The Use of Artificial Intelligence in the Hospice and Palliative Care Settings: Opportunities and Challenges

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Disclosure

- The author would like to disclose a patent on the machine learning algorithm discussed during this presentation

- Patrick White, MD, PhD

Objectives

- Describe the impact of the current use of AI in the palliative care setting
- Describe 3 common obstacles to successfully implementing AI in the healthcare setting
- Identify 3 future uses of AI that could enhance patient care delivery

Agenda

- I. Current Challenges at End-of-Life
- II. The Opportunity for High-Quality Care
- III. The Impact of AI on Clinical Outcomes
- IV. Implementation Lessons Learned

Current Challenges

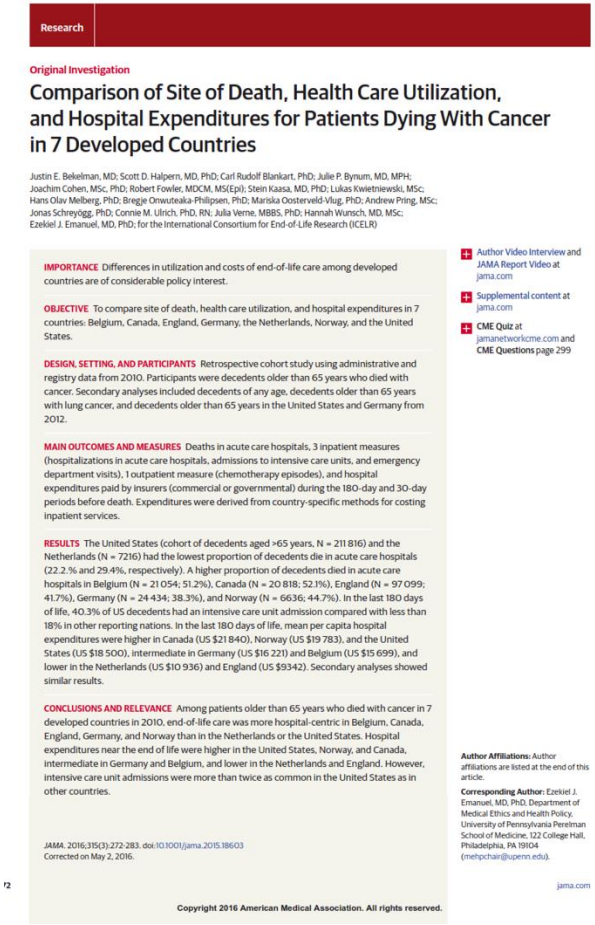
AI Image Generated with Canva:
Key words: Nursing leaders, Amazing speaker, Zoo

How Do You Get Buy-In for AI?

(How Do You Sell This to Your C-Suite? I Want YOUR Elevator Pitch)

Hospice Mission: Reducing ICU Deaths

- In the last 180 days of life, Americans with cancer are more than twice as likely to be in the ICU (40.3%) when compared to other developed nations (< 18% for all others)
- Bereaved ICU family members rated the quality of their loved one's end of life experience as much lower compared to patients who died at home and with > 3 days of hospice care



Research

Original Investigation

Comparison of Site of Death, Health Care Utilization, and Hospital Expenditures for Patients Dying With Cancer in 7 Developed Countries

Justin E. Bekelman, MD; Scott D. Halpern, MD, PhD; Carl Rudolf Blankart, PhD; Julie P. Bynum, MD, MPH; Joachim Cohen, MSc, PhD; Robert Fowler, MDCM, MS(Epi); Stein Kaasa, MD, PhD; Lukas Kwietniewski, MSc; Hans Olav Melberg, PhD; Bregje Onwuteaka-Philipsen, PhD; Mariska Oosterveld-Vlug, PhD; Andrew Pring, MSc; Jonas Schreyögg, PhD; Connie M. Ulrich, PhD, RN; Julia Verne, MBBS, PhD; Hannah Wunsch, MD, MSc; Ezekiel J. Emanuel, MD, PhD; for the International Consortium for End-of-Life Research (ICELR)

IMPORTANCE Differences in utilization and costs of end-of-life care among developed countries are of considerable policy interest.

OBJECTIVE To compare site of death, health care utilization, and hospital expenditures in 7 countries: Belgium, Canada, England, Germany, the Netherlands, Norway, and the United States.

DESIGN, SETTING, AND PARTICIPANTS Retrospective cohort study using administrative and registry data from 2010. Participants were decedents older than 65 years who died with cancer. Secondary analyses included decedents of any age, decedents older than 65 years with lung cancer, and decedents older than 65 years in the United States and Germany from 2012.

MAIN OUTCOMES AND MEASURES Deaths in acute care hospitals, 3 inpatient measures (hospitalizations in acute care hospitals, admissions to intensive care units, and emergency department visits), 1 outpatient measure (chemotherapy episodes), and hospital expenditures paid by insurers (commercial or governmental) during the 180-day and 30-day periods before death. Expenditures were derived from country-specific methods for costing inpatient services.

RESULTS The United States (cohort of decedents aged >65 years, N = 211 816) and the Netherlands (N = 7216) had the lowest proportion of decedents die in acute care hospitals (22.2.% and 29.4%, respectively). A higher proportion of decedents died in acute care hospitals in Belgium (N = 21 054; 51.2%), Canada (N = 20 818; 52.1%), England (N = 97 099; 41.7%), Germany (N = 24 434; 38.3%), and Norway (N = 6636; 44.7%). In the last 180 days of life, 40.3% of US decedents had an intensive care unit admission compared with less than 18% in other reporting nations. In the last 180 days of life, mean per capita hospital expenditures were higher in Canada (US $21 840), Norway (US $19 783), and the United States (US $18 500), intermediate in Germany (US $16 221) and Belgium (US $15 699), and lower in the Netherlands (US $10 936) and England (US $9342). Secondary analyses showed similar results.

CONCLUSIONS AND RELEVANCE Among patients older than 65 years who died with cancer in 7 developed countries in 2010, end-of-life care was more hospital-centric in Belgium, Canada, England, Germany, and Norway than in the Netherlands or the United States. Hospital expenditures near the end of life were higher in the United States, Norway, and Canada, intermediate in Germany and Belgium, and lower in the Netherlands and England. However, intensive care unit admissions were more than twice as common in the United States as in other countries.

JAMA. 2016;315(3):272-283. doi:10.1001/jama.2015.18603
Corrected on May 2, 2016.

Author Video Interview and JAMA Report Video at jama.com

Supplemental content at jama.com

CME Quiz at jamanetworkcme.com and CME Questions page 299

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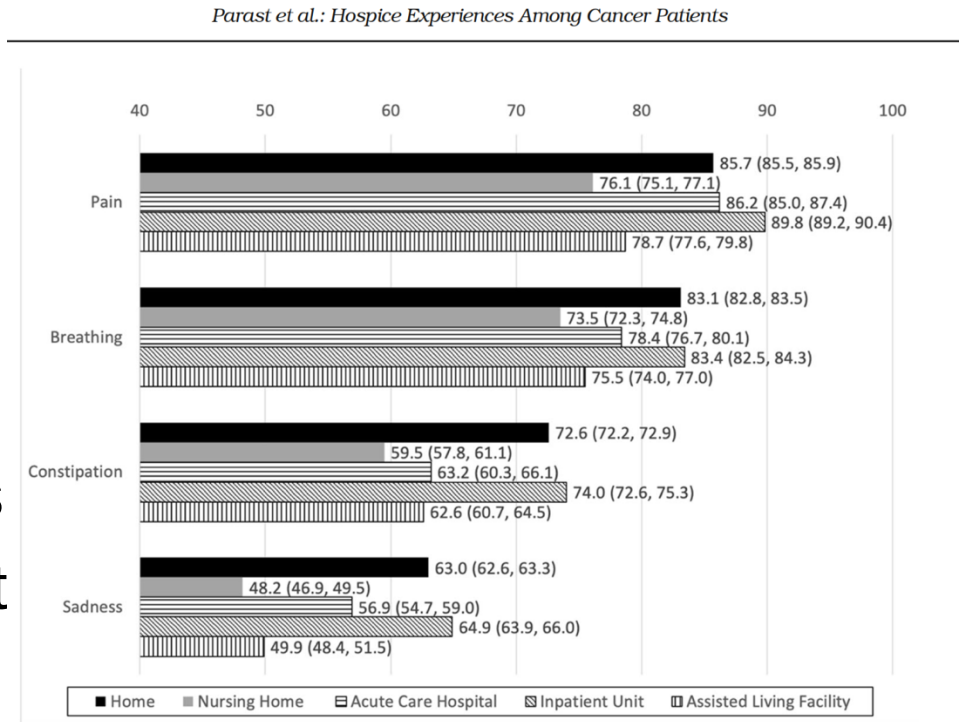
jama.com

Wright AA, Keating NL, Ayanian JZ, Chrischilles EA, Kahn KL, Ritchie CS, Weeks JC, Earle CC, Landrum MB. Family Perspectives on Aggressive Cancer Care Near the End of Life. JAMA. 2016 19;315(3):284-92

Bekelman JE, Halpern SD, Blankart CR, Bynum JP, Cohen J, et al. International Consortium for End-of-Life Research (ICELR). Comparison of Site of Death, Health Care Utilization, and Hospital Expenditures for Patients Dying With Cancer in 7 Developed Countries. JAMA. 2016 Jan 19;315(3):272-83.

Hospice Mission: Improving Symptom Management at End-of-Life

- Studies of symptom management in different settings suggest that symptom management is highest in dedicated inpatient units and lower in the hospital and ALF/ECFs
- This may suggest a benefit when more of the work is provided by staff trained directly through the hospice



Getting help for symptoms on a 0-100 as reported by their caregiver

Parast L, Tolpadi AA, Teno JM, Elliott MN, Price RA. Hospice Care Experiences Among Cancer Patients and Their Caregivers. J Gen Intern Med. 2021 Apr;36(4):961-969.

The Hospice Mission: Saving Resources

Table 2. Adjusted Health Care Expenditures at the End of Life for Individuals Enrolled With Hospice and Non-Hospice Control Individuals, 2002-2018

Characteristic	Adjusted mean, $		Difference	P value
	Hospice group	Propensity score weighted controls		
Total expenditures				
Last 3 d[a]	2473	5285	−2831	<.001
Last wk[b]	2106	8911	−6806	<.001
Last 2 wks[c]	4083	12 869	−8785	<.001
Last mo[d]	8558	20 305	−11 747	<.001
Last 3 mos[e]	20 908	31 816	−10 908	<.001
Last 6 mos[f]	43 679	43 357	322	.93
Family out of pocket				
Last 3 d[a]	67	139	−71	<.001
Last wk[b]	46	262	−216	<.001
Last 2 wks[c]	159	424	−265	<.001
Last mo[d]	241	912	−670	<.001
Last 3 mos[e]	2412	1763	649	.41
Last 6 mos[f]	4096	2988	1109	.55
Medicare				
Last 3 d[a]	2121	4389	−2267	<.001
Last wk[b]	2029	7337	−5308	<.001
Last 2 wks[c]	3824	10 576	−6752	<.001
Last mo[d]	7835	16 559	−8724	<.001
Last 3 mos[e]	17 523	25 250	−7727	<.001

JAMA Health Forum

Original Investigation

Association Between Hospice Enrollment and Total Health Care Costs for Insurers and Families, 2002-2018

Melissa D. Aldridge, PhD; Jaison Moreno, MA; Karen McKendrick, MS; Lihua Li, PhD; Ab Brody, PhD; Peter May, PhD

Abstract

IMPORTANCE Use of hospice has been demonstrated to be cost saving to the Medicare program and yet the extent to which hospice saves money across all payers, including whether it shifts costs to families, is unknown.

OBJECTIVE To estimate the association between hospice use and total health care costs including family out-of-pocket health care spending.

DESIGN, SETTING, AND PARTICIPANTS This retrospective cohort study of health care spending in the last 6 months of life used data from the nationally representative Medicare Current Beneficiary Survey (MCBS) between the years 2002 and 2018. Participants were MCBS participants who resided in the community and died between 2002 and 2018.

EXPOSURES Covariate balancing propensity scores were used to compare participants who used hospice (n = 2113) and those who did not (n = 3351), stratified by duration of hospice use.

MAIN OUTCOMES AND MEASURES Total health care expenditures were measured across payers (family out-of-pocket, Medicare, Medicare Advantage, Medicaid, private insurance, private health maintenance organizations, Veteran's Administration, and other) and by expenditure type (inpatient care, outpatient care, medical visits, skilled nursing, home health, hospice, durable medical equipment, and prescription drugs).

RESULTS The study population included 5464 decedents (mean age 78.7 years; 48% female) and 38% enrolled with hospice. Total health care expenditures were lower for those who used hospice compared with propensity score weighted non-hospice control participants for the last 3 days of life ($2813 lower; 95% CI, $2396-$3230); last week of life ($6806 lower; 95% CI, $6261-$7350); last 2 weeks of life ($8785 lower; 95% CI, $7971-$9600); last month of life ($11 747 lower; 95% CI, $10 072-$13 422); and last 3 months of life ($10 908 lower; 95% CI, $7283-$14 533). Family out-of-pocket expenditures were lower for hospice enrollees in the last 3 days of life ($71; 95% CI, $43-$100); last week of life ($216; 95% CI, $175-$256); last 2 weeks of life ($265; 95% CI, $149-$382); and last month of life ($670; 95% CI, $530-$811) compared with those who did not use hospice. Health care savings were associated with reductions in inpatient care.

CONCLUSIONS AND RELEVANCE In this population-based cohort study of community-dwelling Medicare beneficiaries, hospice enrollment was associated with lower total health care costs for the last 3 days to 3 months of life. Importantly, we found no evidence of cost shifting from Medicare to families related to hospice enrollment. The magnitude of lower out-of-pocket spending to families who enrolled with hospice is meaningful to many Americans, particularly those with lower socioeconomic status.

JAMA Health Forum. 2022;3(2):e215104. doi:10.1001/jamahealthforum.2021.5104

Key Points

Question Does hospice enrollment save money across all payers including families and does hospice shift costs from Medicare to families?

Findings In this cohort study, hospice use by community-dwelling Medicare beneficiaries was associated with significantly lower total health care costs across all payers in the last 3 days to last 3 months of life. We found no evidence of cost shifting from Medicare to families and families had significantly lower out-of-pocket health care costs in the last 3 days to last month of life when patients enrolled with hospice.

Meaning The findings of this study suggest that hospice care is associated with financial benefits to the health care system and families through lower health care costs at the end of life.

+ Supplemental content

Author affiliations and article information are listed at the end of this article.

Hospice Mission: Improving Satisfaction at EOL

Evelyn's House Outcomes

SHP **Scores & Benchmarks**

BJC Home Care Services

01/01/2020 - 12/31/2020

Report Date: 9/29/2021

***Real-Time* Satisfaction Survey Results: CAHPS Hospice**

Data & Benchmark Summary (View Survey Administration report for selected period)

	You	Multistate	National
CCNs:	2	80	1,474
Completed Surveys:	71	7,920	131K

Quality Measures - Top Box Scoring Methodology (Expand / Collapse All)

Top Box	You Actual	You 12M Trend	SHP Multistate	SHP National	You % Ranking
1. Communication with Family ⊞Measure Details (view all response details)	88%		82%	82%	81%
2. Getting Timely Help ⊞Measure Details (view all response details)	88%		77%	76%	90%
3. Treating Patient with Respect ⊞Measure Details (view all response details)	98%		91%	91%	88%
4. Emotional and Spiritual Support ⊞Measure Details (view all response details)	94%		92%	91%	67%
5. Help for Pain and Symptoms ⊞Measure Details (view all response details)	80%		76%	76%	66%
6. Training Family to Care for Patient ⊞Measure Details (view all response details)	73%		74%	74%	42%
7. Rating of this Hospice ⊞Measure Details (view all response details)	97%		84%	85%	91%
8. Willingness to Recommend this Hospice ⊞Measure Details (view all response details)	97%		84%	85%	91%
Overall Composite: All Quality Measure Questions	88%		82%	82%	80%

Your Percentile Ranking: <10% | 10-20% | 20-40% | 40-60% | 60-80% | 80-90% | >90%

What Does Leadership Actually Want to See?

Economic Impact of ICU to Hospice Conversions

Binney et al

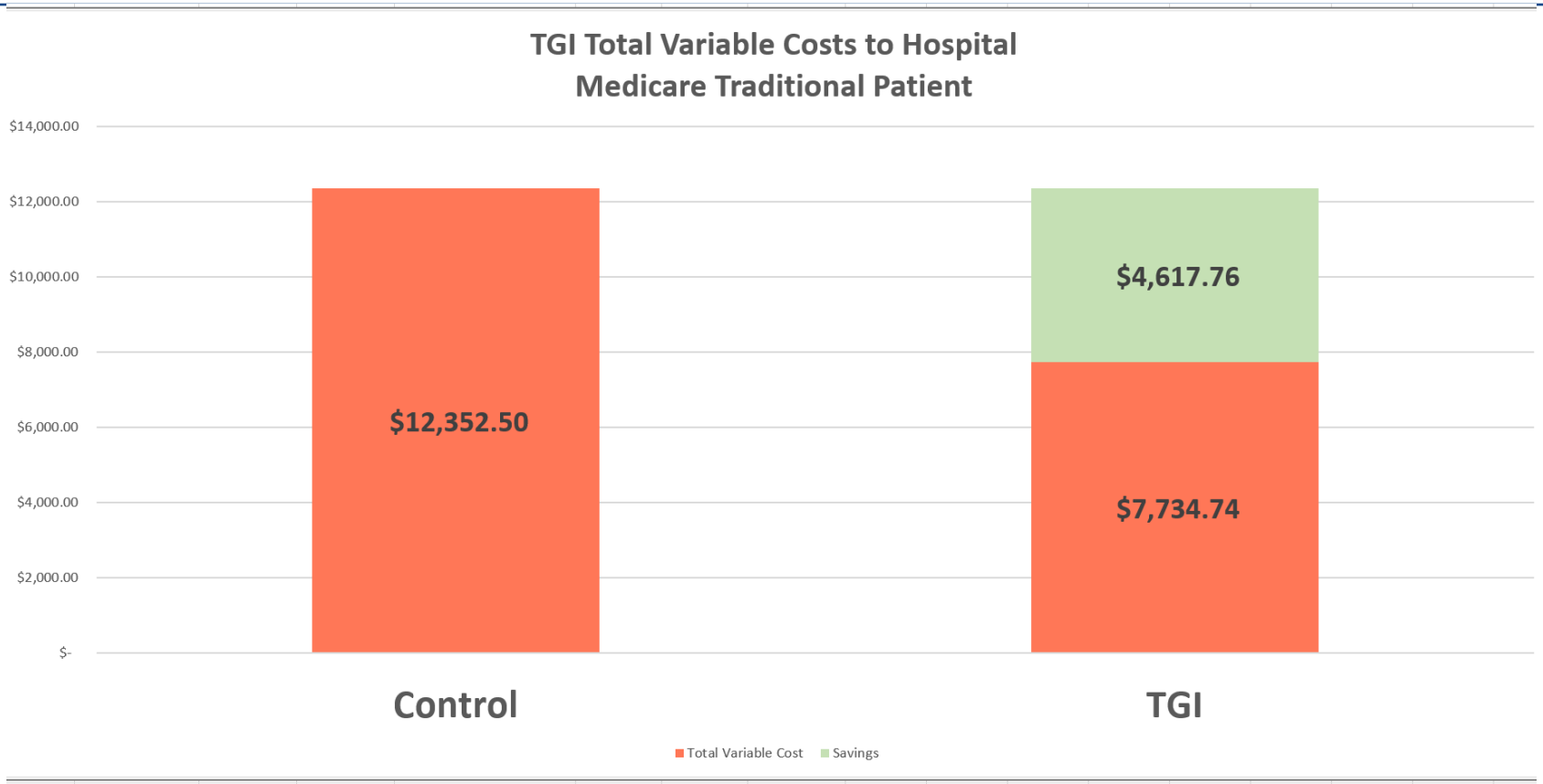
TABLE 2. Cost Impact of ICU Patients Successfully Transferred to Dedicated Hospice Inpatient Unit, January–June 2011

Patients	ICU Days Avoided Per Patient	Total ICU Days Avoided	Costs Per ICU Day	Cost Per Dedicated Hospice Inpatient Unit Day[a]	Cost Savings
167	3.5	585	$4,484	$2,118	$1,384,110

[a]Estimated as 73% of the average daily hospital cost for patients during the study time frame with a "Hospice–Medical Facility" discharge disposition.

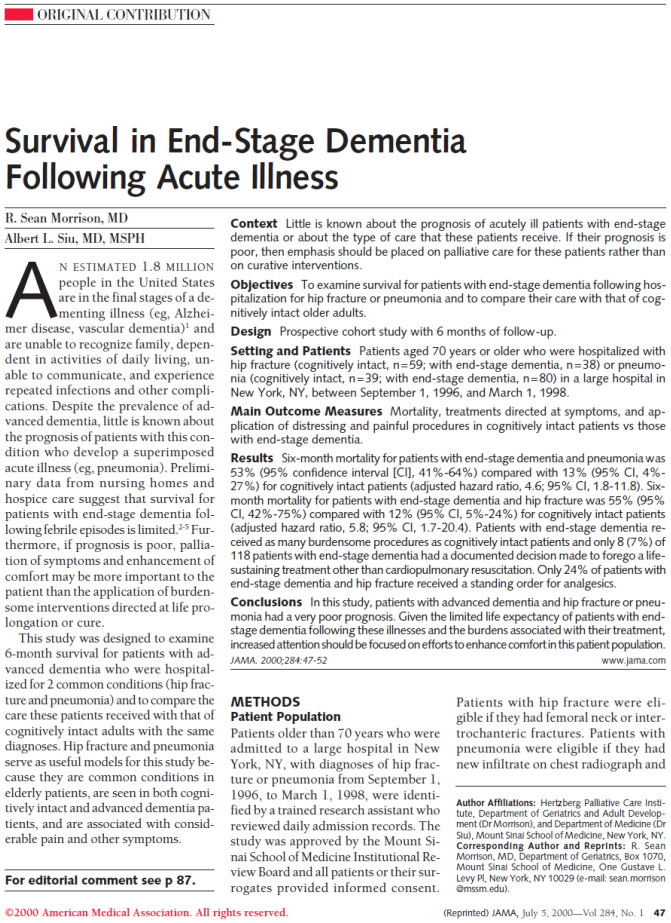
Feasibility and Economic Impact of Dedicated Hospice Inpatient Units for Terminally Ill ICU Patients Crit Care Med 2014; 42:1074–108

TGI Impact on Total Variable Costs to Hospital in ICU Patients



How AI Enhances Prognostication

Memorizing Prognostic Facts



ORIGINAL CONTRIBUTION

Survival in End-Stage Dementia Following Acute Illness

R. Sean Morrison, MD
Albert L. Siu, MD, MSPH

Context Little is known about the prognosis of acutely ill patients with end-stage dementia or about the type of care that these patients receive. If their prognosis is poor, then emphasis should be placed on palliative care for these patients rather than on curative interventions.

Objectives To examine survival for patients with end-stage dementia following hospitalization for hip fracture or pneumonia and to compare their care with that of cognitively intact older adults.

Design Prospective cohort study with 6 months of follow-up.

Setting and Patients Patients aged 70 years or older who were hospitalized with hip fracture (cognitively intact, n=59; with end-stage dementia, n=38) or pneumonia (cognitively intact, n=39; with end-stage dementia, n=80) in a large hospital in New York, NY, between September 1, 1996, and March 1, 1998.

Main Outcome Measures Mortality, treatments directed at symptoms, and application of distressing and painful procedures in cognitively intact patients vs those with end-stage dementia.

Results Six-month mortality for patients with end-stage dementia and pneumonia was 53% (95% confidence interval [CI], 41%-64%) compared with 13% (95% CI, 4%-27%) for cognitively intact patients (adjusted hazard ratio, 4.6; 95% CI, 1.8-11.8). Six-month mortality for patients with end-stage dementia and hip fracture was 55% (95% CI, 42%-75%) compared with 12% (95% CI, 5%-24%) for cognitively intact patients (adjusted hazard ratio, 5.8; 95% CI, 1.7-20.4). Patients with end-stage dementia received as many burdensome procedures as cognitively intact patients and only 8 (7%) of 118 patients with end-stage dementia had a documented decision made to forego a life-sustaining treatment other than cardiopulmonary resuscitation. Only 24% of patients with end-stage dementia and hip fracture received a standing order for analgesics.

Conclusions In this study, patients with advanced dementia and hip fracture or pneumonia had a very poor prognosis. Given the limited life expectancy of patients with end-stage dementia following these illnesses and the burdens associated with their treatment, increased attention should be focused on efforts to enhance comfort in this patient population.

JAMA. 2000;284:47-52 www.jama.com

An estimated 1.8 million people in the United States are in the final stages of a dementing illness (eg, Alzheimer disease, vascular dementia)[1] and are unable to recognize family, dependent in activities of daily living, unable to communicate, and experience repeated infections and other complications. Despite the prevalence of advanced dementia, little is known about the prognosis of patients with this condition who develop a superimposed acute illness (eg, pneumonia). Preliminary data from nursing homes and hospice care suggest that survival for patients with end-stage dementia following febrile episodes is limited.[2,3] Furthermore, if prognosis is poor, palliation of symptoms and enhancement of comfort may be more important to the patient than the application of burdensome interventions directed at life prolongation or cure.

This study was designed to examine 6-month survival for patients with advanced dementia who were hospitalized for 2 common conditions (hip fracture and pneumonia) and to compare the care these patients received with that of cognitively intact adults with the same diagnoses. Hip fracture and pneumonia serve as useful models for this study because they are common conditions in elderly patients, are seen in both cognitively intact and advanced dementia patients, and are associated with considerable pain and other symptoms.

For editorial comment see p 87.

METHODS

Patient Population

Patients older than 70 years who were admitted to a large hospital in New York, NY, with diagnoses of hip fracture or pneumonia from September 1, 1996, to March 1, 1998, were identified by a trained research assistant who reviewed daily admission records. The study was approved by the Mount Sinai School of Medicine Institutional Review Board and all patients or their surrogates provided informed consent. Patients with hip fracture were eligible if they had femoral neck or intertrochanteric fractures. Patients with pneumonia were eligible if they had new infiltrate on chest radiograph and

Author Affiliations: Hertzberg Palliative Care Institute, Department of Geriatrics and Adult Development (Dr Morrison), and Department of Medicine (Dr Siu), Mount Sinai School of Medicine, New York, NY. **Corresponding Author and Reprints:** R. Sean Morrison, MD, Department of Geriatrics, Box 1070, Mount Sinai School of Medicine, One Gustave L. Levy Pl, New York, NY 10029 (e-mail: sean.morrison@mssm.edu).

Morrison RS, Siu AL. Survival in end-stage dementia following acute illness. JAMA. 2000; 284(1):47-52.

Bizarre Personal Story

Outcomes Associated With Swallowing Toothpicks

- Steinbach C, Stockmann M, Jara M, Bednarsch J, Lock JF. Accidentally ingested toothpicks causing severe gastrointestinal injury: a practical guideline for diagnosis and therapy based on 136 case reports. World J Surg. 2014; 38(2):371-7.

Results

A total of 136 cases (74 % male, age 52 [5–92] years) have been reported in the literature. From the available information, more than 50 % (n = 48) of patients were not aware of having swallowed a toothpick. The most common presenting symptoms were abdominal pain (82 %), fever (39 %), and nausea (31 %). The toothpick caused gut perforation in 79 % of all patients. The locations of toothpicks prior removal were esophagus (2 %), stomach (20 %), duodenum (23 %), small intestine (18 %), and large intestine (37 %). The diagnostic procedures included endoscopy (63 %), computed tomography scan (63 %), and ultrasound (47 %); however, in 35 % of cases these investigations failed to detect the toothpick. Therapy was surgery in most cases (58 %). The overall mortality was 9.6 %.

Manual Triggered PC Consults in the ICU at BJH: What is the Issue?

Outcome	Intervention	Usual	p-value
Transitions to DNR	51%	23%	<0.0001
Trach	1%	8%	0.03
Hospice	19%	5%	0.002
ED visit/readmission	13%	28%	0.01
Ventilated days	4	6	0.04

No difference in 30-day all-cause mortality between groups!

The challenge is that the process required extensive manual chart review and was time intensive

Ma J, Chi S, Buettner B, Pollard K, Muir M, Kolekar C, Al-Hammadi N, Chen L, Kollef M, Dans M. Early Palliative Care Consultation in the Medical ICU: A Cluster Randomized Crossover Trial. Crit Care Med. 2019 Dec;47(12):1707-1715.

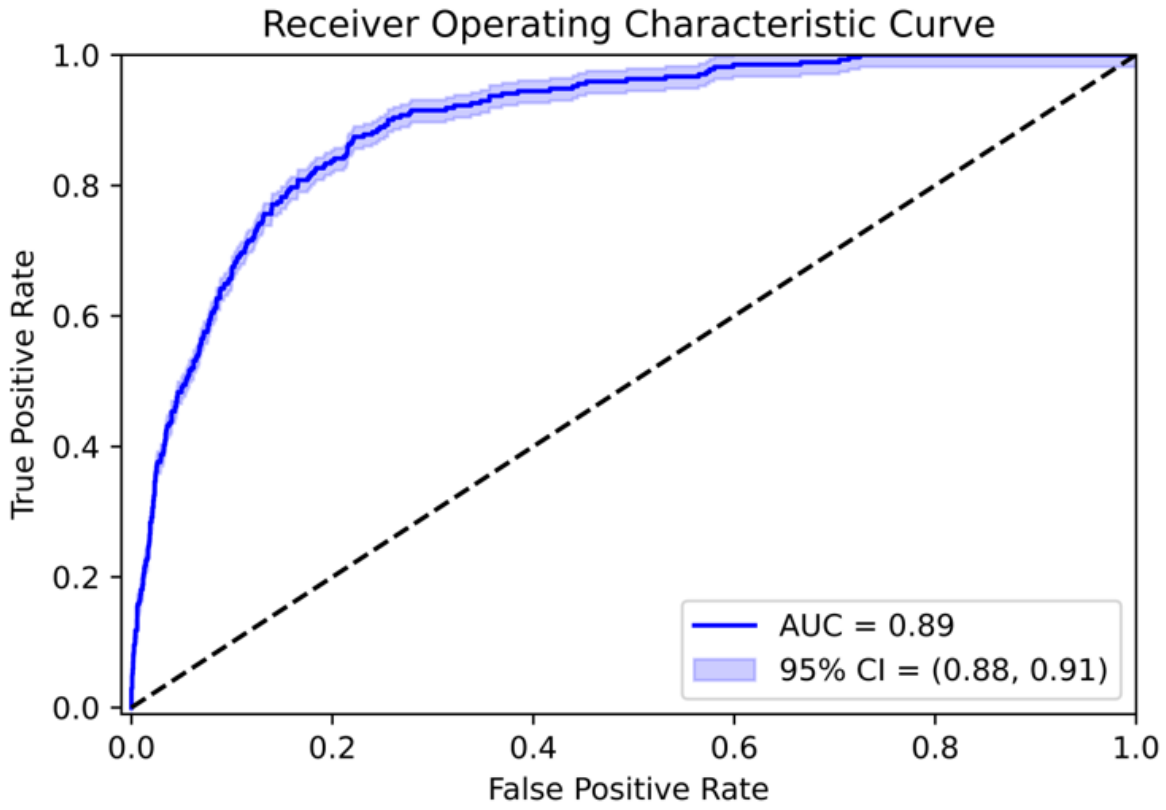
Targeted Goals of Care Initiative

1. Epic machine earning algorithms to identify high-risk patients (30-day mortality) in an interdisciplinary partnership between:
   - ACO/BJC Medical Group: Nathan Moore
   - Institute for Informatics: Randi Foraker
   - Palliative Medicine: Patrick White

Epic data is obtained 24 hours after hospital admission analyzing 500+ variables including:

1. Diagnoses
2. Vitals
3. Labs
4. Medications/therapies

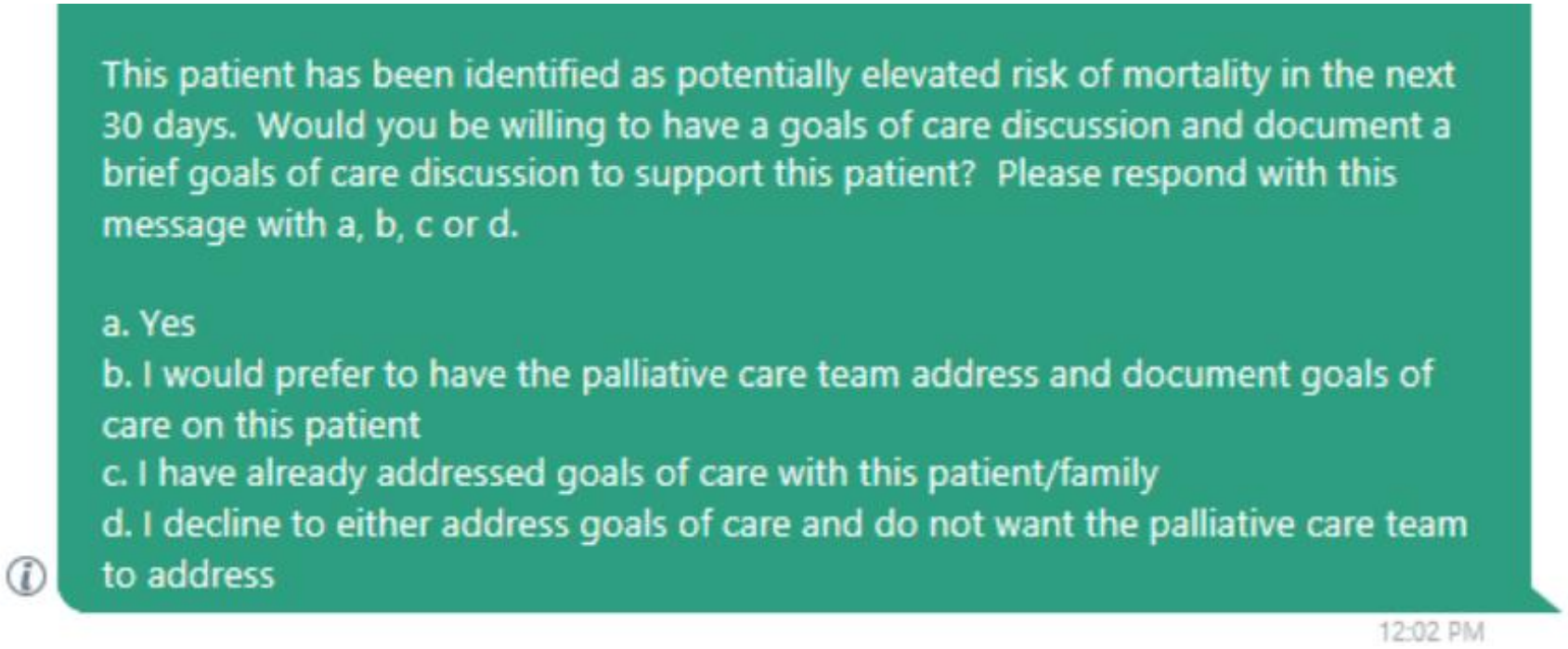
High Risk Patient Identification
Targeted Goals of Care (TGI)



Cut-off	Accuracy	Sensitivity	Specificity	Precision
0.3	0.93	0.38	0.97	0.54

Preliminary Outcomes

Records starting February 15, 2021	Encounters	Unique Patients	TGI Outcome	TGI Outcome with 90 day definition	% of Encounters with TGI Outcome with 30 day definition
Low (TGI =<10%)	20050	17693	203	374	1.01%
Medium (TGI 10 – 25%)	10933	9378	535	829	4.94%
High (TGI >= 25)	9748	7920	1796	2242	18.4%



MD Response	
A	40%
B	24%
C	15%
D	8%
No response	13%

What outcomes would you predict would be most impacted?

Outcomes

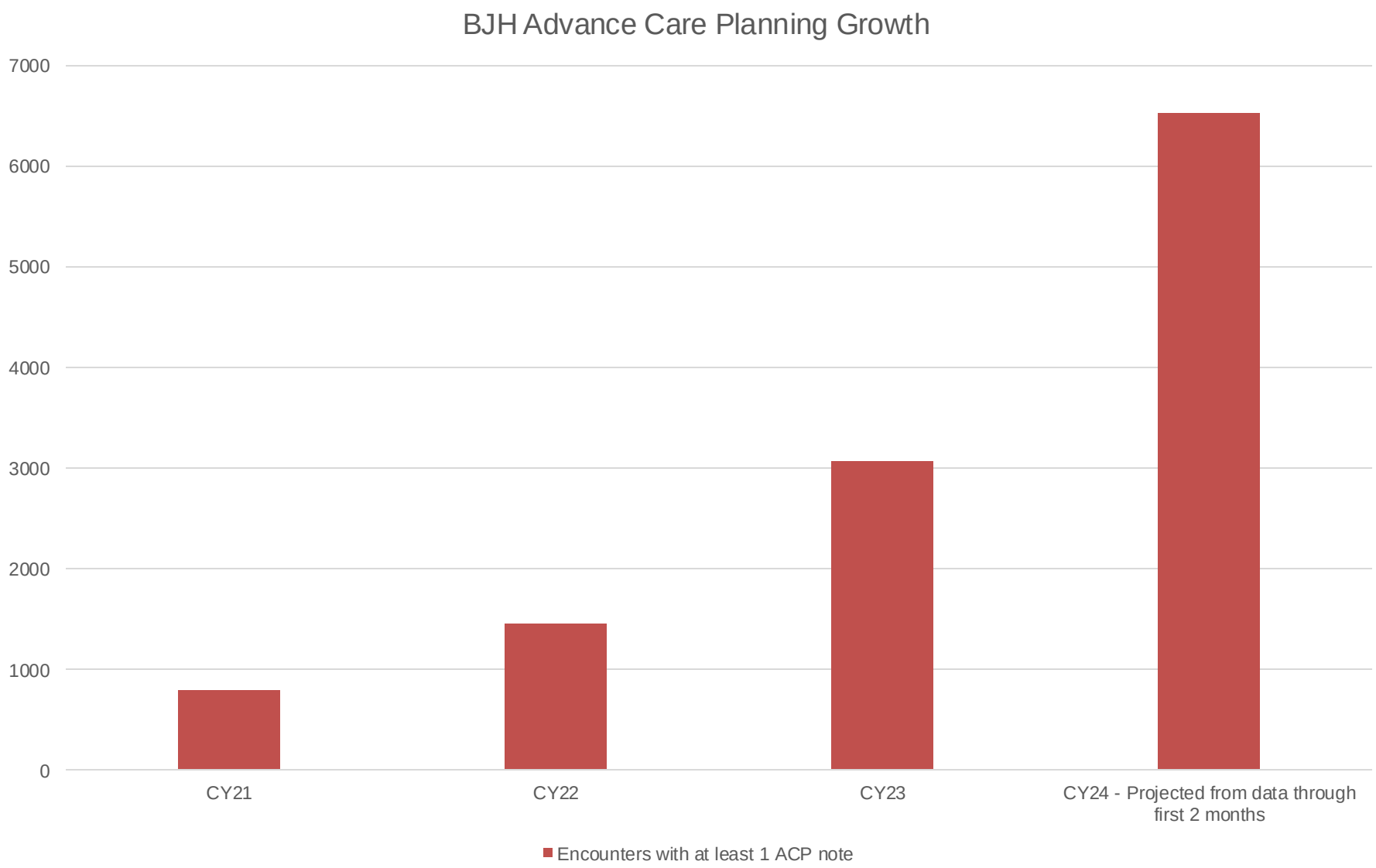
	Control	TGI	P-value
Documented Goals of Care/ ACP Discussion	14%	58%	**<0.001**
Time to Goals of Care Discussion	5.84 days	3.07 days	**<0.001**

Discharge Code Status	Control	TGI Group	P-value
Full Code	92%	80%	<0.001
Comfort Care Only	2%	3%	
Limited Code	6%	17%	

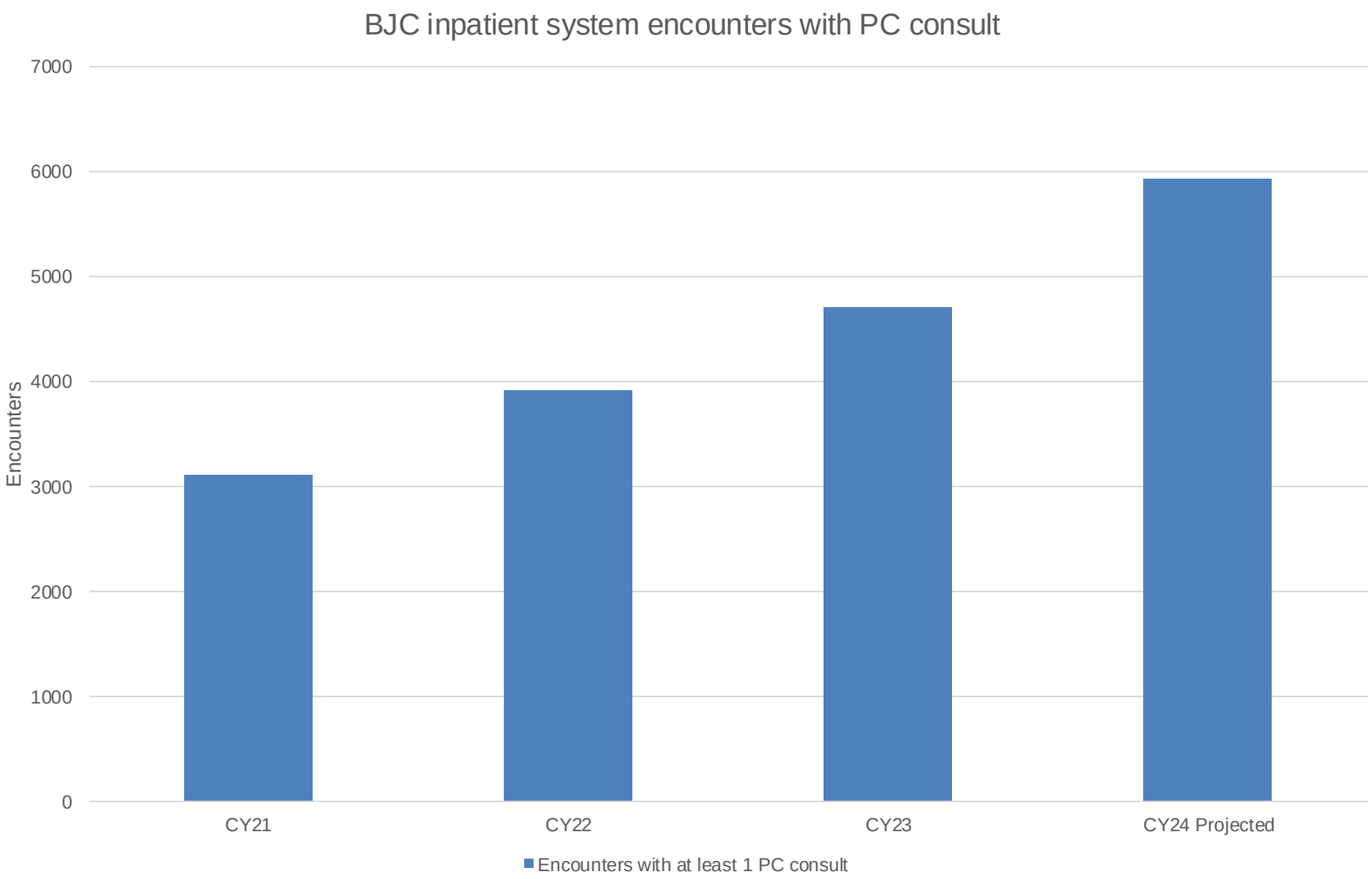
Key Outcomes

Index	Intervention	Control	P Value
Vizient Length of Stay Index	0.96 (0.64)	1.20 (0.67)	< 0.001
Adjusted Vizient Length of Stay Index	1.05 (0.73)	1.23 (0.66)	< 0.001
30-Day Mortality *n (%)*	14 (7.4)	30 (8.5)	0.74
Vizient Mortality Index	0.42	0.66	
ICU Admissions	8 (4.2%)	12 (3.4%)	0.64

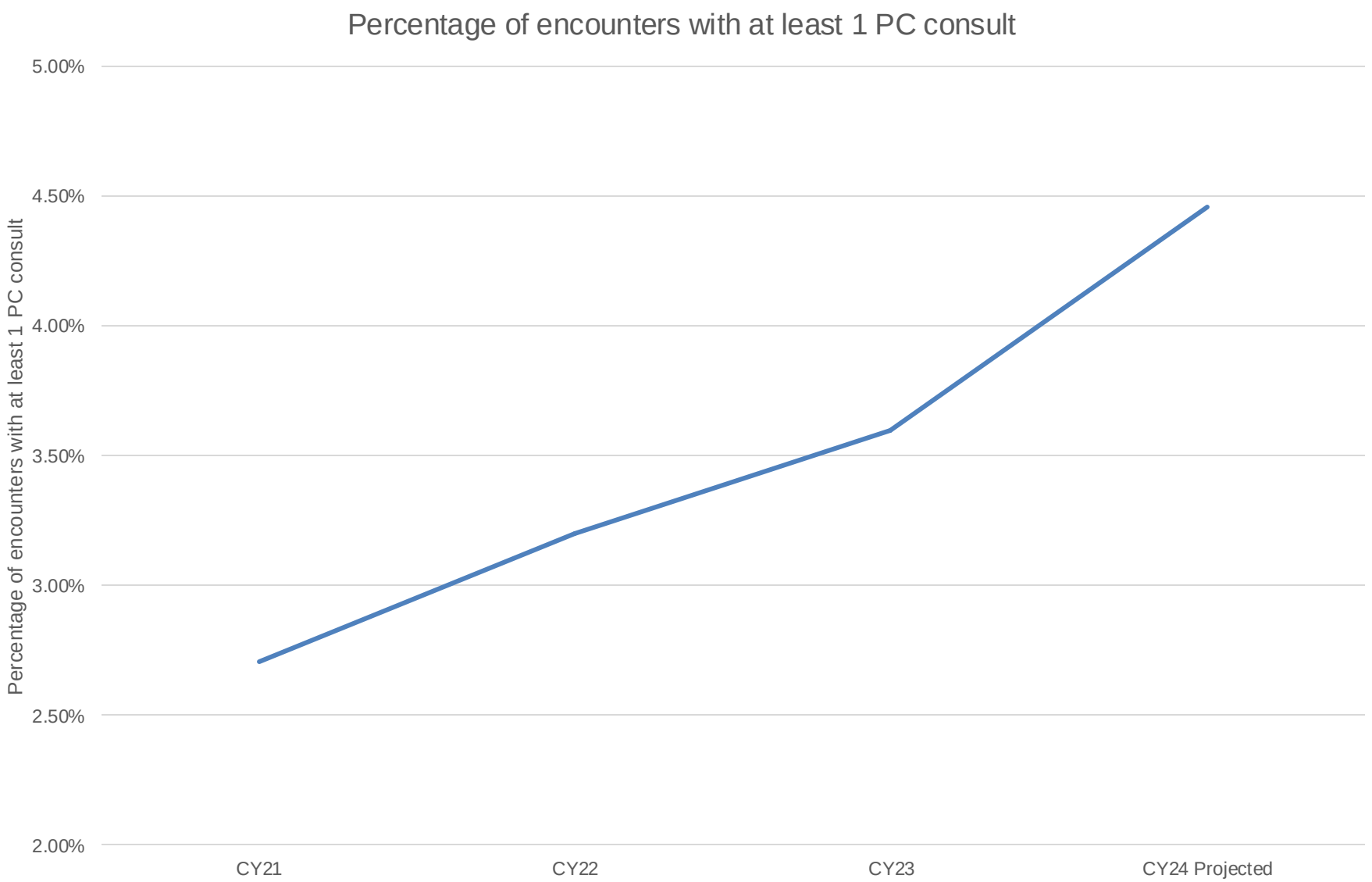
BJH ACP Growth



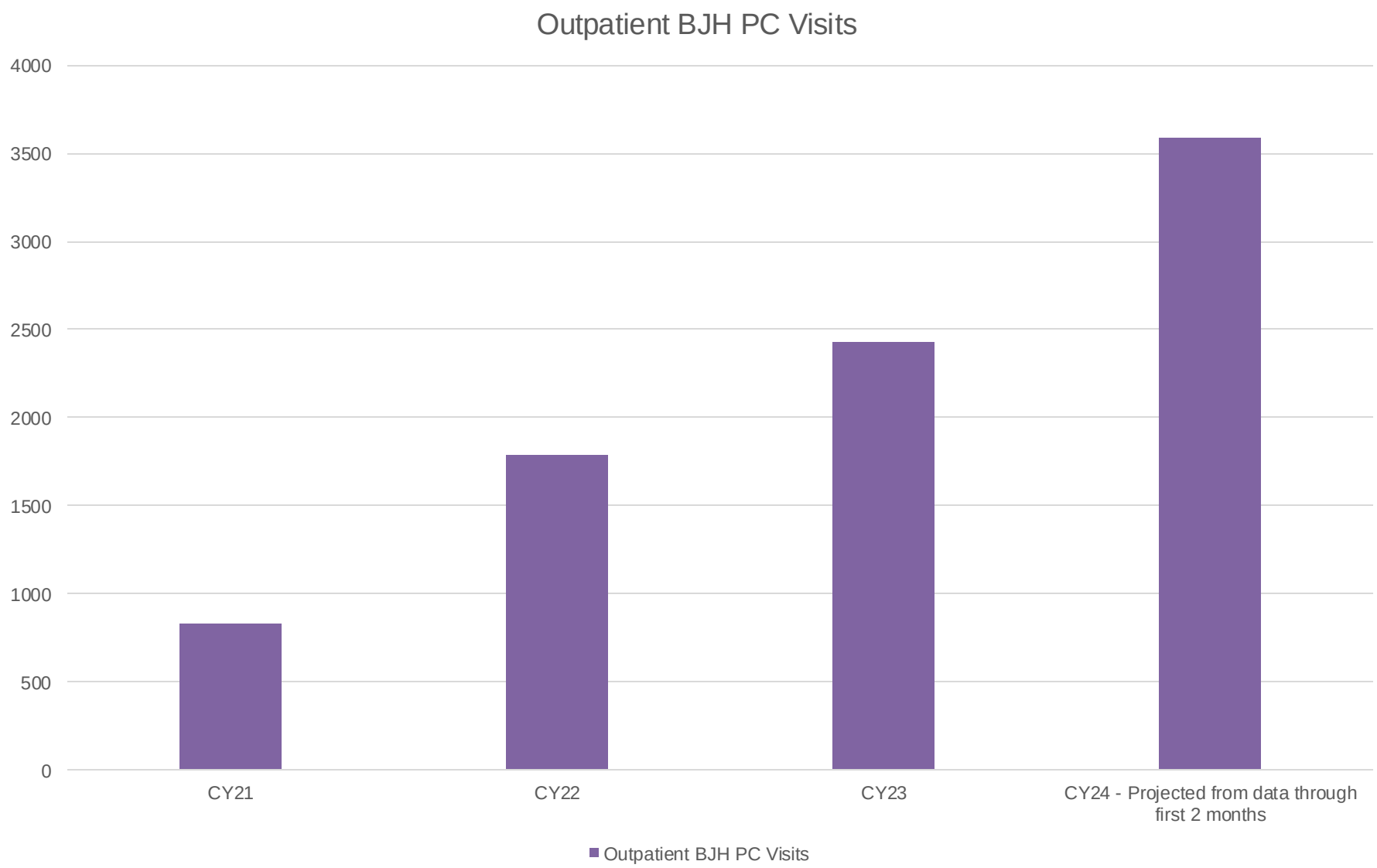
Inpatient PC Consults Across BJC



% of Inpatient Admissions with a PC consult



Outpatient BJH PC Encounters



BJH Palliative Care Outpatient Outcomes (First 50 consecutive patients of 2021)*

Palliative Care Clinic	% (N = 50)
Total Deaths at Home	78% (39/50)
Total Deaths on Hospice	90% (45/50)
Deaths at Home or on Inpatient Hospice	**96% (48/50)**

What Is Going on Nationally?
(special thanks to Dr. Jessica Ma)

Duke

- **Population:** Inpatient, Outpatient using AI mortality risk model and ICD codes.

- **Intervention:** "Soft" storyboard best practice advisory (BPA) indicating high risk patient using ICD codes. Smaller interventions used email and page notifications in inpatient services using the mortality model.

- **Results:** More than 60% of patients with goals of care documentation in the last 6 months of life.

Providence St. Joseph

- **Population:** ICU patients with LOS >= 5 days or more.
- **Intervention:** Integrated tool with notes and workflows.
- **Results:** 70% with notes written year to date, with 67,000 notes written in the last year, and 43,000 with some measure of quality.

UCLA

- **Population:** Two separate initiatives focusing on: Outpatient cancer patients and primary care patients with serious illnesses (cancer, heart failure, COPD, end-stage liver disease, ESRD, or ALS) and at least 2 primary care visits in the last 12 months.

- **Intervention:** Embedded palliative care oncology model; Patient portal messages via EHR, Advance Directive paperwork, PREPARE website, and navigator outreach.

- **Results:** Improvement in documentation in cancer clinic, psychosocial and hospice referral, and reduction in hospital LOS in the last 6 months.

UCSF

- **Population:** Outpatient oncology patients with at least 3 visits to the same provider in the past 1 year within HER.

- **Intervention:** ACP reminder to patients >= 65 years old that is visible to all providers, PCPs as part of the Health Care Maintenance requirement, and to patients in MyChart. Digital kioskcs and clinic front desks with advertisements on ACP. Two session workshop and link to Prepare for your Care provided to patients.

- **Results:** Increased goals of care interventions in multiple different patient populations.

University of Pittsburgh

- **Population:** Inpatient; AI mortality risk model of > 30 % in 90 days.

- **Intervention:** Email then to a provider electronic health record notification for goals of care conversation within 48 hours of admission. If > 60% risk, notification for goals of care conversation every 72 hours after initial alert and palliative care consult was also placed.

- **Results:** Over 70% of high risk patients have a GOC documentation.

University of Washington

- **Population:** Inpatient and Outpatient; Patients with chronic illnesses including metastatic cancer, COPD, heart failure, cirrhosis, dementia; Identified by ICD codes.

- **Intervention:** Jumpstart program using provider education and notification (email and page notification).

- **Results:** Pending.

Lessons Learned from AI Implementation

Key Ethical Considerations

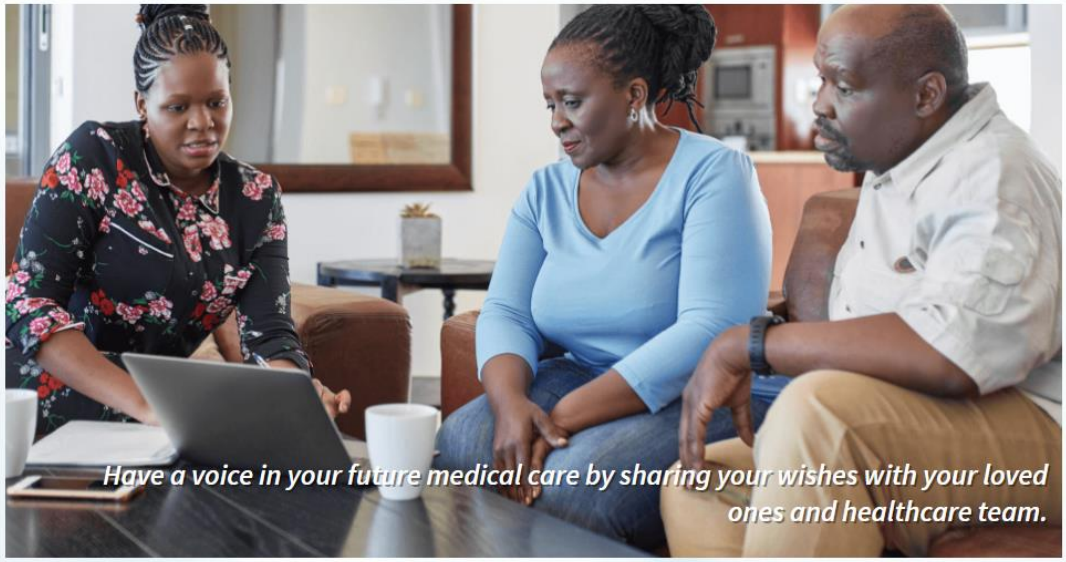
- Should their doctors receive the actual scores?
- Should patients receive their actual scores?
- Could this be biased by race? (e.g. patients given lower scores because of social determinants of health)
- Could this help underserved populations that may otherwise not receive prognostic information?

Other AI Lessons Learned

I. Providers hate EHR alerts
II. High PPV is critical
III. Communication skills training matters
IV. Champion selection is key
V. Engaging nursing leadership is key
V. Reducing bias is critical
VI. Understand the culture of units
    V. Neuro ICU prognostication and outcomes vary

Patient Information

Advance Care Planning



Health Care Agents

You currently have no health care agents.

Planning Documents

If a document should be removed, send us a message.

Documents On File

There are no documents of this kind to display.

Add a document

Please name the document you upload as precisely as possible to aid our team in handling it appropriately. Common documents include: Advance Directives and Living Will, Power of Attorney, and/or three documents that must be signed by a physician before uploading - Physician Orders for Life-Sustaining Treatment (POLST), Transportable Physician Orders for Patient Preferences (TPOPP), and Out-of-Hospital DNR (OHDNR).

Back to the home page

Helpful Resources

These resources may help you make care decisions and prepare for conversations with your family, friends and doctors. These links are for different situations and you likely will not need all of them. Note: all content and information on the websites are provided by outside organizations for informational purposes only. It is not intended to be relied upon as medical and/or legal advice and is not a substitute for legal advice and/or healthcare advice. BJC Healthcare and Washington University have no control over, or responsibility for, such content or any personal or financial information you provide to these websites.

Prepare for Your Care
Step-by-step program with video stories to help you have a voice in your medical care.

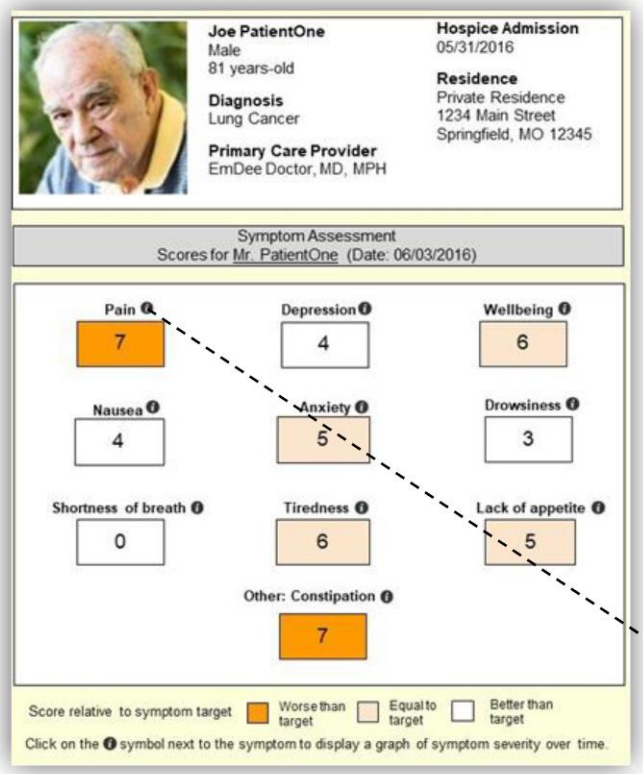
The Conversation Project
Helping people share their wishes for healthcare.

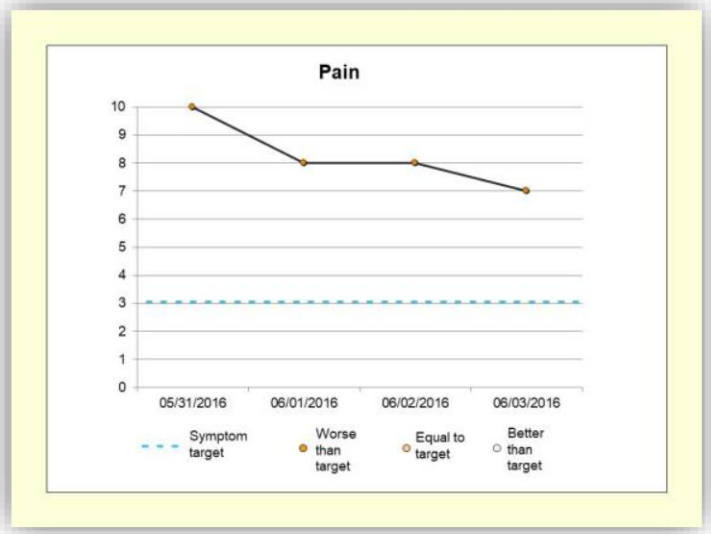
Get Palliative Care
Living with a serious illness? Advice to improve qualify of life along with curative efforts.

Missouri Bar Association
Durable Power of Attorney for Healthcare forms and information from the Missouri State Bar.

Illinois Bar Association
Illinois State Bar information on healthcare decisions.

Next Steps: Tools for Caregivers: Dr. Washington's Envision Project





What Would You Do?

Group Thoughts

- Patient population
- Intervention
- Elevator speech
- Next steps:

There is Hope for America!

Khandelwal N[1], Kross EK, Engelberg RA, Coe NB, Long AC, Curtis JR. **Estimating the effect of palliative care interventions and advance care planning on ICU utilization: a systematic review.** 2015 May;43(5):1102-11.