An inclusive approach to raising standards in general practice: Working with a ‘community of practice’ in Western Australia

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Abstract

**Background:** In Australia access to specialists is mediated by general practitioners (GPs). The process of referring a patient involves writing a letter. In most cases the specialist relies on this information to prioritise appointments to the clinic. There is literature to suggest that referral letters do not contain ample information to allow specialists to decide which patients to schedule first.

**Aims:** To pilot a benchmarking and peer mediated feedback approach in relation to referral letters to six specialty clinics in a community of practice (CoP) consisting of GPs in Western Australia.

**Methods:** The CoP participated in a before and after study. Benchmarks were set in an initial survey of participants about specific items of history and examination in generic letters to each of six specialties and their relative importance in the referral letter. Referral letters by participants written before and after the benchmarking exercise were scored for quality based on the weighted importance of signs and symptoms. Feedback to volunteers regarding the ‘quality’ of their referral was provided by a nominated member of the group. A comparison of before and after scores was offered.

**Results:** 15 GPs were recruited. Specific items of history and examination were given a different weighting for importance in the referral letter by the GP participants. A member of the group was nominated to feedback to colleagues about the ‘quality’ of their referral letters, penned prior to this exercise. Five GPs submitted referral letters both before and after benchmarking. 52 letters could be compared with 49 written after benchmarking. The amount of information relayed increased substantially after the benchmarking exercise (29.3 vs 55.2, mean difference 26, p < 0.001)
Conclusions: A CoP approach may substantially increase the amount of relevant information relayed by GPs to specialists. Many lessons were learned in developing and sustaining this community of practice with a specific focus within the context of general practice.

Key words: General practitioners – Referral letters – Peer-led audit – ‘community of practice’

Background

In Australia, as in many other parts of the world, patients cannot make appointments with medical specialists without first consulting a general practitioner (GP).\(^1\)\(^2\) GPs must decide whether and when to seek a specialist opinion. The referral is, in most instances, the only source of information enabling the hospital clinician to appropriately prioritize cases. Therefore the grounds for concern should be explicitly stated in the referral letter especially if an urgent appointment is being sought. A recent audit of UK GPs suggests that the referral letter, more so than the medical records, outlines the clinical details at the time of the referral.\(^3\) On the other hand it has also been demonstrated that GPs generally record very few clinical details in their correspondence with specialists, and that referral letters are perceived more as a ‘ticket of entry’.\(^4\) Provision of an accurate and complete referral letter can assist a consultant to prioritize care according to the severity of presenting symptoms.\(^5\) Equally, lack of information in referral letters may lead to an increased workload for diagnostic services that are unable to accurately differentiate between urgent and non-urgent need for service from the referral letter.\(^6\) At worst an inadequate referral letter may have an adverse impact on prognosis. Hodi reports that lack of information in referral letters can make it difficult to decide when cases need to be prioritised in circumstances when early access to limited resources could make a substantial difference to the outcome for the patient.\(^7\)
We aim to address the issue of referral letters within a community of practice (CoP). Etienne Wenger is credited with coining the term ‘community of practice’ and he defines them as "groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise by interacting on an ongoing basis." He also believes that learning is a social activity and that people learn best in groups. Communities can form around a specific purpose and disband once that purpose has been achieved. Members may be very similar (e.g. general practitioners) or they may be multi-disciplinary. Some may be small and localised while others will be geographically dispersed ‘virtual communities’ that communicate primarily by telephone, e-mail, online discussion groups and videoconferencing, etc. Such communities of practice are suited to the Australian context where geography often precludes regular face-to-face meetings.

This approach has been promoted as a catalyst for change in American Family medicine. An area or function of an organisation where knowledge is not evenly distributed is a potential target for a community of practice. Communities of practice have several valuable characteristics, they can:

- provide a valuable vehicle for developing, sharing and managing specialist knowledge
- help avoid ‘reinventing the wheel’
- generate new knowledge in response to problems and opportunities
- be a vehicle for cultural change (creating a knowledge sharing culture)
- be largely self-organising.

As well as the organisational benefits, communities of practice also provide benefits for individual community members, including:

- Members often feel more conscious of, and confident in, their own personal knowledge
- Provides a non-threatening forum to explore and test ideas or validate courses of action
- Can foster a greater sense of professional commitment and enhance members’ professional reputation.

**Aims**

To pilot a benchmarking and peer mediated feedback approach in relation to referral letters to six specialty clinics in a community of practice (CoP) consisting of GPs in Western Australia.

**Methods**

A Community of Practice was formed. Our CoP was GPs working in rural and metropolitan Western Australia. The group was geographically diverse. The methodology is summarised in Figure 1 and under the following headings:

*Figure 1. Summary of methodology*

**Defining the scope and purpose**

The impetus for a new CoP comes from the recognition of a specific need or problem. The group was offered a very specific remit to participate in a before and after audit of referral letters, mediated by a local peer. Participation in the group acknowledged the need for action to address the issue. We clarified the specific problem that needed to be addressed (i.e. the amount of information relayed in referral letters). We ensured that the CoP was clear on what we were setting out to achieve. The standards for the quality of referral letters were set by the CoP. The structure and resources available to the CoP were defined. The benefits to the community were stated and the process of feedback about the ‘quality’ of individual performance in the project was negotiated and refined with feedback from participants.
The project involved a ‘before and after’ audit with peer-mediated feedback about GP referral letters written during the periods between December 2007 to February 2008 and April 2008 to June 2008. The project was reviewed by a Health Research Ethics Committee and we were therefore able to offer potential participants a formal written description of what was proposed. We also acknowledged the importance of communication from specialists as a measure of quality of care. Therefore a focus on the ‘quality’ of discharge summaries was also included, but not formally addressed in this study. Incomplete relay of information after the patient has been seen in hospital is a recognized and oft cited problem in primary care.

**Recruitment**

Traditionally it is recommended to launch a CoP with a meeting or workshop so that members can meet each other and begin to develop relationships, and also spend some time together exploring and agreeing their purpose, terms of reference and ways of working. However this was not practical within the geographical constraints and working schedules of the participants. A total of 28 practices (~ 70 GPs) were approached in Perth and the Greater Southern Region of Western Australia, with fifteen GPs recruited. The participants were several hundred kilometres apart. It was important at recruitment to identify a champion for the project within the practice; the manager fulfilled that role in most cases. A total of 28 practices were contacted by phone, a personal visit, via email or post to provide information, clarify and promote the project and to encourage questions. The participants included five GPs from rural areas and ten GPs from metropolitan Perth.

**Identifying common needs and interests**

We identified the core issues within the ‘domain of knowledge’. We clarified the members’ interests at the time of formal recruitment and articulated how they might benefit from membership of the CoP. Scoring schedules were developed relating to six specialty groups: breast, urology, gynaecology, respiratory, upper gastroenterology and lower gastroenterology.
The participants were asked to set benchmarks for the clinical features they considered necessary components of a GP referral letter to a specialist. A second survey addressed the information in feedback/discharge summaries from consultants. Both surveys were distributed to participating GPs. An example of the survey is shown on the Cancer Learning website.\textsuperscript{12}

Two reminder letters and regular contact with respondents were necessary. This process was completed in six weeks. We found also found it helpful to ensure that GPs and managers received regular reminders to collect the letters for the follow up audit.

We would have preferred to collect letters prospectively for both rounds of the ‘audit’. However to maintain the momentum for the project we offered to accept letters penned up to three months before the survey in order to offer feedback as soon after benchmarking as possible. The second audit involved prospective collection of referral letters from April 2008 to May 2008. It was felt that a relatively short duration for the project (6-8 weeks for collection of letters) was helpful in maintaining the momentum for the project.

**Sustaining the CoP**

Once the initial enthusiasm of the set-up phase has passed, communities can easily wane and fade away unless they are actively developed and sustained. Three clear issues were addressed:

A. Maintaining members’ interest and involvement – The ongoing success of a CoP depends on members’ continued interest and involvement. A project coordinator was employed and maintained regular email and telephone communication with the CoP. We were not able to facilitate a face-to-face meeting at any time during the project; there was no scope for socialising. However the group were able to
challenge perspectives in the subject area by playing an active role in setting the benchmark for referral letters by participating in a postal survey.

B. Growing the community – In the life of any community, members will come and go, and there will usually be a need for ongoing recruitment – both to replace lost members and to ‘keep things fresh’. However in this project we could not enlist new members because of the need to demonstrate a change in practice after feedback.

C. Developing the body of knowledge – The CoP was kept abreast of group thinking by virtue of the feedback, mediated by a local peer, on their performance relative to their own benchmarks.

Adding value and closure

Communities thrive when they are supported and valued by their host organisation, in this case the University department facilitating the project. This was a ‘two-way street’ so it was important that the CoP had a very clear remit rather than developing its own agenda. This sustained the commitment to provide resources to allow the project to continue. There was a recognition and ‘reward’ of community members by offering comparison with peer performance relative to standards. The role of the coordinator helped to remove barriers to community membership by facilitating involvement and serving as a point of reference; and the appointment of a peer in mediating the feedback about the outcomes of the project. A natural ending for this project was envisaged and articulated.

Statistical analysis

Generalised estimating equations were used to fit a general linear model for mean score that specified the within-group (GP) correlation structure of the data. Due to the unbalanced nature
of the data, mostly due to missing data from the second phase of the study, an exchangeable correlation structure and robust standard error estimation was applied. The final model included an interaction term between phase of study and speciality of referral letter. Analysis was performed using Stata Version 10.

Results

Maintaining members’ interest and involvement

Privacy: We recognised from the outset that colleagues would find this project challenging. Seldom are doctors’ performances compared without the risk of implied criticism of outliers. Colleagues were therefore repeatedly reassured that their data would be handled confidentially.

Concern for patient data: Referral letters were submitted with all patient identifying details removed, to preserve the privacy of patients and to avoid breaches of confidentiality.

Payment: Some practitioners sought payment for spending time on this aspect of the audit and local negotiations were undertaken to address this issue. The project initially focused on potential cancer diagnoses; however a more inclusive approach was chosen to accommodate the GPs with fewer cancer related referrals.

Communication: After each stage of the project, follow-up letters were distributed to encourage GP feedback and to prompt the next stage in the exercise. The final style and content of the feedback was endorsed by the nominated local peer in the CoP. To maintain an inclusive approach in this exercise, the team invited comment on the format and contents of the feedback delivered to the practitioners. Every comment received by
the project coordinator was acknowledged and a response drafted to explain how they helped in the project.

**Disappointment:** Some practitioners were very disappointed and even upset by their scores. This reaction may be an important element of the subsequent motivation to change, however it needs to be sensitively handled if colleagues are not to become disillusioned or disheartened. Although many practitioners set high standards about information to be included in *every* referral letter, they were disappointed if their own letters scored poorly (when in practice they seldom record this information or consider it superfluous in most referrals). The style of feedback was produced over several iterations and in close consultation with the CoP. The feedback documentation included a brief guide on ‘how to make sense’ of the feedback. We also sent the referral letters back to their authors when giving feedback as they were unlikely to remember the letter to which the score applied.

**Part time practice:** In some cases, for example part time practitioners, the research team accepted referral letters penned on the basis of short descriptions of cases as shown in Table 1. Whilst letters based on ‘vignettes’ were less than ideal, it was considered better than excluding enthusiastic and motivated practitioners by virtue of not referring many patients.

<table>
<thead>
<tr>
<th>Patient, age [refer to]</th>
<th>Problem and duration…</th>
<th>Positive findings on examination…</th>
<th>Results of Investigations: positive findings only…..</th>
<th>Other…..</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sue Eggleston, 51 [Gynaecologist]</td>
<td>Postmenopausal bleeding, two episodes of</td>
<td>Nil</td>
<td>Nil abnormal</td>
<td>Anxious, separated from husband 3</td>
</tr>
</tbody>
</table>
bleeding 6 months after menopause  

| months ago. |

Table 1. Example of information provided to help construct referral letters

Growing the community

Only five out of the fifteen practitioners submitted follow up letters in the second part of the audit cycle. Because the project took several months to complete some practitioners had become disengaged, others had forgotten to collect the letters and some had long periods of leave in the interim and had not referred any patients. It was not possible to recruit new members of the CoP to replace those who could not participate in the subsequent round of the project.

Developing the body of knowledge

Most practitioners regarded each item of history and examination to be very important or very unimportant resulting in ‘skewed’ responses. Few items evoked ambivalent responses. Therefore the data needed to be summarised as ‘median’ scores to reflect the majority view. Participants set very high standards which may have been difficult to achieve. It was important to ensure that practitioners understood that each item of history and examination that they accorded importance would need to be documented in every referral letter regardless of whether that information was germane to the diagnosis.

Unsurprisingly, some ‘short hand’ items or common local abbreviation of clinical terms used in GPs’ letters were highlighted in the feedback in this audit. Feedback about the ‘quality’ of the GPs’ individual referral letters was offered after the collection of their letters (n=136). The referral feedback letters were distributed to the GPs (n=15) with each referral letter scored according to the peer-led benchmark. Scoring required interpretation of clinical information recorded in the referrals and was consequently completed by someone with clinical experience and with reference to a GP. To ensure consistency in our study, scoring was done by the same
person for both collections of referral letters. The practitioners received feedback about each of their referral letters and their overall performance for each specialty. See Cancer Learning website.¹²

Adding value and closure

We would have liked to revisit the initial survey to ensure practitioners remained satisfied with their view of the importance of elements of history and examination recommended for relay to specialists. We gleaned the impression that some participants would have adjusted the benchmarking because some elements were not as important in practice as were considered at first glance. Members of our CoP were not asked to revisit the survey, although some participants were keen to revise their preliminary scores.

The templates prepared previously were used to score the second set of referral letters (n=48) and present feedback for the final phase of the project. The scoring process and values were refined based on GPs’ feedback about ‘shorthand’ terms. Feedback letters were then distributed to the five participating GPs with each referral letter scored accordingly.

Information about how letters changed as a result of participating in the project were recorded and shared with the CoP. The final data set contained scores from 183 referral letters written by 15 GPs. Only five GP’s completed both phases of the study with a total of 101 referral letters between them. For the five GPs that participated in both study phases, there was 26 point (95%CI 21-31) improvement in the average scores of the second set of letters indicating the quality of referral letters improved substantially after feedback. The average score at for the first phase was 29.3 (SD 14.1) increasing to 55.2 (SD 21.4) at the second phase.
Linear modelling that took speciality and clustering of scores by GP into account showed that there was evidence of variation in referral letters scores by speciality (Table 2). Improvement in score was greatest for breast and respiratory referrals and least for upper GI referrals. At the end of the second phase, breast referrals had the highest mean score with those from urology, gynaecology and upper GI scoring significantly lower on average. We were also able to demonstrate improvements in the quality score per specialty and per GP completing the CoP intervention as shown in Figures 2 and 3.

<table>
<thead>
<tr>
<th>Speciality</th>
<th>Mean Difference Phase 1→2</th>
<th>95% CI</th>
<th>p-value</th>
<th>Mean difference relative to breast referrals at second phase</th>
<th>95% CI</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast</td>
<td>31.0</td>
<td>19.4–42.5</td>
<td>&lt;0.001</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Colorectal</td>
<td>24.8</td>
<td>6.7–42.7</td>
<td>0.006</td>
<td>-10.4</td>
<td>-21.6–0.7</td>
<td>0.065</td>
</tr>
<tr>
<td>Urology</td>
<td>20.4</td>
<td>7.3–35.6</td>
<td>0.002</td>
<td>-23.9</td>
<td>-38.3–9.5</td>
<td>0.001</td>
</tr>
<tr>
<td>Gynaecology</td>
<td>23.9</td>
<td>12.9–35.0</td>
<td>&lt;0.001</td>
<td>-14.9</td>
<td>-20.7–9.1</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Respiratory</td>
<td>31.7</td>
<td>21.3–42.2</td>
<td>&lt;0.001</td>
<td>-6.1</td>
<td>-14.4–2.24</td>
<td>0.153</td>
</tr>
<tr>
<td>Upper GI</td>
<td>16.0</td>
<td>4.0–28.1</td>
<td>0.009</td>
<td>-21.3</td>
<td>-31.2–11.3</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

*Table 2. Mean difference in referral letter scores before and after feedback by speciality and relative to breast referrals at the second phase and after taking GP clustering into account.

*Difference, 95% Confidence Intervals (CI) and p-values from a linear model estimated using generalized estimating equations. Analysis performed on unbalanced data from 15 GPs and study phase and specialty entered into the model as an interaction term.

*Figure 2. Improvements in quality scores for referral letters per speciality before and after the CoP intervention.*

*Figure 3. Improvements in quality scores for referral letters per GP completing the CoP intervention.*
We celebrated the achievements of our CoP by capturing the experience and results in this paper and on-line to ensure that the relevant body of knowledge was captured and/or transferred. Finally we responded to individual comments directed to the project leader.

**Discussion**

We need effective interventions to improve information relay in health care especially to allow specialists to prioritise cases for their clinics appropriately. A CoP approach with local benchmarking, audit and peer-mediated feedback may improve the amount of information relayed to specialists from that CoP substantially. It was especially noted that referral letters to breast and respiratory clinics improved the most in the second phase of the project. Improvements were much less marked for referrals to upper gastrointestinal clinics. We have previously reported referrals in this speciality as ‘tickets of entry’ where patients are frequently referred for a diagnostic procedure, namely endoscopy with very few clinical signs and very little clinical data. However given the pilot nature of this study we will focus the discussion on the methods rather than speculate further on the implications of the results. There were many challenges in the approach taken in this study and some but not all were successfully addressed; the role of the project coordinator was critical to the success of the project. Recruitment of practitioners to what was a challenging project was facilitated by personal contact both in the metro and more especially in the rural area. However the impact of this on our final results was unquantifiable. Several challenges warrant further comment and can be broadly classified under the headings; recruitment, attrition, acceptability of scope of the project and logistic challenges.

The final tally of one in five recruited from the original sample frame was disappointing. Workload and shortage of GPs were frequently cited as reasons for declining to participate. The
GP shortage is a recognised problem in the Australian context but it is not clear whether the submission of this reason for declining to participate reflects social desirability bias.\textsuperscript{14-15} Recruitment to research is frequently acknowledged as a major challenge to researchers in general practice. The focus of this project may not have excited the interest of many of those we invited to participate. The amount of information recorded in referral letters may not be cited by practitioners at the coal-face as being a major contributor to poor outcomes in health care.

This project recruited practitioners who do not normally practice in the same practice or locality. It has been assumed that agreement to participate was a proxy for a common interest and a common commitment to a quality agenda. This assumption could be challenged as a previous successful project on this topic recruited practitioners in the UK in an established and geographically proximate environment.\textsuperscript{16} The CoP approach ideally involves at least some face-to-face meetings and some of the impetus to alter practice might be a function of social interactions and the development of a shared understanding.\textsuperscript{17} Within the constraints of geography and resources it was not possible to facilitate such close personal relationships within our CoP and this may have contributed to the observation that only one in three of those recruited completing the audit cycle.

Ten of the original sample of fifteen practitioners failed to complete the audit cycle. Three further possibilities exist and they may not be mutually exclusive. Firstly it is possible that the project was considered more challenging than we were able to ascertain formally. Participants set very high standards for benchmarking their referral letters. After initial feedback it may have seemed impractical to attain those standards. We know that some practitioners were upset by their scores and may have withdrawn to spare themselves further discomfort. Secondly the practicalities of collecting referral letters for the project may have precluded some practitioners from participating. There were complaints during the project about the need to collect letters, in some
cases manifesting as requests for funding for administrative support with this task. This support was offered on request and may have kept some practitioners involved who might otherwise have been unable to participate. Some participants may also have assumed that only referrals questioning a ‘cancer’ diagnosis were included in the survey and these were indeed few and far between. However this issue was raised early in the project and despite clarification that any referral to the relevant specialist in the second round of the audit qualified, practitioners bowed out of the project citing a lack of referrals or lack of time. The offer to fund ‘mock’ letters based on vignettes was also unlikely to persuade some who declined all offers to maintain their involvement in the project.

Thirdly there were several logistic challenges in this project. For the coordinator based in in some cases several hundred kilometres away from some participants it was difficult to maintain contact with managers or GPs with busy and unpredictable schedules. It was necessary to leave messages and emails which may or may not have been relayed or given priority. The impact of any ‘nuisance’ factor was difficult to quantify. There were also considerable challenges to collecting the letters for the audit especially in the first part of the audit cycle where GPs had to identify letters penned several weeks or months previously. This was unexpected as it was assumed that the practice would have been able to identify referrals from their computer databases. We also perceived the need to maintain interest in the project and therefore set relatively short deadlines for completion of the second part of the audit cycle. On the one hand this may have helped keep the practitioners alert to the need to submit letters for the project, on the other hand it may have excluded those who made very few referrals.

Conclusions
It is possible to form a community of practice around a specific issue. However participation in such a project based on an agenda or issue identified externally to the CoP may result in limited interest in the project. The logistics of maintaining a CoP across a wide geographical area are considerable and the terms of reference and scope of the project warrant particular attention. Practitioners respond to standards set locally and with their participation and can be encouraged to alter practice when they fail to meet their own standards.

Acknowledgements:
To all the participating general practitioners and hospital specialists for their generous contribution to the project including cogent and constructive criticism. Dr. Ruth McConigley for assistance with the early stages of this project, submitting the project for ethics approval and recruitment of some practitioners.

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Authors’ contributions
MJ, JR and TS designed the study and co-authored the paper. MS and HW participated in the study and co-authored the paper. KS analysed the data. KD coordinated the study, entered the data and co-authored the paper.
Figures

Figure 1. Summary of methodology.

Figure 2. Improvements in quality scores for referral letters per specialty before and after the CoP intervention. Open circles represent GPs who completed both phases of the study and closed circles represent referrals not matched by either a before or after referral by the same GP in that specialty.

Figure 3. Improvements in quality scores for referral letters per GP completing the CoP intervention. Lines represent referral letters matched before and after by specialty.
A CoP

Define scope and purpose

Recruit members

Identify common needs and interests. Grow body of knowledge

Sustain the CoP
Maintain involvement

Add value and closure
Figure 2
Figure 3