

Information for Radiotherapy Patients

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Introduction

This article describes the first cycle of an action inquiry project to improve the delivery of information to patients. Patient information and education are an important part of health care. A well-informed patient is likely to recover faster with fewer complications and show better self-care (Bonnel, 1999). Improvements in general education and increased access to medical knowledge through the World Wide Web promotes a significant change in doctor-patient relationships from professional dominance towards greater equality. This increases patients' demand for full and accurate information, and heightens requirements for high quality information and education materials (Kantz et al, 1998).

The improvement of techniques and introduction of new treatments have revolutionised the delivery of radiotherapy and the management of patients undergoing procedures (Bomford et al, 1995). Radiotherapy practice has become more complex, and consequently patients require more information. As treatments and procedures vary from place to place, site - specific information is required, and generic patient information and education materials may not be adequate or correct. Patient education materials that have been in use for some years may also no longer be adequate.

Background

Research has found that well-structured information given to the patient prior to the commencement of treatment is more beneficial than unstructured information (Blacklay et al, 1998; Clements et al, 1998; Zernike et al, 1998). Radiation therapists in the Radiation

Oncology Department of a Sydney teaching hospital were becoming concerned about the number of patients lacking general knowledge about their treatment and specific knowledge of aspects of skin care. During the first consultation, a radiation oncologist gives each patient a booklet with general information about radiotherapy. Visual information has been found to increase patient awareness about the procedures (Schapira et al 2000), so when the patient returns for treatment planning, nursing staff show a video of radiotherapy planning and treatment procedures. The video is intended to show actual treatment conditions so that patients can relate the information to their own situation. Finally, prior to departure the patient is given a site-specific information sheet relevant to the patient's disease and treatment. Therapists became concerned that this patient education system was not fully effective.

An action inquiry project was been set up to evaluate the patient information and education system, and identify gaps and areas for improvement. Department staff investigated the content of the information booklets and videos to see if the information provided was current and valid. Then they investigated whether information was given patients at an appropriate stage of treatment management. Finally, the language readability and writing style were investigated, to determine whether the information in materials was understood by patients visiting the Department. This cycle of inquiry led to changes in information and education materials, and to some procedures in the department.

Action inquiry was chosen as appropriate for this study because of its flexibility, continuity and openness to participation. The traditional scientific evaluation was considered not appropriate due to its strict procedural requirements and conditions (Bellman, 1996). One of the authors (RL) worked in the Radiation Oncology Department, the other in a nearby University.

The First Phase – Planning

After areas for investigation had been identified, one of us (RL) met with the department Quality Improvement Committee to discuss strategies and identify areas for improvement. The project was designed as a Quality Improvement Plan with staff participation, and without direct patient involvement. This was not classified as research on hospital patients, and approval from the hospital ethics committee was not required.

The committee decided on a number of steps. They would first evaluate the validity, availability and accuracy of the information available in the department. Secondly, the committee proposed that the level of written English should be investigated. Literature supports that readability of the written English in patient information booklets is often too difficult for the general public to fully understand (Brock et al, 2000; Brownson, 1998; Quirk, 2000). Thirdly, the committee was doubtful that adequate information was always given to patients at the appropriate times. This is important, as patients are not always aware of information that is available to them, or may receive information after it is needed. Three inquiry groups were formed within the committee to investigate these aspects in parallel. Each sub-group discussed progress and findings each week.

The Second Phase – Data Collection and Analysis

During the first two weeks of inquiry, all of the information booklets and patient videos were collected from the department for detailed analysis. The information presented in the booklets was studied in detail for accuracy and validity. The booklets were cross-referenced with professional and scientific publications, and then checked by the radiation oncologists, radiation therapists and oncology nursing staff. The same procedures were applied to patient information videos.

The committee identified several areas of inadequacy. An information booklet provided by the Cancer Council provided general information and was not specific enough to provide useful information for treatment management. A booklet provided by the department did not relate specifically to treatments, equipment and procedures used at this specific site.

A patient information video was produced by the department in 1996. In 1998, a major renovation was carried out to upgrade the department. Many of the department's facilities shown in the video had been removed or upgraded. The video was outdated, not relevant to the needs of some patients, and could potentially be misleading or confusing. Perhaps because of this, the video was not always shown by staff, and it was under utilised.

The inquiry groups noted that no records has been kept on when the information shown or given to the patients, or which patients did or did not receive information. A 'patient information form' was devised, and staff members were asked to use this to record when information materials are given to the patient. This record of what information was provided to each patient, when and by whom, was designed to be analysed for further improvement in later cycles.

The Third Phase - Implementation

After the initial data collection and analysis, a revised patient information booklet was produced on the departmental computer, with sheets printed on different coloured paper for different treatment sites. The revised information was more specifically relevant to patient's treatment, and equipment at each site. The information sheet is given to each patient at the end of his or her treatment planning session, before they leave the department.

The committee decided to produce a new departmental video. This would require considerable time. As the committee believed that patients would benefit from information provided from the existing video, it will continue to be shown to patients until the new video is available.

In an attempt to increase awareness and promote the use of the video while patients wait for their treatment planning to commence, a new sign detailing the video operation instructions was produced and placed in the waiting room near the video player. A daily record video usage was kept by a nominated staff member.

The new patient information and education form was implemented with a four-week trial period. After the initial four weeks, it would be reviewed, and improved if needed.

The Fourth Phase – Reflection

After the four-week trial period, discussions were held regarding the new patient information sheets, the patient video and the new patient information and education form. The new information sheets were well received by most patients, though there were some complaints about the readability and the writing style of the information. The patient information readability was originally to be investigated by the committee; however, due to time constraints they decided that accuracy and validity of information had priority over the readability and style. The readability of the information is to be improved in the second cycle of the project.

During the four-week trial period, treatment was planned for 86 new patients. Forty-one of these were in the first two weeks, before the video information sign was posted, and 45 new

patients in the two weeks after the sign was erected. Table 1 shows the video usage results during the four-week trial period.

Table 1: Video Usage

Day	Video use before the sign was displayed	Video use after the sign was displayed
Monday	2 out of 10 patients	5 out of 12 patients
Tuesday	1 out of 8 patients	4 out of 10 patients
Wednesday	1 out of 8 patients	3 out of 8 patients
Thursday	1 out of 10 patients	1 out of 9 patients
Friday	0 out of 5 patients	3 out of 6 patients

The results demonstrate that after the erection of the sign patient video usage increased on each day, with the exception of Thursday. Thursday is the planning day for French speaking patients from Noumea, so English language videos would not be understood. This problem has been discussed with the interpreter and a patient video in French will be produced.

The patient information and education form encountered several problems. The form was not used due to staff shortages, heavy workload and the reluctance of some staff to fill in all the required information. The original form was reviewed and adjustments were made to make it more user-friendly and less time consuming to complete. The original form requires staff to fill in comments as well as the patient information given. This has been replaced and now staff members are only required to tick the boxes with the most appropriate answers.

The Second Cycle

The revised and improved patient information and education form were originally to be evaluated over an additional two weeks, followed by further reflection and planning for improvement. Due to the time constraint and staff shortages, evaluation stopped after one week. Findings and reflections based on the first cycle were presented in a departmental in-service meeting to reinforce the importance of patient information and education, and the value of continuing action inquiry for quality improvement after the completion of this project.

Discussion and Conclusion

Patient information and education are important aspects of treatment. Individual requirements for information vary, depending on the treatment site, the length of the treatment and individual characteristics of patients. Radiation oncologists, radiation therapists and the oncology nursing staff play an important role in patient education and information because patients may not have enough expertise to identify the information that is most relevant and beneficial in their situation. Health care professionals have a responsibility to deliver information that is accurate, current, reliable and relevant to individual patients (Mills et al, 2000; Patterson et al, 2000).

Although this project was discontinued after the first action inquiry cycle, it did lead to some improvement. It resulted in increased awareness of the patients needs for information available, as well as improvements in the quality of information produced. Improvements will continue with the production of a new video in both English and French.

Action inquiry has the advantage of internal validity and reliability through repeated measurement of the same event (Seymour-Rolls and Hughes, 1995). With only one action inquiry cycle completed, findings are not confirmed by repeated cycles, and the benefits of

continuous improvement are lost. Single cycle inquiry is unlikely to result in double-loop learning or systemic change. As health professions move towards evidence-based practice, action inquiry has potential to provide departments with specific evidence-based knowledge about patient information and education, with high relevance to the local situation. To gain these benefits, action inquiry must be continued, and organisations must be prepared to risk change. Without change, there can be no sustained improvement.

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