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# Decreasing PEG Complications and Improving Communication for Head and Neck Cancer Patients receiving Chemo-Radiation

RCN Head and Neck Disease Site Group

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## INTRODUCTION

Head and neck (HN) chemo-radiation cancer cases are often complex and patients experience high complication rates. Depending on the complication(s), patients may act by visiting the emergency department (ED) or outpatient clinics including oncology, radiation, and GI clinics where they cannot always articulate their diagnosis, treatment or treatment team. This makes it difficult for staff to determine the correct contact to refer the patient to, resulting in delays and frustration.

JGH	MUHC
23%	56%

Fig 1: Rate of hospital admissions (HA) and ED visits for HN chemo-rad patients at the RCN (N=246, FY'14-'17)

Top reasons for ED visits and hospital admissions (HA):

- Febrile Neutropenia
- Dehydration
- PEG complications
- Dysphagia
- Pneumonia

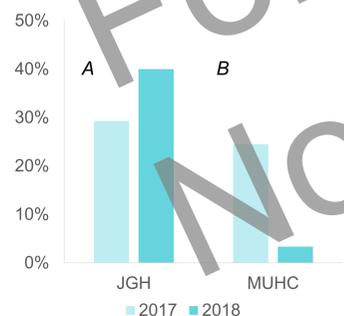
Within scope of Urgent Care Centre project

Health care professionals (HCP) in the HN team have expressed interest in developing a patient care tool that summarizes key information to facilitate communication between teams including the ED, cancer treatment teams, and other hospital units and clinics.

Further analysis of Percutaneous Endoscopic Gastrostomy (PEG) feeding tubes processes, showed us that patients who experience complications often go to their radiation clinic, or directly to the gastroenterology clinic where the PEGs were inserted.

Given the high percentage of patients who have a complication with their PEG feeding tubes, resulting in visits to the ED, GI, or radiation clinic, the team decided to look into ways to reduce complications.

Fig 2: Estimated % of HN cancer patients who had PEG complications (A) JGH Rad Onc clinic: Jan'17-Aug'18 (B) MUHC GI clinic: Jan'17-Feb'18

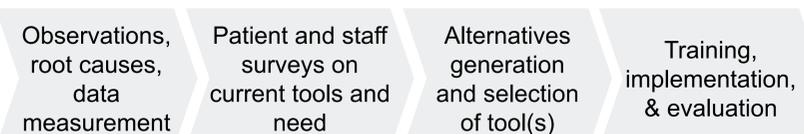


## OBJECTIVES

- Improve **coordination of care** and **healthcare professional experience**: facilitating communication between patients and different HCP teams
- Improve **patient experience**: providing tools that ensure they are comfortable with the management of their feeding tubes
- Improve **quality of care**: reducing the number of PEG feeding tube complications and by ensuring ED staff have key information available in a timely manner

## METHODOLOGY

### A Patient Care Tool



Potential causes for communication gap between HCP teams, in particular ED and treatment (Tx) team:

- Patients may not always remember their type of cancer or treatment
- ED staff don't know who is part of the Tx team or how to contact them
- It's time consuming and hard to find key information in the electronic medical record (EMR)

Surveys were designed for the following teams to understand the need, current tools, and value of a tool creation:

- ED team
- HN Tx team
- Patients

Literature review showed us that some tools available at other organizations are business cards or handouts including diagnosis (Dx), Tx, Tx team names, and in some cases, allergies.

Other alternatives to be looked into, based on interviews with HCPs and patients are stickers and easier to access documentation on the EMR systems.

### B PEG Feeding Tubes



Potential causes for PEG complications:

- Patient education
- Chemotherapy drug used
- PEG insertion date in relation to the Tx start date
- PEG insertion process steps
- PEG removal date

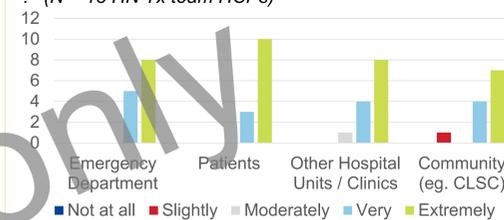
Review of tools and processes at the JGH and MUHC showed differences in which team(s) provided education, when education was provided, and the format (in person, video, group session, and the internally-developed handouts).

Additional external review of PEG education tools provide guidelines for content, should education tools be created.

Following changes to the PEG insertion process at MUHC, as advised by infectious disease, the operating room, and the ostomy & wound care teams, there are differences in the hospitals' aseptic techniques and the prophylactic administration of antibiotics. The project team plans to discuss these differences and potentially implement standardization.

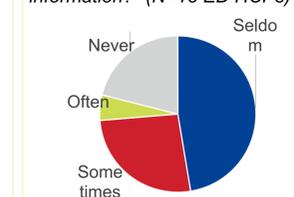
## SURVEY RESULTS TO DATE

Fig 3: "How useful would a tool with the patient's problem list (Dx, Tx) and Tx team contact info be during treatment?" (N = 13 HN Tx team HCPs)



While the interest in a care tool with key information came from a communication gap with the ED team, such a tool could also benefit other groups such as hospital units, clinics, and the overall community

Fig 4: "How often do patients carry documents with key Tx information?" (N=18 ED HCPs)



The oncology passport, which among other information, includes Dx, Tx, and some Tx team names is not often used by patients

Fig 5: "What information should the patient care tool have?" (N = 31)

Information	Emergency Team	HN Tx team
Patient Name	17	12
Diagnosis and stage	18	12
Treatment type	17	13
Tx team names	17	13
Level of care (A/B/C/D)	17	11

"Cards with this information should be scanned into the EMR - Many will forget to bring them to the ED or they will be lost by the referring hospital if they arrive by transfer. Could they be classified as 'alerts' to make them easy to search for?" MUHC ED physician

## CONSIDERATIONS & DISCUSSION

- Some considerations to keep in mind are:
  - Patients are currently receiving tools such as oncology passport, business cards (from different HCPs), and pamphlets
  - A patient care tool would need to be updated with current information as the treatment progresses
  - PEG complication rates may not be captured in the same way by the different teams: at JGH, the nutritionist and radiation oncology nurses document rates while at MUHC, the GI clinic nurses document them
- Questions for discussion:
  - How can we ensure that patients carry a tool we create?
  - Who would be the most appropriate person to complete the tool?
  - Does it make sense to create a new tool (if paper-based)? or should we add on to an existing tool or improve current tools' use?
  - Can a similar tool be implemented for other types of cancer?
  - Who should track PEG complications going forward?

## NEXT STEPS

### A Patient Care Tool

- Patient surveys to understand lack of use of current tools and need for tool with key information
- Discuss EMR possibilities with IT and medical records teams at each hospital
- Decide on potential solution
- Train, implement, and evaluate

### B PEG Feeding Tubes

- Patient surveys to identify areas for improvement for PEG education processes and tools
- Discuss MUHC's PEG insertion process at JGH for differences and potential standardization
- Train, implement, and evaluate