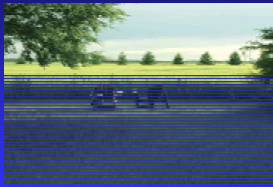


Palliative Care in Chronic Kidney Disease: Past Successes, Remaining Challenges



Sara Davison

Renal Education Days, Kelowna, BC
April 30, 2010

Objectives

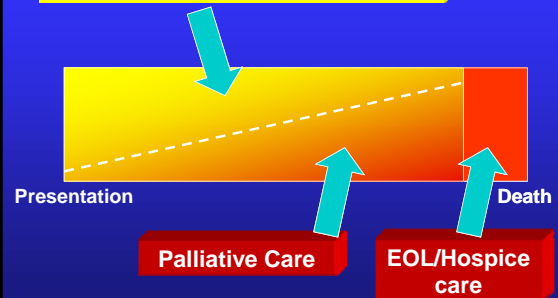
- Highlight the relevance of palliative care to ESRD.
- Describe successes in renal palliative care
 - ◆ Ethical guideline development
 - ◆ Framework to integrate renal palliative care
 - ◆ Advances in prognosis estimation and advance care planning (ACP)
 - ◆ Pain and symptom assessment and management
- Remaining challenges
 - ◆ Determining who will benefit from conservative management
 - ◆ Systematic integration of ACP
 - ◆ Symptom management (non- pain, spirituality)
 - ◆ Palliative care education for renal staff
 - ◆ Barriers to hospice for dialysis patients

Palliative Care

Palliative care is an approach that improves the **quality of life of patients and their families** facing the problem associated with life-threatening illness, through the **prevention and relief** of suffering by means of **early identification** and **impeccable assessment and treatment** of pain and other problems, **physical, psychosocial and spiritual**.

World Health Organization

Curative / Remissive Therapy



The ESRD Population

- Significant co-morbidity
- 50% patients starting dialysis > 65 yrs
- Patients ≥ 75 yrs: fastest-growing group of dialysis patients.



Unadjusted Survival Probabilities (%) for Incident ESRD Patients

Age	1 year	2 years	3 years	5 years	10 years
40 - 49	89.6	81.6	73.5	61.9	37.7
50 - 59	86.2	75.9	65.4	49.5	21.8
60 - 64	83.0	69.6	58.3	38.1	12.3
65 - 69	79.1	63.1	50.8	30.7	6.4
70 - 79	71.2	53.5	39.0	20.2	2.7
80+	60.5	40.8	25.7	9.6	0.9

USRDS, 2008

Annual unadjusted mortality rate ~22%

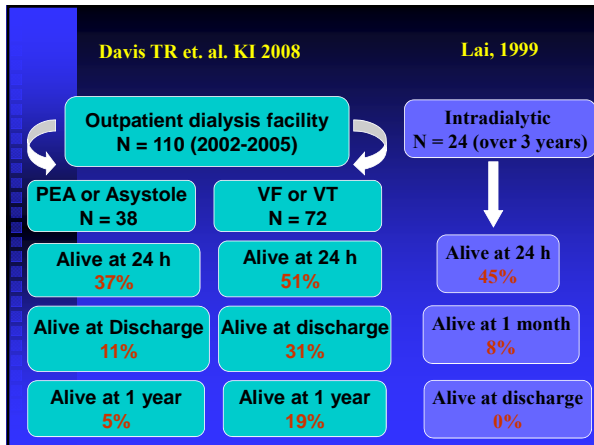
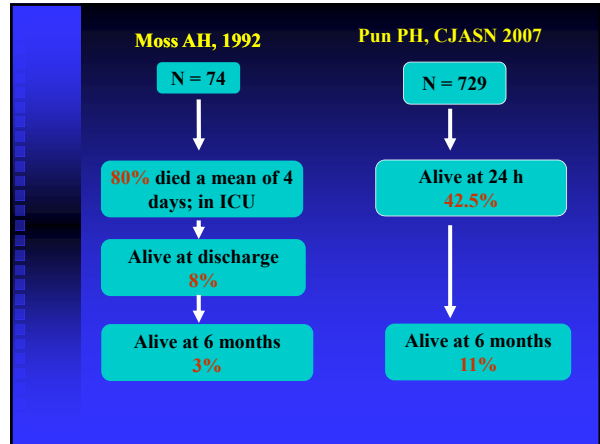
Withdrawal from dialysis ~ 20-25% of deaths

The majority lack capacity at the time the decision to withdraw dialysis is made.

Only 6-51% of HD patients have advance directives

- Address only limited treatment options
- Typically do not address withdrawal of dialysis
- Most do not choose DNR

Dialysis patients typically do not view themselves as terminally ill



Patient Preferences for CPR

n=584
Davison CJASN 2010

Patients with an advance directive (38%)

- 37% were a "full code"
- 18% were unsure what their AD stated

Current preference for resuscitation (all patients)

- 39% wanted full resuscitation
- 19% were unsure

Current preferences for EOL care

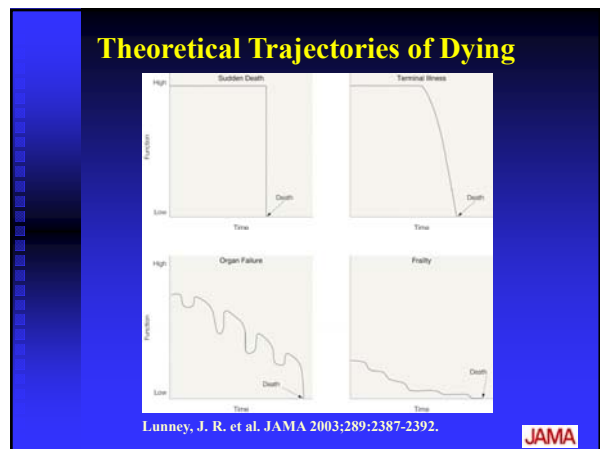
- < 18% preferred a course of treatment focused on extending life at the expense of suffering, functional status and QOL

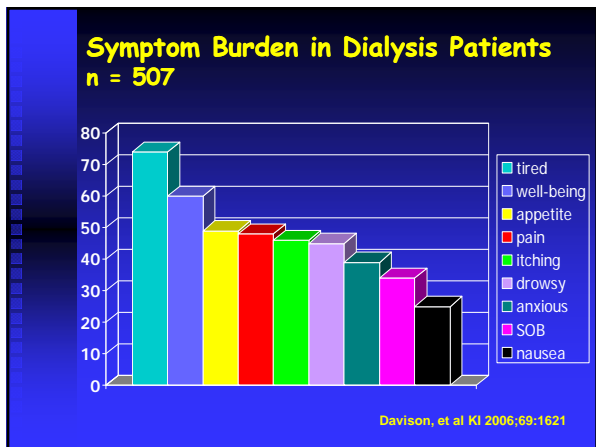
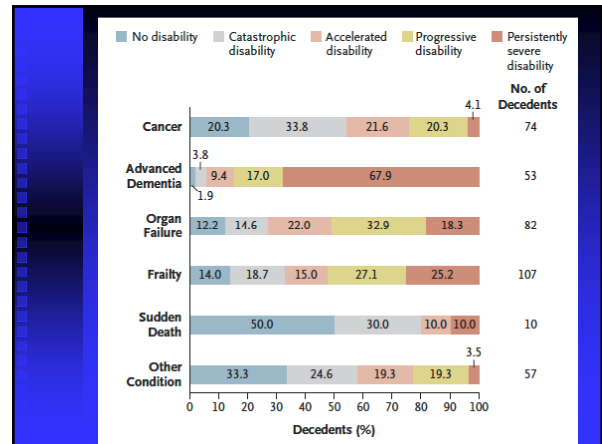
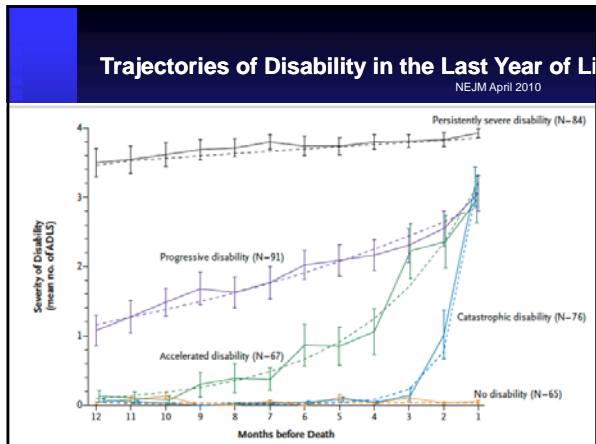
How EOL Decisions Are Being Made

- By family and health care providers
- Surrogates lack the knowledge of patients' preferences
 - ◆ Includes wishes for ongoing dialysis
 - ◆ Family consistently overestimates patients' desires to continue dialysis across hypothetical health conditions

	Current preferences for CPR	Wish for dialysis in a severely demented state	Wish for dialysis if they had terminal cancer
Family	50%	44%	47%
Physician	44%	47%	43%

Miura y et al. AJKD 2006





Severity of Pain: Brief Pain Inventory Scores

Severity (n=103)	Mild (0-3)	Moderate (4-5)	Severe (6-10)	Mean BPI Score
Worst	17.5%	82.5%		7.03
Least	74.8%	16.5%	8.7%	3.07
Average	41.7%	58.3%		5.61
Now	44.7%	28.2%	27.2%	4.99

Cause of pain is NOT predictive for severity of pain

Davison, AJKD 2003

The Impact of Pain and Overall Symptom Burden for ESRD Patients

	No - Mild pain	Mod - Severe pain	Odds Ratio	P
Depression	18%	34%	2.31	0.01
Insomnia	53%	75%	2.32	0.02

Davison JPSM 2005

Symptom burden accounted for 29% of the impairment in physical HRQL and 39% of the impairment in mental HRQL

Davison JPSM 2005

Change in symptom burden accounted for 34% of the change in physical HRQL and 46% of the change in mental HRQL.

Davison JPSM 2005

Point Prevalence of Analgesic Use: DOPPS

Analgesic	Number of Patients	
	1997 N = 2988	2000 N = 2476
Any analgesic	30.2%	24.3%
Any narcotic	18.0%	14.9%
Any NSAID	6.4%	2.3%
Any acetaminophen	11.1%	6.3%

% of patients reporting moderate to severe pain were not prescribed analgesics

Successes

- ◆ Identification of the problem
- ◆ Ethical guideline development
- ◆ Formation of frameworks to integrate renal palliative care
- ◆ Advances in prognosis estimation
- ◆ Advance care planning
- ◆ Pain and symptom assessment and management

Shared Decision-Making in the Appropriate Initiation of and Withdrawal from Dialysis

- 1: Shared Decision-Making
- 2: Informed Consent or Refusal
- 3: Estimating Prognosis
- 4: Conflict Resolution
- 5: Advance Directives
- 6: Withholding or Withdrawing Dialysis
- 7: Special Patient Groups
- 8: Time-Limited Trials
- 9: Palliative Care



rpa@renalmd.org

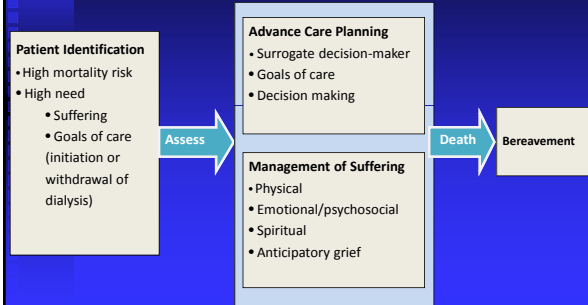
Table 2. Comparisons of characteristics of nephrologists according to level of preparedness

Characteristic of Nephrologists	Within Nephrologists Level of Preparedness (Mean ± SD or %)		P
	Very Well Prepared (n = 148)	Less than Very Well Prepared (n = 211)	
Year fellowship completed	1985 ± 11	1992 ± 12	<0.001
Age (yr)			
20 to 45	27	55	<0.001
46 to 65	64	30	
66+	8	6	
No. of patients cared for	114 ± 33	109 ± 122	0.003
No. of patients who stopped dialysis in past year	5.6 ± 5.1	3.8 ± 3.9	<0.001
Use time-limited trials of dialysis	87	74	0.003
No. of patients referred to hospice in past year	3.9 ± 4.1	3.3 ± 3.9	0.039
Practice in units that refer patients to hospice	67	76	0.013
Medical school affiliation	52	54	0.644
Country of practice, United States	87	80	0.075
Unit policy on withdrawal of dialysis	31	22	0.062
Unit policy on CFR	80	79	0.812
Practice in units in which CFR is discussed routinely	93	85	0.029
Likely to consult an ESRD Network Ethics Committee for difficult patient treatment decisions	40	57	0.002
Aware of RPA/ASN guidelines	70	52	<0.001
Use RPA/ASN guidelines*	58	48	0.155
Aware of RPA/ASN statement	62	48	0.007
Use RPA/ASN statement*	59	55	0.613

*Numbers and percentages are based on nephrologists who are aware of guidelines/statement.

Davison et al. Nephrologists' Reported Preparedness for End-of-Life Decision-Making. *Clin J Am Soc Nephrol*. 2006;1:1256-1262.

Establishing a Palliative Care Framework for Advanced CKD



Predictors of Poor Prognosis for ESRD Patients

- Age
- Nutritional status
 - ◆ Serum albumin < 35g/L
 - ◆ ~ 50% mortality at 1 year
 - ◆ 17% at 2 years
- Comorbid Illnesses – Charlson Comorbidity Index
 - ◆ CCI ≥ 8 ~ 50% 1 year mortality
 - ◆ http://www.medalreg.com/qhc/medal/ch1/1_13/01-13-01-ver9.php3
- Surprise Question
- Functional Status

RPA/ASN. *Shared Decision-Making in the Appropriate Initiation of and Withdrawal from Dialysis*. 2000.

Charlson Comorbidity Index Beddhu S AJKD 2000

Score Totals	Low (≤ 3)	Moderate (4-5)	High (6-7)	Very high (≥ 8)
Annual Mortality Rate	3%	13%	27%	49%

Points

- 1 point each for: CAD, CHF, PVD, dementia, chronic pulmonary disease, connective tissue disorder, peptic ulcer disease, mild liver disease, DM
- 1 point for every decade over 40
- 2 points each for: hemiplegia, moderate-severe renal disease, DM with end-organ damage, cancer (including leukemia or lymphoma)
- 3 points for moderate-severe liver disease
- 6 points each for metastatic solid tumour, AIDS

INTERACTIVE TOOL FOR COMORBIDITY MEASUREMENT

Identifying factors and scores of comorbidity

Click on the comorbidity score indicated by the number of the question scored for a patient.

Name of the patient: _____

Year of the patient year: _____

Cardiovascular disease? No Yes

Chronic pulmonary disease? No Yes

Congestive heart failure? No Yes

Chronic kidney disease? No Yes

Diabetes? No Yes

Hypertension? No Yes

Stroke? No Yes

Peripheral vascular disease? No Yes

Other disease? No Yes

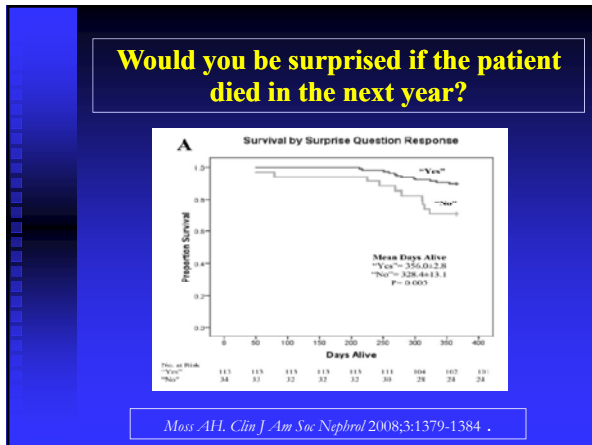
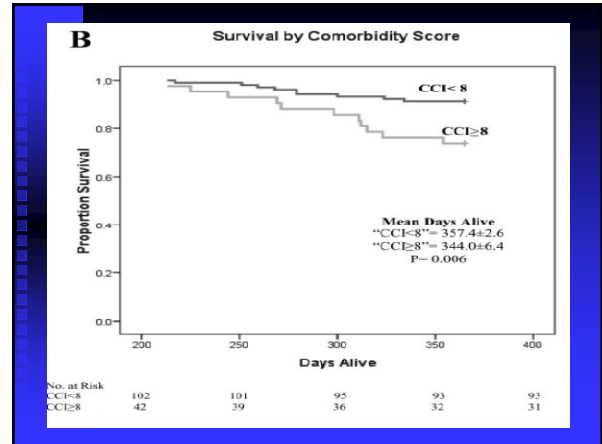
Click the appropriate column for each condition (you only 1 answer per row)

Stroke: None Mild Moderate Severe

Heart disease: None Mild Moderate Severe

Other disease: None Mild Moderate Severe

Calculate Reset



- Older age
 - Lower serum albumin
 - Greater comorbidity – CCI
 - Higher pain levels
 - Greater functional impairment – Karnofsky
 - Mortality at 1 year = 29.4% v. 10.6%; OR 3.5
- The odds of dying (within 1 year) for the patients in the “No, I would not be surprised” group were 3.5 times higher than for patients in the “Yes, I would be surprised” group
- “The surprise question helps identify patients for whom palliative care is appropriate.”**

Integrated Prognostic Model

Cohen CJASN 2009

Variable	Enter Value	Predicted Survival	
Albumin (enter raw albumin level; if < 2.5, enter 2.5; if > 4, enter 4)	3.5		
Surprise Question (enter 1 if not surprised, 0 if surprised)	1		
Age (enter actual age)	65	6 month	89.0%
Dementia (1 = yes, 0 = no)	0	12 month	74.4%
Peripheral vascular disease (1 = yes, 0 = no)	0	18 month	60.1%

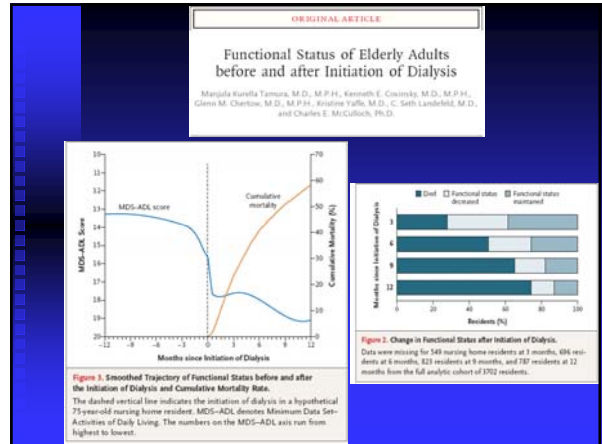
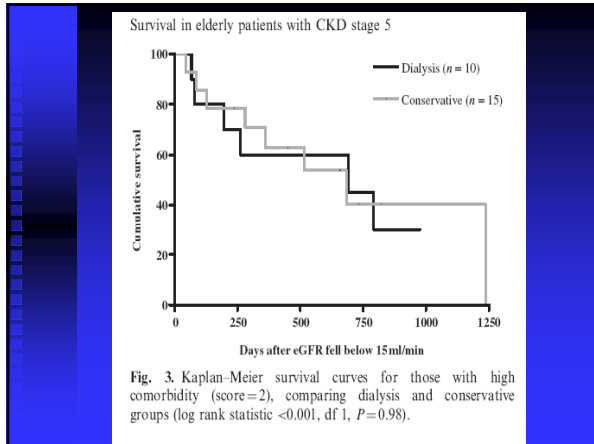
Remaining Challenges: determining who will benefit from conservative management v. dialysis

Murtagh FE et al. Nephrol Dial Transplant 2007;22:1955-1962.

- Pts > 75 yrs, eGFR < 15 ml/min
- Conservatively managed patients: older (83.0 v. 79.6);

	Dialysis (n = 52)	Conservative (n = 77)	All patients
1 year survival	84%	68%	74%
2 year survival	76%	47%	58%

“... survival advantage [for dialyzed patients] was lost in those patients with high comorbidity scores, especially when the comorbidity included ischaemic heart disease.”



Advance Care Planning

- A process that involves understanding, reflection, communication and discussion between a patient, the family/health care proxy, and staff for the purpose of prospectively identifying a surrogate, clarifying preferences, and developing individualized plans for care near the end of life.

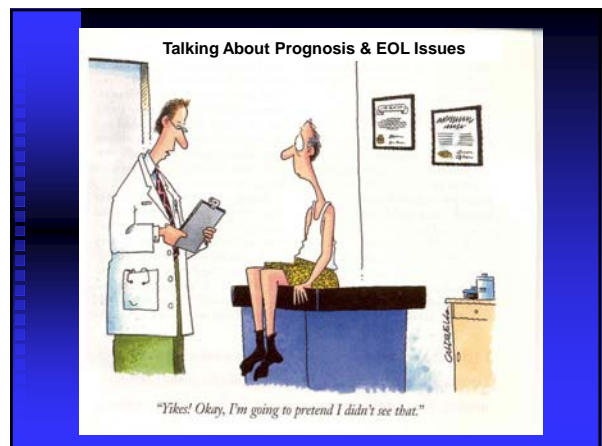
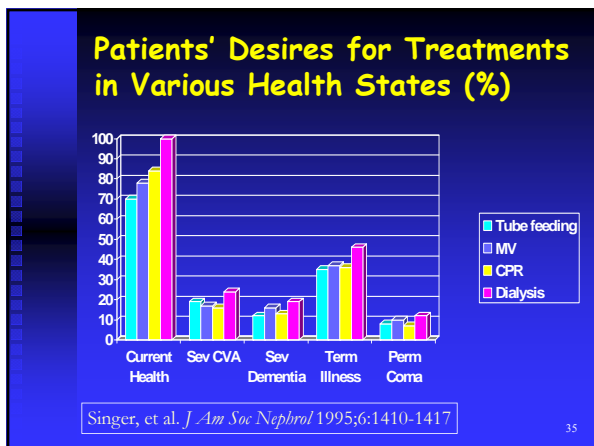
The focus is not merely death and the right to refuse treatment but rather about living well and defining "good care" for each patient near the end of life.

Goals of Care and ACP

“Goals of care are inextricably linked with patient and family **understanding of illness** and expectations. In the context of facilitated ACP, it is clear that goals must reflect expectations that are in balance with **adequate knowledge**.”

This includes **prognostic information**

Davison, et. al. *Am J Kidney Dis* 2007;49: 27-36.



Nephrologists should voluntarily divulge survival data to potential dialysis patients.

Fine PDI 25 269 2005

- 100 non dialysis CKD pts during 1st nephrology visit
- 97% want prognostic info without the MD being asked (only 3% did not want to know life expectancy with and without dialysis)
- They want as much info both good and bad
- Only 11% said that they did not need to know prognosis to make a decision on whether to start dialysis

Information-Giving within ACP Enhances Hope

Davison, BMJ 2006

- **Less fear:** early information, especially prior to RRT
- **Empowerment**
- **Enhanced relationships**
- **Type of information**
 - ◆ Impact on daily life
 - ◆ Helps patients see future possibilities consistent with their values – essential in maintaining hope
- Giving “bad prognostic” information does not result in harm and can have positive outcomes



Annals of Internal Medicine

ARTICLE

Hope, Truth, and Preparing for Death: Perspectives of Surrogate Decision Makers

Latifal Apantaku, BA; Elizabeth A. Boyd, PhD; Grace Mahler, BA; Leah R. Evans, MEd; John M. Luce, MD; Bernard Lo, MD; and Douglas S. White, MD, MAS

Ann Intern Med. 2008;149:861-868.

Conclusion: Most surrogates of critically ill patients do not view withholding prognostic information as an acceptable way to maintain hope, largely because timely discussions about prognosis help families begin to prepare emotionally, existentially, and practically for the possibility that a patient will die.

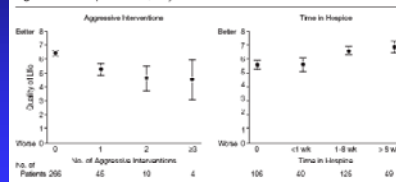
Associations Between End-of-Life Discussions, Patient Mental Health, Medical Care Near Death, and Caregiver Bereavement Adjustment

Alexi A. Wright; Daohui Zhang; Alaka Ray; et al.

JAMA. 2006;300(14):1665-1673 (doi:10.1001/ama.300.14.1665)

Conclusions End-of-life discussions are associated with less aggressive medical care near death and earlier hospice referrals. Aggressive care is associated with worse patient quality of life and worse bereavement adjustment.

Figure. Relationship Between Quality of Life and End-of-Life Care



Results are adjusted for illness severity, as measured by Karnofsky score and survival. Caregivers were asked, "In your opinion, how would you rate the overall quality of the patient's death or last week of life?" Response items were arranged on a Likert scale from 0 "worst possible" to 10 "best possible." The hospice statistical scores were $F = 0.4$, $P < .001$. Interventions included ventilation, resuscitation, chemotherapy, or feeding tube ($r = 0.26$, $P = .01$). Error bars represent 95% confidence intervals.

The Impact of ACP on EOL Care in Elderly Patients: RCT

BMJ. Detering et al. 2010

- Respecting Choices Program
- N = 309
- EOL wishes more likely to be known and followed (86% v. 30%, $p < 0.001$)
- For family members after patient death, less stress, anxiety and depression in the intervention group

Impact of Disease-Specific ACP: RCT

Kirchhoff et al JAGS 2010 in press

- N = 313 surrogate pairs (43% had ESRD)
- Surrogates demonstrated significantly better understanding of patient goals
- First step toward ensuring patient goals for care are known and honoured

Key Elements to Facilitate Effective ACP

Davison CJASN 2007, AJKD 2007

Patient participation

1. Determine the patient's *ability* to be involved in ACP
2. Determine the patient's *interest* in participating in ACP
3. Determine the patient's *perception of potential benefits* of participation in ACP
4. Determine the patient's *perception* of level of control and power
5. Determine the patient's *resources* to participate in ACP
6. Identify *whom* the patient wishes to engage in ACP

Decision-making and defining priorities for goals of care

1. Measure *understanding* of illness
2. Determine *how* patients expect to make decisions
3. Determine *expectations* regarding outcomes of end-of-life care
4. Determine patient *values* that drive end-of-life preferences

Key Elements to Facilitate Effective ACP

Davison CJASN 2007, AJKD 2007

Patient-physician relationship

1. Use of lay language to promote understanding
2. Empathetic listening
3. Affirm patients' self-worth
4. Maintain trust, honesty, promise keeping, confidentiality, and caring

Documentation

1. Easily identifiable
2. Travel with the patient across health care settings so it is available for all professional caregivers involved in the care of the patient.

Quality improvement

ADVANCE CARE PLANNING
Welcome to ACP

Advance Care Planning (ACP) for Future Health Care Decisions

It is difficult to think about a time when we may not be able to communicate our wishes. It is not a scary, and someone had to tell your health care team what you would want them to do, would your family or friends know what your wishes are? It is important to your wishes regarding health care.

How and where people die is changing dramatically due to the aging population and advances in health care. The end of life care is becoming more complex. People with chronic diseases, frailty, due to conditions such as dementia, Parkinson's disease, and stroke, and people with chronic diseases will shape the last years of life for the majority of us. We may not be old enough to die but for many years.

Have a voice in the care decisions if you become unable to speak for yourself:

- What would happen if you had a serious illness or injury and could not make your own decisions?
- How would your family, friends or health care team know your wishes?
- Who would speak for you?

Prepare now and about thinking about your wishes for future medical decisions today.

ADVANCE CARE PLANNING
ACP Tools

Resources:

- My Voice - Planning Ahead (FREE)
- My Voice - Planning Ahead (FREE)
- My Voice - Planning Ahead (FREE)
- My Voice - Planning Ahead (FREE)
- My Voice - Planning Ahead (FREE)

When you are unable to speak for yourself, we will be able to speak on your behalf. If you are unable to speak for yourself, we will be able to speak on your behalf. If you are unable to speak for yourself, we will be able to speak on your behalf.

MY VOICE - PLANNING AHEAD

WHEN COMPLETED, THE "MY VOICE" WORKBOOK BECOMES A GUIDE FOR OTHERS TO USE IF YOU ARE NOT ABLE TO SPEAK FOR YOURSELF

WHO SHOULD COMPLETE THE "MY VOICE" WORKBOOK?

ADVANCE CARE PLANNING FOR FUTURE MEDICAL DECISIONS

Additional Challenges to Overcome

- **Facilitation**
 - ◆ Consensus on when to start discussions, who to include
- **Systematic Integration**
 - ◆ Providing the necessary resources: including reimbursement for the time involved
- **Professional Training**
 - ◆ Respecting Choices Program
- **Cultural differences that influence ACP**
 - ◆ Concept of autonomy
 - ◆ Decision-making models
 - ◆ Communication of bad news
 - ◆ Attitudes towards ACP and end-of-life care
- **Systems to increase the uptake & effectiveness of ACP**

Davison Adv Chronic Kidney Dis 2008

Interventions to Increase Uptake and Effectiveness of ACP

- Written material on ADs** does not alter attitudes to ADs; only transiently improves understanding of end-of-life care issues.

Holley AJKD 2003
- Peer mentoring:** RCT of 203 dialysis patients - increased completion of ADs, increased comfort discussing ADs, improved subjective wellbeing among the African American participants.

Perry AJKD 2005
- Multi-component approaches "Respecting Choices"**
 - AD completion increased from 15% to 85%
 - Median time between AD and death was 1.2 years.
 - Almost all ADs requested that treatment be forgone as death neared and treatment followed these instructions in 98% of cases

Hammes. Archives of Int Med 1998

Behavioural Change

- Health Information Technology**
 - Identify at risk patients
 - Provide automated reminders for ACP
 - ~ 8-fold increase in having an AD discussion with 45% of these discussions resulting in the completion of an AD.
 - Share information across providers with a uniform instrument.
 - Promote adherence to guide-line based care.
- Social Marketing**
 - "Respecting Choices"
- Legislative & Policy Change**
 - POLST (Physicians Orders for Life Sustaining Treatment)

Physician Orders

For Life-Sustaining Treatment (POLST)

Signature of Health Care Professional (HCP) Do Not Attempt Resuscitation (DNAR) Full Treatment Do Not Attempt Resuscitation (DNAR) Full Treatment Do Not Attempt Resuscitation (DNAR) Full Treatment Do Not Attempt Resuscitation (DNAR) Full Treatment

Medical Interventions: Person has order for feeding is breathing

Comfort Measures Only: Use medications by oral route, pain relievers, sedatives and other measures to relieve pain and suffering. Use oxygen, suction and manual treatment of airway obstruction as needed for comfort. Patient wishes to be treated to maximize autonomy. Treaters' professional autonomy must be maintained.

Expanded Additional Interventions: Includes care described in the medical treatment, IV fluids and cardiac resuscitation as indicated. Do not use antibiotics, IV fluids, or mechanical ventilation. May consider low intensity resuscitation if POLST is not followed. Resuscitation treatment is not required unless otherwise indicated.

Full Treatment: Includes cardiopulmonary resuscitation, advanced airway interventions, mechanical ventilation, and medications to support life.

Additional Orders:

Autonomy:

Physician's Signature:

Signature of Accompanying Person:

Signature of Health Care Professional:

Completion POLST

Send a copy of this order to the POLST Registry in the state where the patient is registered.

Registration POLST

The POLST should be re-evaluated periodically and if the patient's condition has changed, the POLST should be updated.

Version POLST

Use this form through version 4.0 through 4.0.000. "000" is large letters of POLST completed or revised date.

PUT REGISTRY ID STICKER HERE:

ORIGINAL TO ACCOMPANY PERSON IF TRANSFERRED OR DISCHARGED. SUBMIT COPY TO REGISTRY.

Successes

- Identification of the problem
- Ethical guideline development
- Formation of frameworks to integrate renal palliative care
- Advances in prognosis estimation
- Advance care planning
- Pain and symptom assessment and management

Initial Symptom Screening - ESAS

Edmonton Symptom Assessment System

Number of Scale: _____

Please circle the number that best describes:

No pain 0 1 2 3 4 5 6 7 8 9 Worst possible pain

Not tired 0 1 2 3 4 5 6 7 8 9 Worst possible tiredness

Not exhausted 0 1 2 3 4 5 6 7 8 9 Worst possible exhaustion

Not depressed 0 1 2 3 4 5 6 7 8 9 Worst possible depression

Not anxious 0 1 2 3 4 5 6 7 8 9 Worst possible anxiety

Not dizzy 0 1 2 3 4 5 6 7 8 9 Worst possible dizziness

Best appetite 0 1 2 3 4 5 6 7 8 9 Worst possible appetite

Best feeling of well-being 0 1 2 3 4 5 6 7 8 9 Worst possible feeling of well-being

No itching 0 1 2 3 4 5 6 7 8 9 Worst possible itching

No shortness of breath 0 1 2 3 4 5 6 7 8 9 Worst possible shortness of breath

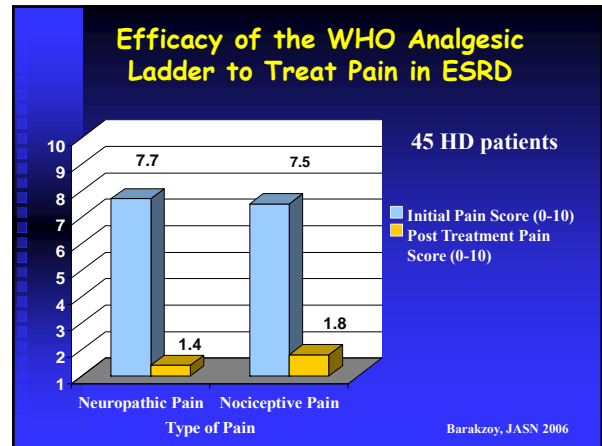
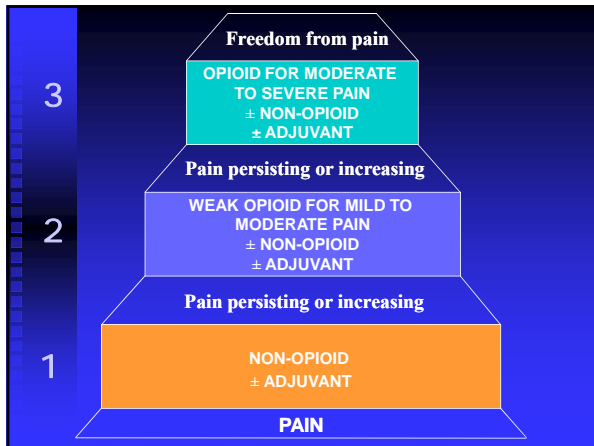
Other problems 0 1 2 3 4 5 6 7 8 9

Patient's Name _____ Complete by (check one)

Date _____ Time _____ Patient Caregiver Computer-assisted

BODY DIAGRAM ON REVERSE SIDE

- Onset
- Location
- Character
- Duration
- Intensity
- Severity – impact on HRQL
- Temporal characteristics
- Triggering/relieving factors
- Type (nociceptive, neuropathic)
- Psychologic symptoms
- Treatment (duration, dosage, side-effects)
- Goals & expectations of treatment



Clinical Algorithm & Preferred Medications to Treat Pain in Dialysis Patients

MARC
Developed by the Mid-Atlantic Renal Coalition and the Kidney End-of-Life Coalition
September 2009

<http://www.kidney.org/painbrochure9.09.pdf>

PAIN ASSESSMENT

Instructions: Please have your patient describe his/her level of pain by circling the appropriate number or the face that best describes the intensity of pain. Determine if the pain is nociceptive or neuropathic by the descriptors the patient uses to describe the pain (see algorithm below). Repeat the pain assessment on subsequent patient visits.

- "Are you having any pain?"
Verbal: "How much pain are you having, from 0 (no pain) to 10 (worst pain imaginable)?"
Written: "Circle the number that describes how much pain you are having."

NUMERICAL RATING SCALE

No pain	0	1	2	3	4	5	6	7	8	9	10	Worst imaginable pain
CATEGORICAL SCALE/FACES R None (0) Mild (1-4) Moderate (5-6) Severe (7-10)												

- "Where is the pain located?"
Record, screen and address each site.
- "How much pain are you having?"
Use the Pain Screening Tool—Numerical Score or Categorical Faces/R Scale (for cognitively impaired)
- "What is the character of the pain?"
Nociceptive—Patient descriptors: aching, dull, throbbing, cramping, pressure
Neuropathic—Patient descriptors: tingling, numbness, burning, stabbing, increased pain to light touch
Both Nociceptive and Neuropathic
- "What relieves the pain?", "What aggravates the pain?"

OVERVIEW OF ESSENTIALS OF PAIN MANAGEMENT

- Assess pain intensity on a 0-10 scale in which 0 = no pain at all and 10 = the worst pain imaginable. Determine if the pain is mild (1-4), moderate (5-6), or severe (7-10).
- Prescribe pain medications and dosages according to the World Health Organization 3-Step Analgesic Ladder, adapted for patients with chronic kidney disease (see page 2).
- Assess the character of the patient's pain and determine whether it is nociceptive, neuropathic, or both. Patients may have more than one type of pain; each pain syndrome should be diagnosed and treated.
- Nociceptive pain involves intact pain receptors and is described by patients as aching, dull, throbbing, cramping, or pressure. Neuropathic pain involves injury to pain receptors and is described by patients as tingling, burning, stabbing, or numb (see pages 3 & 4). Treatment of severe neuropathic pain usually requires opioid medications in addition to gabapentin or pregabalin, or other medications specific for neuropathic pain.
- Assess pain regularly for site, relieving and aggravating factors, and temporal relationships, and assess treatment regularly for effect on functioning and quality of life.
- Believe the patient's report of pain.
- Refer for non-pharmacological interventions as appropriate.
- Use adjuvant medications to reduce pain and side effects.
- Anticipate and treat constipation.
- Always consider depression as a potential contributor.
- Screen for opioid abuse.

RECOMMENDED PRACTICES

A Assess patient's response to pain assessment and starting at lower goal of therapy. Adjust pain plan, and potential analgesics.

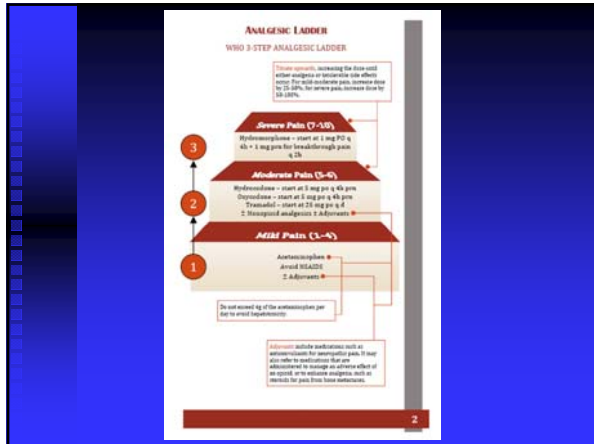
B Aim to achieve control of a level appropriate to the patient. It may not be necessary to provide to the patient completely pain-free periods, and focus on breakthrough pain.

C For chronic pain, schedule doses prior to bedtime to regular basis. Additional "rescue/bridge" medications should be available to use in "breakthrough" pain.

PREFERRED MEDICATIONS IN CKD

Recommended
Fentanyl
Morphine
Hydrocodone
Acetaminophen
Gabapentin
Pregabalin
Tramadol
Hydrocodone/Oxycodone
Desipramine/Tricyclics
DO NOT USE
Morphine
Codeine
Megestrol
Propoxyphene

Morphine, relative to propoxyphene, propoxyphene. Really sweet analgesic, amenable to CKD, causing respiratory depression.



ALGORITHM TO TREAT SEVERE CHRONIC PAIN IN DIALYSIS PATIENTS

Hydromorphone:

- Start at 0.5-1 mg PO q 4 hours plus 1 mg PO q 2 hours prn pain. Titrate dosage every 2-3 days.
- If pain is not controlled, in continuous, and 24-hour dose exceeds 12 mg, substitute transdermal fentanyl 12 mcg/h for regular dose of hydromorphone.
- If further "as needed" hydromorphone exceeds 12 mg/24 hours, increase dose of fentanyl patch by factor 25 mg. Titrate upwards in similar manner if pain is not controlled.
- Caution: Toxic metabolite, BSG, accumulates if dialysis is stopped.

Fentanyl Transdermal Patches:

- Useful for patients with chronic, stable pain. Start after immediate release opioid dose is established. Analgesia may not be obtained for 12-24 hours, so continue previous prn analgesic for 12 hours to ensure a smooth transition.
- Initial dose for opioid-naïve patients is 12 mcg/h (increase dose every 3-6 days as needed for pain). Useful choice if dialysis non-adherence or stopping dialysis are concerns.
- Fentanyl patches above 12 mcg/hr should not be used in opioid-naïve patients due to risk of respiratory depression.
- Prescribe medication for breakthrough pain.

Methodone:

- Only recommended to be used by knowledgeable physicians.
- Use if unable to control pain with hydromorphone or fentanyl (opioid allergy, adverse effects, or refractory pain).
- Obtain baseline QTc (methodone may prolong QT interval) and repeat ECG daily dose > 100 mg. QTc > 450 ms considered safe.
- Beware of multiple drug interactions and adjust dose.
- Consult www.hopkinslab.org for opioid conversions from hydromorphone or fentanyl to methodone.

NOXICEPTIVE PAIN TREATMENT

Note: Monitor for opioid toxicity (sedation, hallucinations, myoclonus and/or asterixis) and opioid adverse effects (constipation, nausea, and vomiting).

- Consider patient's ability to tolerate oral medications.
- Long-acting opioids should be started after the needed dosage to control pain is established with short-acting opioids.
- A rescue dose equivalent to 10% of the 24-hour dose of opioid should be available to be taken every 1-2 hours prn for breakthrough pain. Remember to recalculate the rescue dose when increasing the base dose (long-acting dose).
- If the patient is experiencing pain when he/she takes the long-acting opioid, he/she should take a rescue dose at the same time and not expect the long-acting opioid to relieve the breakthrough pain.

NEUROPATHIC PAIN TREATMENT

Gabapentin:

- Start 100 mg po q 1h and increase weekly by 100 mg per night to a maximum of 300 mg q 1h. Occasionally doses up to 600 mg a day can be safely used.
- If ineffective at maximum tolerated dose, discontinue and start Pregabalin.

Pregabalin:

- 25 mg q 1h and increase every few days to 100 mg a day.
- If pain control is inadequate at target dose for 2 to 4 weeks, or intolerable adverse effects, discontinue and start Desipramine.

Desipramine:

- 10 mg po q 1h. Titrate to adequate pain control or maximum dose of 150 mg q 1h.
- If pain control still remains inadequate, institute WHO 3-Step Analgesic Ladder (see page 2).

MANAGEMENT OF OPIOID ADVERSE EFFECTS

Acute:

- Excessive sedation, compromised respiration with low O₂ saturation:**
 - Stop 4 mg of Naloxone in 10 ml NS and administer 1 ml IV q 1-2 minutes until patient arouses.
 - Continue to monitor for return of sedation or slowed respirations (half life of Naloxone is shorter than half life of opioids).

Chronic:

- Nausea and/or vomiting:**
 - Prochlorperazine 2.5 to 10 mg PO, SC or PR QID prn.
 - Metoprolol 5 to 1 mg PO, SL, SC, IV BID-TID prn (Metoprolol solution is Eserofar).
 - Metoclopramide 5 to 10 mg PO, SC, IV QID prn.
 - Dimenhydrinate may be used 25 to 50 mg PO, SC, IV but is less effective, except if secondary to motion/dizziness. It also reduces opioid-induced pruritus.
 - Ondansetron 4-8 mg PO or IV q8h prn.
- Constipation:**
 - Start docusate sodium and stimulant laxative (e.g. Senna, Bisacodyl) at same time as opioid as preventative therapy.
 - Lactulose at 15-30 ml po daily to BID is more effective for opioid-induced constipation but patients may prefer medication in pill form.
- Cognitive impairment:**
 - Try decreasing the opioid dose to determine if function improves. If it does, consider using a lower dose or a different pain medication.

Reference for this document can be found on the Kidney End-of-Life Coalition website: www.kidneyelc.org

Remaining Challenges

- Enhance management of other symptoms, including spiritual distress
- End-of-life care training for nephrology staff
- Increase access to palliative care including hospice for dialysis patients

Spiritual/Existential Needs in Chronic and Terminal Illnesses

- Finding hope
- Finding meaning in my life now
- Dying and Death
- Finding peace of mind
- Overcoming my fears
- The meaning of life
- Finding spiritual resources

Spiritual Needs in Patients with CKD

- N=253; pre-dialysis (stage 4&5) and dialysis patients
- Patients reported a mean of 3 (out of 7) spiritual needs
- 69.1% of patients reporting at least 1 spiritual need.
- 32% of patients had high spiritual needs (defined as reporting ≥ 5 of the 7 needs).
- Spiritual care needs were not associated with age, gender, race, marital status, dialysis modality, time on dialysis, or comorbidity.

Conclusions

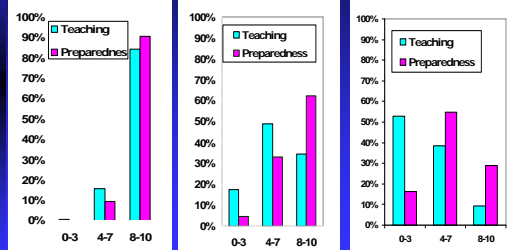
- These patients had substantial spiritual care needs.
- There were no clear predictors of high spiritual care needs
- Highlights the importance of evaluating all CKD patients for unmet spiritual needs.

Davison JPSM 2010

End-of-life Care Training in Nephrology

AJKD2003;42:813-820

Hemodialysis Distal RTA End-of-Life Care



0 = no teaching or completely unprepared 10 = a lot of teaching or completely prepared



"There's no easy way I can tell you this, so I'm sending you to someone who can."

Dialysis Withdrawal and Hospice Status of Deceased Patients: USRDS 2001-2002 Cohort

Dialysis Withdrawal and Hospice Status	Deceased Patients (N=115,239)	Percent	Mean Age in Years
Hospice Yes	15,565	13.5	73.4 ± 11.0 *
Hospice No	99,674	86.5	68.6 ± 13.4
Withdrawal Yes	25,075	21.8	72.7 ± 11.8 **
Hospice Yes	10,518	41.9	73.9 ± 10.6
Hospice No	14,557	58.1	71.7 ± 12.3
Withdrawal No	81,624	70.8	68.0 ± 13.4
Hospice Yes	2,751	3.4	71.7 ± 11.7
Hospice No	78,873	96.6	67.9 ± 13.5
Withdrawal Status Unknown	8,540	7.4	71.1 ± 13.2

Murray and Moss, CJASN 2006

Costs Associated with Hospice Use in ESRD: USRDS 2001-2002 Cohort

Dialysis Withdrawal and Hospice Status	Patients (N)	Mean cost last 6 months of life (US\$)	Mean cost last week of life (US\$)	Mean hospital days last week
6 month cohort	91,687	64,461	6,885	3.0
Patients who withdrew				
Hospice Yes	8,200	60,261	3,324	1.4
Hospice No	11,317	66,253	6,257	3.7
Withdrawal No				
Hospice Yes	2,165	64,979	4,318	1.8
Hospice No	65,868	65,345	7,588	3.1

Murray and Moss, CJASN 2006

BC Renal Agency

Provincial End-of-life Care Initiative

Questions?