

End-of-life care for older people: *The challenges and complexities of Australian inpatient settings*

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Two studies

Study 1 – End-of-life care for older people in subacute care

Co-investigators:

Professor Mari Botti

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Associate Professor Peter Poon

Professor Alison Hutchinson

Study 2 – An audit of the characteristics and quality indicators of end-of-life care

Co-investigators:

Professor Mari Botti

Professor Alison Hutchinson

Australia's population

- Current population 25 million¹
 - Rapidly ageing
 - Chronic illness the leading cause of death

- Long life expectancy²
 - Males 80.5 years
 - Females 84.6 years

Older people

Ageing = success in public health policy

BUT

Increased challenges in attempting to address the need of older people³

Older people (85+ years)

- *predictable steady decline in health⁴*
- *Have complex health needs, multiple comorbidities⁵*
- *Increased frailty and disability⁶*
- *Cognitive impairment is common, associated with significant disability, increased reliance on health and social services⁷⁻⁹*

Where Australians die

- Preference to die at home¹⁰
- Inpatient settings – the most common place to die
 - *In 2013, 51% of deaths occurred in occurred in hospital*¹¹
- Advance Care Directives found in <1% hospital medical records¹²

Australian hospital context

Health services

- Public (like NHS) or private (funded by an individual's health insurance)
- Serve a geographical area & include a range of inpatient, outpatient and community services

Include

- Acute care
- Subacute care
 - *rehabilitation, geriatric evaluation and management (GEM) and psychogeriatric care*¹³
 - *Optimising function and independence*
 - *complex care management & discharge planning*

Subacute care

- Hospital admission - a critical juncture for frail older adults^{4, 14}
- Average LOS in sub-acute = 19.2 days (acute = 3.0 days)¹³
- 5% of people admitted to subacute care settings die¹⁵

Study 1 - *End-of-Life Care for older people*

Coinvestigators:

Alfred Deakin Professor Mari Botti (Deakin)

Dr Fiona Runacres (Monash Health)

Associate Professor Peter Poon (Monash Health)

Professor Alison Hutchinson (Deakin & Monash Health)

Aim

To investigate the provision of end-of-life care for older people in subacute care

Method

Mixed Method Approach

Stage 1 - Retrospective medical record clinical audit

- All inpatient deaths (01/07/15 – 30/06/16) N=54
- Types of data
 - Data related to last admission (LOS, care type, goals of care)
 - Clinician medical record entries

Method

Stage 2 – Qualitative Descriptive Study

- Semi-structured individual and group interviews
- Convenience sample of medical, nursing and allied health clinicians
 - Aged 20 or over
 - Employed permanently at the Kingston Centre
 - Provided care for at least one inpatient who died

Setting

Kingston Centre (Sub-acute care)¹⁶⁻¹⁷

- 3000 admission per year
- Serves a population of 1 million (17% of state population)
- Fastest growing older population in Victoria
 - 9.9% more people aged over 70 to 84 yrs
 - 2.8% more people aged 85 yrs and over
- Culturally diverse population
 - Half the population speak a first language other than English
 - 32 religions represented

Phase 1 - Retrospective medical record audit

Patient Demographic Characteristics

54 inpatient deaths

Admission Source	n	(%)
Acute hospital	49	(88.8)
Subacute hospital	5	(10.2)
Sex – Male	30	(55.6)
Age at death (years)		(SD)
Mean Age	83	(9)
Age range	59-103	
Relationship of Next of Kin		
Child	32	(59.3)
Spouse	10	(18.5)
Other	5	(9.3)
Assigned Unit of Care		
Geriatric Evaluation and Management	43	(79.6)
Transitional Care Program	7	(13.0)
Rehabilitation	4	(7.4)

Patient Demographic Characteristics

Top 3 Diagnoses on Admission¹	n	(%)
W00-W19 Falls	15	(59.3)
IX Disease of the Circulatory System	13	(18.5)
Z74 Problems related to Life-Management Difficulty	6	(11.1)
Comorbid Diagnosis of Cognitive Impairment	23	(42.6)
Care Goals on Admission²		
Assessment	39	(47.6)
To establish a safe discharge destination	32	(39.0)
Await bed elsewhere	7	(8.5)
Rehabilitation	3	(3.7)

1.Primary Diagnosis was determined using the first diagnosis listed, and coded using the ICD-10 system

2.Several care goals may have been identified for each patient

Goals of Care

(similar to DNR orders)

A <input type="checkbox"/>	NO LIMITATION OF TREATMENT Goal of care is curative or restorative For full resuscitation and all appropriate life sustaining treatment Comments:	For CPR/CODE BLUE For MET CALL
LIMITATION OF MEDICAL TREATMENT – choose B or C or D		
Reason for limitation of medical treatment: (Tick all that apply) <input type="checkbox"/> Medical decision <input type="checkbox"/> Patient decision <input type="checkbox"/> Decision of substitute decision maker		
B <input type="checkbox"/>	LIMITATION OF MEDICAL TREATMENT Goal of care is curative or restorative but the following limitations of treatment apply: Specify limits:	NOT for CPR/CODE BLUE For MET CALL
C <input type="checkbox"/>	SUPPORTIVE / PALLIATIVE Goal of care is quality of life: Specify limits:	NOT for ICU ADMISSION NOT for CPR/CODE BLUE For MET CALL: <input type="checkbox"/> YES <input type="checkbox"/> NO
D <input type="checkbox"/>	TERMINAL (Prognosis hours or days) Goal of care is symptom management & comfort during the dying process	NOT for CPR/CODE BLUE NOT for ICU ADMISSION NOT for MET CALL <input type="checkbox"/> Start PICD

Goals of Care

Goals of Care Summary		ADMISSION
		n (%)
	Not recorded	2 (3.7)
A	No limitation of treatment	2 (3.7)
B	Limitation of Medical Treatment	33 (61.1)
C	Supportive/Palliative	20 (37.0)
D	Terminal	0 (0.0)

Goals of Care



Goals of Care Summary	ADMISSION	AT DEATH
	n (%)	n (%)
Not recorded	2 (3.7)	1 (1.9)
A No limitation of treatment	2 (3.7)	0 (0.0)
B Limitation of Medical Treatment	33 (61.1)	6 (11.1)
C Supportive/Palliative	20 (37.0)	31 (57.4)
D Terminal	0 (0.0)	16 (29.6)

End-of-Life Care guidance documents

	n	(%)
Advance Care Plan		
Yes	0	(0.0)
End-of-Life Care Pathway used		
Yes	29	(53.7)

Specialist Palliative Care review

Specialist Palliative Care Review	n	%
Review requested	29	(53.7)
Review completed	23	(42.6)
Died before review	6	(11.1)

Wait time (days) for Palliative Care Review

Mean	0.6	SD 0.8
Median	0.5	
IQR (Range)	1.0 (0-2)	

Phase 2 - Clinician Interviews

Participant demographics

N=19

Role	n		
Registered Nurse (Manager)	5		
Registered Nurse	3		
Enrolled Nurse	4		
Allied Health Clinician	5		
Doctor	2		
Years of experience in setting	Mean	Range	
	15	1-40	

The typical patient

- Diverse patient group with diverse needs

*“...**extremely frail**...most of them **physically frail**, some of them **psychiatrically or psychologically frail**. We have patients[who] can't return home...a number of **very complex issues**...lots of **cognitive impairment** and lots of risks from **frailty** such as falls and pressure wounds....kind of the milieu here”*

Recognising patient deterioration

- First step towards providing end-of-life care
- Difficult differentiating between a reversible deterioration and dying

*“They can look very similar [to acute deterioration], that’s the problem isn’t it? I suppose you take in the factors that, usually knowing a little bit about them, but it’s really you can see it in the person, **they’ve given up**, and as soon as that happens, **they’re on the downhill slope**”*

*“...you know, like it’s just this **gut feeling** that you’ve got”*

Communicating patient deterioration with the treating team

- Descriptions varied

*“I’ll actually write in the notes **they’ve given up**, they no longer want to participate, they no longer want to join in, and that’s your way of informing whoever’s reading your notes, **that they’re on their way**”*

*“Sometimes we’ll just **call a MET call**, just to make sure the doctors are aware”*

*Medical Record entries

Ambiguous language impaired clinician understanding

“Not curable...poor prognosis. Very deconditioned – unlikely to get independent”

“Explained that [patient] won’t brighten up”

“Met with patient’s father earlier today. Explained that he is slowly improving, but will remain frail with very poor reserves, hence poor medium term prognosis”

“Potential to improve or deteriorate...unlikely to return to baseline”

Communicating patient deterioration with family

“I think we need to have a clear cut conversation which can be a team approach or a medical approach, directly to the families”

“I think key discussions with family are not had in a timely or a well-organised fashion. We may know something from a team perspective that the family may not know – that the doctors feel that they’ve communicated. You’re talking with family or patients and you realise they don’t actually get the picture, they don’t know that”

Documenting patient deterioration with family

- Early, unambiguous communication about deterioration or dying was the ideal, led by medical staff
- Not always clear what had been discussed with the patient/family
 - Informal conversations e.g. at the bedside

“...we’re not actually very good at recording our conversations with relatives, and it’s a real weakness...doctors are having conversations around goals of care and end of life stuff, but really we’re underreporting...we all know that we should...I don’t know if we’re capturing it”

GOALS OF CARE SUMMARY – ADULT		
Patient Name (Print) _____		Date _____
Advance Care Plan/Directive available for this patient – check legal tab in SMR <input type="checkbox"/> Yes <input type="checkbox"/> No		
Substitute Decision Maker		
Name of Medical Power of Attorney (if appointed) _____		
OR Name of substitute decision maker _____		
Relationship to patient _____		
A <input type="checkbox"/>	NO LIMITATION OF TREATMENT Goal of care is curative or restorative For full resuscitation and all appropriate life sustaining treatment Comments: _____	For CPR/CODE BLUE For MET CALL
	LIMITATION OF MEDICAL TREATMENT – choose B or C or D	
Reason for limitation of medical treatment: (tick all that apply) <input type="checkbox"/> Medical decision <input type="checkbox"/> Patient decision <input type="checkbox"/> Decision of substitute decision maker		
B <input type="checkbox"/>	LIMITATION OF MEDICAL TREATMENT Goal of care is curative or restorative but the following limitations of treatment apply: Specify limits: _____	NOT for CPR/CODE BLUE For MET CALL
	C <input type="checkbox"/>	SUPPORTIVE / PALLIATIVE Goal of care is quality of life: Specify limits: _____
D <input type="checkbox"/>		TERMINAL (Prognosis hours or days) Goal of care is symptom management & comfort during the dying process
Goals of care discussed with: <input type="checkbox"/> Patient <input type="checkbox"/> Medical Power of Attorney/Substitute Decision Maker Other: list names and relationship here _____		
Details of discussion can be found in progress notes on these dates: _____		
OR <input type="checkbox"/> Previously discussed OR <input type="checkbox"/> Not discussed (Reason) _____		
Doctor Name (Print) _____		
Designation: <input type="checkbox"/> Registrar <input type="checkbox"/> Consultant <input type="checkbox"/> HMO (in consultation with Registrar/Consultant)		
Signed _____ Pager _____ Date _____ Time _____		
Consultant Medical Practitioner responsible for decision (print) _____		

Other sources of knowing

- Used as a source of information, rather than as a summary of patient preferences for care

I think the [goals of care summary] can help someone who's in that grey zone - the decision-making and what discussions have been had with family and what's in and what's out "

Publications

1	<p>Bloomer, M. J., Botti, M., Runacres, F., Poon, P., Barnfield, J., & Hutchinson, A. M. (2019). End-of-life care for older people in subacute care: A retrospective clinical audit. <i>Collegian</i>, 26(1), 22-27.</p> <p>https://doi.org/10.1016/j.colegn.2018.02.005</p>
2	<p>Bloomer, M. J., Botti, M., Runacres, F., Poon, P., Barnfield, J., & Hutchinson, A. M. (2018). Communicating end-of-life care goals and decision-making among a multidisciplinary geriatric inpatient rehabilitation team: A qualitative descriptive study. <i>Palliative Medicine</i>, 32(10), 1615-1623.</p> <p>https://doi.org/10.1177/0269216318790353</p>
3	<p>Bloomer, M. J., Botti, M., Runacres, F., Poon, P., Barnfield, J., & Hutchinson, A. M. (2019). Cultural considerations at end of life in a geriatric inpatient rehabilitation setting. <i>Collegian</i>, 26(1), 165-170. https://doi.org/10.1016/j.colegn.2018.07.004</p>

Study 2 - An audit of the characteristics and quality indicators of end-of-life care

Co-investigators:

Professor Alison Hutchinson (Monash Health)

Alfred Deakin Professor Mari Botti (Epworth HealthCare)

What people want in end-of-life care in acute hospital settings¹⁸

- *Effective communication*
- *Shared decision-making*
- *Expert care*
- *Trust and confidence in clinicians*
- *Respectful and compassionate care*

national consensus statement:
essential elements for
safe and high-quality
end-of-life care

Recommendations

NOT

mandated practice requirements

PROCESSES OF CARE

ORGANISATIONAL PREREQUISITES



1. PATIENT CENTRED CARE
Patients are part of decision making about end-of-life care



6. LEADERSHIP & GOVERNANCE
Policies and systems for end-of-life care



2. TEAMWORK
Clinicians work together to provide end-of-life care



7. EDUCATION & TRAINING
Clinicians have the skills and knowledge to provide end-of-life care



3. GOALS OF CARE
Clear goals improve the quality of end-of-life care



8. SUPERVISION & SUPPORT
Clinicians providing end-of-life care are supported



4. USING TRIGGERS
Triggers identify when patients need end-of-life care



9. EVALUATION & FEEDBACK
The quality of end-of-life care is measured and improved



5. RESPONDING TO CONCERNS
Clinicians get help to rapidly respond to patient suffering



10. SUPPORTING SYSTEMS
Systems align with NSQHS Standards to improve outcomes

Ten Essential Elements



1. PATIENT CENTRED CARE

Patients are part of decision making about end-of-life care



2. TEAMWORK

Clinicians work together to provide end-of-life care



3. GOALS OF CARE

Clear goals improve the quality of end-of-life care



4. USING TRIGGERS

Triggers identify when patients need end-of-life care



5. RESPONDING TO CONCERNS

Clinicians get help to rapidly respond to patient suffering

Elements 1 to 5 - Processes of Care

‘the way in which end-of-life care should be approached and delivered’



6. LEADERSHIP & GOVERNANCE
Policies and systems for end-of-life care




7. EDUCATION & TRAINING
Clinicians have the skills and knowledge to provide end-of-life care



8. SUPERVISION & SUPPORT
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The quality of end-of-life care is measured and improved



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Systems align with NSQHS Standards to improve outcomes

Elements 6 to 10 – Organisational Prerequisites

‘structural and organisational prerequisites for the effective delivery of safe and high-quality end-of-life care’

Aim

To evaluate end-of-life care in acute hospital settings against Elements 1-5

1. PATIENT CENTRED CARE

Patients are part of decision making about end-of-life care

2. TEAMWORK

Clinicians work together to provide end-of-life care

3. GOALS OF CARE

Clear goals improve the quality of end-of-life care

4. USING TRIGGERS

Triggers identify when patients need end-of-life care

5. RESPONDING TO CONCERNS

Clinicians get help to rapidly respond to patient suffering

Method

- Retrospective medical record clinical audit
 - Multiple existing hospital databases
 - Strategic Intelligence Unit
 - iPM (inpatient management system)
 - Electronic Medical Records

Settings

- Two large metropolitan health service sectors in Melbourne
 1. Private Health Service (Epworth Health Care)
 - 148,000 admissions per year
 2. Public Health Service (Monash Health)
 - 250,000 admissions per year

Sample

Deceased Inpatients

- Died between 1st January and 31st December, 2016
 - Private (N=619)
 - Public (N=1701)

- ➔ Stratified Random Sample of 20%
(matched for sex, age and length of stay)
- **Private n=132**
 - **Public n=320**

Demographic characteristics

	Private (n=132)	Public (n=320)	<i>p</i>
Age: Mean (SD)	77.6 (12.9)	75.8 (13.2)	0.349
Sex (<i>n</i>, %)			
Male	70 (53.0)	172 (53.8)	0.918
Length of hospital stay (days)			
Mean (SD)	14.8 (17.4)	10.1 (12.1)	<0.0001
Range	0-100	0-97	

Demographic characteristics

	Private (n=132)	Public (n=320)	<i>p</i>
Ethnicity (n, %)			
Oceanian	89 (67.4)	142, (44.7)	<0.0001
Australian (non-Indigenous)	89 (67.4)	134 (41.9)	
Other	0 (0)	9 (2.8)	
European	36 (27.3)	118 (36.9)	
North African & Middle Eastern	1 (0.8)	7 (2.2)	
Other	6 (4.5)	52 (16.3)	
Religion (n, %)			
Buddhism	1 (0.8)	4 (1.3)	<0.0001
Christianity	97 (73.5)	179 (55.9)	
Hinduism	0 (0)	4 (1.3)	
Islam	0 (0)	6 (1.9)	
Other	0 (0)	2 (0.6)	
Secular beliefs, no religion	34 (25.8)	125 (30.0)	

End-of-Life Care Variables

	Private (n=132)	Public (n=220)	p	Public Palliative Care (n=100)
Documented Care Goal on admission (n, %)				
Active treatment	105 (79.5)	155 (70.5)	.226	7 (7.0)
Palliation	27 (20.5)	55 (25.0)		92 (92.0)
Unable to determine	-	10 (1.0)		1 (1.0)
LOMT form completed				
Yes	116 (87.9)	182 (82.7)	.194	91 (91.0)
No	16 (12.1)	38 (17.3)		9 (9.0)
Entry indicating poor prognosis				
Yes	122 (92.4)	186 (84.5)	.030	99 (99.0)
No	10 (7.6)	34 (15.5)		1 (1.0)
Decision to provide end-of-life care				
Yes	100 (75.8)	151 (68.6)	.153	99 (99.0)
No	32 (24.2)	69 (31.4)		1 (1.0)
<i>Evidence of family involvement</i>				
Yes	88 (88.0)	141 (64.1)	<.0001	91 (91.0)
No	12 (12.0)	10 (35.9)		9 (9.0)

End-of-Life Care Variables

	Private (n=132)	Public (n=220)	<i>p</i>	Public Palliative Care (n=100)
Referral to Palliative Care (n, %)				
Yes	50 (37.9)	62 (28.2)	.059	N/A
No	82 (62.1)	158 (71.8)		
Pastoral Care Involvement (n, %)				
Yes	87 (65.9)	15 (6.8)	<.0001	52 (52.0)
No	45 (34.1)	205 (93.2)		48 (48.2)
End-of-Life Care pathway used (n, %)				
Yes	19 (19.0)	99 (45.0)	<.0001	94 (94.0)
No	81 (81.0)	121 (55.0)		6 (6.0)

Family presence at death

	Private (n=132)	Public (n=220)	<i>p</i>	Public Palliative Care (n=100)
Family present at death (<i>n</i>, %)				
Yes	76 (57.6)	113 (51.4)	.258	67 (67.0)
No/not documented	56 (42.4)	107 (48.6)		33 (33.0)

Evaluation Framework

1. PATIENT CENTRED CARE

Patients are part of decision making about end-of-life care

2. TEAMWORK

Clinicians work together to provide end-of-life care

3. GOALS OF CARE

Clear goals improve the quality of end-of-life care

4. USING TRIGGERS

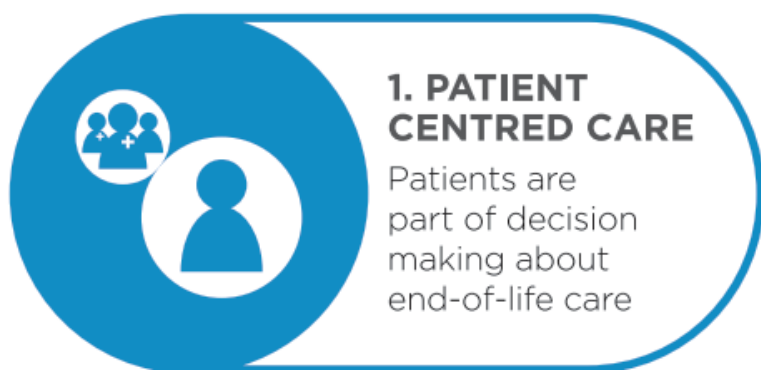
Triggers identify when patients need end-of-life care

5. RESPONDING TO CONCERNS

Clinicians get help to rapidly respond to patient suffering

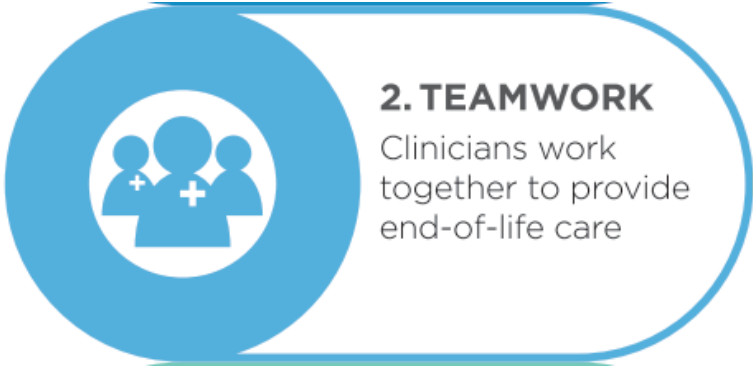
Elements 1 to 5 - Processes of Care

'the way in which end-of-life care should be approached and delivered'



Patient Centred Care

- Low rate of family involvement in decision-making (64-88%)
- Low rate of family presence at death (51-57%)
- Low rate of pastoral care involvement (6-66% in public)



2. TEAMWORK

Clinicians work together to provide end-of-life care

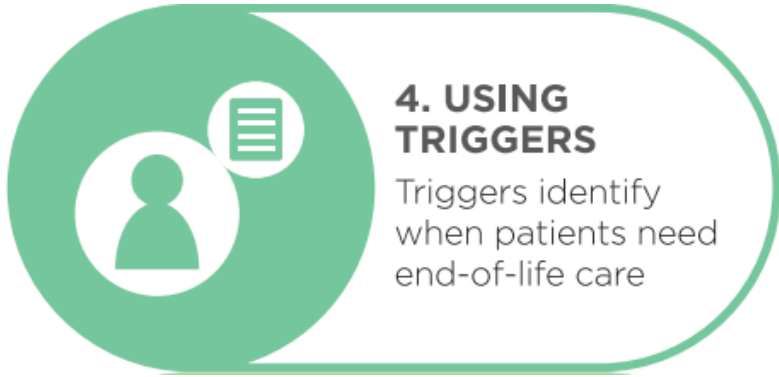
Teamwork

- Low rate of referral to specialist palliative care (28-38%)
- Low rate of pastoral care involvement (6-66%)



Goals of Care

- Low rate of completion of Limitation of medical treatment (DNR) form 78-80%
- 7-15% no written evidence indicating poor prognosis
- Only 19-45% had end-of-life care pathway used



4. USING TRIGGERS

Triggers identify when patients need end-of-life care

Using Triggers

- Limitation of Medical Treatment (DNR) form and written entry indicating poor prognosis

➔ Missed 'triggers' to signal need to end-of-life care conversation



5. RESPONDING TO CONCERNS

Clinicians get help to rapidly respond to patient suffering

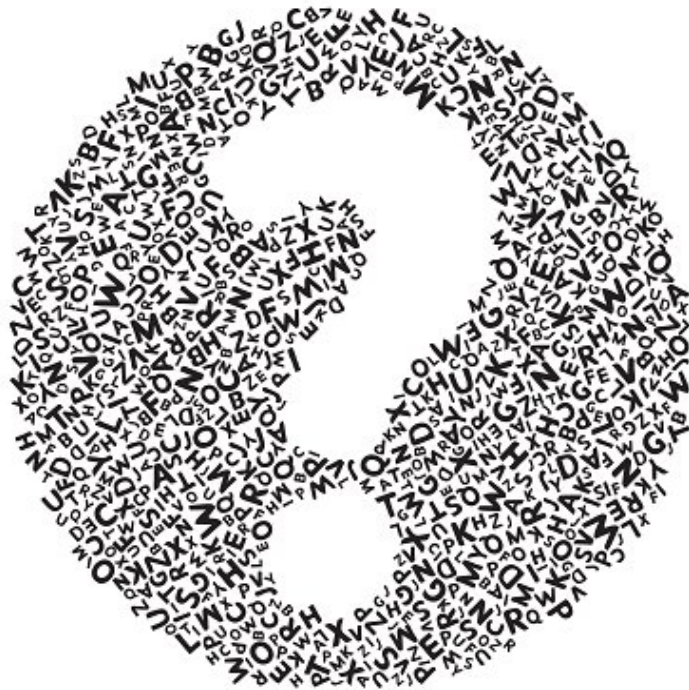
Responding to Concerns

- End-of-life pathway under-utilised
 - Prompts clinicians to consider and respond to concerns (patient, family, clinicians)

- 1 **Bloomer, M. J.,** Hutchinson, A. M., & Botti, M. (early view). End-of-life care in hospital: an audit of care against Australian national guidelines. *Australian Health Review*. <http://www.publish.csiro.au/ah/AH18215>

Death is not the opposite of life, but a part of it

Haruki Murakami



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