Inflammatory Bowel Disease database with substantially more patients having the service's contact details but not requiring its service so far. The formal assessment of the service now allows it to be evaluated by other gastroenterologists to assess the effectiveness and acceptability of service for their Inflammatory Bowel Disease patients. The average inpatient stay cost for a gastroenterology patients is \$2,250 excluding consultant costs (\$450 * 5). The Gastroenterology Liaison Nurse service employs 2 part-time registered nurses job sharing over 4.5 days at a cost of \$57,500. The Gastroenterology Liaison Nurse service is cost neutral by preventing one gastroenterology admission a fortnight. The system's cost effectiveness promotes ongoing funding of the service here and its consideration in other chronic disease contexts. We will continue to evaluate the Inflammatory Bowel Disease

program on a regular bases and increase its functionality by responding to consumer feedback.

Future Scope (100 words)

This program empowers patients by giving them a key role in its management by allowing them to initiate calls for information, advice and service access. The system's cost effectiveness and simplicity makes it readily transferable. Our patient and staff experience is positive. In short, our data indicates that self-directed management for patients with Inflammatory Bowel Disease is well accepted, cost effective, beneficial and may be viewed as an improved service redesign with wide applicability to similar chronic disease groups.

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