Holistic management of chronic kidney disease in the older person:

Trinity Health, Kidney Centre Tallagh
Dublin
2nd Oct 2015
Dr Aine Burns
Consultant Nephrologist, Royal Free NHS Foundation Trust
Honorary Senior Lecturer, University College London

Masterly inactivity or benign neglect? Conservative management in CKD

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Overview

- Some "*evidence*" and share a personal experience of trying to set up, oversee and develop holistic services for older people with CKD in a large London teaching hospital setting.

A remarkable journey!

- 1964:

"the lucky 13!"

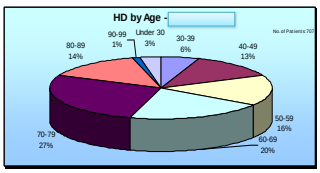
A remarkable journey!

- 1964:

"the lucky 13!"

- 2015:

104 and going strong?



USRDS 2008

Dialysis initiation rates of 1744 per million population for those age ≥75

USRDS 2008

Expected remaining lifetime:
ESRD on HD

Age 75-79 = 2.8 yrs

Age 80-84 = 2.3 yrs

Age >85 = 1.9 yrs

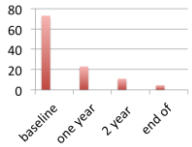
1/3 to 1/4 of age matched non-dialyzed people

Evidence for harm from dialysis in the elderly, frail and vulnerable!

- 3702 nursing home patients: *Kurella NEJM 2009*
  - Rapid decline in functional status and high mortality
    - 13% maintained functional status at 12 months
    - 1 year mortality rate was 58%
- Similar study:

  Independently living elderly patients

  Jassal NEJM 2009



A remarkable journey!

- 1964:

"the lucky 13!"

2002-2015: MCM

- 2015:

104 and going strong!

Dialysis withholding in CKD 5!

"Maximum conservative management for elderly patients with renal failure stage 5"

Terminology :~

- Conservative management
- Active supportive care
- Maximum conservative management
- Renal supportive care
- Residual renal support
- Conservative kidney care
- The non-dialysis option
- Palliative renal care
- Tablet dialysis!!

Mission :

- Reverse the reversible
- Preserve residual renal function
- Anticipate and Treat inter-currant illnesses
- Identify and treat symptoms
- Maximize functional status
- Plan end of life care
- Support family and close persons
- Minimize futile interventions

Not easy :??

- Frailty
- Dementia
- Cognition
- Depression
- Loneliness
- Bereavement
- Mobility
- Functional status
- Advance directives
- Capacity
- Co-morbidity
- Inter-currant illness
- Falls
- Difficult conversations
- Ceilings of care
- Family wishes
- Absent relatives
- Hospital visits
- Shared care
- Cost

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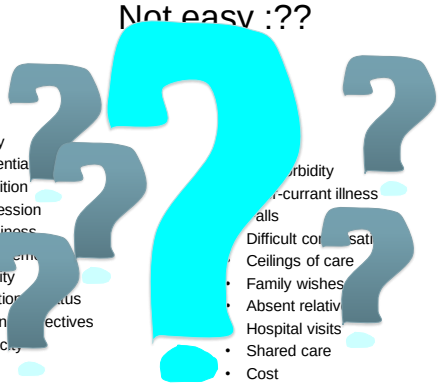
Religious cultural and ethnic issues

Not easy :??



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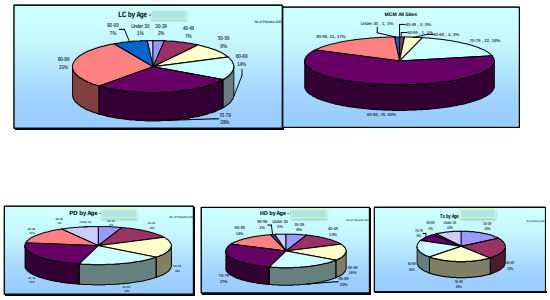
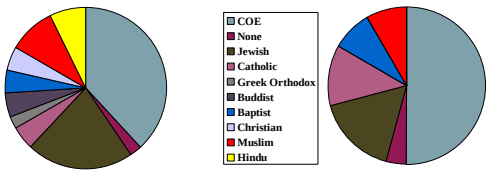


Religious Beliefs

MCM V LCC non MCM patients



- Symptom burden
- Performance status/trajectories
- Survival & hospital free days
- Quality of death
- Decision making

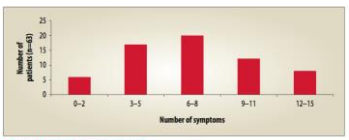


Figure 1. Number of symptoms per patient

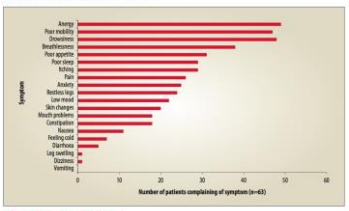


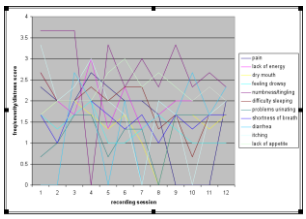
Figure 2. Frequency of symptoms

Newcastle upon Tyne UK

N= 94
67% response
Mean age = 85.9
Median age = 87
Mean eGFR = 17.8
Mean Hb 11.6

Davison &Brown 2013
BJRM:18:2; 26-28

Symptom burden



Dinneen & Burns, British Renal Association Abstract 2011

Performance status

- Symptom burden
- ✓Performance status/trajectories
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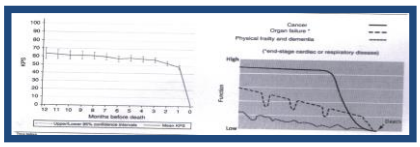

End-Stage Renal Disease: A New Trajectory of Functional Decline in the Last Year of Life
Fliss E.M. Murtagh PhD, Julia M. Addington-Hall PhD, Irene J. Higginson PhD.
Journal of the American Geriatrics Society
Volume 59, Issue 2, pages 304–308, February 2011

- Symptom burden
- Performance status/trajectories
- ✓Survival & hospital free days
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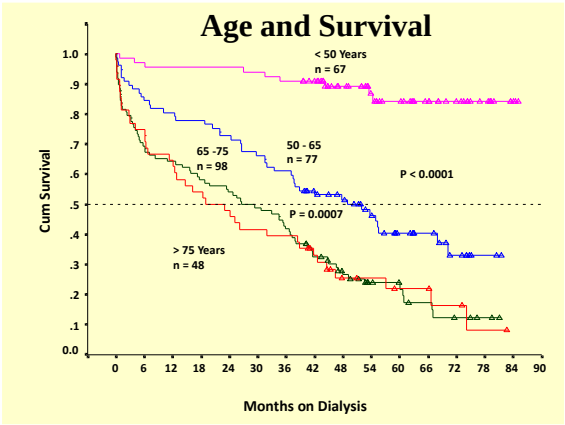
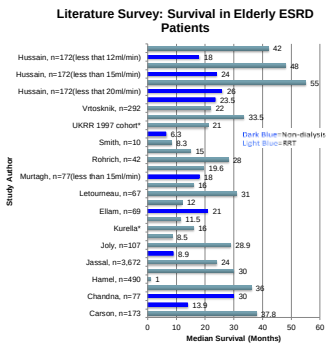
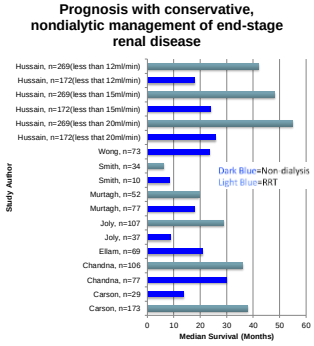
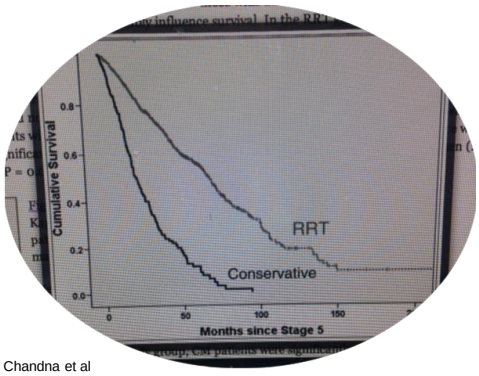
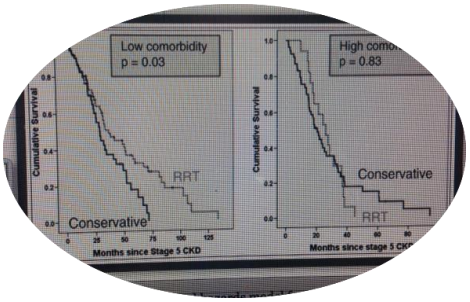






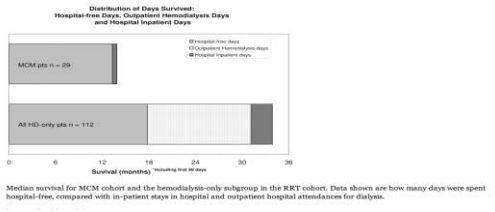


Chandna et al
NDT 2011



Chandna et al
NDT 2011

Survival: Hospital free days



Median survival for MCM cohort and the hemodialysis-only subgroup in the RRT cohort. Data shown are how many days were spent hospital-free, compared with in-patient stays in hospital and outpatient hospital attendances for dialysis.

Carson & Burns, CJASN 2008

Clin Interv Aging.2013;8:797-807

Ageism vs the technical imperative, applying the GRADE framework to the evidence on haemodialysis in very elderly patients

GRADE framework:

- Systematic reviews demonstrate median survival benefit of dialysis of at least 6 months (range 6.3-24.3)
- However:

"*The **quality of the evidence supporting a modest survival benefit*** in the elderly is considered to be very low due to methodological limitations of the studies and heterogeneity"

Cause of death:
Supportive management in Pts with ESRD
Median age = 73, N = 74
Chan 2010 Hong Kong

• Advanced uraemia	• 28%
• Sepsis	• 28%
• Cardiac Event	• 23%
• Cerebrovascular accident	• 5%
• Malignancy	• 2%
• Sudden death	• 8%
• Unknown	• 5%

- Symptom burden
- Performance status/trajectories
- Survival & hospital free days
- ✓Quality of life/death
- Decision making

Quality of life/death:

- MCM patients were 4 times more likely to die at home or in a hospice
- Final illness short 3-7 days
- eGFR circa 4ml/min
- Pulmonary oedema rarely an issue
- Agitation
- Nausea
- Pain

Carson & Burns, CJASN 2008

Quality of life/death:

Da Silva-Gane 2012
Clin J am Soc Nephrol

- Prospective 3 monthly QOL, HADS, and satisfaction with life scale for up to 3 years
- CKM patients were older, more dependent, higher co-morbidity, higher anxiety levels
- Mental health, depression and life satisfaction scores were similar in patients choosing CKM and Dialysis
- Life satisfaction (only) decreased significantly after starting dialysis and remained stable in CKM patients
- Patients choosing CKM maintained QOL

- Symptom burden
- Performance status/trajectories
- Survival & hospital free days
- Quality of life/death
- ✓Decision making

Decision making

- Shared decision making (pt. autonomy)
- Why do patients choose MCM?
- How & when should we have these conversations?
- Consultant/MDT/palliative care rubber stamping, revisiting decisions,
- Are decision aids and algorithms helpful?
- Do many patients change their minds?
- The time factor!!

Decision making

- Dementia
- Mental capacity
- Depression
- Attention span
- Higher mental function
- Family pressures (caring for spouse)
- Anxiety
- Dealing with uncertainty
- Maintaining the status quo
- Timing and quality of information given
- Trust in / track record with caregivers
- Personalities of individual and family
- In general human nature is to be optimistic "it won't actually happen to me"

Decision making

- Dementia
- Mental capacity
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- Family pressures (caring for spouse)
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- Dealing with uncertainty
- Maintaining hope
- Timing and quality of information given
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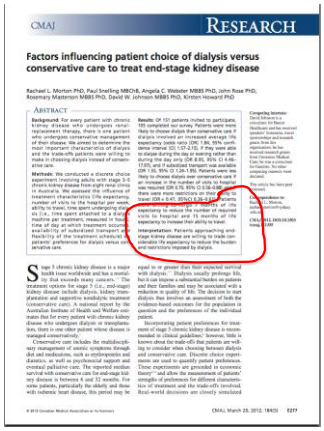
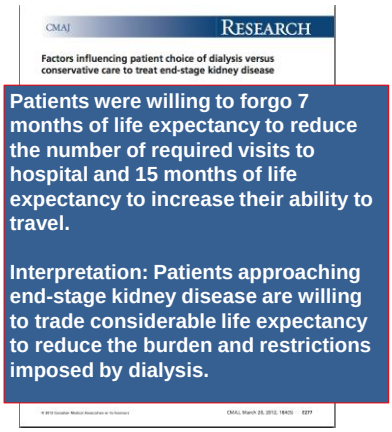
- Personalities of individual and family
- In general human nature is to be optimistic "it won't actually happen to me"

Religious & cultural issues: truth telling and disclosure



CMAJ RESEARCH

Factors influencing patient choice of dialysis versus conservative care to treat end-stage kidney disease



CMAJ RESEARCH

Factors influencing patient choice of dialysis versus conservative care to treat end-stage kidney disease

Patients were willing to forgo 7 months of life expectancy to reduce the number of required visits to hospital and 15 months of life expectancy to increase their ability to travel.

Interpretation: Patients approaching end-stage kidney disease are willing to trade considerable life expectancy to reduce the burden and restrictions imposed by dialysis.

Reasons for choice:
Supportive management in Pts with ESRD
Median age = 73, N = 74
Chan et al 2010 Hong Kong

- Patient felt they were too old (27%)
- Patient not accepting dialysis therapy (24%)
- Multiple co-morbidity and poor functional state (22%)
- Perceived burden to family (4%)
- Poor social support (28%)
- Other(17%)

MCM: A new phase in a remarkable journey

- Legitimate & positive treatment option chosen by approx 10% of elderly patients which delivers:
  - maintained functional status for many months
  - a short final illness
  - 4 times greater chance of dying at home or in hospice setting
  - Survival & intervention free out of hospital days may not differ much from patients who choose dialysis

Who will likely benefit from conservative care?

- Over 75 or 80 and…
- +++ co-morbidity (IHD, CVA)
- Poor performance status/ frail
- Flat trajectory (little proteinuria)

*** mental and/or physical problems which make long-term dialysis/ Tx "impossible"

Fantastic team!

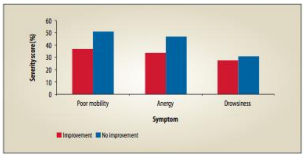
The Low Clearance team

Front row: left to right: Brenda Tuson (Specialist Sister), Noelle Harty (Clinical Nurse Specialist) (CNS), Dr Arne Burns (Lead Consultant CKD), Bernadette Buckle (Dr Burns Secretary) 2nd row: left to right: Katy Gerrard (CNS),Marie Dixon (Lead Nurse Specialist Practice CKD), Sarah Alvarez (Clinical Psychologist), Marie Davidson, (CNS), Magda Szczesni (Specialist Sister) 3rd row: Matt Evans (CKD administrator),Sheila Johnston (Clinical lead CKD), Katherine Hopkins (McMillan Nurse Consultant)

BUT!!

- That's not the whole story!!

Newcastle upon Tyne UK



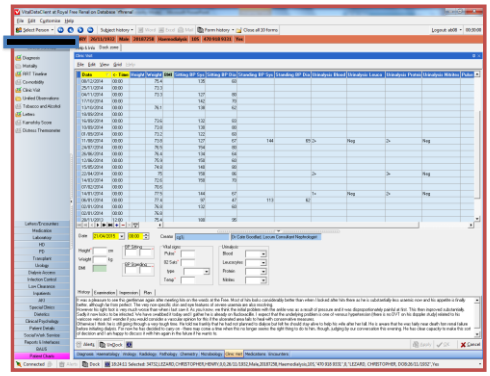
We may have to be honest and realistic about what we can achieve!!

Patient C.L. 83 year old.

- RENAL HISTORY
- Was previously seeing (Dr. X as PP)
- CKD since 2009
- -Renal biopsy 2008: glomerular ischaemia with secondary FSGS and hypertensive nephropathy
- Left renal artery stenosis
- AKI Dec 2013 due to diuretics
- MEDICAL AND SURGICAL HISTORY
- 2011 Aneurysm repair - stent (Mr. H)
- Atrial Fibrillation (warfarin)
- Macular degeneration - registered blind but can mobilise independently
- Gout
- Diverticulosis
- Hypertension
- Peripheral neuropathy - numb foot
- Cardiology with (Dr Y as PP)
- - 1989 - MI - blocked circumflex
- - ECHO - calcified aortic valve, normal LVEF, moderate pulmonary hypertension
- - Stress echo and possibly baloon valvuloplasty if the AS is significant
- - Dec 2013 Myocardial ischaemic event
- May 2015 painful R foot ulcer
- RRT PLAN
- Jan 2014 - decided on PD and has seen PD nurses, surgeons and an anaesthatist (insertion needs to be under LA)
- Oct 2014 - reconsidering MCM
- Jan 2015 decided MCM and refered to Pall Care (although still wants to have the option to change his mind)
- March 2015 - started HD
- Admitted on 26/3/15 from LCC with AKI on CKD secondary to high diuretic use (Furosemide increased to 1g by Cardiologists).
- RRT discussed with patient who agreed to trial HDx.

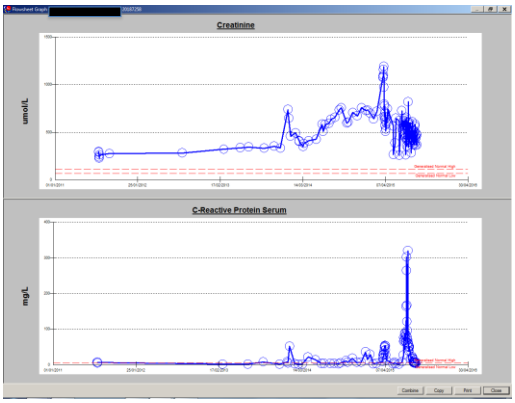
CL

- Frequent and long discussions:
- Alternating plans for CKM/ Assisted PD
- Finally his wife felt she could not cope with PD at home
- Multiple disasters over several years headed off at the pass with intensive monitoring (not helped by colleagues sometimes)
- Finally, admitted AKI on CKD (++inc diuretics from Cardiology, but uraemic Sx ++)
- Family discussion arranged: wife falls on way in to this conversation
- Long discussion in A & E!!
- Patient commenced HD via a tunelled line 30/3/15:
  - U= 65, eGFR= 5.7



CL

- 22 weeks since commencement of HD
- 14 in hospital or rehab
- Each time he sees a nephrologist he initiates a discussion re withdrawal but decides to carry on!
- Hates dialysis, hates transport, life miserable
- 6kg weight loss (flesh)
- Now home again: Carers 4/ day
- Shuffling with zimmer, vision much worse



- Is this the best outcome we could have achieved for CL?

Three categories of elderly LCC patient decisions given the same information

A. Certain they do/do not want dialysis under any circumstances and do not deviate
B. "I want conservative care I don't want dialysis at all, I'd only have it if it really came to it, no I'd prefer not to have it"
C. Agonizers…. revisit the decision again and again, alternating choices…

Three categories of elderly LCC patient decisions

A. Certain they do/do not want dialysis and do not deviate
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C. Agonizers…. revisit the decision again and again, alternating choices…

pressure to have a decision made:

?? Flexible/expectant planning in these situations:

?? Vascular access and unplanned start targets HARMFUL to these patients

Challenges for the future

Old Woman Dozing Nicolaes Maes (1656). Royal Museums of Fine Arts, Brussels

Old Woman Dozing Nicolaes Maes (1656). Royal Museums of Fine Arts, Brussels

Thank you for your attention!

"GERIATRIC GIANTS"

- FRAILTY
- FALLS (Every year,
  - about one-third of those 65 years old fall
  - over half of those 80 years old fall
  - leading cause of injury and death for old people
- DEMENTIA/DELERIUM
  - Incontinence
  - VERY FAMILIAR TO RENAL COMMUNITY IN PRACTICE BUT little background knowledge of research or training in these areas

Falls prevention

- Old age spells risk for injury from falls that might not cause injury to a younger person
- Every year,
  - about one-third of those 65 years old fall
  - Over half of those 80 years old fall
- Falls are the leading cause of injury and death for old people

Patient centred care

- Renal services focus:
  - holistic symptom control
  - dietary changes
  - psychological impact of renal disease
- Geriatric comprehensive assessment:
  - functional status
  - cognitive impairment
  - polypharmacy
  - maintain or improve QOL
  - prevent hospital admissions

Frailty and multiple co-morbidities

- Frailty "cumulative decline in multiple physiological systems and impairment of homeostasis leading to increased vulnerability to external stressors: *Clegg Lancet 2013*

Mental marks of old age:

- **Adaptable** "accepting."
- **Caution** marks old age.
  - antipathy toward "risk-taking" stems from the fact that old people have less to gain and more to lose by taking risks than younger people
- **Depressed** mood:
  - the over-65 population having the highest suicide rate.
- **Fear** of crime.
  - The fear persists in spite of the fact that old people are victims of crime less often than younger people
- **Reduced mental and cognitive ability**:
  - Memory loss,
  - More time to learn new information.
  - Dementia prevalence increases in old age 50% over age 85
- **Set in one's ways** describes a mind set of old age.
  - A study of over 400 distinguished men and women in old age found a "preference for the routine."

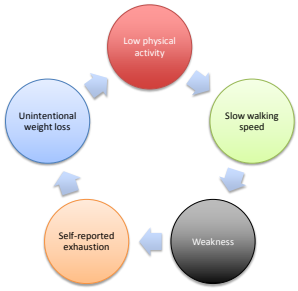
Frailty and multiple co-morbidities

- Rockwood index:

Continuum

unintentional weight loss,
self-reported exhaustion,
weakness,
slow walking speed,
low physical activity

Fried frailty phenotype:
present or abscent: 3+



Attention to the clinical trajectory is required to calibrate expectations and guide timely decisions, but prognostic uncertainty is inevitable and should be included in discussions with patients and caregivers.

remit

- exploring the geriatric/palliative care interface
- older patients selecting dialysis, avoiding starting dialysis too early, recognising that fluctuations in renal function occur and to avoid knee-jerk starting dialysis with deterioration in GFR

CL

- Same day his wife falls>> 6 weeks hospital
- 3 week admission
- Short period of feeling much better at home
- Since then 4 admissions
  - Painful ischaemic ulcer foot
  - Hernia repair (as PP: painful haematoma “due to renal failure according to surgeon”)
  - Fall hip fracture
  - Rehab unit>>> back to main hospital
- Home 2 per week HD