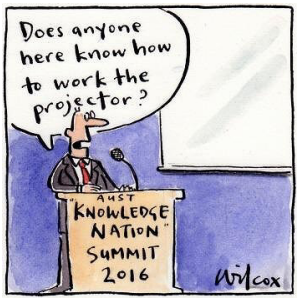
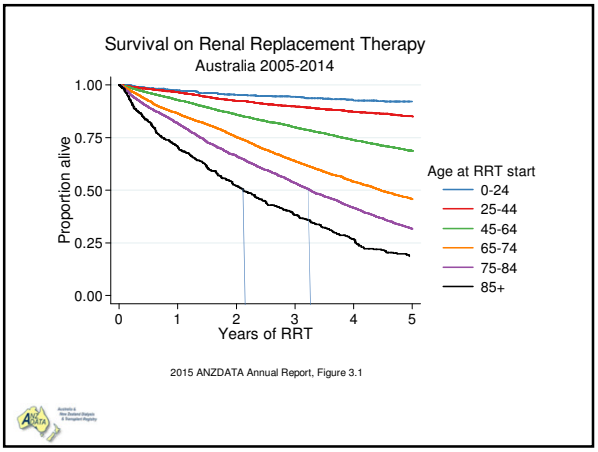
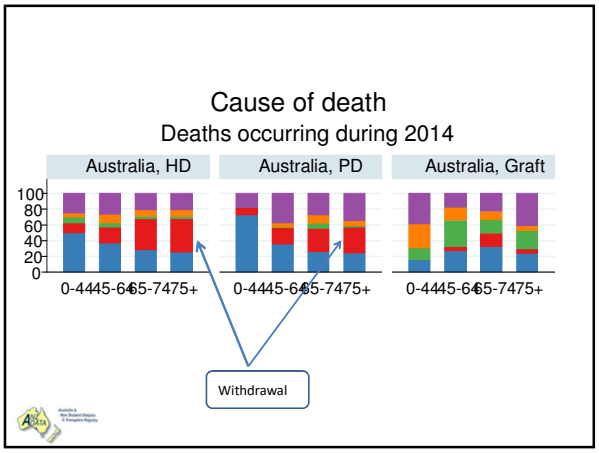


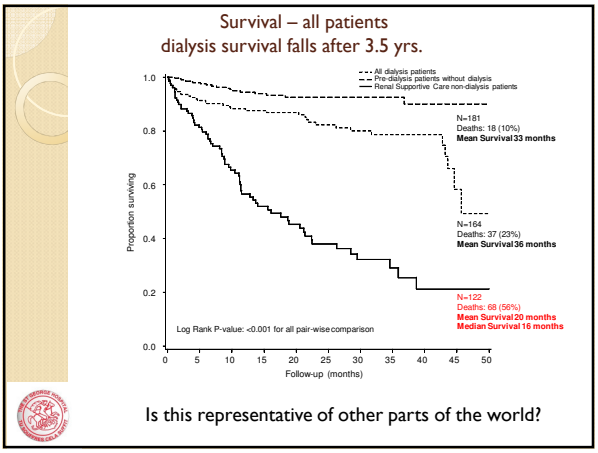
What's new in Renal Supportive Care?

Prof. Mark Brown
St. George Hospital.
Sydney. Australia

SURVIVAL







NEPHROLOGY

Nephrology **21** (2016) 241–253

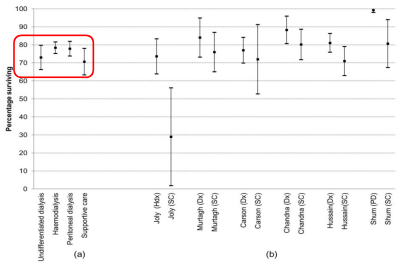
Original Article

Survival outcomes of supportive care *versus* dialysis therapies for elderly patients with end-stage kidney disease: A systematic review and meta-analysis

CELINE FOOTE,[1,2] SRADHA KOTWAL,[1] MARTIN GALLAGHER,[1,2,3] ALAN CASS,[1,4] MARK BROWN[5,6] and MEG JARDINE[1,2]

Survival outcomes of supportive care *versus* dialysis therapies for elderly patients with end-stage kidney disease: A systematic review and meta-analysis *Nephrology* **21** (2016) 241–253

CELINE FOOTE,[1,2] SRADHA KOTWAL,[1] MARTIN GALLAGHER,[1,2,3] ALAN CASS,[1,4] MARK BROWN[5,6] and MEG JARDINE[1,2]



Almost 300,000 ESKD elderly patients; 89 studies 1976-2014;
only 724 supportive care patients

Table 3 Summary of supportive care studies

Author	Number of patients	Median age	Study design	Country	Diabetes (%)	Measure of overall comorbidity	Starting point for survival analysis	Survival
Carson[103]	29	83	Prospective	England	13.8	Mean CCI 3.7	Threshold eGFR for dialysis initiation based on dialysis cohort	Median 13.9 months (range 2–44)
Chandna[139]	106	81.4	Retrospective	England	28.3	Co morbidity score‡ >4 in 50.9%	eGFR < 10–15 mL/min/1.73 m² with all subsequent eGFR < 15 mL/min/1.73 m²	One-year survival 80.2%
Da Silva-Gane[102]	30	77.5††	Prospective	England	NR	Co morbidity score‡ >3 in 74%	Study enrolment, late stage 4/5 CKD attending low clearance clinic	One-year survival 75%, median survival 913 days
Ellam[104]§	69	80	Retrospective	England	38	NR	eGFR < 15 mL/min/1.73 m²	Median 21 months (range 1–100)
Hussain[26]	172	NR, enrolled >70 years	Prospective	England	NR	NR	eGFR < 20, eGFR < 15 and eGFR < 12 mL/min/1.73 m²	One-year survival 71% from eGFR < 15
Isaacs[101]‡‡	54	83	Retrospective	England	NR	NR	time of decision not to dialyse	Median 6 months (2.5–11)
Joly[100]	37	84.1††	Retrospective	France	21.6	32.4% >= 3 comorbid conditions	Survival from decision not to perform dialysis	Median 8.9 months (95% CI 4–10)
Murtagh[126]	77	83	Retrospective	England	23.4§	18.2% Davies grade 2 score	eGFR < 15 mL/min/1.73 m²	Median 18 months (range 0.1–73.1)
Seow[28]	63	78	Prospective	Singapore	60.3§	CCI (not age adjusted) score of 5	Study enrolment, eGFR 8–12 mL/min/1.73 m²	Two-year survival 61.9%
Shum[25]	42	75.3††	Retrospective	Hong Kong	66.7	CCI mean 4.6	eGFR < 15 mL/min/1.73 m²	One-year survival 80.7%
Smith[105]¶	26	71††	Retrospective	England	27	Mean comorbidity score‡ 4.7 (SD 3.0)	Putative dialysis initiation date	6.3 months
Wong[106]†	73	79	Prospective	England	28.∧	Stoke's comorbidity grade = 1	Survival from decision not to perform dialysis	23.4 months

---

Comparative Survival among Older Adults with Advanced Kidney Disease Managed Conservatively Versus with Dialysis The Netherlands. CJASN. April. 2016

Wouter R. Verberne, A.B.M. Tom Geers,* Wilbert T. Jellema,* Hieronymus H. Vincent,* Johannes J.M. van Delden,† and Willem Jan W. Bos**

- Retrospective; single centre; 2004-14; age ≥70
- 107 chose conservative management (age 83); 204 RRT (age 76), p<0.001
- Decision making at GFR <20 – written & oral information
- CM included nurses, dieticians, social workers
- Davies co-morbidity score assessed:
  - IHD, LV function, PVD, malignancy, diabetes, COPD, CT disease
- Mean GFR at decision time – 15 in CM, 13 in RRT
- Co-morbidities similar (33% ≥3 co-morbidities; 75% heart disease)

Patient pathways according to modality decision; there was significant mortality before eGFR <10

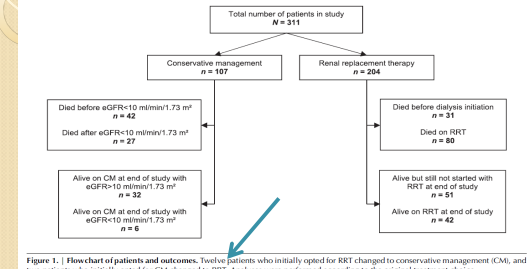
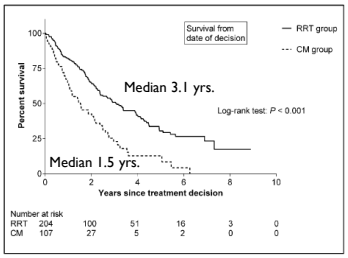


Figure 1. | **Flowchart of patients and outcomes.** Twelve patients who initially opted for RRT changed to conservative management (CM), and two patients who initially opted for CM changed to RRT. Analyses were performed according to the original treatment choice.

Survival in CM and RRT

A



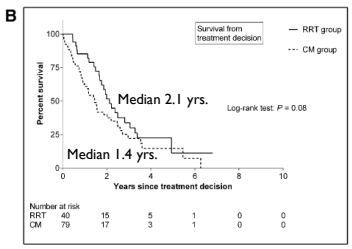
Poorer Survival factors:

1. Age
2. Co-morbidity ≥3
3. CM

Similar survival results from points of : eGFR <20; <15; <10

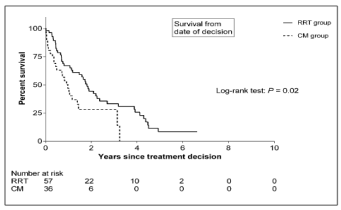
Survival advantage lost if ≥80 yrs. old.

Age ≥80 years



Co-morbidity ≥ 3 factors reduced survival in both groups

Severe comorbidity



Cardiac disease (IHD or LV dysfunction or PVD) :
RRT 7.3 vs 2.3 years (p<0.001) ; CM 1.5 vs 1.9 years

Comparative Survival among Older Adults with Advanced Kidney Disease Managed Conservatively Versus with Dialysis The Netherlands. CJASN. April. 2016

Wouter R. Verberne, A.B.M. Tom Geers,* Wilbert T. Jellema,* Hieronymus H. Vincent,* Johannes J.M. van Delden,† and Willem Jan W. Bos**

- Median survival in CM patients from time of modality choice = 18 months
  - Brown et al. = 16 months
  - Wong et al. = 23 months
  - Kwok et al (2016) = 16 months
  - Carson = 14 months
  - Murtagh = 18 months
- Survival advantage lost if ≥ 80 in this study
  - Hussein et al. = similar
  - Chandna et al. & Murtagh et al. = survival advantage lost if ≥75 and severe co-morbidity

QUALITY OF CARE

Quality of End-of-Life Care Provided to Patients With Different Serious Illnesses

Melissa W. Wachterman, et al.
VA Boston Healthcare System, Boston, Massachusetts

JAMA Intern Med. Published online June 26, 2016. doi:10.1001/jamainternmed.2016.1200

Palliative care consultations at EOL

- 58,000 dying patients; 2009-2012
- Referral to Pall Care
  - 74% if Cancer
  - 61% if dementia
  - 50% ESKD; 48% cardiopulmonary; 44% frailty
- One-third ESKD died in ICU vs 13% cancer, 9% dementia
- ESKD had 30% African American (higher than other groups)
- More families happy with Cancer or dementia deaths
  - related to
    - Pall care consult;
    - Place of death
    - NFR order in place
- Pain during dying a predominant symptom

The JAMA Network

The JAMA Network

From: **Quality of End-of-Life Care Provided to Patients With Different Serious Illnesses**

JAMA Intern Med. Published online June 26, 2016. doi:10.1001/jamainternmed.2016.1200

Table 2. Adjusted Proportions for Measures of Care at the End of Life and Family Perceptions of Quality Outcomes by Diagnosis[a]

	No. (%)						
Outcomes	Cancer	Dementia	ESRD	Cardiopulmonary Failure	Frailty	Other	*P* Value[b]
All veteran decedents (n = 57 728)[c]	23 523 (40.8)	3675 (6.4)	2265 (3.9)	13 854 (24.0)	9931 (17.2)	4480 (7.8)	
Measures of care at the end of life							
Palliative care consultation	73.5	61.4	50.4	46.7	43.7	41.5	<.001
Do-not-resuscitate order	95.3	93.5	87.0	86.3	88.6	83.9	<.001
Died in inpatient hospice	42.9	32.3	24.3	22.9	20.3	20.6	<.001
Died in the intensive care unit	13.4	8.9	32.3	34.1	35.2	37.4	<.001
Bereaved Family Survey participants (n = 34 005)[d,e]	40.3	6.6	3.7	24.4	17.4	7.6	
Overall rating of patient's care was excellent	59.2	59.3	54.8[f]	54.8[f]	53.7[g]	55.0[f]	<.001
Health care professionals always listened to concerns	73.8	75.7	68.6[g]	71.5[g]	70.5[g]	73.0	<.001
Health care professionals always provided the medical treatment that patient and family wanted	79.1	80.4	73.4[g]	76.8[g]	76.5[g]	77.4	<.001
Health care professionals always kept family informed about patient's condition and treatment	68.2	71.1[g]	63.8[h]	65.9[g]	66.6	67.5	.001
Health care professionals always gave enough emotional support prior to the patient's death	64.6	67.5[f]	61.5	62.1[g]	62.0[f]	63.3	<.001
Patient had frequent uncontrolled pain[f]	55.0	49.4[g]	54.3	55.9	53.3	55.3	.003

Authors' conclusion

"Increasing access to palliative care and increasing the rates of goals of care discussions that address code status and preferred setting of death, particularly for patients with end-organ failure and frailty, may improve the quality of end-of-life care for Americans dying with these conditions."

End-of-Life Vignette

The Symptoms Prevalence, Medical Interventions, and Health Care Service Needs for Patients With End-Stage Renal Disease in a Renal Palliative Care Program

American Journal of Hospice & Palliative Medicine®
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DOI: 10.1177/1049909115598930
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and Doris M. Tse, MBBS, FHKAM, FHKCP, FRCP (Lond, Edin)[1]

[1] Department of Medicine & Geriatrics, Caritas Medical Centre, Kowloon, Hong Kong SAR

- Retrospective study; Last 2 weeks of life; CM non-dialysis pathway
  - Structured RSC team 2006 to 2011
- average of 3.1 acute admissions
- ***335 patients with ESKD; mean eGFR 12; age 77***
- 2/3 diabetes; 30% IHD
- Median survival 15.5 months; 87% had DNR order and received no CPR
  - 8% still received CPR even with DNR order
- 65% families responded to survey about death
  - 93% totally satisfied
  - Most helpful : symptom control; psychosocial support
  - ***NONE regretted decision to forgo dialysis***

Table 3. Symptoms Prevalence Documented in Last 2 Weeks of Life.

	All	Male	Female	*P*
Dyspnea	144 (63.7%)	74 (65.5%)	70 (61.9%)	.684
Fatigue/weakness	117 (51.8%)	56 (49.6%)	61 (54%)	.705
Edema	109 (48.2%)	47 (41.6%)	62 (54.9%)	.128
Pain (including angina)	100 (44.2%)	42 (37.2%)	58 (51.3%)	.094
Anorexia	86 (38.1%)	41 (36.3%)	45 (39.8%)	.746
Cough	70 (31.0%)	44 (38.9%)	26 (23%)	.026[a]
Nausea and vomiting	60 (26.5%)	25 (22.1%)	35 (31%)	.287
Bowel problem	47 (20.8%)	23 (20.4%)	24 (21.2%)	.838
Confusion	43 (19%)	20 (17.7%)	23 (20.4%)	.754
Fever/chills/rigor	40 (17.7%)	20 (17.7%)	20 (17.7%)	.844
Bed sores/wounds	27 (11.9%)	11 (9.7%)	16 (14.2%)	.511
Urinary problem	24 (10.6%)	9 (8%)	15 (13.3%)	.376
Mouth problem	18 (8.0%)	7 (6.2%)	11 (9.7%)	.531
Convulsion	14 (6.2%)	4 (3.5%)	10 (8.8%)	.220
Pruritus	11 (4.9%)	4 (3.5%)	7 (6.2%)	.557
Sleep problem	9 (4.0%)	6 (5.3%)	3 (2.7%)	.495
Distended abdomen	5 (2.2%)	4 (3.5%)	1 (0.9%)	.332
Cold intolerance	3 (1.3%)	0 (0%)	3 (2.7%)	.187
Anxiety	1 (0.4%)	0 (0%)	1 (0.9%)	.513
Depressive mood	2 (0.9%)	1 (0.9%)	1 (0.9%)	.845
Suicidal thoughts	1 (0.4%)	0 (0%)	1 (0.9%)	.513
Median (IQR) number of symptoms	4 (3-6)	4 (3-5)	5 (3-6)	.072
No. (%) of patients with				.302
≤1 symptoms	21 (9.3%)	14 (12.4%)	7 (6.2%)	
2-3 symptoms	65 (28.8%)	33 (29.2%)	32 (28.3%)	
4-5 symptoms	77 (34.1%)	39 (34.5%)	38 (33.6%)	
≥6 symptoms	63 (27.9%)	27 (23.9%)	36 (31.9%)	

Events in last 2 weeks that need planning for

Coexisting acute events in last 2 weeks of life	
Congestive heart failure	53 (23.5%)
Pneumonia	44 (19.5%)
Other sepsis	37 (16.4%)
Gastrointestinal bleeding	34 (15.0%)
Hypoglycemia	31 (13.7%)
Acute coronary syndrome	28 (12.4%)
Arrhythmia	26 (11.5%)

Conclusions

- High uptake of a RSC program in HK
- Median survival 15-16 months
- High symptom prevalence
  - Predominantly SOB; pain; fatigue; anorexia
- Cardiac, infectious & GI bleeding common in last 2 weeks
- Families very satisfied with such a program

Use of Erythropoietin-Stimulating Agents (ESA) in Patients With End-Stage Renal Failure Decided to Forego Dialysis: Palliative Perspective

American Journal of Hospice & Palliative Medicine®
1-5
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DOI: 10.1177/1049909115624653
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Hon Wai Benjamin Cheng, MBBS, MRCP(UK), FHKCP[1],
Kwok Ying Chan, MBBS, MRCP(Ireland), FHKCP[2],
Hoi To Lau, MBBS[1], Ching Wah Man, APN[1],
Suk Ching Cheng, RN[1], and Carman Lam, RN[1]

- Found only 1 retrospective study in CM patients
- eGFR <15; 39 ESA vs. 31 controls
- ESA group
  - Hb rose 75 to 94 g/L over 3 months
  - Improved fatigue scores
  - Less hospitalisation
- Risks
  - Thrombosis; convulsions; hypertension; others less common
- Target Hb by symptom response but not above 110 g/L

Progress in Palliative Care
Science and the Art of Caring
Dr. Frank Brennan 2016
Routledge
ISSN: 0969-9260 (Print) 1743-291X (Online) Journal homepage: http://www.tandfonline.com/loi/yppc20

The pathophysiology of pruritus – A review for clinicians

Now know that 90% of itch fibres are histamine independent

Most transmit to brain via PAR-2 receptors

Transmitted by C-fibres (and A fibres)

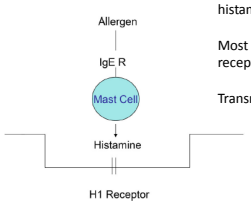

Figure 1 The classic model of histamine release secondary to allergens.

EUTHANASIA

Exploring the interface between 'physician-assisted death' and palliative care: cross-sectional data from Australasian palliative care specialists

L. Sheahan[1,2,3,4]

[1]St George and Calvary Hospitals, [2]Centre for Values Ethics and the Law in Medicine, University of Sydney, and [4]School of Medicine, University of New South Wales, Sydney, New South Wales, Australia, and [3]Joint Centre for Bioethics, University of Toronto, Toronto, Ontario, Canada

- some form of legalised assisted death exists in:
  - Netherlands, Belgium, Luxembourg, Switzerland, and the states of Oregon, Washington State, Vermont and Montana (USA).
- Aims:
  - to identify current attitudes and experiences of palliative care specialists in Australasia regarding requests for PAS and VE

Internal Medicine Journal. 2016; 46: 443-51

Exploring the interface between 'physician-assisted death' and palliative care: cross-sectional data from Australasian palliative care specialists

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- 156 Palliative Care specialists (40% response rate)
- 18 multiple-choice questions, addressing the following six areas:
  1. General demographic information.
  2. Frequency of requests for assisted death, and type of response given.
  3. Initial understanding of the term 'voluntary euthanasia'.
  4. Opinion regarding legalisation of PAS and/or VE in an Australasian context, as well as willingness to participate if legal.
  5. Identification of the most important and relevant values guiding this opinion.
  6. Anticipated impact that legalisation of assisted death would have on palliative care practice and services in Australasia.

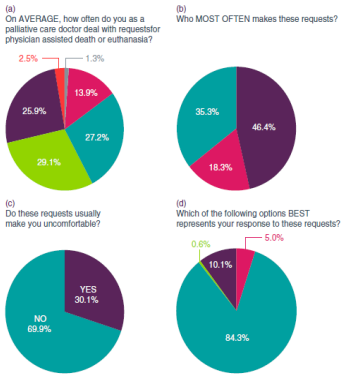


Figure 1 Frequency of requests and response given. (a) On average, how often do you as a palliative care doctor deal with request for physician-assisted death or euthanasia? 1.3% daily, 13.9% weekly, 27.2% monthly, 29.1% every 3 months, 25.9% yearly and 2.5% never. (b) Who most often makes these requests? 46.4% patient, 18.3% next of kin and 35.3% both patient and family. (c) Do these requests usually make you uncomfortable? 69.9% no and 30.1% yes. (d) Which of the following options best represents your response to these requests? 0.0% try to move the conversation to another topic, 5.0% explain that these practices are illegal in Australia, 84.3% ask why they feel the need to request physician-assisted death, 0.6% want to agree to the request, 10.1% other (please specify).

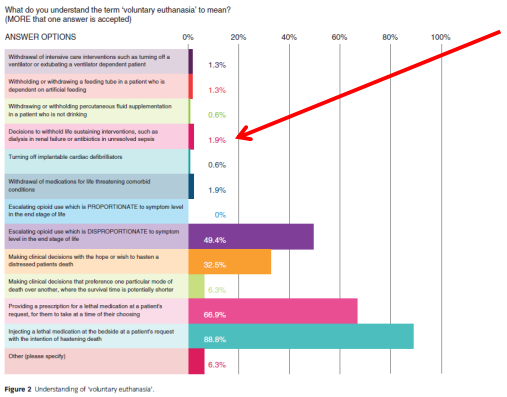


Figure 2 Understanding of 'voluntary euthanasia'.

Exploring the interface between 'physician-assisted death' and palliative care: cross-sectional data from Australasian palliative care specialists

L. Sheahan[1,2,3,4]

[1]St George and Calvary Hospitals, [2]Centre for Values Ethics and the Law in Medicine, University of Sydney, and [4]School of Medicine, University of New South Wales, Sydney, New South Wales, Australia, and [3]Joint Centre for Bioethics, University of Toronto, Toronto, Ontario, Canada

Conclusions

- Palliative Care Physicians largely opposed to Physician assisted dying
  - 75 to 85% opposed
  - Including terminal & non-terminal groups pf patients
- ***Withholding Dialysis not viewed as PAD***
- No-one viewed proportional escalation of opioids as PAD
  - Best evidence to date shows no hastening of death with proportionate to symptom opioid escalation

Exploring the interface between 'physician-assisted death' and palliative care: cross-sectional data from Australasian palliative care specialists

L. Sheahan[1,2,3,4]

[1]St George and Calvary Hospitals, [2]Centre for Values Ethics and the Law in Medicine, University of Sydney, and [4]School of Medicine, University of New South Wales, Sydney, New South Wales, Australia, and [3]Joint Centre for Bioethics, University of Toronto, Toronto, Ontario, Canada

Conclusions

- Reasons for opposition largely secular
  - Professional obligation to do no harm (28%)
  - Community interest in not taking life (26%)
  - Spiritual beliefs (16%)
  - (Presumed) belief that symptoms can be controlled with best practice palliative Care.

PATIENTS' UNDERSTANDING OF DIALYSIS & CONSERVATIVE CARE

Older patients' understanding of dialysis & conservative care for ESKD

- 9 renal units across UK; 42 patients – dialysis, CM, pre-dialysis with eGFR <15; Age ≥75
  - 2/3 male; 90% white British
- Interviews & thematic analysis
- Previous studies on why choose CM
  - Too old; dialysis too burdensome; too much a problem on family;
  - Felt well without dialysis; travel to dialysis a problem
- Themes identified
  1. Patients' understanding of options
     1. All knew about dialysis; variable knowledge of CM
  2. Patients' perception of their own CKD
     1. Feeling well led to reduced understanding of disease
  3. Patients' experiences about making a decision re dialysis or CM
     1. Conflicting views & knowledge about survival & QOL with or without dialysis

Tokin-Crine et al. American Journal of Kidney Diseases 2015 65, 443-450DOI: (10.1053/j.ajkd.2014.08.011)

Comments

- Theme 1

  "It was presumed that dialysis would work for me…. I can't remember [staff] ever suggesting or saying that there is a third option–of not having dialysis." (Male, 82, predialysis, unit 5)

- Theme 2

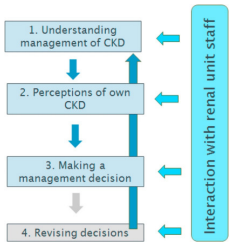
  "[The GFR] was about 8.1 but I feel ok, my appetite is good and I sleep well. I still drive my car and so forth so there's no problem there." (Male, 76, conservative management, unit 1).

- Theme 3 – conflicting information

  "I decided that I didn't want dialysis. I'm told that's not terribly unusual and I was told that if you say yes to dialysis, you don't necessarily live any longer anyway." (Male, 84, conservative management, unit 9)

  "[The staff] said 'it's up to you, you've got the choice. You can have dialysis or you can have the other thing…if you want not to have dialysis it's your choice but you've got to realize that it is going to kill you…but if you're on dialysis you could last for ten, fifteen, twenty years'." (Male, 76, dialysis, unit 2)

Conclusions



1. Staff have a big influence on the decision
2. Patients need to be given consistent and accurate information to make an informed decision
3. Patients should be given the opportunity to discuss likely trajectory of ESKD

American Journal of Kidney Diseases 2015 65, 443-450DOI: (10.1053/j.ajkd.2014.08.011)

ADVANCE CARE PLANNING FOR DIALYSIS PATIENTS

AJKD

Editorial Brown MA. Am J Kidney Dis. 2016;68(1):8-10

Planning Dialysis Care: You Might Be "Surprised"

- Refers to Amro et al.
  - Boston USA; 201 HD patients across 9 Units
  - Surprise Question as sole predictor of need for ACP (25% patients)
    - 42% died (vs. 8% if 'would be surprised')
  - 2 trained Renal Fellows had the ACP discussions
  - Increases in decisions re:
    - DNR (18 to 42%)
    - Life-sustaining treatment options (CPR; ventilation; move from hospice to hospital; ongoing dialysis; artificial nutrition)
  - Important finding
    - Some had already expressed DNR wishes, but not conveyed!
  - Study could not address whether patients' wishes adhered to before death

Why do doctors provide futile treatment?

- Purposive sampling including ICU, Palliative Care, Renal medicine & others
- 3 hospitals in Brisbane
- Semi-structured interview
- Futility (broadly) = treatment that will not benefit the patient

- Discovered
  - Doctor related factors
  - Patient related factors
  - Hospital related factors

- Recommend a community discussion on futility; better doctor training; better hospital systems

Willmott L, *et al. J Med Ethics* 2016;**0**:1–8. doi:10.1136/medethics-2016-103370

May 17th 2016

Why do doctors provide futile treatment?

Reason	Number of doctors citing reason	Proportion of total sample (n=96) (%)
Doctor-related factors	92	96
Trained to treat	81	84
Inexperience with death and dying	42	44
Don't want to give up hope	38	40
Aversion to death	37	39
Worries about legal risk	29	30
Poor communication	28	29
Doing everything possible	23	24
Emotional attachment to patients	19	20
Personality, personal experiences or religion	12	13
Patient-related factors	87	91
Family or patient request	63	66
Prognostic uncertainty	47	49
Lack of information about patient wishes	36	38
Hospital-related factors	65	68
Specialisation	27	28
Medical hierarchy	26	27
Hospitals designed to provide acute care so it does	25	26
Hard to stop once started	22	23
Time pressure	18	19
After-hours care	10	10

*Some doctors provided more than one main reason.

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Why do doctors provide futile treatment?

TRAINED TO TREAT
"… they're trained to treat. You don't learn—you learn how to treat and it's easy to treat. It's much easier to treat than to have those high level discussions where you talk about end of life and not treating. So the default is to keep treating". (#10, geriatric medicine consultant)

"Patients' families often have unrealistic expectations. … [The provision of futile treatment] will probably come down to how forthright or aggressive the family are and also come down to the doctor's ability to deal with that. Their confidence or their courage of conviction". (#79, cardiology consultant)

"… there were too many specialists looking after this patient and no one overlooking—it's fragmented care. Rather than someone taking responsibility for the whole of the patient's care …". (#11, internal medicine consultant)

Summary

- Renal Supportive Care is underpinned by better research
- We are learning more about:
  - Survival with and without dialysis
  - Uptake of RSC options
  - Symptom management
  - What patients understand
  - ACP