

How should palliative care services integrate into oncology services?

MASCC/ISOO

Annual Meeting on Suppportive Care in Cancer

www.mascc.org/meeting

Follow us on Twitter: @CancerCareMASCC

David Hui, MD, MSc

Associate Professor

Department of Palliative Care, Rehabilitation and Integrative Medicine

Department of General Oncology

UT MD Anderson Cancer Center, Houston, USA

June 23, 2019







Disclosure

- No relevant disclosures for this presentation
- Funding sources for investigator-initiated research studies
 - National Cancer Institute
 - National Institute of Nursing Research
 - **American Cancer Society**
 - Andrew Sabin Family Fellowship Award
 - Sister Institution Network Fund
 - Institutional Research Grant
 - **Helsinn Therapeutics**
 - Insys Therapeutics
 - Teva Pharmaceutical
 - Depomed Inc









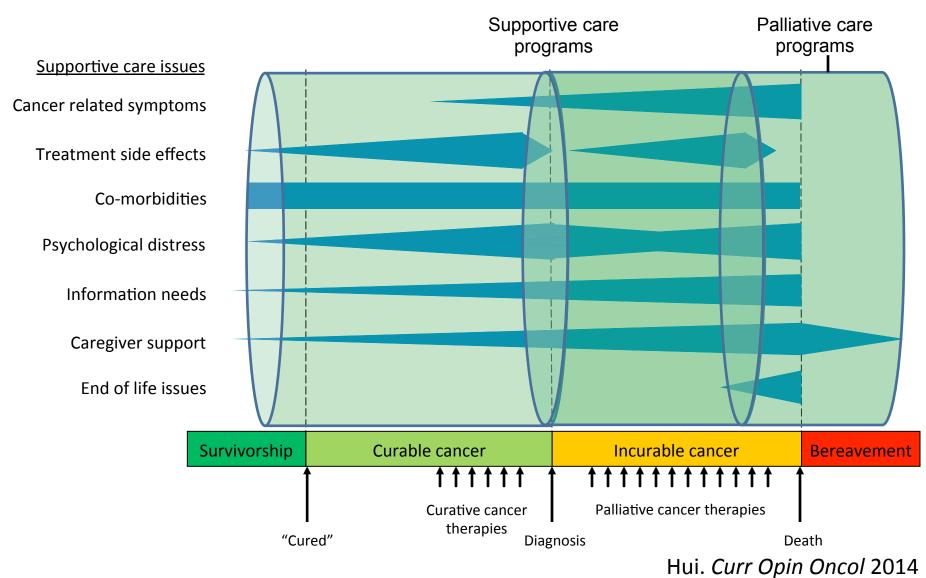


Outline

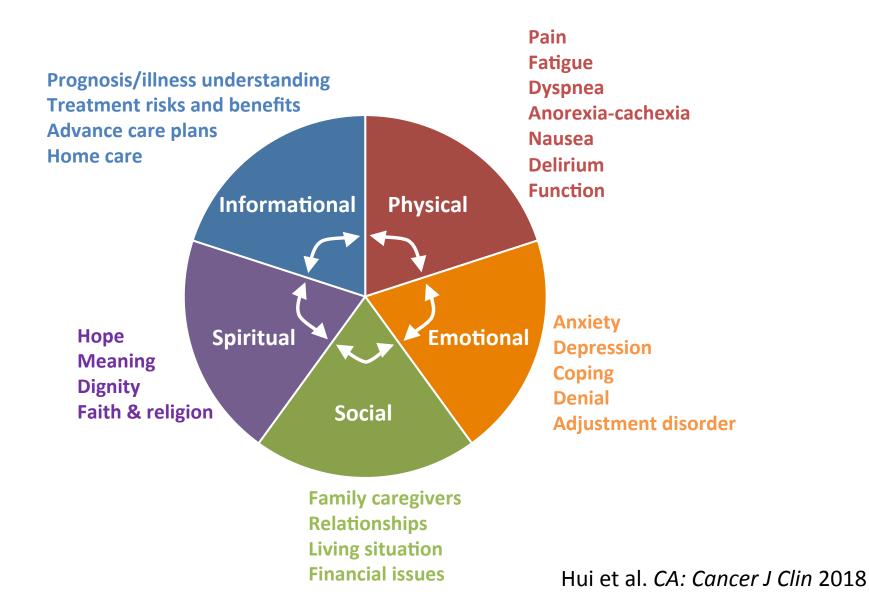
- Introduction
- Primary palliative care
- Specialist palliative care
- Summary

Supportive Care Needs

Cancer Patients

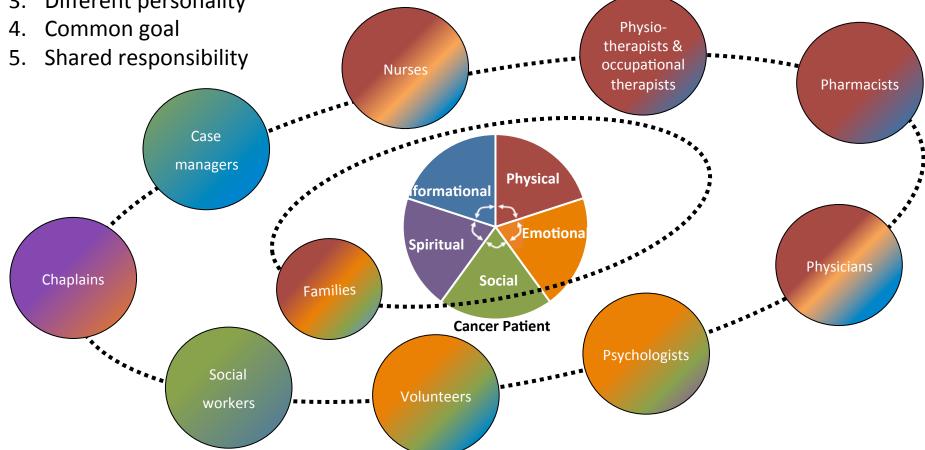


Dimensions of Care



Interprofessional Team

- Situational leadership
 Unified message
- 3. Different personality



Levels of Palliative Care

Primary PC

- Oncologists and primary care specialists
- Inpatient units, outpatient clinics
- Basic symptom assessment
- Basic symptom interventions
- Basic communication skills
- Complex cancer treatment decisions
- Basic end-of-life care
- Referral to palliative care

Secondary PC

- Specialist palliative care team as consultants
- Inpatient units, outpatient clinics
- Comprehensive symptom assessment and management
- Psychosocial and spiritual care
- Communication and decision making about advance care planning and end-of-life care

Tertiary PC

- Specialist palliative care as attending team
- Palliative care units
- Intensive symptom management
- Comprehensive psychosocial and spiritual care
- Complex communication and decision making about advance care planning and end-of-life care
- Often academic centers that facilitate PC education and research

Increased expertise in palliative care, larger centers

Levels of Palliative Care

Many Variations

Specialist Palliative Care

- Interdisciplinary PC teams
- PC advanced practice providers
- PC advanced practice providers → PC team
- PC Physician specialists
- Primary care physicians with PC specialization
- Others...

Primary Palliative Care

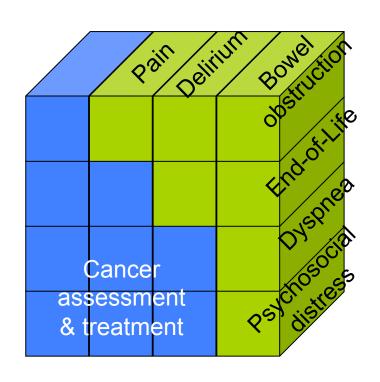
- Oncologists
- Oncology advanced practice providers
- Primary care physicians

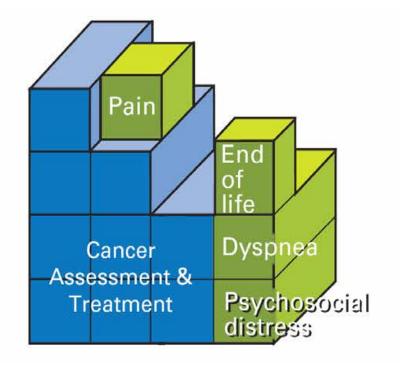


Models of Integration

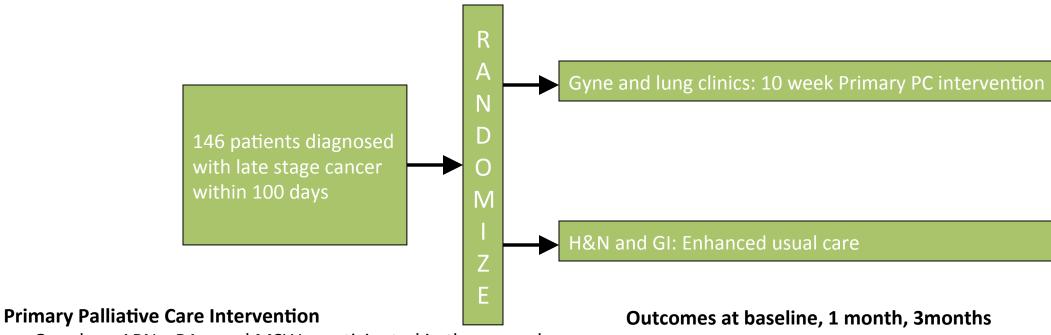
Patient Care Needs

Solo Practice Model





Cluster Randomized Trial



- Oncology APNs, PAs, and MSWs participated in three one-hour, one-on-one training sessions with the study APN coordinator
- Clinic APNs initially contacted patients within 24 hours, and weekly phone and in-person contacts were scheduled (five clinic visits and five telephone calls)
- The clinic APN oversaw the coordination and implementation of the intervention by different members of the team.

- 1. Symptom Distress Scale, Health Distress, PHQ9, Enforced Social Dependency Scale, Self-rated health
- 2. HADS, Self efficacy, Mishel Uncertainty in Illness Scale, FACT-G

McCorkle et al. J Palliat Med 2015

Cluster Randomized Trial

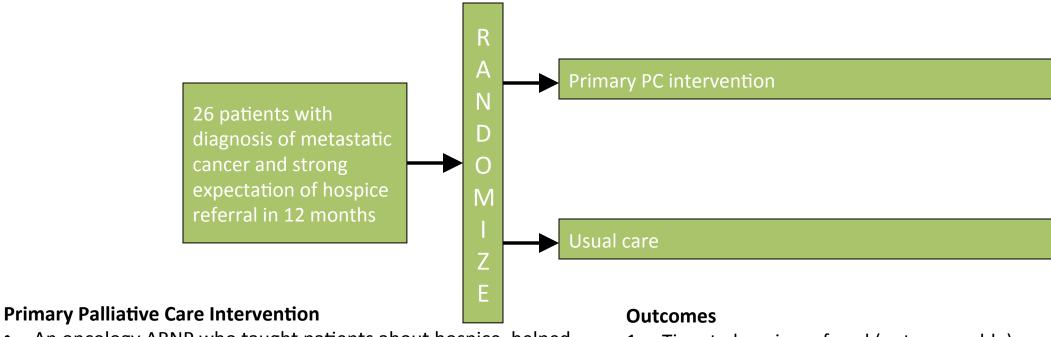
TABLE 2. MEANS AND STANDARD DEVIATIONS OF PRIMARY OUTCOMES BY GROUP AT BASELINE, ONE MONTH, AND THREE MONTHS

		Baseline			One month					
Outcome	Total (n=146) Mean (SD)	Usual care (n=80) Mean (SD)	Intervention (n=66) Mean (SD)	Total (n=122) Mean (SD)	Usual care (n=68) Mean (SD)	Intervention (n=54) Mean (SD)	Total (n=92) Mean (SD)	Usual care (n=56) Mean (SD)	Intervention (n = 36) Mean (SD)	
SDS ^a	23.82 (7.18)	23.63 (6.99)	24.05 (7.45)	23.53 (6.48)	22.34 (5.90)	25.04 (6.90)	22.65 (7.54)	22.80 (7.70)	22.42 (7.40)	P=0.61
EDT^{a}	3.97(2.77)	3.84 (2.74)	4.14 (2.82)	_	_	_	_	-	_	
Health distress ^a	1.82 (1.27)	1.78(1.15)	1.87 (1.40)	1.59 (1.02)	1.50 (0.93)	1.69 (1.13)	1.41 (1.14)	1.40 (1.03)	1.42 (1.30)	P=0.97
PHQ-9 ^a	5.10 (4.33)	4.91 (4.06)	5.33 (4.65)	4.98 (4.26)	4.31 (3.64)	5.85 (4.85)	4.64 (4.67)	4.43 (4.03)	4.97 (5.57)	P=0.93
ESDS personal ^a	12.66 (7.56)	13.79 (8.73)	11.30 (5.61)	9.84 (5.25)	9.56 (5.36)	10.19 (5.13)	9.22(5.10)	9.46 (5.33)	8.83 (4.78)	P=0.39
ESDS social ^a	7.42 (3.18)	7.69 (3.47)	7.09 (2.77)	6.21(2.75)	5.68 (2.80)	6.89 (2.56)	6.17 (2.67)	6.05 (2.94)	6.36 (2.21)	P=0.10
Self-rated health ^b	3.58 (1.11)	3.61 (1.12)	3.55 (1.11)	3.23 (1.03)	3.43 (0.95)	2.98 (1.09)	3.13 (1.08)	3.16 (1.04)	3.08 (1.16)	P=0.55

TABLE 4. MEANS AND STANDARD DEVIATIONS OF SECONDARY OUTCOMES AT ONE MONTH AND THREE MONTHS

		Three months $(n=92)$			Three months $(n=92)$			
	Total (n = 122) Mean (SD)	Enhanced usual care (n=68) Mean (SD)	Intervention (n = 54) Mean (SD)	Total (n=92) Mean (SD)	Enhanced usual care (n=56) Mean (SD)	Intervention (n=36) Mean (SD)		
HADS-anxiety ^a	4.29 (3.86)	3.90 (3.67)	4.81 (4.07)	3.90 (3.77)	3.62 (3.61)	4.33 (4.03)	P<0.01	Favoring
Self-efficacy ^b	7.30 (2.17)	7.82 (1.78)	6.64 (2.43)	7.67 (2.12)	7.84 (2.08)	7.42 (2.19)	1 <0.01	control
MUIS-C ^a	47.10 (13.89)	43.81 (11.92)	51.43 (15.18)	46.30 (14.54)	45.25 (12.92)	47.94 (16.83)	D < 0 01	
FACT-G ^b	80.70 (16.98)	82.91 (16.10)	77.81 (17.80)	82.45 (15.93)	82.71 (14.47)	82.07 (18.13)	P<0.01	group
PWB	20.28 (5.65)	21.09 (5.22)	19.22 (6.05)	20.89 (6.02)	20.28 (6.40)	21.83 (5.34)		•
SWB	23.97 (4.59)	24.01 (4.41)	23.92 (4.87)	23.97 (4.96)	24.44 (5.07)	23.26 (4.78)		
EWB	19.00 (4.60)	19.57 (4.28)	18.25 (4.93)	19.04 (4.42)	19.27 (3.35)	18.70 (5.72)		
FWB	17.45 (6.77)	18.24 (6.59)	16.42 (6.92)	18.55 (6.10)	18.72 (5.96)	18.28 (6.39)		

Randomized Trial



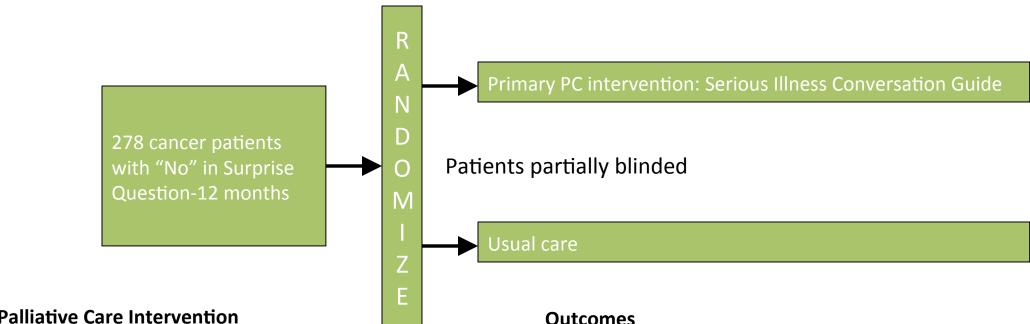
- An oncology ARNP who taught patients about hospice, helped fill out the Five Wishes and living will forms, and assessed their psychological, physical, intellectual/cognitive, social, and spiritual needs
- One visit at baseline and then followup 1 month later

- 1. Time to hospice referral (not assessable)
- 2. Hospice Knowledge Questionnaire, FACT-G, Linear Analogue Self Assessment Scale, Spiritual needs, sense of abandonment

Powered for 50 patients per group but stopped early

Primary Palliative Care Communication

Cluster Randomized Trial



Primary Palliative Care Intervention

- Clinician (MD, NP, PA) training included a 2.5-hour interactive, skills-based training session on the SICG delivered by palliative care experts who offered follow-up coaching
- A patient letter introducing the SICG
- A Family guide after the discussion
- Routine identification of patients at high risk of death, email reminders to initiate conversations and a structured EHR template

Outcomes

- Goal concordant care (top 3) and Peacefulness
- Human Connection Scale, GAD-7, PHQ-9

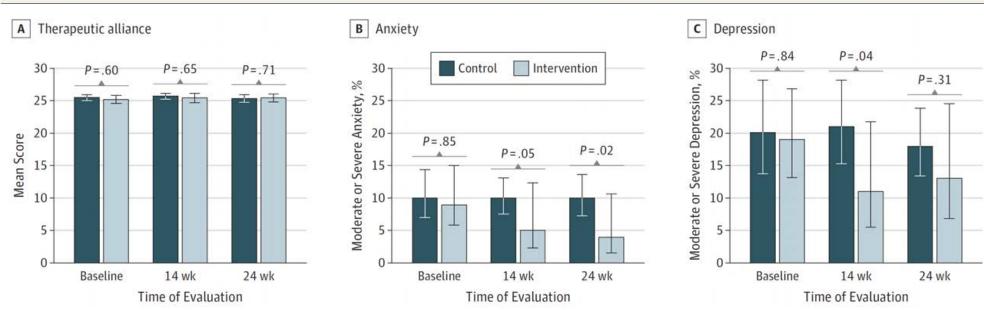
Powered for 200 evaluable patients per arm, but only 38 and 26 patients analyzed for primary outcome

Bernacki et al. JAMA Intern Med 2019

Primary Palliative Care Communication

Cluster Randomized Trial

	Inter	vention Arm		Cont	rol Arm			
Outcome	No. Mean (95% CI)		Median (95% CI)	No. Mean (95% CI)		Median (95% CI)	Differences (95% CI) ^a	
Goal-concordant care ^b								
No. of goals met	38	1.4 (1.0 to 1.7)	0.8 (0.6 to 1.1)	26	1.5 (1.0 to 2.1)	1.2 (0.3 to 2.1)	Median, -0.4 (-1.5 to 0.7)	
Sensitivity analysis	29	1.3 (1.0 to 1.6)	0.8 (0.5 to 1.1)	17	1.5 (0.9 to 2.2)	1.2 (0.1 to 2.3)	Median, -0.3 (-1.2 to 0.6)	
PEACE								
PA scale	47	16.9 (16.1 to 17.6)	NA	47	16.8 (15.9 to 17.6)	NA	Mean, 0.1 (-1.0 to 1.2)	
SI scale	44	14.0 (12.9 to 15.1)	NA	42	14.4 (12.7 to 16.0)	NA	Mean, -0.3 (-2.2 to 1.5)	



Right Individuals, Right Training, Right Complexity

- Right individuals
 - Difficult to expect all primary care providers
 - Some specialties such as oncology may need more primary care skills
 - Only those who have interest and greater exposure to patients with advanced illness
- Right training
 - Too little (e.g. 3 hours) is inadequate; too much is not realistic
 - Clinical rotation (1-2 months) at centers of excellence
 - Continuing education
- Right expectations
 - Basic skills such as symptom management and communication
 - Know when to refer or consult (e.g. teleconference)

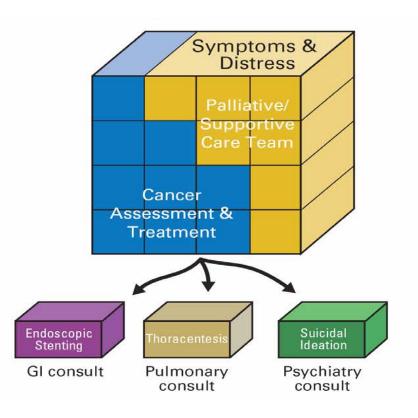
Specialist Palliative Care

Models of Integration

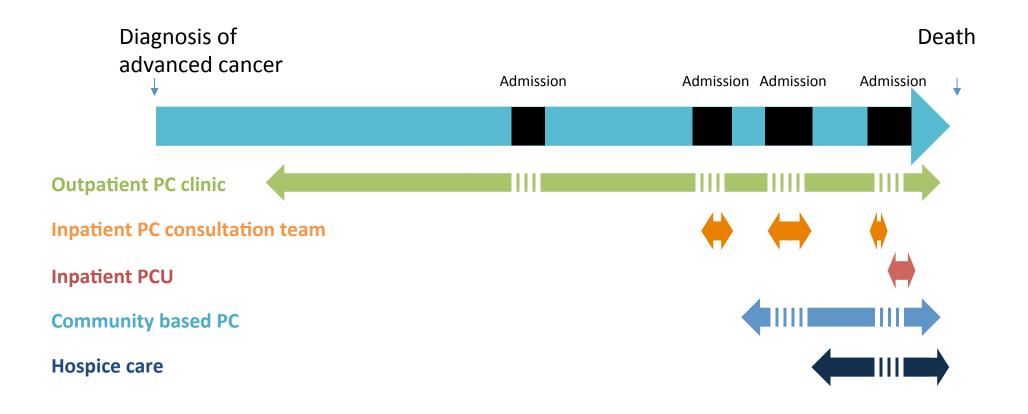
Congress Model

Neurology consult GI consult Pain consult Bowel Pain Delirium obstruction Chaplain Palliative care consult consult Spiritual distress Pulmonary consult Dyspnea Cancer Assessment & Psychiatry consult Treatment distress

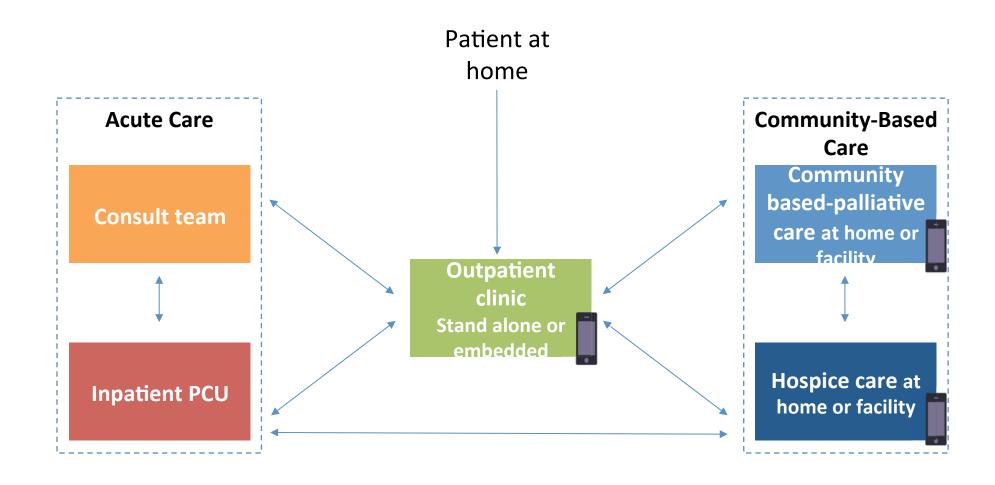
Integrated Care Model



Models of Specialist Palliative Care



Models of Specialist Palliative Care



Quality of EOL Care

Timing of Palliative Care Referral

Within last 30 days of life	Early >3 m N=120 (%)	Late ≤3 m N=246 (%)	P-value
Any emergency room visit	47 (39)	168 (68)	<0.001
2 or more emergency room visits	12 (10)	57 (23)	0.003
Any hospital admission	58 (48)	200 (81)	<0.001
2 or more hospital admissions	12 (10)	52 (21)	0.01
More than 14 days of hospitalization	14 (12)	40 (16)	0.28
Hospital death	20 (17)	77 (31)	0.004
Any ICU admission	7 (6)	28 (11)	0.13
ICU death	3 (3)	10 (4)	0.56
Chemotherapy and targeted agent use	29 (24)	67 (27)	0.61

Hui et al. Cancer 2014

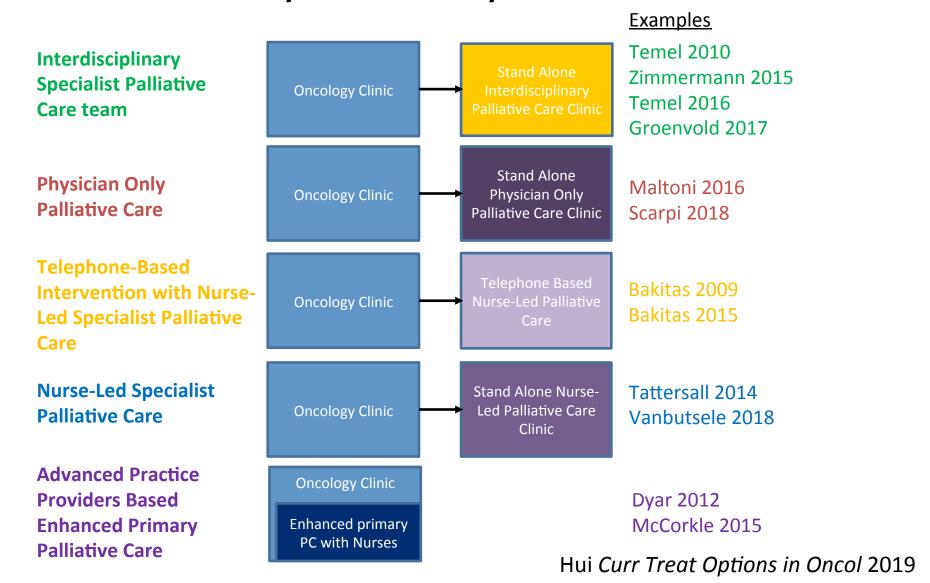
Timely Palliative Care is Preventative Care

Components of preventative care	Key Aspects	Example 1 Symptom prevention	Example 2 Advance care plan
Insight into Illness	Natural historyPrognostication	Stage IV pancreatic cancer = symptoms	Stage IV lung cancer = short prognosis
Foresight for Individual	Anticipate concernsRisk factors	Mild pain now can get worse	Patient will deteriorate
Interventions Available	Risk reductionEvidence-based	Opioids can be useful	Serious illness conversations
	Timely initiationLongitudinal followup	Start scheduled opioids Educate and monitor	Prognostic discussions Advance care planning
Crisis Prevention	Improved outcomesPreparations in place	Better quality of life Avoid pain crisis	Better quality of EOL Avoid ICU visit

Hui et al. CA: Cancer J Clin 2018

Outpatient Models

Primary and Secondary Palliative Care



Outpatient Models

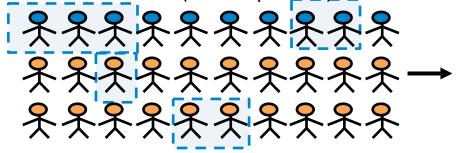
What Does the Literature Say?

	Interdisciplinary					MD	only	APN-led		RN-led		Primary PC: APN-led	
	Temel 2010	Zimmerm ann 2015	Temel 2016	Groenvold 2017	Monteiro do Carmo 2018	Maltoni 2016	Scarpi 2018	Bakitas 2009	Bakitas 2015	Tattersall 2014	Vanbutsel e 2018	Dyar 2012	McCorkle 2015
Quality of life	PC > UC	PC > UC for some	PC > UC for some	No difference	No difference	PC > UC	No difference	PC > UC	No difference	No difference	PC > UC	No difference	No difference
Symptom	-	PC > UC for some	-	No difference	No difference	-	-	No difference	No difference	UC > PC for some	No difference	-	No difference
Depression	PC > UC	-	PC > UC for some	-	No difference	No difference	No difference	PC> UC	No difference	No difference	No difference	PC > UC for some	No difference
Patient satisfaction	-	PC > UC	-	-	-	-	-	-	-	-	-	-	-
Communica tion	PC > UC	No difference	PC > UC for some	-	-	-	-	-	-	-	No difference	-	UC > PC
End-of-life care	PC > UC for some	-	-	-	-	PC > UC for some	No difference	No difference	No difference	No difference	-	No difference	-
Survival	PC > UC	-	-	No difference	-	No difference	No difference	No difference	PC > UC at 1 yr	UC > PC	No difference	-	-
Caregiver outcomes	-	-	-	-	-	No difference	No difference	-	PC > UC for some	-	-	-	-

Advantages of Personalized Criteria

Patient in severe distress or has unmet supportive care needs
Patient needs adequately addressed by oncologist
Patient referred to palliative care

A. Selective referral (current practice)



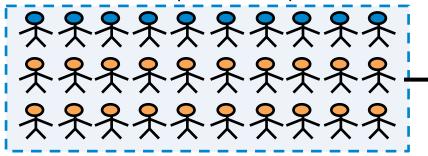
Variable degree of palliative care referral

Key

Pros
Some patients can benefit

Cons
Referral often delayed
Inconsistent care
Missed opportunities to improve care

B. Universal referral (clinical trials)

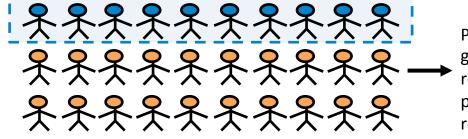


All patients receive early palliative care referral Pros

Improved outcomes for many patients Cons

Overwhelming limited resource Some patients may not need PC yet

C. Need based referral coupled with systematic screening



Patients with greater needs receive timely palliative care referral

Pros

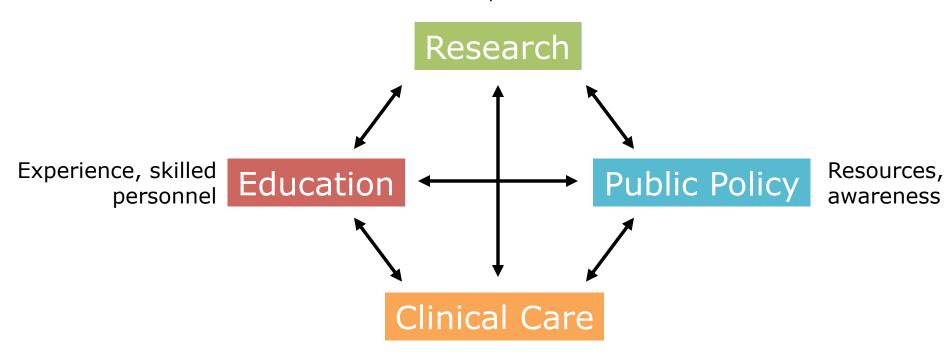
Improved outcomes, likely greater benefit because of enriched population Appropriate matching of resources to care needs

Hui et al. CA: Cancer J Clin 2018

The Future of Integration

The Big Picture

Evidence, advances



Questions, patients

Summary

- Delivery of high quality palliative care is highly complex
 - Expertise/training matters
 - Teamwork matters
 - Timing matters
 - Resources matter
- Primary palliative care
 - Important role to provide front line care and sometimes may be only way to provide palliative care
 - Cannot expect same level of benefit as specialist palliative care
 - Plays a critical role to facilitate targeted palliative care referrals
- Outpatient interdisciplinary palliative care
 - Earlier referral
 - Need to triage because of resource limitation
 - Targeted referral may further improve access for those in need
- More high quality research is needed

Thank You!

MDA Palliative Care

- Dr. Marieberta Vidal
- Dr. Paul Walker
- Dr. Angelique Wong
- Dr. Sriram Yennu
- Dr. Donna Zhukovsky

PC Research Team

- Dr. Zeena Shelal
- Allison De La Rosa
- Kathryn Lito
- Farley Hernandez
- Veronica Puac
- Dr. Eman Abdelghani
- Sneha Joshi
- Vera De La Cruz
- Janet Williams
- Joseph Chen
- **Yvette Ross**

Acute Palliative Care Unit Nursing

- Sally Xu
- Vienna Vivares
- Annie Gaskin
- Sally Xu

Funding Support

- National Cancer Institute
- National Institute of Nursing Research
- **American Cancer Society**
- MD Anderson IRG
- MD Anderson Startup Fund
- Andrew Sabin Family Fellowship
- Sister Network Institution Fund
- **Depomed Pharmaceutical**
- Teva Pharmaceutical Industries
- Insys Therapeutics Inc.
- **Helsinn Therapeutics**

Contact: Dr. David Hui dhui@mdanderson.org

MD Anderson Collaborators

- Thoracic Med Onc (Dr. Anne Tsao, Dr.
- Balachandran, Dr. George Eapen)
- Cardiology (Dr. Juan Lepez-Mattei, Dr.
- PROSPR (Dr. Basen Engquist, Carol Harrison)

International Collaborators

- Dr. Carlos Paiva (Brazil)
- Dr. Renata dos Santos (Brazil)
- Dr. Maria Salete Angelis (Brazil)
- Dr. Pedro Perez Cruz (Chile)
- Dr. Jin Xiang Li (China)
- Dr. Huiping Chen (China)
- Dr. Wadih Rhondali (France)
- Dr. Mary Ann Muckaden (India)
- Dr. Nathan Cherny (Israel)
- Dr. Augusto Caraceni (Italy)
- Dr. Samentha Serpentini (Italy)
- Dr. Masanori Mori (Japan)
- Dr. Tatsuya Morita (Japan)
- Dr. Omar Shamieh (Jordan)
- Dr. Jung Hye Kwon (Korea)
- Dr. Jung Hun Kang (Korea) Dr. Seong Hoon Shin (Korea)
- Dr. Emma Verastegui (Mexico)
- Dr. Silvia Allende (Mexico)
- Dr. Stein Kassa (Norway)
- Dr. Florian Strasser (Swiss)
- Dr. Egidio Del Fabbro (USA)
- Dr. Donald Mahler (USA)
- Dr. Bill Brietbart (USA)







