Oncology Nurse Navigator Use of Clinical Decision Support Pathways to Support Remote Symptom Management (RSM) of Oncology Patients

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BACKGROUND

Clinical decision support (CDS) is a key process for enhancing health-related decisions and actions with pertinent, organized clinical knowledge and patient information to improve health and healthcare delivery. CDS pathways can supply timely information at the point of care to inform Oncology Nurse Navigator (ONN) decisions about symptom management.

OBJECTIVES

The objective of this pilot study is to implement and evaluate an electronic, interactive oncology CDS pathway tool in a real-world setting to provide ONN support in supplying dynamic, algorithm-driven, evidence-based care recommendations to patients experiencing cancer treatment side effects.
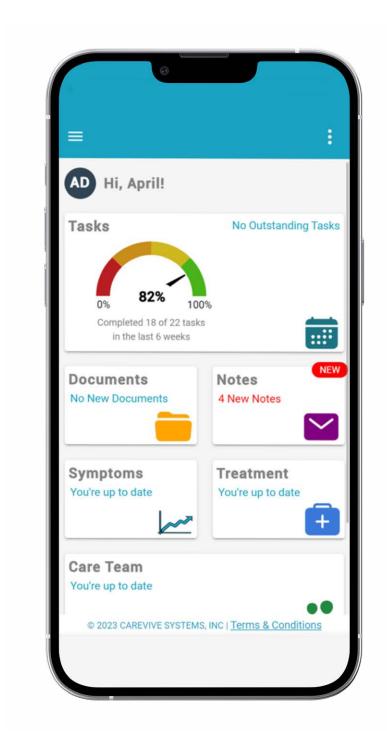
METHODS

NN in community-based oncology clinic used an electronic Patient Reported Outcome (epros) platform called PROmpt® to test the feasibility of using oncology CDS pathways to screen, assess, and provide evidence-based interventions for eight common side effects of cancer treatment (nausea, vomiting, diarrhea, constipation, pain, sleep disturbance, psychiatric distress, and rash). Eligible patients had breast, colorectal, head and neck, lung or other cancers. Using the PROmpt® platform, patients communicated symptoms weekly and were asked if they wanted to receive follow-up from their team about the symptoms reported. The NN called the patients requesting follow-up and, using the CDS tool, assessed the problem and provided recommendations for mitigation. Data collected included number of patients per diagnosis, number of times each pathway was used, time in each pathway for each patient episode, acceptance of evidence-based recommendations, and times a symptom assessment was sent for provider disposition. NN were interviewed to obtain feedback on use.
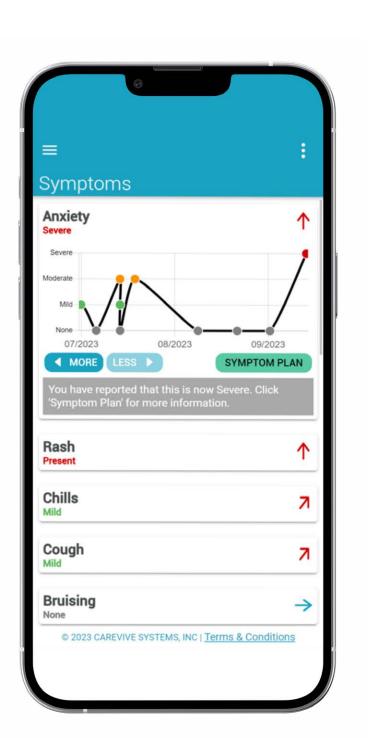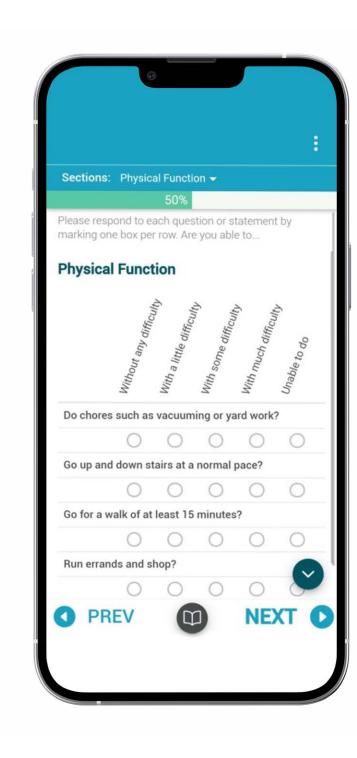
RESULTS

Six NN used the CDS system with 24 patients of the 79 enrolled in PROmpt®. The majority of patients were breast (n=20), and lung (n=20), and the most commonly reported symptoms (by both number and severity) were fatigue and pain. The average number of times each of the eight pathways was used was 3. NN had the most experience with the constipation and pain pathways (n=5, each) and the least with diarrhea (n=1). The mean time in each pathway for each patient episode was 2.6 minutes (range = 1 to 17 minutes). 234 evidence-based interventions were recommended. The number of times a symptom assessment was sent for provider disposition was one. During interviews, the NN expressed high levels of satisfaction with tool elements, noting the following benefits: logic-driven question presentation, ability to incorporate added assessment notes, and actionability of recommendations.
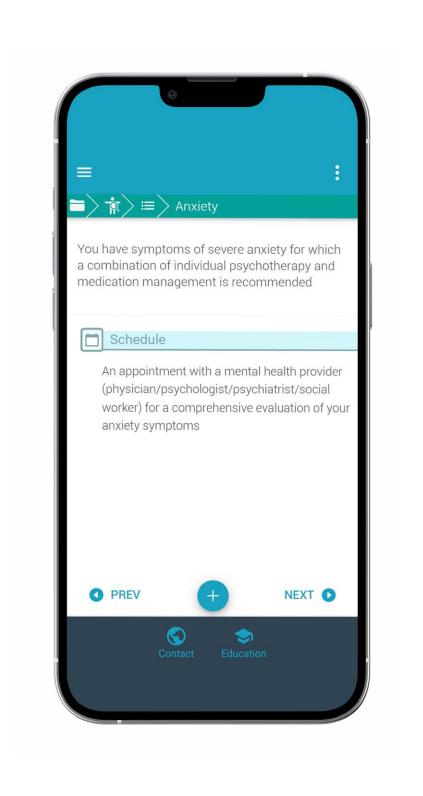
Patients Used Carevive PROmpt® to Answer Health Questions

Carevive PROmpt® is an ePRO and health reporting tool that allows proactive weekly reporting of symptoms and health measures to their care teams. Patients can view their reported symptoms over time, receive both automated and care-team specific responses and self-care plans throughout their cancer care experience.
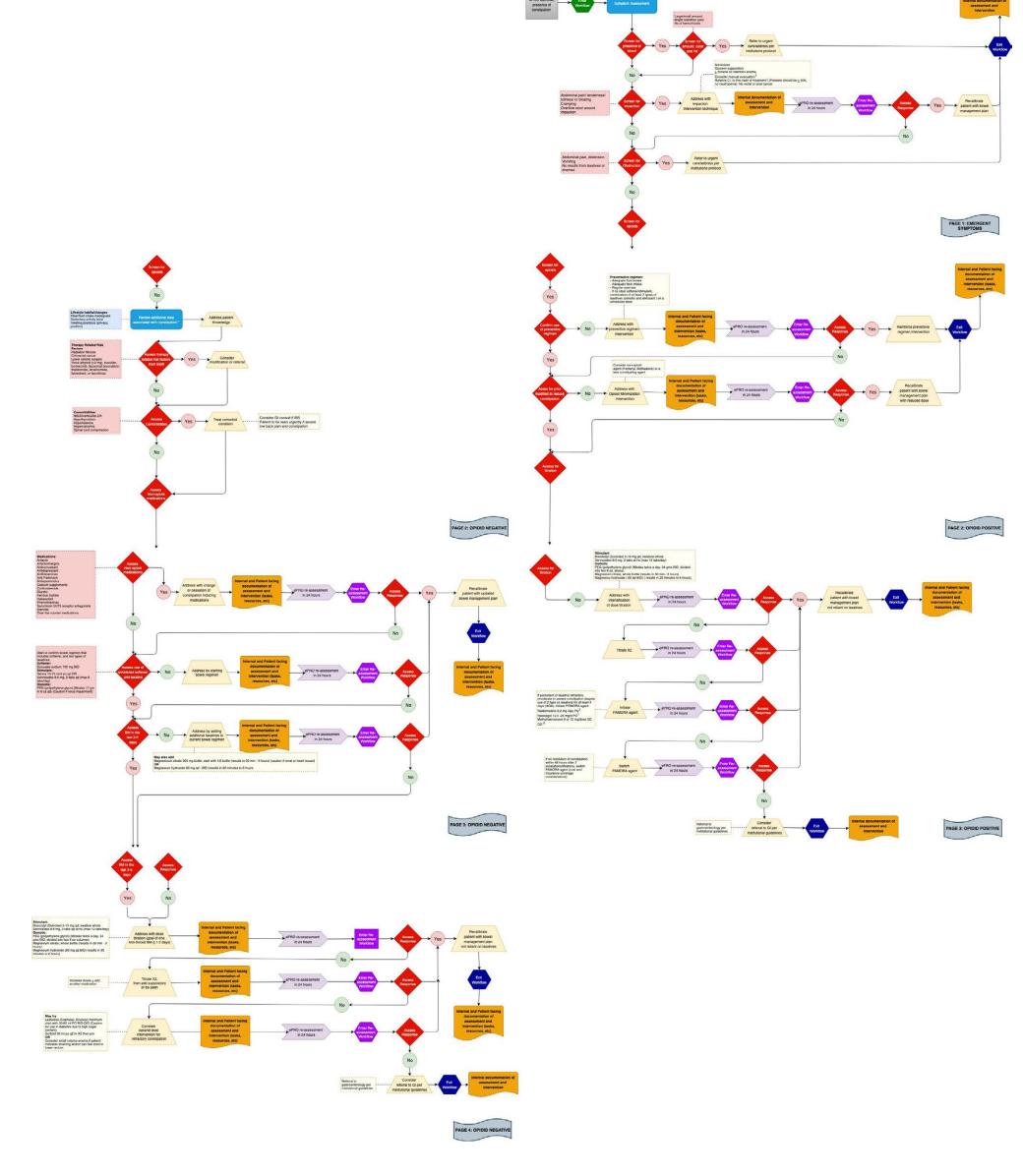

Nurse Navigators Used the Carevive Platform to View the Patient-Reported Information, Assess, and Respond to Elevated Symptoms
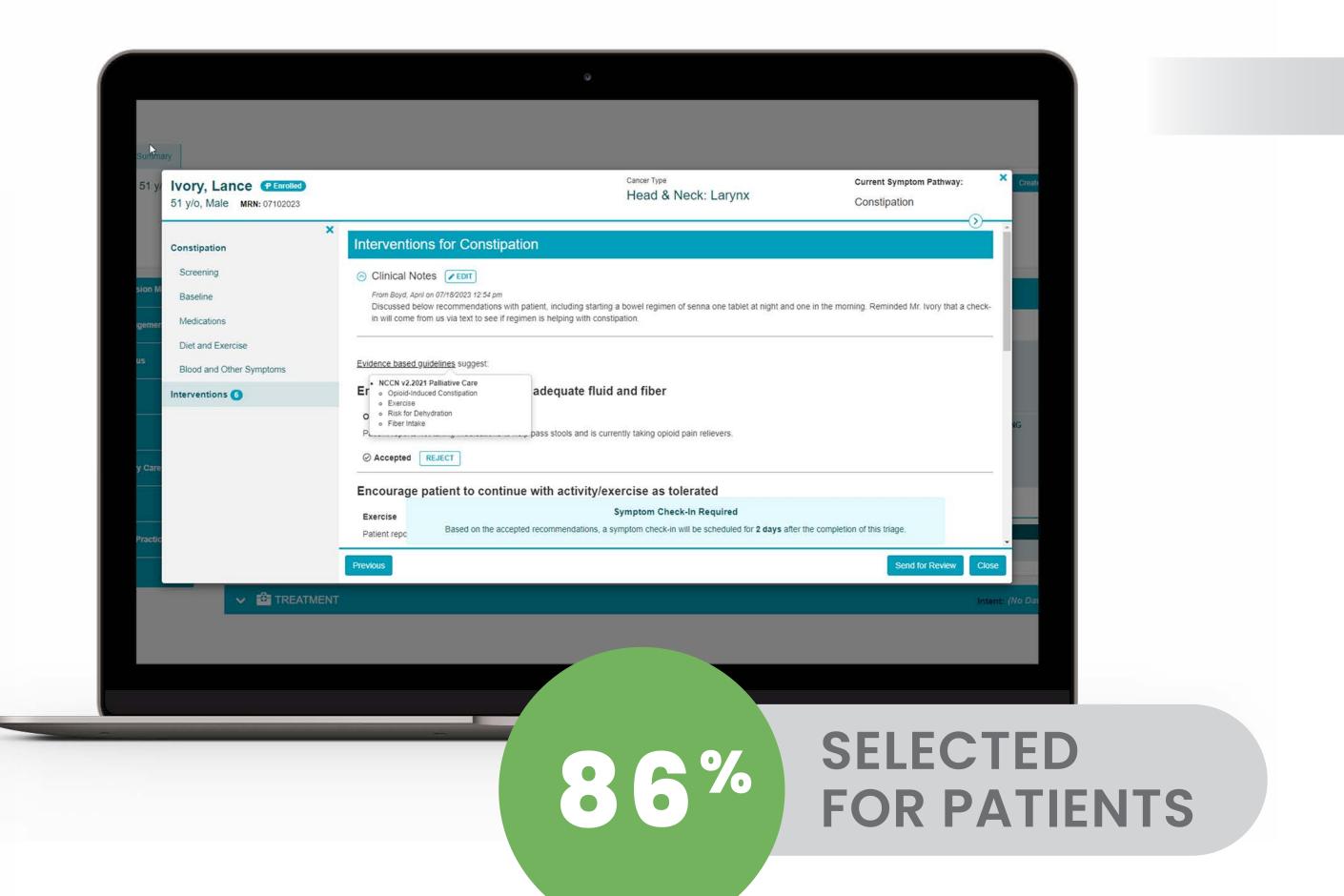
Beyond their standard RSM workflow capabilities, Carevive's CDS pathways can identify over 80 possible clinical problems and dynamically provide around 140 evidence-based recommendations based on NN inputs. This successful real-world pilot study was the first to utilize the new tool which will be expanded from the initial 8 body categories (for 11 discrete ePRO symptoms).
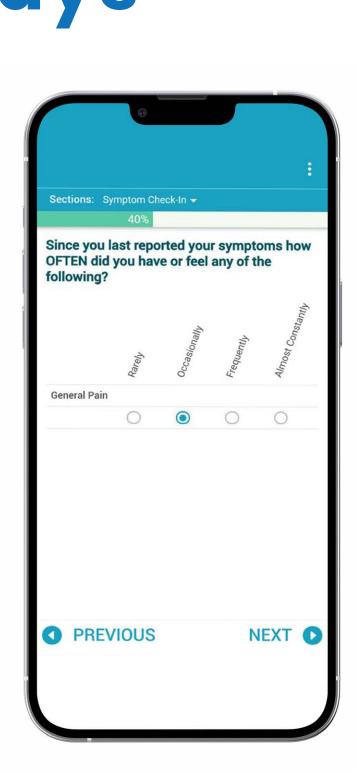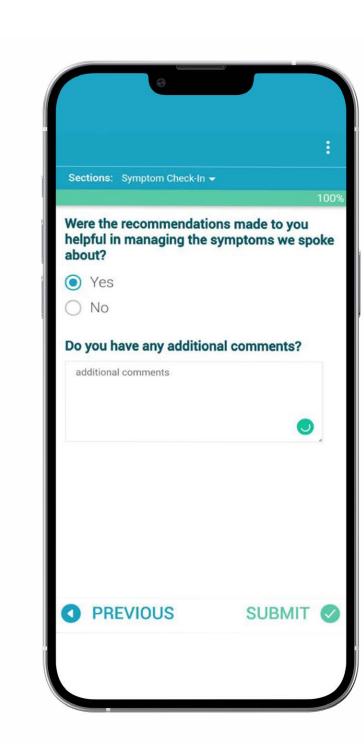

Guided Assessment

2.6 mins PER USE

Recommendations for Clinical Problems

86% SELECTED FOR PATIENTS

Automated Check-In After 1–2 days

CONCLUSION

CDS for addressing oncology symptom presentation and mitigation can be effectively incorporated into clinical workflows. NN completed comprehensive assessments and delivered evidence-based recommendations in a few minutes and were supported in working to the top of their licensure with confidence via the CDS system. Acceptance of recommendation rates show usefulness. Consistent, standardized data inputs allowed for workflow and population insights. Evaluation of the tool will be expanded to include other nursing roles (triage or clinic nurse) and added oncology clinical workflows.