

Assessing post-radiotherapy handover notes from a family physician perspective

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ABSTRACT

Background Across our province, post-radiotherapy (RT) handover notes are sent to family physicians (FPs) after RT. Based on previous FP feedback, we created a revised post-radiotherapy handover note with more information requested by FPs. The purpose of this study was to determine whether the revised handover note improved the note as a communication aid.

Methods Potential common and rare treatment side effects, oncologist contact information, and treatment intent were added to the revised handover note. Both versions were sent alongside a questionnaire to FPs. Paired *t*-tests were carried out to compare satisfaction differences.

Results There was a response rate of 37% for the questionnaires. Significantly greater clarity in the following categories was observed: responsibility for patient follow-up (mean score improvement of 1.2 on a 7-point Likert scale, $p < 0.001$), follow-up schedule (1.1, $p < 0.001$) as well as how and when to contact the oncologist (1.4, $p = 0.001$). Family physicians were also more content with how the institute transitioned care back to them (1.5, $p = 0.012$). Overall, FPs were generally satisfied with the content of the revised post-RT handover note and noted improvement over the previous version. The frequency of investigations and institute supports initiated such as counselling services were suggested further additions.

Conclusions The inclusion of potential treatment side effects, oncologist contact information, treatment intent and a well-laid out follow-up schedule were essential information needed by FPs for an effective post-RT completion note. With these additions, the revised post-RT handover note showed significant improvement.

Key Words Radiation oncology, post-radiotherapy handover note

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INTRODUCTION

After completing radiotherapy (RT), a post-RT handover note is sent to the patient's family physician (FP) from the radiation oncologist. This note mainly serves to document radiation treatment details, but offers the potential to guide FPs in post-RT treatment cancer care and promote continuity of care in situations where FPs can often feel isolated^{1,2}. Such notes can especially be crucial for managing cancer survivors in rural or remote communities after the institute discharges a patient back to the care of their FP. Having an effective handover note can help the limited number of radiation oncologists focus on active cancer patients, allowing FPs to provide care closer to home.

In a preceding study, it was found that radiation oncology post-RT handover notes from our institute inadequately

met the needs of FPs. Based on the results of the survey, improvements could be made to the follow-up and transitioning of patients from the institute back to their primary healthcare provider. Family physicians indicated they would like to see the inclusion of common treatment side effects, treatment intent, rare but serious treatment side effects and oncologist contact information, while having less interest in RT specifics, including treatment technique and dose³.

The revised post-RT handover note incorporated FPs' feedback of the previous note to include treatment intent (curative or palliative), common side effects of radiation with management suggestions, rare but serious side effects, and when to refer back to a radiation oncologist, as well as a clear follow-up plan. Therefore, the goal of this study was to determine whether FPs thought there was a notable improvement in the radiation oncologist post-RT

handover note from the institute. We hypothesized that inclusion of information regarding follow-up and side effects would improve the post-RT handover note to allow better continuity of care with FPs. Greater clarity was seen with all questions in the revised post-RT handover note, including responsibility for follow-up, follow-up schedule, how and when to contact the oncologist, and potential radiation treatment side effects. Family physicians were happier with how the institute transitioned care back to them in the revised post-RT handover note. Overall, FPs were satisfied with the revised post-RT handover note and saw improvement compared with the old version.

METHODS

Family physicians were selected from the institute's data based on patient information and cancer treatment received for patients treated at the institute between November 2015 and July 2016. Physician contact information collected from the information system was used to send the new questionnaire about the revised post-RT handover note and the old version with their patient's specific information to the FPs. Upon completion of the questionnaire, FPs were reimbursed \$30 per returned questionnaire.

A mixed methods evaluation comparing the previous post-RT handover note to the revised note for radiation oncologists at the institute was carried out. Participants were asked to rate the original post-RT handover note (Supplemental Appendix 1). In addition, FPs were asked to complete a survey with similar questions regarding the revised post-RT handover note. Based on the previous study's feedback, the revised note placed a greater focus on the rationale for RT, common treatment side effects with management, rare but serious side effects with a recommendation to be seen by a radiation oncologist, and a follow-up plan (Supplemental Appendix 2). All questions were scored based on a 7-point Likert scale, 1 being not clear and 7 being very clear. Two additional questions were included: overall satisfaction with the content of the revised post-RT handover note, scored 1 through 7, 1 being not satisfied and 7 being very satisfied, as well as whether the new note showed improvement over the previous version, scored 1 through 7, 1 being no improvement and 7 being large improvement. Family physicians were additionally asked, in the case where improvements were seen in the revised post-RT handover note, to comment on the most valuable improvements and, in the case where no improvements were seen, how the revised note could be improved, along with any other information FPs think should be included with the document.

Statistical analyses were carried out using Statistical Package for the Social Sciences (SPSS) version 14.0 (IBM, Armonk, New York, U.S.A.) and Microsoft Office Excel 2013. Paired t-tests were conducted for Likert-scored questions comparing previous post-RT handover note with revised note values.

RESULTS

Of the 108 questionnaires sent out, 40 were completed and returned, for a response rate of 37%. Table 1 shows the mean values surrounding clarity of the question in the

original post-RT handover note as well as the revised version. All questions were scored higher in the revised post-RT handover note and all except *potential treatment side effects described* showed significant improvement.

Table 11 shows the mean and median values for specific questions about the new post-RT handover note. Participants indicated a high level of satisfaction and improvement of the revised note over the previous documentation.

Family physicians were also asked to comment on whether they noted improvements in the new post-RT handover note and which were most valuable, as well as, if the note had not improved, how improvements could be made and any other information FPs would like to see. With the new handover note, more FPs were satisfied with the inclusion of a follow-up plan as well as treatment side effects; however, responses indicated that the note could be further improved by the inclusion of long-term management and potential complications.

Improvements in the New Post-RT Handover Note

"More detailed management shared. Exact treatment given is detailed. Planned next steps and further ordered or requested investigations is clear and who will be responsible. Anticipated side effects detailed."

"It mentions specifics of follow-up and side effects anticipated and symptoms to watch for. Also mentions discussion on DNR [do not resuscitate] status which is important."

Most Valuable Improvements

"Detail of potential side effects that may need to be managed."

"Summary of cancer and treatment. Expected side effects as we see these people in ER all the time!"

How the Revised Post-RT Handover Note Can Be Improved

"Frequency of follow-up should be mentioned. Management of potential complications will also be wise if could be hand over via person/to person telephone conversation."

"What about long term... like regular breast exams or mammograms yearly?"

"Takes a long time to get dictated note."

Other Information FPs Would Like To See in the Post-RT Handover Note

"Other supports initiated during the contact there: i.e., Counselling services? Social work?"

"I hope the new format will also be used for chemotherapy. Also a clear direction on who will continue with care/prescriptions would be useful."

"Frequency of investigation to be done including repeat imaging studies and lab work."

TABLE I Mean question scores on post-RT handover notes based on a 7-point Likert scale

Question	Mean score		Significance p Value
	Original TCN	Revised TCN	
Responsibility for patient follow-up	4.75	5.93	<0.001
Follow-up schedule	5.15	6.25	<0.001
Potential treatment side effects described	4.10	6.20	0.201
How and when to contact oncologist	3.90	5.31	0.001
Were you happy with how BCCA transitioned patient care back to you?	4.51	5.97	0.012

RT = radiotherapy; TCN = treatment completion note; BCCA = British Columbia Cancer Agency

TABLE II Mean and median values for questions regarding the post-RT handover note

Question	Mean	Median
Overall satisfaction with content of new therapy completion note	6.1	7
Do you think the new therapy completion note is an improvement from the previous version?	6.1	6

RT = radiotherapy.

DISCUSSION

At our centre, the revised post-RT handover note with the addition of side effect details, oncologist contact information, and treatment intent improved FP satisfaction with patient handover. Although all areas in the revised note showed improvement, the greatest change in clarity was seen in how the institute transitioned patient care back to the FP and how and when to contact the oncologist. Based on the inclusion of FP feedback to construct a new handover note, we observed higher clarity with the handover note from the perspective of FPs.

Our results are consistent with the published literature, though our study is unique in seeking feedback from FPs to revise our current post-RT handover note and asking these same FPs to rate their satisfaction compared with the previous note. No randomized trials have been carried out on post-RT handover improvement with treatment completion notes; however, studies looking at the efficacy of survivorship care plans (SCP) in cancer care have become more prevalent⁴⁻⁸. Survivorship care plans are meant to guide both patients and primary care physicians through post-treatment cancer care and promote continuity of care amongst healthcare professionals, generally including both a treatment summary and follow-up care plan^{9,10}. The Institute of Medicine recommends that the principal elements of a SCP be a treatment summary and a comprehensive follow-up plan, including late treatment effects, psychosocial supports, and general health preventive measures⁹. Most SCPs include only whether RT was part of a patient’s cancer treatment, the site of treatment and the number of treatments over how many weeks, without any further RT details¹⁰.

To help address the needs of radiation oncologists, the American Society for Radiation Oncology (ASTRO) developed a radiation oncology-specific SCP template based on the SCPs of other facilities including the American Society of Clinical

Oncology and Memorial Sloan Kettering¹¹. This document combines a standard SCP and RT completion note highlighting the physicians involved in care, cancer diagnosis and staging, as well as a brief treatment summary of surgery, systemic or RT followed by the traditional post-RT handover note with detailed description of RT received. Similar to our study’s recommendations, patient’s treatment course, possible side effects that could occur post-treatment, when patients should seek care of a radiation oncologist and follow-up information such as tests and appointments were included¹¹. The addition of appropriate referrals and auxiliary services such as counselling or nutrition was also a part of the SCP, which a FP in our study indicated they would like to see in our future handover note. Another study reported that primary care physicians identified having a summary of cancer treatment received, names of providers involved in the patient’s cancer care, and possible late effects of treatment to allow for future screening and monitoring were most useful in SCPs⁵. Similar to the features of our revised post-RT handover note, one study suggests incorporating cancer diagnosis, radiation dose to which organ, how many treatments delivered, adverse effects experienced from the RT and their management, as well as follow-up to RT treatment summaries¹². The time needed to properly fill out the form is a potential barrier to such forms being implemented uniformly, but it has been shown that FPs have greater confidence in delivering care for cancer survivors when provided with SCPs that included patient cancer history and recommendations for follow-up⁵.

Our study should be interpreted in the context of its strengths and limitations. Strengths include a comparison between old and new method in a matched analysis on the same patients. This study was carried out in a single institution, and results may not be generalizable to all practice locations. However, the study was population-based as every dictation was completed by a radiation oncologist using the matched method for the entire study period, removing selection bias, and findings were consistent with other publications. We were able to identify areas of improvement in communication between specialists and FPs with a relatively small change in practice.

CONCLUSION

Family physician feedback was used to design a new post-RT handover note, which we asked FPs to compare with the previous version, resulting in a significant improvement

in satisfaction with the handover note. It is feasible to include details such as common and rare potential side effects of RT, oncologist contact information, and treatment intent to a handover note post-RT. The revised note with these additions improved FP satisfaction in communicating with radiation oncologists. Evidence from this study supports further research to determine the impact on patient outcomes this new post-RT handover note carries.

CONFLICT OF INTEREST DISCLOSURES

We have read and understood *Current Oncology's* policy on disclosing conflicts of interest, and we declare that we have none.

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