TABLET BASED EXPANDED PAIN ASSESSMENT REVEALS SEVERE FLARES AND END OF DOSE PAIN AT HOME

Jeannine M. Brant, PhD, APRN, AOCN, FAAN[1], Debra Wujcik, PhD, RN, AOCN, FAAN[2]
[1.] Billings Clinic, [2.] Carevive Systems, Inc

BACKGROUND

Cancer pain prevalence is high (52%-77%) and includes pain flares and end-of-dose failure. Poorly controlled pain contributes to patient suffering and increased health care utilization. Successful pain management requires comprehensive, systematic assessment and a care management plan that addresses background, flares and end of dose pain. In addition, shared decision making where patient preferences, goals, and concerns are discussed can foster earlier identification and improved pain management.

METHODS

Design: A multi-site feasibility study using an Expanded Pain Assessment (EPA) within an electronic care planning system (CPS), combining the Brief Pain Inventory with drill down questions about breakthrough pain (BTP).

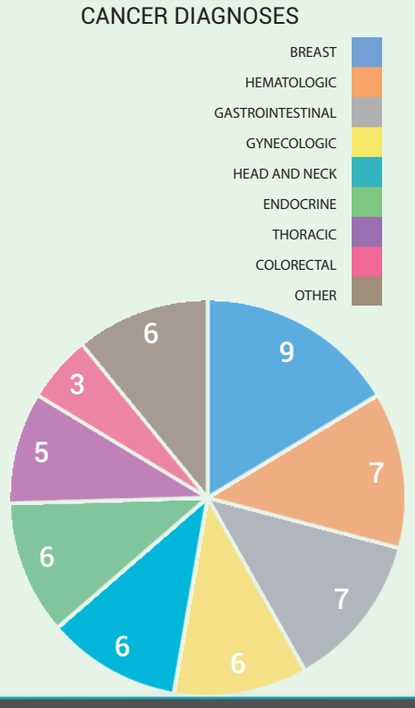
Eligibility: Ambulatory patients with cancer presenting with pain or taking opioids to manage chronic cancer pain.

Procedures: Patients with advanced cancer at three sites completed the tablet-based EPA prior to the clinician visit. Results were presented on a dashboard, and the provider and patient collaboratively established a pain care plan.

Instrument: The EPA was developed to include questions about pain flares (intensity and length, associated with activity or arise at any time and end of dose pain. Effectiveness of pain management planning was measured with the Pain Care Quality Survey (PCQS).

SAMPLE

- N=52 patients
- Mean Age: 56 (range 20-93, SD = 15.4)
- Race:
  - White: 32 (61%)
  - Black: 9 (17%)
  - Other: 5 (10%)
  - Missing: 6 (12%)
- Sex:
  Female: 32 (63%)
  Male: 19 (37%)

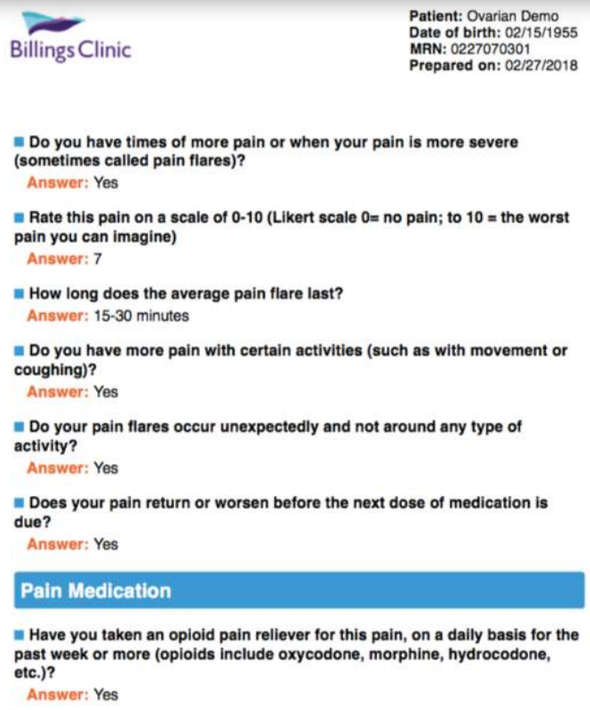


INTERVENTION

Prior to the clinician visit, the patient completed a Comprehensive Pain A ssessment that included:

- Complete pain assessment
- Peripheral neuropathy (CIPN) assessment
- Distress (NCCN) & Depression screening (PHQ-2/9)
- Additional validated questions:
  - *Performance status*
  - *Understanding of treatment intent*
  - *Decision-making preferences*
  - *Advance directives*
  - *Top concerns to be addressed during the visit*

PATIENT REPORTED OUTCOMES (PROS)



Billings Clinic

Patient: Ovarian Demo
Date of birth: 02/15/1955
MRN: 0227070301
Prepared on: 02/27/2018

Do you have times of more pain or when your pain is more severe (sometimes called pain flares)?
Answer: Yes

Rate this pain on a scale of 0-10 (Likert scale 0= no pain; to 10 = the worst pain you can imagine)
Answer: 7

How long does the average pain flare last?
Answer: 15-30 minutes

Do you have more pain with certain activities (such as with movement or coughing)?
Answer: Yes

Do your pain flares occur unexpectedly and not around any type of activity?
Answer: Yes

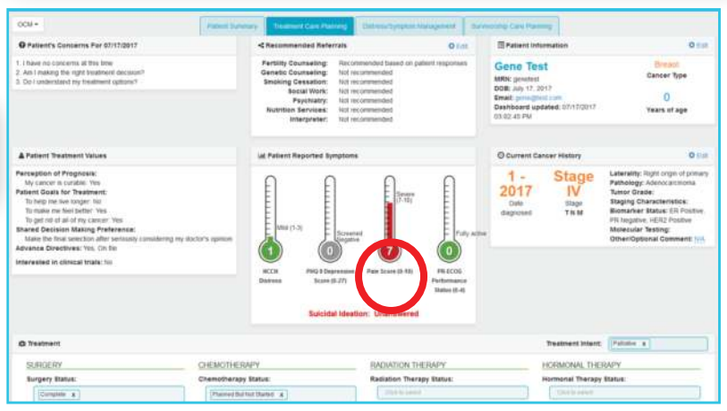
Does your pain return or worsen before the next dose of medication is due?
Answer: Yes

Pain Medication

Have you taken an opioid pain reliever for this pain, on a daily basis for the past week or more (opioids include oxycodone, morphine, hydrocodone, etc.)?
Answer: Yes

Patient reported outcomes (PROs) were recorded and available as a PDF for provider and patient

DASHBOARD



Individual patient responses are summarized on the CPS dashboard

A tailored care plan is created that:

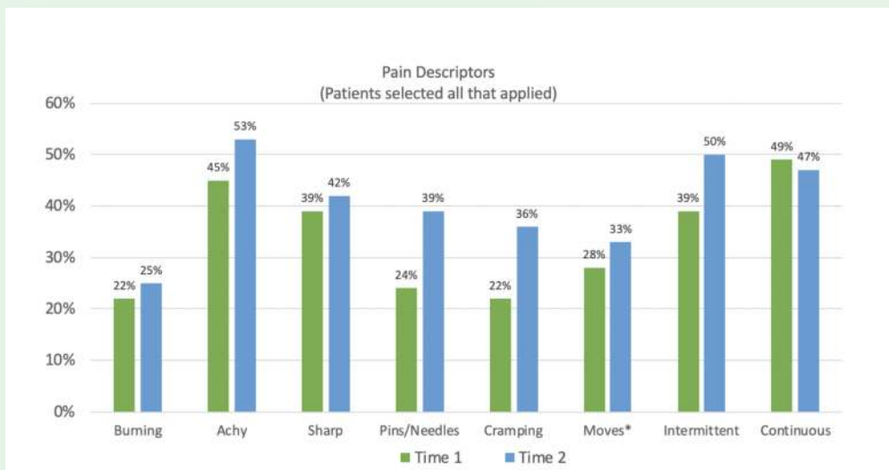
- reinforces taking a long-acting opioid
- identifies the agent and dose for breakthrough pain
- provides specific medication instructions to manage break through pain

RESULTS: PAIN ASSESSMENT

CPA Elements	Baseline		Second visit	
Pain intensity (0-10)	Mild	Mean=6.0, SD=2.70	Moderate	Mean=5.0, SD=2.75
Having flares	Yes	46 (88%)	Yes	28 (75 %)
	No	4 (8%)	No	8 (22%)
	Did not respond	1 (2%)	N/A	1 (3%)
	N/A	1 (2%)	-	-
Intensity of flare pain	Severe	Mean=8.0, SD=1.73	Severe	Mean=8.50, SD=1.91
Length of pain flare	More than 30 mins	34 (74%)	More than 30 mins	21 (74%)
Pain occurs with certain activities (incident pain)	Yes	32 (70%)	Yes	19 (68%)
	No	12 (26%)	No	8 (28%)
	No response	2 (4%)	No response	1 (4%)
Pain occurs unexpectedly (insidious pain)	Yes	32 (70%)	Yes	22 (79%)
	No	13 (28%)	No	6 (21%)
	No response	1 (2%)	-	-
Having end of dose pain	Yes	13 (25%)	Yes	26 (70%)
	No	3 (6%)	No	6 (16%)
	Not asked	36 (69%)	-	-

At enrollment, mean (SD) pain was 6.0 (2.7), with 88% of patients experiencing pain flares of a mean (SD) intensity of 8.0 (1.73) and 25% had end-of-dose pain.

RESULTS: PATIENT REPORTED PAIN DESCRIPTORS



Collecting pain descriptors enables targeted interventions (eg, adjuvant meds for neuropathic pain)

RESULTS: SATISFACTION WITH PAIN CARE QUALITY*

Satisfaction with Healthcare team questions (scale 1-6)	Mean (Standard Deviation)
My healthcare team involved me in decisions about controlling my pain.	5.95 (0.23)
My healthcare team discussed the side effects of the pain medication with me.	5.89 (0.32)
My nurse team asked me about my pain	5.89 (0.32)
My healthcare team responded to my pain.	5.72 (0.75)
My healthcare team worked together to manage my pain.	5.33 (1.30)
My healthcare team asked about how my pain affects my relationships with others.	5.21 (1.23)
My healthcare team explained that taking pain medication may increase my activity level.	5.17 (1.25)
Satisfaction with Pain Management	**Mean (Standard Deviation)**
I had pain medications available when I needed it.	5.68 (0.95)
The pain medication worked well to control my pain.	5.16 (1.34)
The pain medication kept me comfortable.	5.00 (1.45)
Approaches in addition to medication worked well to control my pain.	4.78 (1.63)
The pain medication worked quickly to ease my pain.	4.58 (1.71)

* PCQS mean score was 10.80 (scale 2-12), SD=1.18.

CONCLUSION

Comprehensive pain assessment with an electronic expanded pain assessment revealed important details that were incorporated into the care management plan. Patients were satisfied with their interactions with the care team and with the pain management plan. Since patients were experiencing severe flares and end of dose pain at home, strategies to engage patients between visits should be evaluated.

FUTURE DIRECTIONS: ePROS FROM HOME

Due to end-of-dose pain and significant flares of pain at home, collecting electronic patient reported outcomes (ePROs) from home could enable more effective pain management for the patient.