

A Success Story...

A COMPARISON OF TERTIARY SERVICES USED PRE AND POST NPCC: A sole practitioners review

Dr John Troy's Surgery - WA

Dr John Troy's Surgery undertook a review and comparison of Diabetic patients use of tertiary resources. Investigations found that since participating in the NPCC program the number of times diabetic patients presented at emergency departments decreased significantly, as did the number of hospital admissions for diabetes related issues.



Context

Dr Troy's Surgery is located in the metropolitan Perth suburb of Fremantle. The clinic is mostly bulk billing. The patient population is generally of low socio-economic status and the practice sees a high percentage of Indigenous patients. The GP Full Time Equivalent is 0.9 and a Practice Nurse works one day per week and focuses on optimal management of chronic disease patients. There were 71 diabetic patients on the register at July 2007.

The Situation

Dr John Troy has been practising in the Fremantle region for the past 30 years. However the past eighteen months have brought many changes which, although difficult at the outset, proved to be the impetus for some remarkable improvements. The reasons for improvement can be put down to dedication, team work, striving for excellence in care and participation in Wave 2 of the National Primary Care Collaboratives (NPCC) Program.

Prior to joining the NPCC program the practice did not have a register and recall system or a Practice Nurse and had never claimed a diabetes SIP, GP Management Plan or Team Care Arrangement. Within a relatively short period of time they have made a complete turn around to a team-based, proactive practice which is based around the NPCC ethos.



Dr John Troy, Practice Principal

"The Collaboratives program has brought the benefits of team care to the practice and allowed a supportive environment to flourish," said Dr Troy.

"The introduction of a Practice Nurse has been a superb development both for myself and the patients. I have found that the isolation of general practice has been reduced, lessening stress and pressure on me. Being a part of the NPCC has provided a much more satisfying way to work."

"The practice has clearly demonstrated that involvement in the Collaboratives program has improved health outcomes"

The Situation *cont...*

Practice Manager and Dr Troy's wife, Mrs Raylene Troy agrees.

"Previously many of our patients fell through the gaps. This has now rectified. It has also given our patients with chronic disease a plan which allows them to take control of their care one step at a time," she said.



Raylene Troy, Practice Manager

The Change

With many improvements evident, Dr Troy's Practice decided to measure what impact these improvements had on the wider health system, by retrospectively analysing Emergency Department (ED) presentations and hospital admissions for 2005 and comparing this to 2006 data.

In February 2006, Dr Troy, Practice Manager Raylene Troy (pictured above) and the Practice Nurse, set about to review and compare data for ED presentations and hospital admissions for 2005 compared to 2006 data. Data was freely available and was gathered via a series of Plan-Do-Study-Act cycles (refer page 4). Admissions advice was collected from hospitals that service patients from the surgery. Information on ED attendance from electronic records was collected and a review and comparison undertaken.

The Outcome

The results indicated that since involvement in the NPCC Program overall attendance and admission rates to tertiary services had decreased. The comparison of ED presentations for diabetic patients is contained in Figure 1 (below).

The significance of this table is that although 11 patients presented at ED in both 2005 and 2006, the total number of visits had decreased significantly by 44%.

The number of times patients presented, at Emergency Departments, for diabetes related concerns decreased by 73%. These results suggest that ED presentations and hospital admissions are reduced because patients are being proactively managed, are provided the tools and knowledge to be more confident to self-manage their condition and are able to access their GP when required.

"Results indicated that since involvement with the NPCC ... attendance and admission rates to tertiary services had decreased"

Figure 1—Comparison of ED presentations

	2005	2006
Number on Diabetes Register	98	78 (+2 deceased)
Number of patients presented at ED	11 (11%)	11 (7%)
Total number of visits to ED	32	18 (44% decrease)
Visits to ED related to Diabetes	18	5 (73% decrease)
Hospital admissions related to Diabetic	4	2 (50% decrease)

The Outcome *cont...*

Overall participation in the NPCC program has brought the following results for Dr Troy's Practice:

- An effective register and recall system
- Streamlined the use of clinical software
- A Practice Nurse running nurse-led clinics for chronic disease patients, one day a week
- Over 70% of diabetic patients have had a SIP claimed
- 53% of patients with diabetes have a HbA1c of 7% or less
- Numerous GPMP and TCAs completed
- Presented at NPCC Learning Workshop 2 and Orientation Day for Wave 3
- Developed open access system for aboriginal patients – 50% reduction in 'Do Not Attends' from this patient group

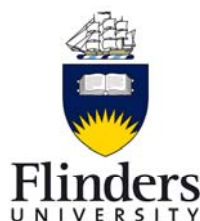
The practice has clearly demonstrated that involvement in the NPCC Program has improved health outcomes of their patients, and has a positive flow on effect to the wider health system with evidence that hospital attendances and admissions have decreased for their diabetic patient population.

The practice would now like to further investigate how often Diabetic patients are attending the practice pre and post NPCC Program participation.

In addition, Dr Troy's practice will continue to focus on measurement and health education, continually monitor and update patient recalls and follow up as well as planning a preventative program for obese patients at risk of developing diabetes (particularly young Indigenous people).

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Support Material

PDSA Type: Diabetes PDSA

Change Principle: Multi-skilled, multi-agency approach: ensure effective co-ordination of care

Description: Monitor hospital admission of patients who have diabetes.

Cycle 1

PLAN	Reception staff to collect all admissions advice from hospitals that service our patients. Following review by Doctor, file separately those patients who are on the diabetes register, as from Monday 23 January 2006 for a period of 6 months. Practice Manager to conduct a retrospective review of admissions for the previous 12 months using the diabetes register of patients. It is anticipated that admission rate will be a small percentage of total patients on the register.
DO	Plan was executed over the past 3 months.
STUDY	There are 96 patients on our diabetes register. Eleven patients in total attended the ED of a hospital on 32 separate occasions. 18 of those visits were related to diabetes. There were a total of 5 admissions for Diabetes, 3 of them being for the one patient. Of the 18 total visits to ED, one patient visited 11 times for diabetes-related problems. 8.5% of our diabetic patients attended ED and but only 56% of these patient visits were for diabetes. However, if we remove one patient who visited 11 times from these figures, patient attendance for diabetes-related problems would be less than 5%. Use of ED for diabetes problems is far less as a proportion than CHD.
ACT	Having established a diabetes clinic, we will be able to measure any change in the use of tertiary resources for the management of our diabetic patients. We anticipate that it which is unlikely to improve very much.

Cycle 2

PLAN	PM to collect information on hospital ED attendance and admission for diabetic patients from electronic records.
DO	Plan was executed
STUDY	Attendances and admissions were collected for 2005 and 2006 in order to conduct a retrospective and a prospective review.
ACT	Electronic record and hard copy of patient hospital attendances are to be reviewed and compared in order to see whether there are any differences between pre and post NPCC programmes, including the establishment of our diabetic clinic.

Support Material

Cycle 3

PLAN	<p>What: Review and compare admissions and attendances at hospital of diabetic patients in the practice pre and post NPCC</p> <p>Who: John Troy</p> <p>When: February 2007</p> <p>Where: At practice</p>															
DO	Plan was executed.															
STUDY	<p><u>Total diabetes patients on register:</u></p> <p>2005 – 98</p> <p>2006 – 78 (+ 2 deaths)</p> <p><u>Attendances diabetes only:</u></p> <p>2005 – 9 = 25 visits, 15 for diabetes, 4 admissions</p> <p>2006 – 6 = 9 visits, 4 for diabetes, 2 admissions</p> <p><u>Attendances diabetes & CHD:</u></p> <p>- 2005 = 2 attendances, 7 patient visits, 3 for diabetes, 0 admissions</p> <p>- 2006 = 5 attendances, 9 patients visits, 1 for diabetes, 5 admissions</p> <p><u>SUMMARY:</u></p> <table border="1"> <thead> <tr> <th></th> <th><u>2005</u></th> <th><u>2006</u></th> </tr> </thead> <tbody> <tr> <td>Diabetes register</td> <td>98</td> <td>78 (+2)</td> </tr> <tr> <td>No. of patients</td> <td>11</td> <td>11</td> </tr> <tr> <td>Total visits</td> <td>32</td> <td>18</td> </tr> <tr> <td>For diabetes</td> <td>18</td> <td>5</td> </tr> </tbody> </table> <p>The numbers of patient attendances at hospital for diabetes related problems has fallen since participation in NPCC and establishment of Practice Nurse-led clinic.</p>		<u>2005</u>	<u>2006</u>	Diabetes register	98	78 (+2)	No. of patients	11	11	Total visits	32	18	For diabetes	18	5
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