



Improving Oral Health Support for Patients Undergoing Head & Neck Radiotherapy: A Quality Improvement Project

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Background



Head and neck radiotherapy can result in significant oral complications:

- Xerostomia
- Mucositis
- Dental caries
- Trismus
- Osteoradionecrosis

Patients routinely receive pre-radiotherapy dental assessment but long-term follow-up of oral complications is less structured.

Current Pathway



- ✓ Pre-radiotherapy dental assessment
- ✓ Dental treatment/extractions when indicated
- ? Patient understanding of long-term oral complications
- ? Limited post-radiotherapy oral health review
- ? Unclear oncology staff confidence discussing oral risks

Aim & Objectives



- To improve post-radiotherapy oral health support for head and neck cancer patients by developing a structured follow-up pathway, improving staff and patient awareness of oral complications, and introducing patient education materials.

Objectives:

- Assess patient understanding of oral complications following radiotherapy.
- Evaluate staff confidence in discussing oral side effects with patients.
- Develop and implement a post-radiotherapy dental review pathway.
- Identify gaps in current post-treatment oral health support.
- Develop a patient information leaflet to support self-management of oral complications.

Project Design and Methodology



A patient survey was developed for patients who had undergone head and neck radiotherapy.

The survey aimed to explore:

- Patients' understanding of the importance of pre-radiotherapy dental assessment.
- Perceptions of the importance of completing recommended dental treatment prior to radiotherapy.
- How informed patients felt following their dental assessment.
- Whether patients would find a post-radiotherapy dental review beneficial.

An oncology staff survey was developed to assess confidence in discussing oral health risks associated with head and neck radiotherapy with patients.

A structured post-radiotherapy dental assessment was designed to facilitate identification of treatment-related oral complications and provide ongoing support following radiotherapy.

Results and Progress to Date



- Patient survey developed to evaluate patient understanding and experience of oral health support before and after radiotherapy.
- Oncology staff survey developed to assess confidence in discussing oral complications of radiotherapy.
- Structured post-radiotherapy dental assessment pathway developed.
- Post-radiotherapy dental review appointments commenced.
- Evaluation of patient experience and staff confidence planned as the next phase of the project.

PDSA 1 - Planning (Completed)



Plan:

Identify gap in structured post-radiotherapy oral health follow-up for head & neck cancer patients.

Develop project aim and objectives focusing on improving patient support and staff confidence.

Design two evaluation tools:

- Patient telephone survey assessing awareness and experience of oral complications following radiotherapy
- Staff survey assessing confidence in discussing oral risks with patients (oncology doctors and head & neck nurses)

Do:

- Drafted patient and staff questionnaires
- Agreed target population (head & neck radiotherapy patients)

Study:

- Survey content was reviewed to ensure it reflected key clinical issues in H&N radiotherapy care
- Identified need for structured post-treatment assessment pathway alongside surveys

Act:

- Refined survey questions to improve clarity and clinical relevance
- Progressed to planning implementation of post-radiotherapy dental review pathway

PDSA 2 - Early Data Collection (In Progress)



Plan:

- Begin patient telephone surveys post-radiotherapy treatment
- Distribute staff questionnaire to oncology doctors and head & neck nurses
- Assess baseline knowledge and confidence around oral radiotherapy complications

Do:

- Surveys prepared and ready for distribution
- Patient contact list identified
- Staff survey prepared for circulation within oncology department

Study:

- Not yet completed due to delay in implementation (6-week staff absence period)
- No formal data collected at this stage

Act:

- Plan to commence structured data collection immediately on return to work
- Anticipate reviewing early responses to refine survey tools and improve response rates

PDSA 3 - Introduction of Post-Radiotherapy Dental Review Pathway and Patient Education Leaflets (Early Implementation Phase)

Plan:

- Introduce structured post-radiotherapy dental assessment for head & neck cancer patients
- Aim to identify and manage oral complications following radiotherapy
- Improve continuity of care between oncology and dental services

Do:

- Post-radiotherapy dental assessments have begun for patients
- Plan to develop patient information leaflet on managing oral side effects

Study:

- Early clinical observations suggest this provides an opportunity to identify any oral complications associated with H&N radiotherapy

Act:

- Plan to formalise pathway based feedback from patients
- Refine timing and structure of post-treatment reviews once data is available
- Develop and implement patient leaflet alongside service rollout

Discussion



- Head & neck radiotherapy patients are at high risk of significant oral complications.
- A gap exists in structured post-treatment oral health follow-up and patient support.

This project addresses this through:

- Development of post-radiotherapy dental review pathway.
- Patient and staff surveys to assess awareness and confidence.
- Introduction of a patient information leaflet to support self-management.

Delay in data collection due to staffing absence has limited early analysis.

However, post-radiotherapy dental reviews have already started, supporting early service development.

Conclusion



No formal results yet, but project is in **active early implementation phase**.

A structured approach is being developed to improve post-radiotherapy oral health care.

Key components include:

- Patient and staff surveys (baseline assessment)
- Post-radiotherapy dental review pathway
- Patient information leaflet to improve self-management of oral complications

Next steps: complete data collection, evaluate findings, and refine the pathway and education materials.

Overall aim is to improve long-term oral health support for head & neck radiotherapy patients.



Thank you!