Retrospective evaluation of weight loss in Maine Medical Center Cancer Institute (MMCCI) patients receiving radiation treatment for head and neck cancer

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Recommended Citation

Johnson, Julian; Debartolo-Stone, David; Moore, Jessica; Maine Medical Center Radiation Oncology; Hanselman, Ruth; Tyzik, Stephen; Nayak, Suneela; and Sparks, Amy, "Retrospective evaluation of weight loss in Maine Medical Center Cancer Institute (MMCCI) patients receiving radiation treatment for head and neck cancer" (2019). Operational Excellence. 22.  
https://knowledgeconnection.mainehealth.org/opex/22

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Project: Retrospective evaluation of weight loss in Maine Medical Center Cancer Institute (MMCCI) patients receiving radiation treatment for head and neck cancer.

Last Updated: 7.12.2019

Team Members: Radiation Oncology Team Members

Executive Sponsor: Dr. Julian A. Johnson
Facilitator: David DeBartolo-Stone, Jessica Moore, Ruth Hanselman

**Problem/Impact Statement:**

When head and neck cancer patients undergo treatment, including surgery, chemotherapy, and radiation therapy, weight loss is an expected side effect. Without proper nutrition throughout any of these treatments, it can become severe, needing medical intervention. One such option is a percutaneous endoscopic gastrostomy (PEG) tube to help mitigate further weight loss. As a part of each head and neck cancer patient's consultation, radiation oncologists at Maine Medical Center’s Cancer Institute (MMCCI) discuss PEG tube placement options. This retrospective evaluation compiles MMCCI specific head and neck cancer patient data over a two year period.

**Scope:**

In Scope: Head and neck cancer patients treated with radiation therapy at MMCCI from July 2016-July 2018

Out of Scope: Other oncology patients treated with radiation therapy at MMCCI from July 2016-July 2018

**Goal/Objective:**

Goal: To offer MMCCI specific data to head and neck patients during radiation oncology consultation conversations regarding PEG tube placement.

**Baseline Metrics/Current State:**

**Countermeasures**

<table>
<thead>
<tr>
<th>Action</th>
<th>Owner</th>
<th>Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Define patient population to be studied (n=156)</td>
<td>Dr. Johnson</td>
<td>9/7/2018</td>
</tr>
<tr>
<td>Create data collection system to study population</td>
<td>Jessica/David</td>
<td>10/5/2018</td>
</tr>
<tr>
<td>Synthesize head and neck data on spreadsheet</td>
<td>Jessica/David</td>
<td>11/2/2018</td>
</tr>
<tr>
<td>Share raw data with Dr. Johnson (Primary Investigator)</td>
<td>Jessica/David</td>
<td>11/30/2018</td>
</tr>
<tr>
<td>Analyze raw data per the Primary Investigator’s instruction, to identify variables</td>
<td>Jessica/David</td>
<td>12/28/2018</td>
</tr>
<tr>
<td>Integrate findings into patient conversations</td>
<td>Dr. Johnson</td>
<td>ongoing</td>
</tr>
</tbody>
</table>

**Root Cause Analysis:**

- Patient Demographics: Age, Sex, T-stage, Number of treatments, Total dose (cGy), Concurrent Chemo, Unilateral vs. Bilateral neck, Weight loss, Average Weight loss, Smoking Status, Mean Larynx dose, PEG Placement Duration, PEG Refusals
- Variables Considered by Physicians: Patient Sex, Age Range, T-stage, Number of treatments, Total dose (cGy), Concurrent Chemo, Unilateral vs. Bilateral neck, Weight loss, Average Weight loss, Smoking Status, Mean Larynx dose, PEG Placement Duration, PEG Refusals

**Next Steps**

- Incorporate findings into MD/patient discussions during consultations and weekly on-treatment visits.

**Variables Considered by Physicians:**

- Shared informed decision making
- Personal choice
- Life saver
- Personal autonomy
- Invasive
- Surgical procedure
- Potential hospitalization
- Individual needs
- Temporary
- Lack of oral satisfaction while using PEG
- Nutrition
- Something new to learn
- Risk vs benefit
- Loss of taste
- Weight loss mitigation

**Plan**

- Define patient population to be studied (n=156)
- Create data collection system to study population
- Synthesize head and neck data on spreadsheet
- Share raw data with Dr. Johnson (Primary Investigator)
- Analyze raw data per the Primary Investigator’s instruction, to identify variables
- Integrate findings into patient conversations

**Do**

- Study

- Act

**Without a standard, MMC needed to gather the information required to have informed, personalized conversations about PEG tubes, to facilitate best outcomes**