

# Strategies to Keep Your Cancer Patients Out of the ED

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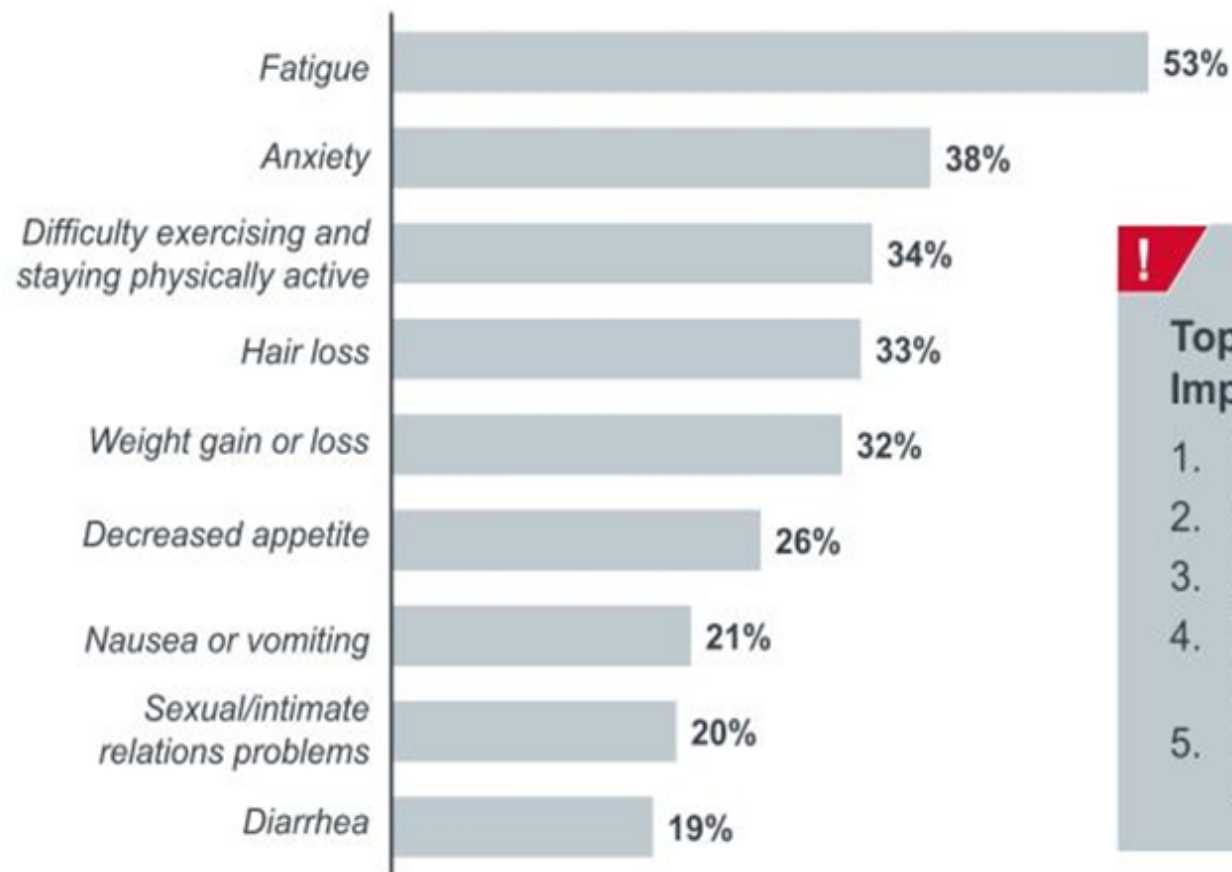
- 1 The Business Case
  - 2 Three Strategies to Reduce Avoidable ED and Hospital Use
  - 3 Q&A
-

# The Burden of Treatment

Cancer Patients Experience Significant Symptoms Throughout Care

## Percentage of Cancer Patients<sup>1</sup> Reporting Moderate to Severe Side Effects

n=527 cancer patients



### Top Five Activities Impeded by Side Effects

1. Work
2. Exercise
3. Hobbies
4. Entertaining friends and family
5. Participating in social activities

1) Includes patients in active treatment, patients who completed treatment and are on maintenance therapy, and patients who have completed treatment and are not on maintenance therapy.

# A Big Problem

## ED Visits and Hospitalizations Contribute Greatly to Avoidable Costs



### Emergency Department Visits

# ED

*Prevalence*

## 37%

Of Medicare patients newly diagnosed<sup>1</sup> with cancer had an ED visit within one year of diagnosis

*Cost*

## \$366

Average cost of an ED visit for a Medicare patient newly diagnosed<sup>1</sup> with cancer



### Hospital Admissions



*Prevalence*

## 36%

Of Medicare patients newly diagnosed<sup>1</sup> with cancer had an inpatient admission within one year of diagnosis

*Cost*

## \$11,978

Average cost of an inpatient admission for a Medicare patient newly diagnosed<sup>1</sup> with cancer

1) New cancer diagnosis was defined as patients who had a professional Medicare physician claim billed in CY2015 that included a cancer related diagnosis code but did not have any professional Medicare physician claims billed in CY2014 that included a cancer related diagnosis.



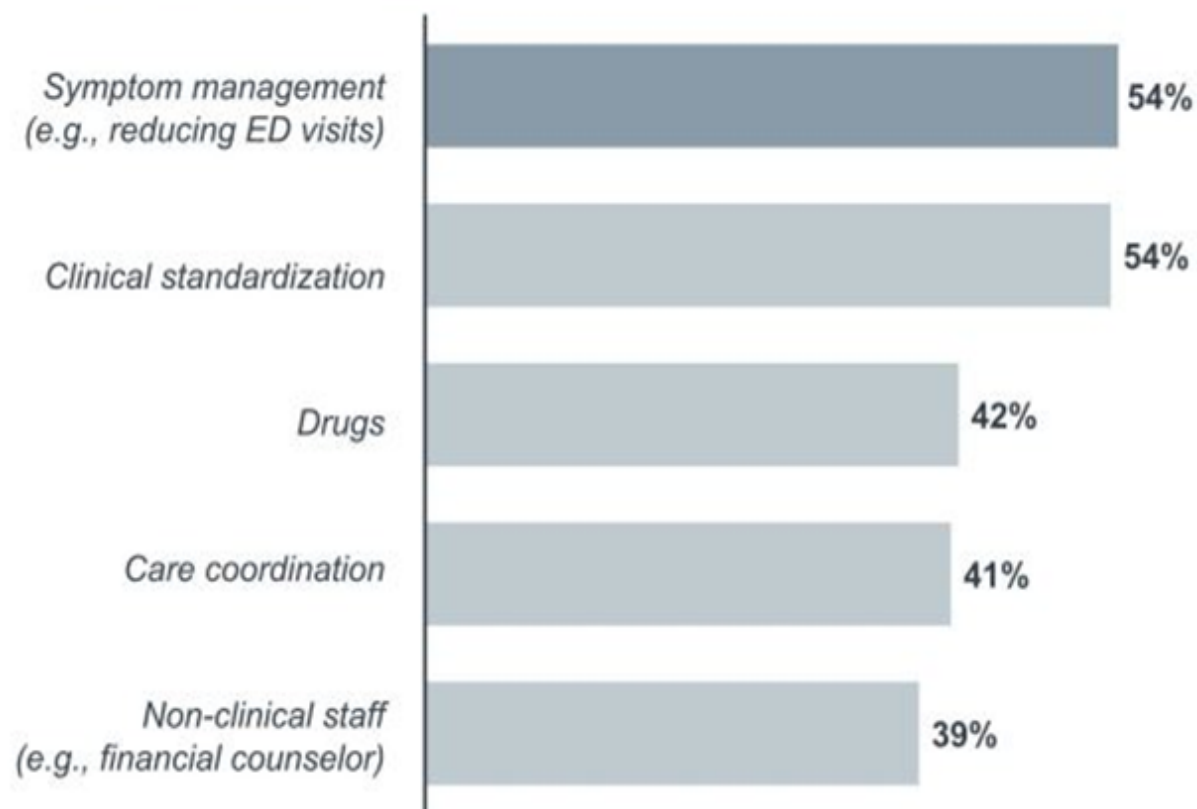
# Already On Your Radar

## Symptom Management Biggest Opportunity for Cost Savings

### Top Five Opportunities for Cancer Program Cost Savings<sup>1</sup>

Percentage of respondents who ranked opportunity in top three, 2018

n=160 cancer program leaders



1) Respondents were asked to select their top three opportunities.

# Negatively Impacting Patient Experience

## ED Visits Lead to Lower Quality of Care and Satisfaction

### Quality of Care

- High risk of infection for immunocompromised patients
- Lack of oncology expertise among ED physicians
- Lack of communication and coordination between ED and cancer care team



### Satisfaction

- Patients unhappy with wait times in ED
- Patients unfamiliar with ED providers

“

“...feeling ‘absolutely horrible’ and running a fever of 102 degrees...she put on a face mask to protect herself and **sat in the waiting room for four-and-a-half hours** before she was taken into the emergency department. **It was a nightmare...I felt like I was in a war zone.**”

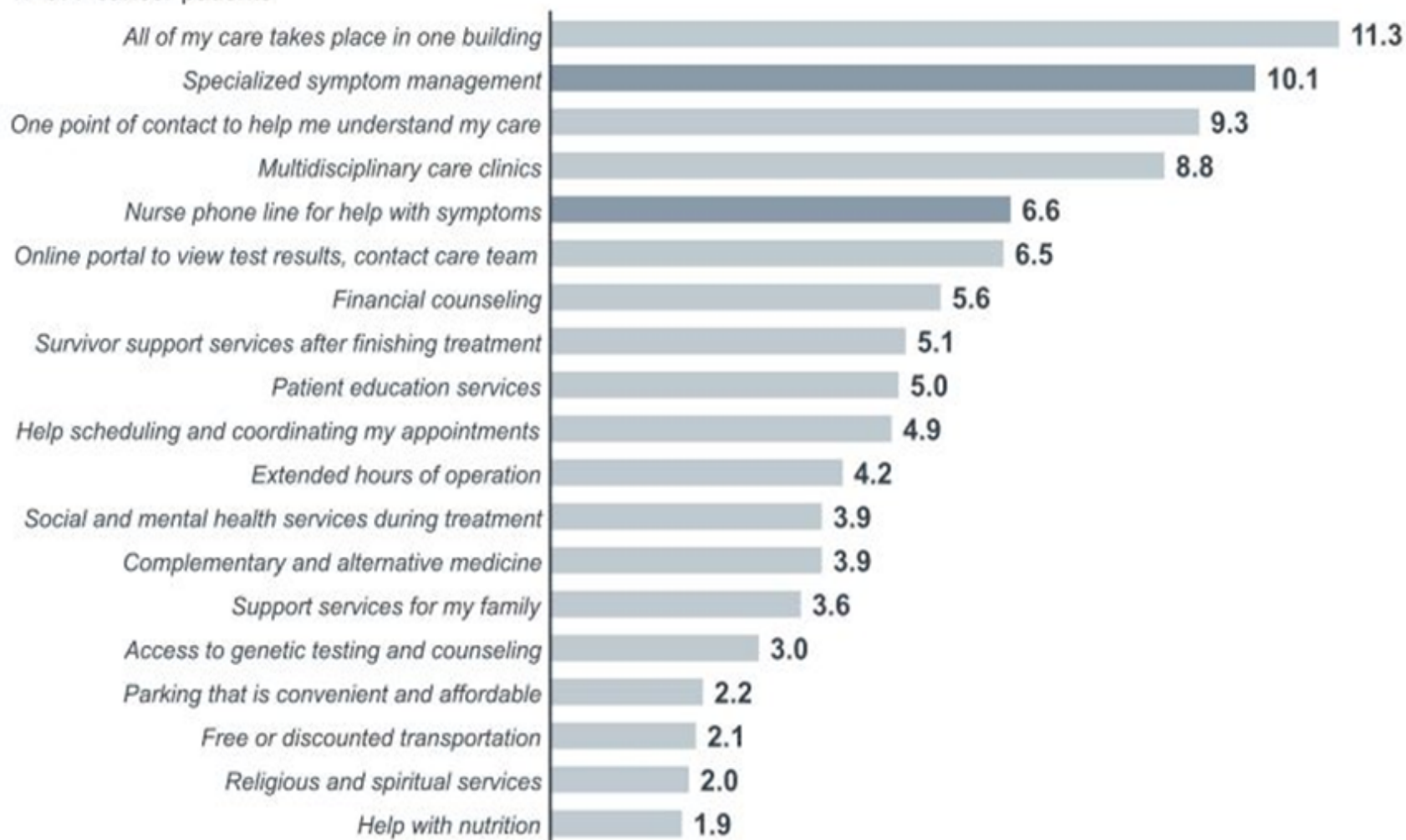
*“Cancer Patient Left Waiting for Hours in Emergency Room as Overcrowding Crisis Continues”, Ottawa Sun*

# Symptom Management a Top Priority for Patients

Which services would have been most valuable and least valuable to you?

Mean Utility Scores

n=577 cancer patients



# A New Target for CMS

## Measure Aims to Reduce Preventable ED Visits and Hospitalizations

### OP-35: Admissions and Emergency Department Visits for Patients Receiving Outpatient Chemotherapy

- Tracks cancer patients<sup>1</sup> having an ED visit or inpatient admission for one of ten conditions within 30 days of receiving chemotherapy
- Consists of two scores—one for inpatient admission rates and one for ED visit rates
- Impacts hospitals' outpatient Medicare payments beginning in 2020
- First cancer-specific measure in Outpatient Quality Reporting program

#### Ten Conditions Included

- Anemia
- Nausea
- Dehydration
- Neutropenia
- Diarrhea
- Pain
- Emesis
- Pneumonia
- Fever
- Sepsis



#### Related Resources Available on advisory.com

- [How to Keep Your Cancer Patients Out of the ED](#)
- [Cancer Patient Urgent Care Pro Forma](#)
- [Urgent Care for Cancer Patients](#)
- [Integrating Palliative Care into Oncology Practice](#)

1) Excludes leukemia patients.



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# Tackling the Problem

## Keeping Patients Out of the ED and Hospital

### Three Strategies to Reduce Avoidable ED and Hospital Use



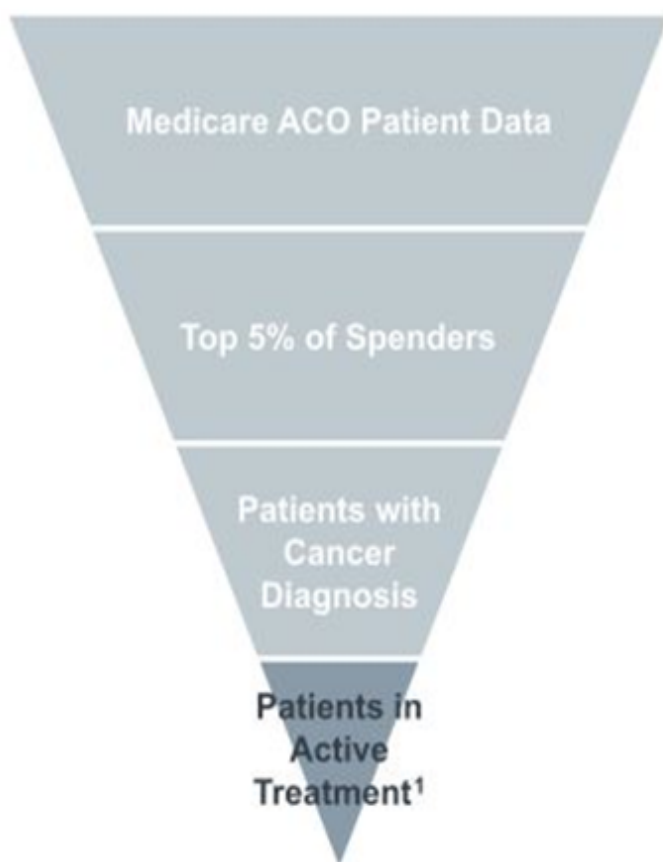


# Dig into the Data

## Cone Health Identifies Most Costly Cancer Patients

### Cone Health Cancer Center's Hot-Spotter Analysis

*ACO Data Analysis*



*Patient Chart Analysis*

#### *Risk Factors*

- Tumor site (34% blood and lymphatic cancers)
- Stage (33% stage IV)
- Comorbidities (72% had 3 or more comorbidities)
- Services used (e.g., ED and hospital utilization)

#### *Factors Not Contributing to Risk*

- Gender
- Age
- Treatment
- Distance from cancer center

Source: Cone Health, Greensboro, NC; "The Study of High Cost Oncology Patients to Improve Care and Curb Costs," 2016 Association of Community Cancer Centers Innovator Awards, <https://www.accc-cancer.org/about/innovators-2016-Cone-Health-Cancer-Center.asp>; Oncology Roundtable interviews and analysis.

1) Defined as having at least three outpatient visits in the previous year.

# Develop a Targeted Solution

## Cone Health Identifies Need to Decrease Costly ED and Hospital Use

### ED Utilization



**90%**

Of hot-spotters had at least one ED visit during the previous year

Median: 4.5 ED visits  
Maximum: 20 ED visits

### Hospitalizations



**60%**

Of hot-spotters were hospitalized at least once during the previous year

Median: 1 admission  
Maximum: 9 admissions



### Top Ten Symptoms Driving Hot-Spotter ED Visits

- Anemia
- Dehydration
- Diarrhea
- Fever
- Nausea
- Neutropenia
- Pain
- Pneumonia
- Sepsis
- Vomiting

### Solutions Identified

- Advanced practitioner-led urgent symptom management clinic
- Improve integration of palliative and hospice care
- Cross-department collaborations to manage comorbidities

Source: Cone Health, Greensboro, NC; "The Study of High Cost Oncology Patients to Improve Care and Curb Costs," 2016 Association of Community Cancer Centers Innovator Awards, <https://www.accc-cancer.org/about/innovators-2016-Cone-Health-Cancer-Center.asp>; Oncology Roundtable interviews and analysis.

# Patients Hesitant to Report Symptoms

Making It Difficult for Programs to Proactively Address Needs



## Barriers to Patients Reporting Symptoms to the Cancer Care Team

⚠️ Unaware of symptoms or don't know which ones are worth reporting

⚠️ Assume the care team will anticipate and reach out to them about symptoms

⚠️ Don't believe care team is available to help

⚠️ Afraid to bother their care team

⚠️ Not sure who to call

**38%**

Of active cancer patients do not report symptoms because they do not want to bother their doctor

**10%**

Of symptoms identified by systematic assessment are voluntarily reported to the care team by cancer patients

# Make Symptom Reporting Easier

Put the Right Infrastructure in Place

## Three Tactics for Cancer Programs

1

Standardized  
Phone Triage



2

Remote Symptom  
Monitoring



3

Proactive Support of  
High-Risk Patients

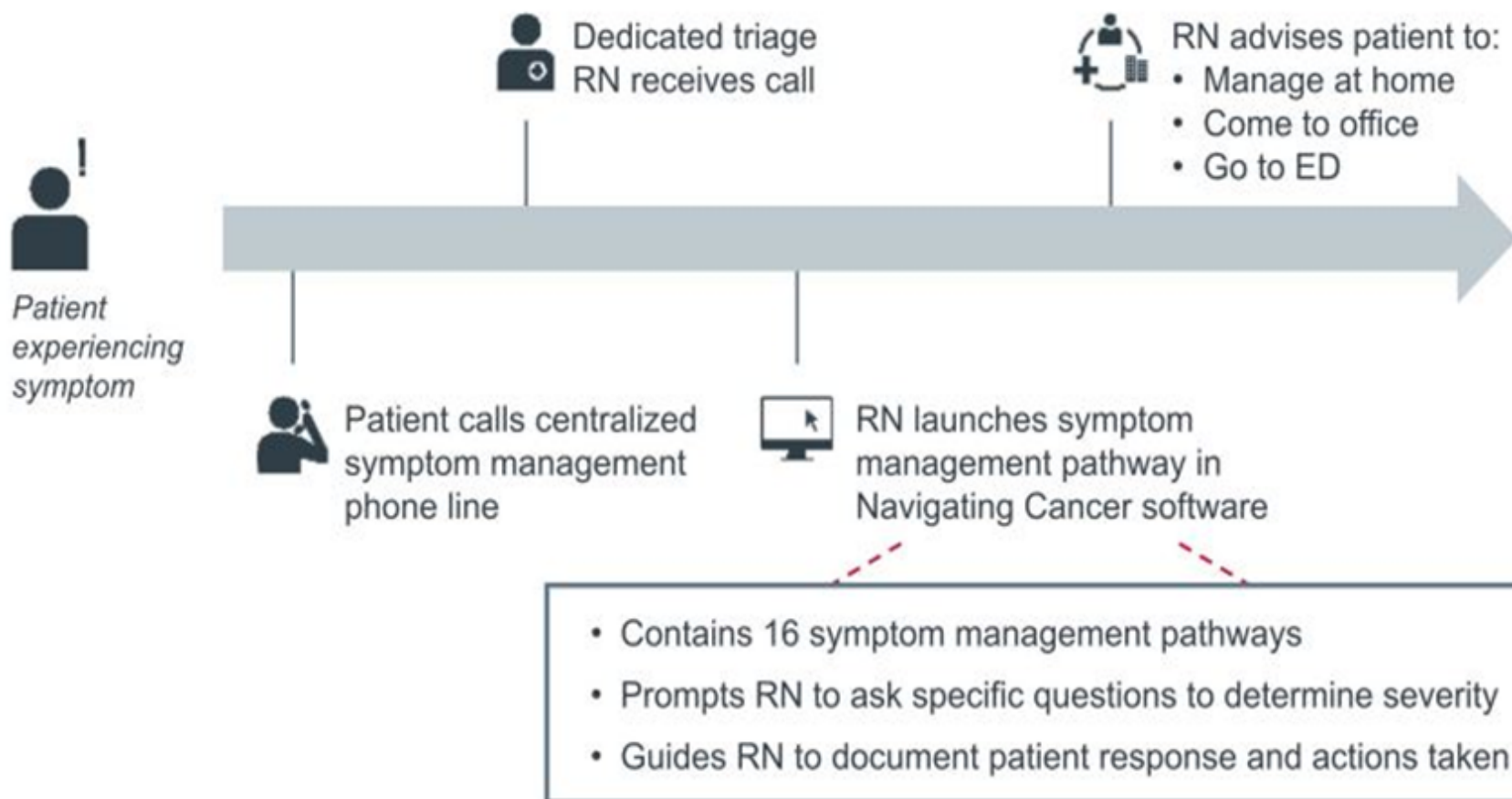




# Hardwire Support for Patients

## The Center for Cancer and Blood Disorders Maximizes Phone Triage

### Phone Triage at The Center for Cancer and Blood Disorders



# A Measurable Impact

## The Center for Cancer and Blood Disorder's Phone Triage Dashboard

One Month of Data	
Number of RNs dedicated to phone triage	2
Number of oncologists in practice	18
Number of phone calls managed	1,216
Number of symptom management calls	317
Number of calls managed immediately	307 (97%)
Number of calls managed without physician intervention	152 (48%)
Number of calls where same-day appointment scheduled	54

**\$432,000**

Estimated savings per month from preventing ED visits and subsequent hospitalizations<sup>1</sup>

1) Assumed an average cost of \$8,000 per ED visit and potential subsequent hospital charges.



# Put It in Patients' Hands

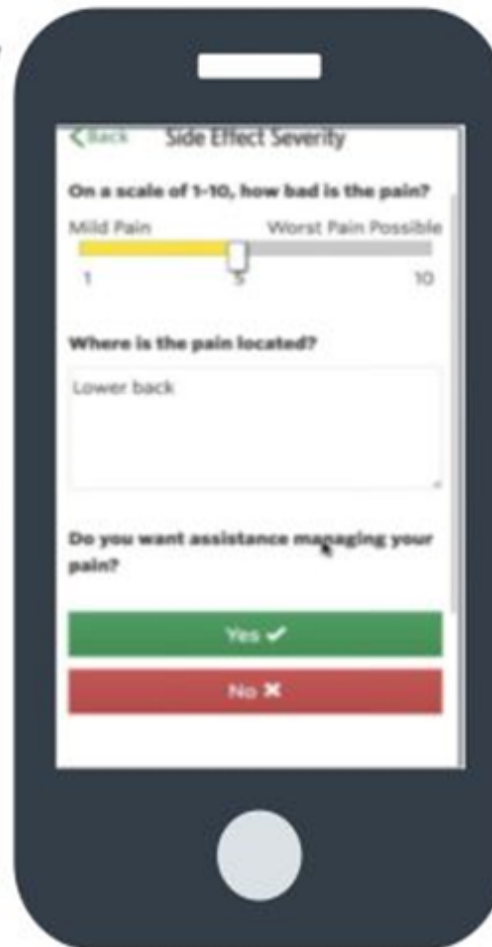
## CCBD<sup>1</sup> Uses an App to Engage Patients in Symptom Monitoring

### Health Tracker App



*Patient regularly prompted to input information on:*

- Medication compliance
- Symptoms
- Service utilization outside of treating institution since last appointment



*Triage nurse sees:*

- Dashboard with compiled patient-reported data
- Prioritized list of patients to follow up with based on symptom severity
- Links to relevant symptom management pathway for each patient



1) The Center for Cancer and Blood Disorders.

# Successfully Decreasing Utilization

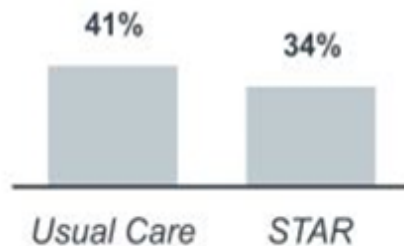
## Memorial Sloan Kettering Documents Impact of Remote Monitoring



**Study Design:** Advanced solid tumor patients receiving chemotherapy were randomized to regularly report 12 common symptoms using the web-based Symptom Tracking and Reporting (STAR) platform or to receive usual care consisting of symptom management at the discretion of clinicians

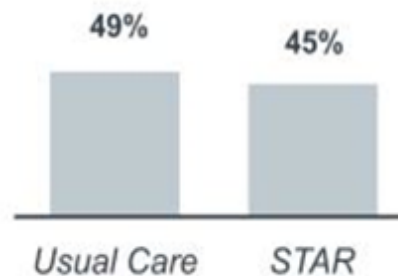
### STAR Intervention Results

Percentage of Cancer Patients Visiting the ED Across One Year



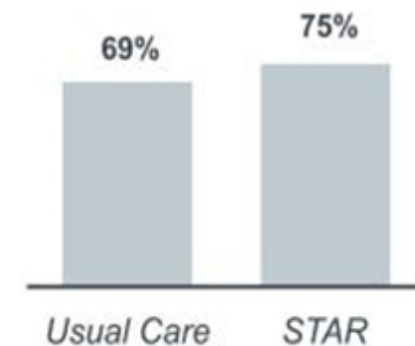
**17%**  
Decrease

Percentage of Cancer Patients Hospitalized Across One Year



**8%**  
Decrease

Percentage of Cancer Patients Alive at One Year



**9%**  
Increase

# Target Navigation to Patients Who Will Benefit Most

High-Need Patients at UAB Receive More Frequent and Intense Support

## Characteristics of Navigated Patients at UAB



Navigator performs distress screening during outreach to identify and resolve patient issues



# Worth the Investment

## UAB Demonstrated Significant Decrease in Utilization from Navigation

### RESOURCE UTILIZATION

**6%**

Additional decrease in **ED visits** per quarter for navigated patients<sup>1</sup>

**8%**

Additional decrease in **hospitalizations** per quarter for navigated patients<sup>1</sup>

**11%**

Additional decrease in **ICU admissions** per quarter for navigated patients<sup>1</sup>

### COST SAVINGS

**\$781**

Additional reduction in **total costs of care for each navigated patient<sup>1</sup>** per quarter<sup>2</sup>

**\$19M**

Approximate **total savings** for all navigated patients across the network in one year

1) Compared to non-navigated patients.

2) Excludes Part D claims.

# Leveraging Big Data

## A Promising Approach to Identifying High-Risk Patients

### Penn Medicine's Strategy to Prevent ED Visits



#### Predict

Build formula to predict lung cancer patient ED visits based on indicators such as lab tests, radiology visits, and patient-reported symptoms



#### Alert

Alert cancer care team when a lung cancer patient is likely to end up visiting the ED



#### Intervene

Reach out to patient to prevent ED visit by:

- Scheduling clinic or urgent care center visit
- Increasing home care steps



#### Innovation in Brief: Penn Medicine

- Six-hospital health system based in Philadelphia, Pennsylvania
- Leveraging big data to prevent ED visits by creating a formula to predict when a lung cancer patient is likely to visit the ED; partnering with Independence Blue Cross for data on when patients who go to an ED outside of Penn Medicine
- Currently formula can predict an estimated one in three ED visits

Source: Infanti J, "Can Big Data Help Cancer Patients Avoid ER Visits?," Penn Medicine News, January 27, 2017, <https://www.pennmedicine.org/news/news-blue/2017/january/can-big-data-help-cancer-patients-avoid-er-visits> Oncology Roundtable interviews and analysis.

# Symptom Reporting Only Half the Battle

Cancer Programs Need Dedicated Resources to Manage Urgent Issues

## Traditional Cancer Center Management of Urgent Symptoms

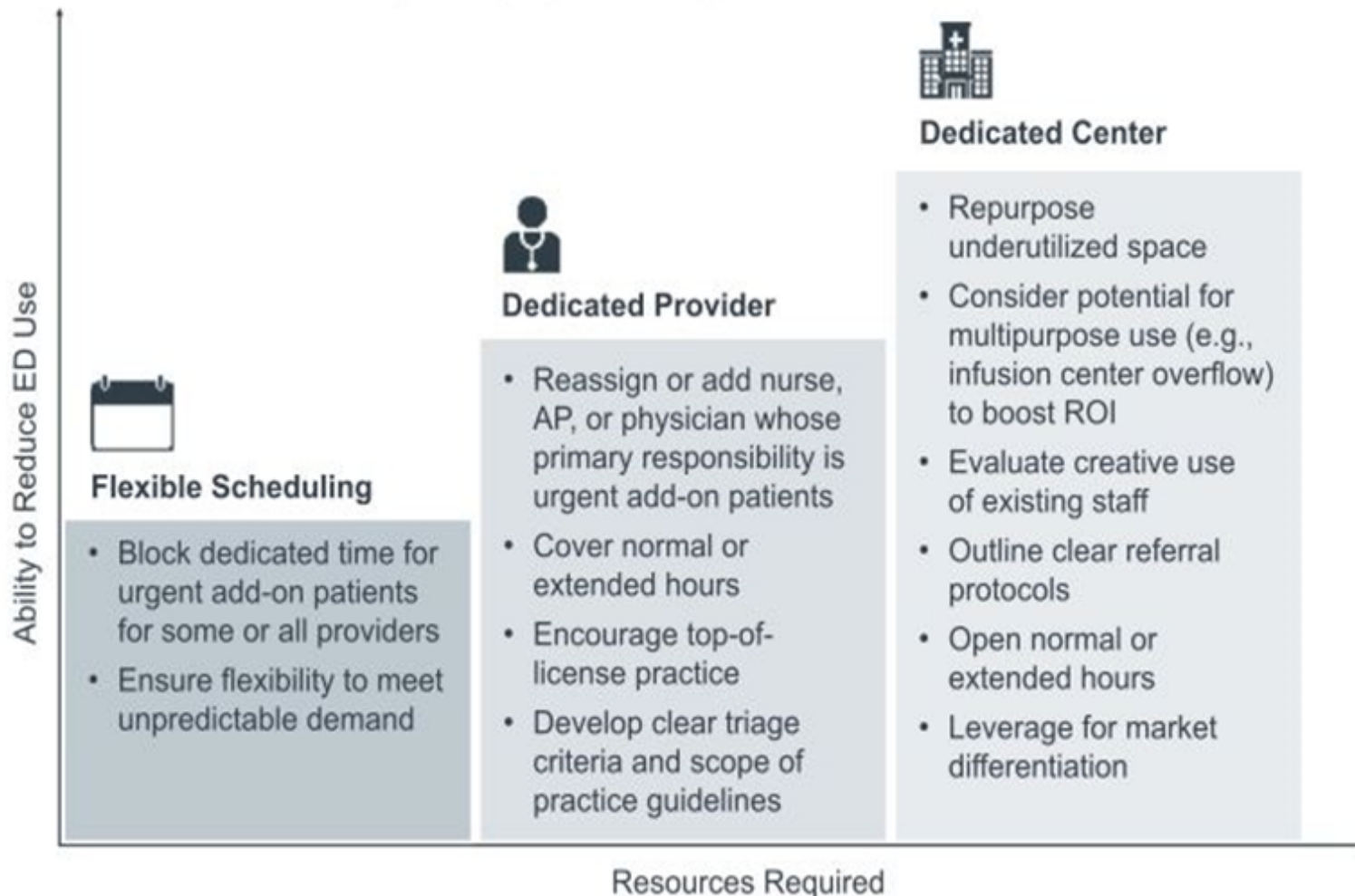




# Keeping It in the Cancer Center

Balance Patient Need with Resources Required

## Three Models of Urgent Symptom Support



# Carving Out a New Role

Dedicating an Advanced Practitioner Can Yield Significant Benefits

## Anne Arundel Medical Center's Implementation of a Dedicated Urgent Care Provider

PAST ▶

### Identify Need

- Medical oncologists too busy to quickly respond to nurse inquiries and patient messages about symptoms
- Oncologists' schedules too full to accommodate add-on patients
- Results in medical complications, worsening patient conditions, and decreased patient satisfaction

1

Dedicated medical oncology nurse practitioner to manage add-on patients in office

2

Developed referral criteria for the 2 FTE RNs managing phone triage

3

Created standardized scheduling processes, protocols of care, and patient education materials

PRESENT

### Measure Impact

**In first eight months...**

**41** patients per month seen by urgent care NP on average

**35%** decrease in ED visits per month on average

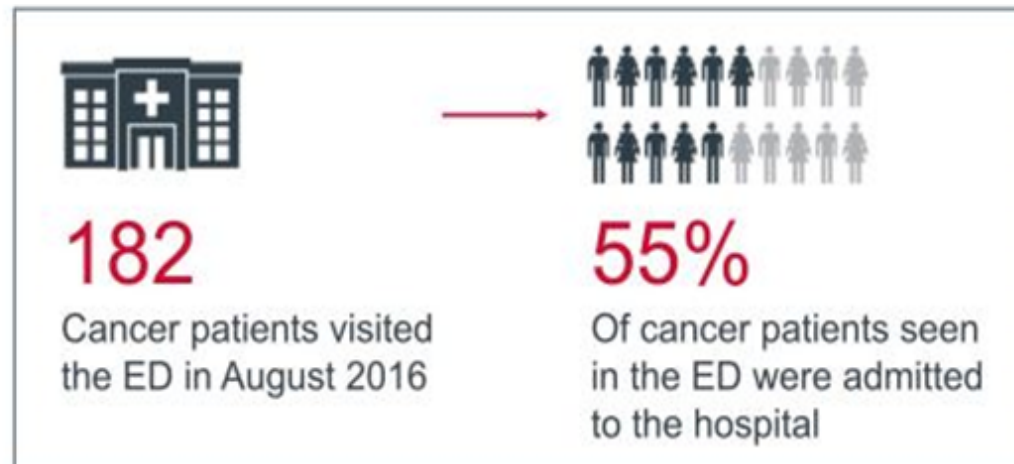
**45%** decrease in inpatient admissions from ED per month on average for pain and weakness

**13%** increase in patient satisfaction with cancer program

# Identifying a Bigger Problem

## Froedtert Leverages ED Data to Understand Scope

### Froedtert's Analysis of Cancer Patient ED Use



#### Common Reasons for ED Visits

- Fever
- Nausea or vomiting
- Mild shortness of breath
- Pain control
- Bleeding
- Cold or flu-like symptoms
- Dehydration
- Diarrhea
- Fatigue
- Home infusion pump concerns
- Rash



# Dedicating the Staff and Space for Urgent Needs

## Froedtert Launches Urgent Care Pilot



### Staffing

- Two RNs or one RN and one technician (MA<sup>1</sup> or CNA<sup>2</sup>) per shift
- One RN flexes between outpatient and inpatient oncology if not needed in 24-Hour Cancer Clinic
- Pull from oncology float pool of 8-9 RNs and 3-4 technicians

### Operations

- Housed in inpatient hematology-oncology unit
- Four infusion chairs
- Open 24/7
- Supervision provided by outpatient team and AP nocturnist in hematology-oncology unit



### Sample Services Provided

- Supportive care (e.g., fluids, electrolytes, antibiotics, blood products, IV medications)
- Basic diagnostics (e.g., EKG, imaging)
- Urgent labs
- Home infusion pump concerns

### Patients Seen by Referral

- Hematologic oncology
- Medical oncology
- Radiation oncology
- Surgical oncology

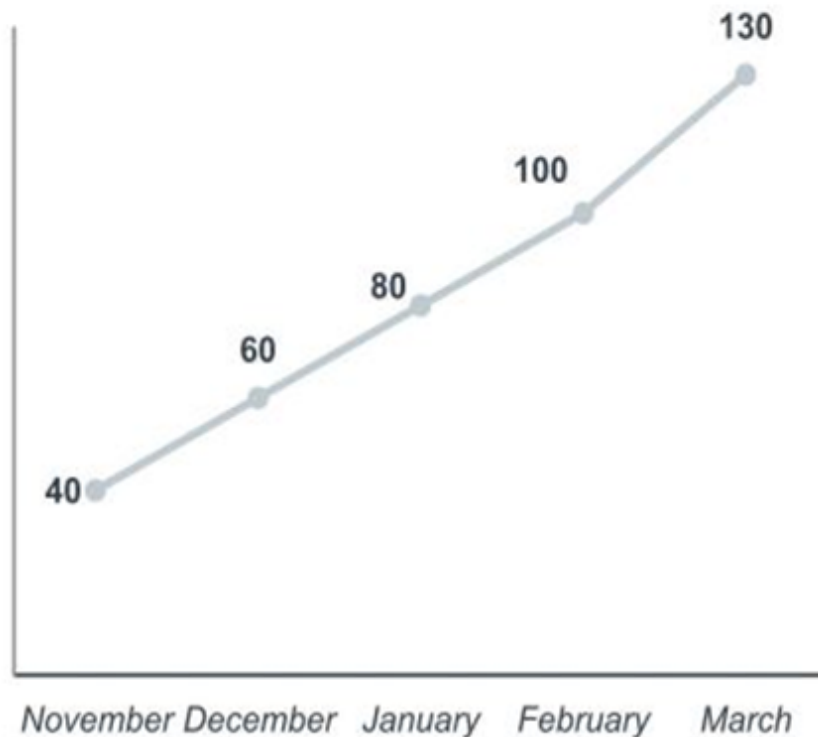


1) Medical assistant.  
2) Certified nursing assistant.

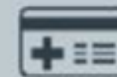
# Getting Patients in the Door

## Monthly Patient Volumes in 24-Hour Cancer Clinic

November 2016 to March 2017



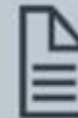
## Strategies to Drive Referrals to the 24-Hour Cancer Clinic



Create easy-to-access information for oncologists



Provide education and referral criteria to answering service staff



Create patient education handouts and flyers



Develop triage algorithms for ED staff and clinicians

# Already Seeing an Impact

## Setting Froedtert Up for Success in the Oncology Care Model



### ED and Hospital Use

**11%**

Decrease in the percentage of patients on active treatment who visited the ED since 24-Hour Cancer Clinic opened in November 2016

**60%**

Fewer hospital admissions from the 24-Hour Cancer Clinic than the ED



### Cost

**\$2,269**

Decrease in patient diagnostic charge<sup>1</sup> per 24-Hour Cancer Clinic admission compared to ED admission

**\$1,554**

Decrease in patient diagnostic charge<sup>1</sup> per 24-Hour Cancer Clinic discharge compared to ED discharge



### Patient Satisfaction

**92%**

Patient satisfaction for overall rating of care<sup>2</sup>

"This is way better than having to go to the ER or an urgent care [center]. You know exactly what I need and know what to do and you get it done."

*Cancer Patient,  
Froedtert Hospital*

1) Median total charge for lab, imaging, and EKG testing prior to disposition.

2) 99<sup>th</sup> percentile.



# Next Steps: Reduce Avoidable ED and Hospital Use

## Resources to Guide Your Strategy

### Action Items

#### Pinpoint the reasons for ED and hospital use

- Engage key stakeholders across departments to compile data sources, such as ACO or ED data
- Identify utilization trends and develop targeted upstream and downstream interventions

#### Empower patients to report symptoms

- Standardize internal processes for triaging symptom management calls
- Evaluate technology solutions that make it easier for patients to report and clinicians to manage symptoms
- Develop a risk-stratification system to identify and proactively manage high ED and hospital utilizers

#### Develop the infrastructure to manage urgent symptoms in the cancer center

- Assess models based on existing resources, additional resources needed, potential volumes, and potential to reduce ED and hospital use



### Select Oncology Roundtable Resources

- [How to Keep Your Cancer Patients Out of the ED](#)
- [Cancer Patient Urgent Care Pro Forma](#)
- [Urgent Care for Cancer Patients](#)
- [Coordinating Seamless Transitions Across Care Settings](#)
- [Oncology Distress Screening and Management](#)
- [Avoidable ED Utilization Assessment](#)
- [Delivering on the Promise of Patient-Centered Care](#)
- [Redesigning Cancer Care for the Era of Accountability](#)

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# Thank you!

Feel free to reach out:

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