Triaging symptom calls with and without practice guides: A case exemplar

by Barbara Ballantyne and Dawn Stacey

ABSTRACT
This case exemplar demonstrates use of COSTaRS symptom practice guidelines for enhancing quality of telephone-based nursing services. The case is based on findings from an audit of nurse-led telephone consultation documentation from 299 patients’ health records in ambulatory oncology programs. Phone calls between a 49-year-old woman with metastatic colon cancer and three registered nurses (RNs) are described herein. The patient received chemotherapy intravenously (day 1) and orally (days 1–14). On days three, five and six she telephoned her RN to report nausea and vomiting. The first two RNs advised her to take her antiemetics with no assessment documented. The third RN used a COSTaRS symptom guide to conduct a thorough assessment, medication review, and discussed strategies for self-management.

INTRODUCTION
Although chemotherapy is an effective treatment for curing or palliating cancer, most patients experience unwanted side effects. Poorly managed side effects from chemotherapy may progress to require hospitalization and/or become life-threatening (Vandyk, Harrison, Macartney, Ross-White, & Stacey, 2012). Recent years have seen an ever-expanding number of chemotherapeutic regimens, as well as increased use of oral chemotherapy. This shift has resulted in increased challenges to patient safety, especially as treatment moves away from chemotherapy suites to patients’ homes (Leung et al., 2012). These challenges are largely attributable to the fact that moving chemotherapy delivery from an institutional setting into the home moves treatment delivery from an area where checks and balances, policies, and procedures are well established to a setting that lacks similar safeguards (Weingart et al., 2008). Nurses, therefore, find themselves providing information, education and side effect management to their patients remotely via telephone (Macartney, 2012).

For higher quality, telephone-based nursing services nurses: a) use clinical guidelines, standardized protocols, and agency policies and procedures; b) document all interactions; and c) participate in orientation and continuing education (CNA, 2007). To inform nurses’ telephone-based assessment, triage, and guidance for patients experiencing treatment-related symptoms at home, the Pan-Canadian Symptom Triage and Remote Support (COSTaRS) symptom guides were developed (Stacey, Macartney, Carley, Harrison, & COSTaRS, 2013). The 13 symptom guides are based on evidence from clinical practice guidelines and are publicly available on the Canadian Association in Oncology (CANO) website (http://www.cano-acco.ca/triage-remote-protocols). To implement the symptom guides in routine nursing telephone practice in our oncology program, nurses received a 60-minute training workshop and reinforcement sessions (Stacey et al., 2015). Reinforcement sessions were informal discussions focused on specific symptoms and overcoming challenges to using the symptom guides. As well, clerks were instructed to place the relevant symptom practice guide with the telephone message prior to giving written messages to the primary nurse. Completed practice guides were then filed in the patients’ paper health record.

In this paper, a case exemplar is employed as a strategy for demonstrating how using a COSTaRS symptom practice guide has the potential to enhance the quality of telephone-based nursing services.

EVIDENCE SOURCES
The case exemplar was developed using findings from a chart audit of nurse-led telephone consultation documentation in an outpatient oncology program. The documentation audits (N = 299 patient health records) were conducted as part of a larger COSTaRS study to determine uptake of the practice guides (Stacey et al., 2012). To protect patient and nurse confidentiality, demographics in the case exemplar were changed. Ethics approval for the larger COSTaRS study was obtained from the appropriate Research Ethics Board (REB), its affiliated university and REB’s of the participating centre.

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CASE EXAMPLE

At the age of 49, Tracy White (pseudonym) was diagnosed with colon cancer metastasized to her liver. Prior to her diagnosis, Tracy had made plans to retire from her position as a school secretary in order to travel with her husband and spend more time with her children and grandchildren. The colon cancer was diagnosed during a routine colonoscopy. Unfortunately, during staging she was noted to have lesions on her liver. The original treatment plan consisted of surgery to remove part of her colon and her oncologist suggested she undergo an initial course of six months of chemotherapy. In order to receive the initial chemotherapy treatments, Tracy travelled two hours from her home to the nearest satellite oncology site where she received her weekly intravenous chemotherapy. On a monthly basis, she also travelled a total of 11 hours to the cancer centre to meet with her oncologist and primary nurse. Her cancer journey was further complicated by an infected PICC line incident and severe fatigue. Having completed the prescribed six months of chemotherapy, Tracy’s CT SCAN showed stable disease and she was, therefore, able to discontinue chemotherapy.

Several months later, Tracy was advised by her oncologist to consider restarting chemotherapy due to retroperitoneal progression. After careful consideration, citing travel issues from her home to her nearest Outreach oncology site, Tracy chose not to have another PICC line, opting instead for a combination of oxaliplatin by intravenous day 1 of each three-week cycle and an oral agent capecitabine (Xeloda) twice a day for two weeks. Her oncologist also prescribed three medications for managing nausea and vomiting—ondansetron, dexamethasone, and prochlorperazine. Tracy was pleased, as this new chemotherapy combination drastically decreased the number of hours required to travel for each treatment and she felt this was a more ‘convenient’ treatment plan.

For the first 48 hours after her initial treatment Tracy felt ‘fine’. However, on the third morning she woke up nauseated and was unable to eat breakfast. By noon, she continued to feel nauseated and Tracy made her first phone call to the tertiary oncology program for advice. Over a four-day period, Tracy called the cancer centre three times regarding nausea. Each time Tracy called she spoke with a registered nurse (RN) who had participated in the education workshops on the COSTaRS symptom guides. Due to the fact that Tracy’s RN was on vacation, Tracy spoke to three different nurses during a four-day period. A summary of these telephone interactions is described below:

First phone call – Day 3 of oral chemotherapy: Tracy called to speak with her nurse.
- Telephone triage clerk message: “Has not taken her chemo pill today. Medication tastes bad and stomach feels awful.” The clerk attached a copy of the Nausea and Vomiting COSTaRS symptom guide to the message for the primary nurse.
- Primary Nurse with 15 years of oncology experience returned Tracy’s call in 2.5 hours and documented on the non-COSTaRS telephone message: “Patient advised to take Xeloda if she can. Advised to try Prochlorperazine first.” No documentation was completed on the COSTaRS symptom guide.

Second phone call – Day 5 of oral chemotherapy: Tracy called again to speak with her primary nurse, but was unaware that she was not at work.
- Telephone triage clerk message: “Vomited last night. Not sure if she should take chemo pill.” The clerk again attached a Nausea and Vomiting COSTaRS symptom guide to the message.
- Replacement RN, with less than six months oncology experience, returned Tracy’s call within two hours of receiving the message and documented: “Took Stemetil once with effect. Not nauseated now. Drinking OK. Advised to proceed.” This documentation was found on the separate telephone message form, but no documentation was found on the COSTaRS symptom guide.

Third phone call – Day 6 of oral chemotherapy: Tracy called for a third time.
- Telephone triage clerk message: “Patient requesting primary nurse call her ASAP. Feels terrible. Nauseated and medication is not helping. Has not taken chemotherapy.” Telephone clerk attached a Nausea and Vomiting COSTaRS symptom guide to the message and sent it to the ambulatory clinic. Her regular primary nurse was on vacation and the oncologist was working with a second replacement RN (third RN in four days). The RN documented her assessment, triage and interventions on the COSTaRS symptom guide (see Figure 1). In addition to nausea, the conversation directed by the use of the COSTaRS symptom guides, between the third RN and Tracy revealed that constipation was also contributing to Tracy’s nausea. The RN then assessed, triaged and managed both symptoms appropriately using the COSTaRS practice guides.

According to the symptom assessment, Tracy was triaged as having moderate symptom severity requiring self-management and reassessment within 12–24 hours if no improvement or symptoms recur. The COSTaRS medication review revealed that Tracy had not been using prochlorperazine as prescribed and that she was not aware that the metoclopramide she had on hand from her original chemotherapy treatment was also an antiemetic. The RN noted that she was given granisetron with her IV chemotherapy and that this medication frequently causes constipation. Tracy had colace and senokot for constipation at home, but she was not using these medications regularly. The COSTaRS self-management strategies were reviewed and next steps agreed upon were clearly documented. Tracy agreed to hold the prochlorperazine and instead try the previously prescribed metoclopramide, as ordered, and several of the self-management strategies (numbers 6, 8 and 12) (Figure 1).

Tracy made no further calls to the cancer centre regarding nausea or constipation. Her next follow-up was an in-person interview with the oncologist where documentation describes the symptoms as resolved.
**Figure 1**: Completed COSTaRS Symptom Guide for Tracy

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**Nausea & Vomiting Protocol**

**Remote Assessment, Triage, and Management of Nausea & Vomiting in Adults Undergoing Cancer Treatment**

*not for patients undergoing bone marrow transplant*

Nausea: A subjective perception that emesis may occur. Feeling of queasiness. Vomiting: A forceful expulsion of stomach contents through the mouth and may include retching (gastroesophageal movement without vomiting — dry heaves).  

1. **Assess severity of nausea/vomiting** *(Supporting evidence: 4 guidelines)*

   **Tell me what number from 0 to 10 best describes your nausea**

   | No nausea | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 Worsest possible nausea |
   |------------|---|---|---|---|---|---|---|---|---|---|---------------------------|
   | No vomiting | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 Worsest possible vomiting |

   **Tell me what number from 0 to 10 best describes your vomiting**

   **How worried are you about your nausea/vomiting?**

   | Not worried | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 Extremely worried |

   **Ask patient to indicate which of the following are present or absent**

   **Patient rating for nausea** *(see ESAS above)*

   **Patient rating for vomiting** *(see ESAS above)*

   **Patient rating of worry about nausea/vomiting** *(see above)*

   **How many times per day are you vomiting or retching** *(see above)*

   **Have you been able to eat within last 24 hours?**

   **Have you been able to tolerate drinking fluids?**

   **Are you feeling dehydrated, which can include feeling dizzy, a dry mouth, increased thirst, fainting, rapid heart rate, decreased amount of urine?**

   **Do you have any blood in your vomit or does it look like coffee grounds?**

   **Do you have any abdominal pain or headache?**

   **Does your nausea/vomiting interfere with your daily activities at home and/or at work?**

   **Triage patient for symptom management based on highest severity** *(Supporting evidence: 2 guidelines)*

   **Additional Comments:** Constipated. See attached.
### 3. Review medications patient is using for nausea/vomiting, including prescribed, over the counter, and/or herbal supplements (Supporting evidence: 7 guidelines)\(^{1,9,10}\)

| Current use | Examples of Medications for nausea/vomiting | Notes (e.g. dose, suggest to use as prescribed) | Type of Evidence |
|-------------|-------------------------------------------|---------------------------------------------|------------------|
| ☑           | ondansetron (Zofran\(^{a}\)), granisetron (Kytril\(^{a}\)), dolasetron (Anzemet\(^{a}\)) \(^{1-9,10}\) | 

- Weight: **40 kg**  
- Height: **180 cm**  
- BMI: **23**  
- **Yes**  
- **No**  
| ☑           | Systemic review |
|-------------|-----------------|
| ☑           | dexamethasone (Decadron\(^{a}\)) \(^{1,2,3,5,9,10}\) |  

- Weight: **40 kg**  
- Height: **180 cm**  
- BMI: **23**  
- **Yes**  
- **No**  
| ☑           | Systemic review  
|-------------|-----------------|
| ☑           | metoclopramide (Maxeran\(^{b}\)) \(^{1-3,5,9,10}\) |  

- Weight: **40 kg**  
- Height: **180 cm**  
- BMI: **23**  
- **Yes**  
- **No**  
| ☑           | Systemic review  
|-------------|-----------------|
| ☑           | prochlorperazine (Stemetil\(^{a}\)) \(^{1-3,5,9,10}\) |  

- Weight: **40 kg**  
- Height: **180 cm**  
- BMI: **23**  
- **Yes**  
- **No**  
| ☑           | Systemic review |
|-------------|-----------------|
| ☑           | lorazepam (Ativan\(^{a}\)) \(^{1-3,5,9,10}\)  
|-------------|-----------------|
| ☑           | nabulone, docetaxel (Taxotere\(^{a}\)) \(^{1,5-9,10}\)  
|-------------|-----------------|
| ☑           | haioptol (Haldol\(^{a}\)) \(^{1-3,5,9,10}\)  
|-------------|-----------------|

### 4. Review self-care strategies (Supporting evidence: 6 guidelines)\(^{2,4,9,10}\)

| What strategies are already being used? | Strategy suggested/education provided | Patient agreed to try | Self-care strategies (Supporting evidence: 6 guidelines)\(^{2,4,9,10}\) |
|----------------------------------------|--------------------------------------|-----------------------|-----------------------------------------------------------------|
| ☑                                     |                                      | ✅ 0.1. Are you trying to drink clear fluids? e.g. water, apple juice, ginger ale, chamomile tea? |
| ☑                                     |                                      | ☑ 0.2. Have you tried relaxation techniques that may include guided imagery, music therapy, progressive muscle relaxation?\(^{2,3,9,10}\) |
| ☑                                     |                                      | ☑ 0.3. Are you taking anti-emetic medications before meals so they are effective during/after meals?\(^{2,4,9,10}\)  
| ☑                                     |                                      | ✅ 0.4. Are you limiting food and drink until vomiting stops? After 30-60 minutes without vomiting, sip clear fluids. When clear fluids stay down, add dry starbry foods (e.g. crackers, dry toast, dry cereal, pretzels). If starbry food stay down, add protein rich foods (e.g. eggs, chicken)?\(^{2,4,9,10}\) |
| ☑                                     |                                      | ☑ 0.5. Are you trying to:  
- eat 5-6 small meals or snacks?\(^{2,4,9,10}\)  
- eat foods that minimize your nausea and are your “comfort foods”?\(^{2,4,9,10}\)  
- avoid greasy/fried, highly salty, and spicy foods?\(^{2,4,9,10}\)  
- eat foods that are cold, avoiding extreme temperatures and strong odors?\(^{2,4,9,10}\)  
- Are you sitting upright or reclining with head raised for 30-60 minutes after meals?\(^{2,4,9,10}\) |
| ☑                                     |                                      | ☑ 0.6. Are you wearing loose clothing?\(^{2,4,9,10}\)  
| ☑                                     |                                      | ☑ 0.7. Are you washing your mouth before eating and keeping your mouth clean (brushing, rinsing)?\(^{2,4,9,10}\)  
| ☑                                     |                                      | ☑ 0.8. Have you tried acupuncture or acupressure to help with your nausea/vomiting?\(^{2,4,9,10}\)  
| ☑                                     |                                      | ☑ 0.9. Have you spoken with a dietician?\(^{2,4,9,10}\)  
| ☑                                     |                                      | ✅ 10. Would more information about your symptoms help you to manage them better?\(^{2,4,9,10}\)  
| ☑                                     |                                      | ☑ 11. If yes, provide appropriate information or suggest resources. |

### 5. Summarize and document plan agreed upon with caller (check all that apply)

- ☑ No change, continue with self-care strategies and if appropriate, medication use  
- ☑ Patient agrees to try self-care items:\(^{2,4,9,10}\)  
- ☑ How confident are you that you can try what you agreed to do (0=not confident, 10=very confident)?  
- ☑ Patient agrees to use medication to be consistent with prescribed regimen. Specify:  
- ☑ Referral (service & date):  
- ☑ Patient agrees to seek medical attention; specify time frame:  
- ☑ Advise to call back in 12-24 hours if no improvement, symptom worsens, or new symptoms occur

### References
1. Boss, J. et al. (2011). Antiemetcs: ASCO clinical practice guideline update. *J Clin Oncol.*, 29:4183-4198. (AGREE Rigor score: 72%)
2. NCCN (2013). Clinical practice guidelines in oncology: antineuter. Version 1. (http://www.nccn.org) (AGREE Rigor score pending)
3. Gulia, R. F. et al. (2011). MACC/ESMO Antineumetic Guideline. Retrieved from: http://www.esmo.org (AGREE Rigor score pending)
4. NCCN (2008). Evidence-based recommendations for cancer nausea/vomiting. *J Clin Oncol.*, 26(23), 3963-3970. (AGREE Rigor score: 68%)
5. Tipton, J. et al. (2007). PEP: evidence-based interventions to improve, manage, and treat chemotherapy-induced nausea/vomiting. *Clin J Oncol Nurs.*, 11, 69-78. (60%)
6. Cancer Care Ontario (2010). System Management Guide to Prevention, Nausea and Vomiting, Toronto, Ontario, (AGREE Rigor score: 61%)
7. NCCN (2010). Common terminology criteria for adverse events (CTCAE) v4.03. (http://ctep.cancer.gov/protocolDevelopment/ctcaev1_03.html)
8. Bregenzer, E., Kuester, N., Musto, M., Seizer, F., Macfarlane, K. The Edmonton Symptom Assessment System (ESAS). * Palliative Care 1999*, 1997(4):61-66.
9. Feyer et al. (2011). MACC/ESMO Radiotherapy-induced nausea/vomiting guideline for anetetems. *Soc for Care Cancer 2011*, 10(Suppl 1):85-14.
10. CANS(2004) Guidelines for the Management of Nausea/Vomiting in Cancer Patients. (http://www.can scarcare.ca)

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PATIENT
TELEPHONE MESSAGE

Date: Nov 17/14

Patient's Next Appointment Date: Dec 15/14 
Clinical Research Patient

NAME OF CALLER:
☑ Patient Phone No.:
☐ Family Phone No.:
☐ COGN Phone No.:
☐ Other Phone No.:

MESSAGE RECEIVED FROM:
☐ Re-booking Hotline
☐ Voicemail
☐ Drop-in
☐ Nurse Initiated

REASON FOR CALL:

Vomited last night, not sure if she should take chemo pill

Signature of Person Taking Call: (Signature)

Pharmacy:

Physician/PN:

Intervention time: 1400:

In discussion about Niv noted 6 days. It was colorless/shot states took some yesterday but vomited solid and feels poor. Drifting on, losing gas, feels crampy but no recto. Denies bloating. Has Zofran.

To call back or seek medical advice:

[ ] Advised to go to: [ ] General practitioner [ ] Emergency Department [ ] Walk-in clinic

Physician's signature: (Signature)

PN's signature: (Signature)

Date: Nov 17/14

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DISCUSSION

This case exemplar demonstrates the benefit of using the COSTaRS symptom guide for conducting and documenting the assessment, triage, medication review, self-management review, and agreed-upon plan when handling cancer treatment-related symptom calls from patients. In fact, due to the comprehensive assessment, the third nurse who spoke with Tracy was able to identify other symptoms contributing to the nausea and establish a more appropriate multi-symptom management plan. Given the minimal documentation in the patients’ health record that was completed by the first two nurses who spoke to Tracy, it was impossible to determine the extent of the assessment or guidance in self-management that was provided by these nurses.

The use of standardized nursing symptom guides such as COSTaRS provided an evidence-informed approach for the RNs to support a collaborative relationship with patient so as to enhance self-care, ultimately improve their outcomes, and enhance the documentation. Early detection and self-management is also important to reduce the severity of treatment-related side effects. In this situation, when the practice guide for nausea and vomiting was used, the patient received a more thorough assessment and tailored guidance in self-managing her symptoms. The COSTaRS symptom guides were designed to be user-friendly and use plain language to facilitate communication with patients (Stacey et al., 2013). Practising remote support with the COSTaRS practice guide allowed the third nurse to more systematically assess the presenting symptoms, triage the situation to the appropriate level of care, and enhance the documentation. Early detection and self-management is also important to reduce the severity of treatment-related side effects.

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This paper demonstrates the importance of the oncology nurses’ role in providing remote symptom support and how employing practice guides such as COSTaRS can lead to improved symptom assessment, management, and documentation. The case exemplar exhibits how the COSTaRS symptom practice guides helped one RN who was unfamiliar with Tracy to collaborate with her in assessing and self-managing her self-reported nausea and underlying constipation. When two other nurses responded to Tracy’s earlier calls without using the COSTaRS symptom guides, Tracy repeatedly became more distressed in her calls and the nausea became more intolerable. Highlighted here is how documenting on the COSTaRS symptom guide may have led to more effective communication amongst staff and, in turn, reduced the number of times Tracy had to tell her story. Had the COSTaRS symptom guide been used with the first call, subsequent nurses would have had access to standardized documentation regarding Tracy’s concerns and the advice she was given in earlier phone calls. This may have resulted in improved consistency in messaging to the patient, reinforcement of teaching and earlier identification of the scope of the problem.

REFERENCES

Canadian Nurses Association (2007). [Position Statement] TELEHEALTH: The Role of the Nurse. Retrieved from http://www.cna-aiic.ca

Leung, M., Bland, R., Baldassarre, F., Green, E., Kaizer, L., Hertz, S., et al. (2012, July 9). Safe administration of systemic cancer therapy: Introduction and general methods. Toronto, ON: Cancer Care Ontario. Program in Evidence-based Care Practice Guideline Report No.: 12–12 Methods.

Macartney, G., Stacey, D., & Harrison, M.B. (2012). Priorities, barriers and facilitators for remote telephone support of cancer symptoms: A survey of Canadian oncology nurses. Canadian Oncology Nursing Journal, 22(4), 235–240.

Stacey, D., Bakker, D., Ballantyne, B., Chapman, K., Cumming, J., Green, E., et al. (2012). Managing symptoms during cancer treatments: Evaluating the implementation of evidence-informed remote support protocols. Implementation Science, 7(1), 110. doi:10.1186/1748-5908-7-110

Stacey, D., Macartney, G., Carley, M., Harrison, M.B., & COSTaRS. (2013). Development and evaluation of evidence-informed clinical nursing protocols for remote assessment, triage and support of cancer treatment-induced symptoms. Nursing Research and Practice, 2013, 1–11. doi:10.1155/2013/171872

Stacey, D., Skrutkowski, M., Carley, M., Kolar, E., Shaw, T., & Ballantyne, B. (2015). Training oncology nurses to use remote symptom support protocols: A retrospective pre-/post-study. Oncology Nursing Forum, 42(2), 174–182. doi:10.1188/15.ONF.174-182

Vandyk, A.D., Harrison, M.B., Macartney, G., Ross-White, A., & Stacey, D. (2012). Emergency department visits for symptoms experienced by oncology patients: A systematic review. Supportive Care in Cancer, 20(8), 1589–1599. doi:10.1007/s00520-012-1459-y

Weingart, S.N., Brown, E., Bach, P.B., Eng, K., Johnson, S.A., Kuzel, T.M., et al. (2008). NCCN Task Force Report: Oral chemotherapy. Journal of the National Comprehensive Cancer Network, 6(Suppl. 3), S1–14.