**TRIAL SUMMARY: Encouraging nurses to provide evidence-informed remote symptom management**

Factors perceived to influence nurses’ use of evidence-informed COSTaRS protocols when providing remote symptom management for patients undergoing cancer treatments. The COSTaRS protocols were developed for 13 common symptoms using a systematic process and are available in French and English (http://www.cano-acio.ca/triage-remote-protocols). Six interviews and 5 focus groups (n=34) were conducted in oncology programs within 3 provinces. Some participants indicated there were no barriers, while others identified barriers at the level of protocols (too long, not for symptom clusters, not enough space for comments, order of components), nurses (lack of awareness of protocols, learning curve, additional work, feeling “tied to script”), patients (communication challenges, lack of comprehension, preferences), and organizations (requires approval for integration into health record, electronic charting not available, lack of training, competing system changes, lack of clear mandate). Facilitators were identified at the level of protocols (standardized approach, consistent with distress screening, plain language, comprehensive, colour-coding [green/yellow/red], evidence-based), nurses (training/orientation with role-playing, performance appraisal, enhanced practice), patients (resources, improved patient outcomes), and organizational (provide easy access to protocols, e.g. shortcut on computer, apps, pocket guide; add protocols to EMR and to documentation form; involve key stakeholders, including outreach/satellite settings; allocate dedicated space and time). Barriers and facilitators at the level of the protocol, nurse and patient were consistent across sites, though differences were apparent at the organizational level, such as access to electronic charting. The authors felt that targeted interventions could facilitate implementation of protocols in nursing practice.

**COMMENTARY: In Canada, cancer treatments are often provided in short-term inpatient or ambulatory care settings, and the large majority of care as it relates to symptom management commonly occurs once patients have returned home. Managing symptoms related to cancer and its treatment requires innovative and evidence-based tools to support the delivery of healthcare services to patients in the community. One way in which nurses provide support to patients in the community is remotely by telephone and email.**

A central challenge in this work has been a lack of access to up-to-date symptom protocols and clinical practice guidelines that are specific to remote support. In an effort to address this gap, the Pan-Canadian Oncology Symptom Triage and Remote Support (COSTaRS) project, which includes stakeholders from 8 provinces, was established to develop, evaluate and disseminate a set of evidence-based symptom protocols for the remote assessment, triage and support of patients experiencing cancer treatment-related symptoms. The aim of the COSTaRS program is to develop tools to help nurses translate evidence into clinical practice that are sensitive to the nature of nursing care being provided in remote contexts. To date, 13 symptom protocols have been developed for nurses, addressing a range of priority symptoms identified in a recent survey of Canadian oncology nurses, including nausea and vomiting, febrile neutropenia, fatigue and depression.

As part of the COSTaRS program, a qualitative study was conducted to evaluate the factors perceived to influence nurses’ use of the symptom protocols. Nurses’ perceived barriers and facilitators in using the protocols include protocol-, nurse-, patient- and organizational-related factors. The results of this study represent the first steps in identifying and addressing factors likely to influence the successful integration of the protocols in practice settings across Canada.

Given the lack of available tools relevant to providing remote symptom support, it is not surprising that nurses identified the evidence-based, comprehensive and systematic nature of the protocols as key facilitators. The COSTaRS protocols have the potential to fill an important practice gap by providing nurses with a set of evidence-based, validated tools to guide the provision of cancer-related symptom support in the community.

Key issues with the COSTaRS program will be to identify and address the barriers and facilitators specific to local contexts. A particular challenge will be obtaining structural and key stakeholder support for the application of the protocols in local practice environments. Some of the barriers identified in this study are not uncommon in the type of resistance seen when implementing change in any context (e.g., learning curve, perceived increase in workload). However, other barriers related specifically to the protocols (e.g., training and education, protocol limitations) will need to be directly addressed in the implementation process through tailored interventions. Since the protocols are currently only available in a paper-based format, integration with electronic health records, as well as training in how to...
use the protocols with patients, will be key factors in gaining user acceptance and sustaining long-term protocol use. Perhaps one of the most notable challenges is the limited ability of the protocols to fully address symptom clusters. Given that high-quality research on symptom clusters has only recently emerged in the literature, it is not surprising that evidence has not yet made its way into practice-based tools.

Despite these obstacles, the COSTaRS protocols provide a set of tools that effectively translate the best available evidence into clinical practice. In the future, use of these protocols in practice settings across Canada could be standardized, and a national pool of data created from which to better understand protocol uptake and its impact on patient outcomes. From a research-evaluation perspective, this would allow for greater insight into the necessary contextualization to use the protocols in complex and varied practice settings.

Early detection and appropriate management of cancer-related symptoms is key to providing safe, patient-centred care and minimizing the unnecessary progression of symptoms. Unreported and poorly managed symptoms can become life-threatening, resulting in hospitalization and other negative consequences, including nonadherence to anticancer therapies and failure to adequately address patients’ supportive care needs. With more cancer symptom management occurring in community settings, knowledge translation strategies, such as the COSTaRS protocols, that also acknowledge the technologic shift to electronic charting, are needed to guide nurses in providing safe and effective remote symptom support.

References

Already known
• Nurses provide remote symptom support to oncology patients in the community by telephone and email.
• The provision of safe and effective remote support requires evidence-based tools that can be used to guide nurses’ assessment, triage and management of cancer-related symptoms.
• Current clinical guidelines are not adequate for providing remote symptom management support.

What this study showed
• Among the factors perceived to influence nurses’ use of the COSTaRS symptom protocols were specific barriers and facilitators related to protocol, nurse, patient and organizational factors.
• Some of these may be addressed with targeted interventions.
• Barriers to using the protocols include a lack of integration with electronic charting and a need for training in how to use the protocols with patients.
• Facilitators were perceived by key stakeholders to be the evidence-based, comprehensive and systematic nature of the protocols.

Next steps
• Adapt COSTaRS protocols to address the known facilitators and barriers for use in local contexts.
• Integrate the protocols with current paper-based and/or electronic health records.
• Provide training to nurses on how to use the protocols with patients.
• Disseminate the protocols to oncology programs in Canada to provide nurses with current, evidence-based tools to assess, triage and support oncology patients in self-managing cancer-related symptoms.
• Monitor and evaluate outcomes, including appraisal of protocol implementation in local contexts, and assess nurse, health-care system and patient-related outcomes.

IN BRIEF