Utilizing Validated Tools for Evaluating Hospice and Palliative Care Eligibility

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Ohio's Hospice

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Today's Presenters

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Objectives

- Describe Medicare Guidelines for Hospice Eligibility in common non-cancer diagnoses
- Describe the use of validated tools and scales for prognostication in patients with advanced non-malignant disorders

A 6-month prognosis for hospice? Whose idea was this??

- Hospice – all volunteer organization until 1984
- Hospice Benefit – 1984 – brought reimbursement and regulation – Medicare Conditions of Participation- the *"COPS"*
- *1984 COPS – Eligible* patients must have a prognosis of "6 months or less if the disease follows it normal course".

Hospice developed around a Cancer Model

- Prognostication of 6 months was simple:
  - Few disease modifying treatments for cancer
  - Patients with advanced cancer expected to die within months.

Non cancer diseases:

- 1990's- value of hospice care for patients with non-cancer diagnoses, but how to determine life expectancy??
- 1995-1996, National Hospice Organization, (now NHPCO), consensus groups developed:

Medical Guidelines for Determining Prognosis in Selected non-Cancer diagnoses

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Medical Guidelines for Determining Prognosis in Selected non-Cancer diagnoses

- Guidelines adapted by HCFA (now CMS) as policies for hospice reimbursement
- Formed the basis for the Local Coverage Determinations (LCDs) utilized by Medicare Administrative contractors (MACs) to determine payment

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Local Coverage Determinations LCD's for Palmetto The Medicare Administrative Contractor for Ohio

- https://www.cms.gov/medicare-coverage-database/indexes/lcd-list.aspx?Cntrctr=373&ContrVer=1&CntrctrSelected=373

CMS.gov

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Medical Guidelines for Determining Prognosis

- No validated evidence that the Guidelines are sensitive or specific predictors of a prognosis of 6 months in individual cases.
- Hospice organizations opposed the "guidelines" as criteria for hospice admission.
- Guidelines very helpful in bringing specialists "on board".

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Benefits and Burdens: Medical Guidelines for Determining Prognosis?

- Provide a wide umbrella of potential eligibility for evaluation of patients for hospice
- Help assure that patients with non-cancer diagnoses have opportunity to receive hospice care by giving non-hospice professionals a tool to screen patients for referral
- Can potentially deny access if used too vigorously in chronic non-cancer diagnoses without considering co-morbidities and evidence of constitutional decline

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Medical Guidelines for Determining Prognosis

- If guidelines are met, hospice gets paid. If not, hospice can still get paid, but must provide additional evidence of a 6-month prognosis.
- *The real work of determining eligibility rests on the hospice staff!!!*

Eligibility

"It is questionable whether the Medical Guidelines, or any other set of criteria that are simple enough for clinical application, even with research to optimize their validity, will ever predict 6-month prognosis, in fact it is questionable whether prognosis of mortality will ever be an exact science"

-The Hospice Medical Director's Manual

3rd Edition, 2016

Validated Tools

- Minimum Data Set/ Mortality Risk Score
- Palliative Performance Scale
- The "AHA" question:

  "Would you be surprised if your patient died in the next 6 months?? In the next year??"

Minimum Data Set /Mortality Risk Indicator MMRI

- Predicts 6 month mortality for nursing home residents with advanced dementia.
- 12 data points indicating EOL changes are given points and the points added up.
- 63% patients with a risk score of 9 or greater will die within 6 month
- However, 26% of patients with a lower score will also die within 6 months

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Minimum Data Set

The MDS has the potential to help professionals in long-term care to identify patients at increased risk of demise based on data with life limiting implications, such as difficulty swallowing, weight loss, and comorbidities - like heart failure.

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Palliative Performance Scale PPS

- Performance status is an important predictor of survival in non-cancer patients
- Declining performance status is a strong criteria for hospice eligibility
- Few non-cancer diagnoses patients are admitted to hospice with a PPS > 50%
- Other performance scales: Karnofsky, ECOG

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Palliative Performance Scale

Palliative Performance Scale (PPSv2)

PPS Level	Ambulation	Activity/Evidence of Disease	Self Care	Intake	Conscious Level
100%	Full	Normal activity/work No evidence of disease	Full	Normal	Full
90%	Full	Normal activity/work Some evidence of disease	Full	Normal	Full
80%	Full	Normal activity/work Some evidence of disease	Full	Normal or reduced	Full
70%	Reduced	Unable normal job/work Significant disease	Full	Normal or reduced	Full
60%	Reduced	Unable hobby/housework Significant disease	Occasional Assistance necessary	Normal or reduced	Full or Confusion
50%	Mainly sit/lie	Unable to do any work Extensive disease	Considerable Assistance required	Normal or reduced	Full or Confusion
40%	Mainly in bed	Unable to do most activity/ Extensive disease	Mainly assistance	Normal or reduced	Full or Drowsy +/- Confusion
30%	Totally Bed Bound	Unable to do any activity Extensive disease	Total Care	Normal or reduced	Full or Drowsy +/- Confusion
20%	Totally Bed Bound	Unable to do any activity Extensive disease	Total Care	Minimal to sips	Drowsy or Coma +/- Confusion
10%	Totally Bed Bound	Unable to do any activity Extensive disease	Total Care	Mouth care only	Full or Drowsy +/- Confusion
0%	Death	-	-	-	-

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Going Beyond Diagnosis:

- Dr. Feliciano, Medical Director of the Palmetto MAC that serves Ohio
  - Identify decline in the domains of:
    - behavior
    - nutrition
    - cognition
    - function

Dr Feliciano – our hero

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The skill set for identifying patients for hospice:

- Understanding the effects of environment, social support systems, access to care on the individual patient, and utilizing the International Classification of Function (ICF) as well as the ICD10.

Dr Feliciano – our hero

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Performance Scales

The skill set for identifying patients for hospice:

- Understanding the basic trajectory of the illness
- Objectivity
- Intuition
- Knowing the markers
  - repeated hospitalizations, depression, withdrawal, life passages and loss, weight loss and trouble swallowing

The "AHA" question -

"Would you be surprised if your patient died in the next 6 months?? In the next year??"

Cardiac Disease - Prognostication

- Accurate prognostication in heart failure is challenging.
  - Disease trajectory is unpredictable with high incidence of sudden death
  - Heterogeneous patient population

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ES Cardiac Disease

Prognostication is very difficult when the patient is compensated, and patients and their families often do not realize the patient is dying:

"Patients with heart failure can look the same on the Monday of the week they die as they have for six months"

Joanne Lynn, MD
Bioethicist, Director of the Center for Care of the Dying

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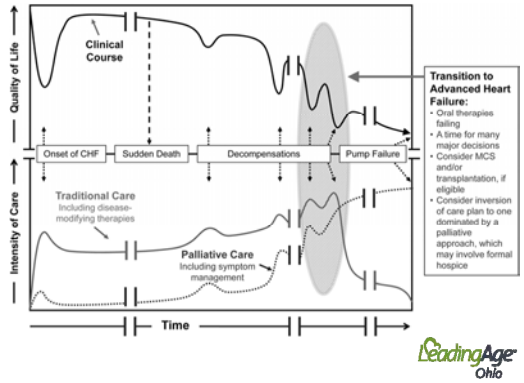

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Prognostication Tools
NYHA Classification

Class	Patient Symptoms
I	No limitation of physical activity. Ordinary physical activity does not cause undue fatigue, palpitations, dyspnea (shortness of breath).
II	Slight limitation of physical activity. Comfortable at rest. Ordinary physical activity results in fatigue, palpitation, dyspnea (shortness of breath).
III	Marked limitation of physical activity. Comfortable at rest. Less than ordinary activity causes fatigue, palpitation, or dyspnea.
IV	Unable to carry on any physical activity without discomfort. Symptoms of heart failure at rest. If any physical activity is undertaken, discomfort increases.

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Prognostication Tools

- New York Heart Association (NYHA) Classification is the major gauge of disease severity
- 1-year mortality estimates are:
  - Class II (mild symptoms): 5-10%.
  - Class III (moderate symptoms): 10-15%.
  - Class IV (severe symptoms): 30-40%.

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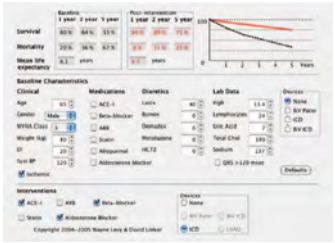
Prognostication Tools
Seattle Heart Failure Model



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General predictors of shorter prognosis:

- Cardiac hospitalization :triples 1-year mortality; nearly 1 in 10 die within 30 days of admission
- Intolerance to therapy (i.e. beta-blockers or ACE-inhibitors) associated with high 4 month mortality
- Elevated BUN (defined by upper limit of normal) and/or creatinine ≥ 1.4 mg/dl (120 µmol/l).

General predictors of shorter prognosis:

- Systolic blood pressure <100 mm Hg and/or pulse >100 bpm doubles 1-year mortality
- Decreased left ventricular ejection fraction (linearly correlated with survival at LVEF ≤ 45%)
- Ventricular dysrhythmias, treatment resistant.

Predictors

- Anemia : each 1 g/dl reduction in hemoglobin is associated with a 16% increase in mortality
- Hyponatremia : serum sodium ≤135-137 meq/l
- Cachexia or reduced functional capacity.
- Orthopnea.
- Co-morbidities: diabetes, depression, COPD, cirrhosis, cerebrovascular disease, and cancer.

Hospice Eligibility Criteria Cardiac Disease

- The National Hospice and Palliative Care Organization's (NHCPO) guidelines for heart disease admission criteria include:
  - symptoms of recurrent HF at rest (NYHA class IV)

    AND
  - optimal treatment with ACE inhibitors, diuretics, and vasodilators (contemporary optimal treatment now includes β-blockers, aldosterone antagonists, and device therapies).

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Supporting Documentation

- According to the NHPCO guidelines an ejection fraction < 20% is helpful objective evidence but not required (systolic HF)
- Each of the following further decreases survival:
  - treatment resistant ventricular or supraventricular arrhythmias
  - history of cardiac arrest in any setting
  - history of unexplained syncope
  - cardiogenic brain embolism
  - concomitant HIV disease

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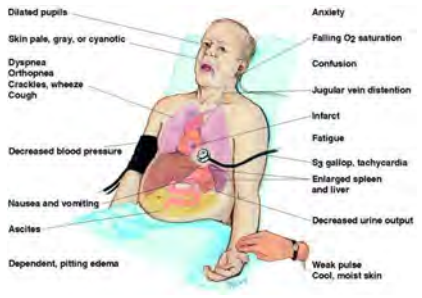

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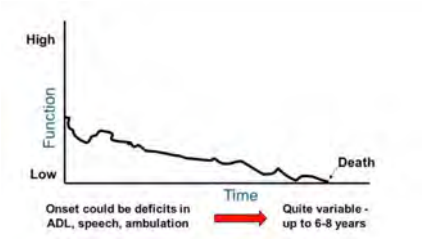
Dementia

- Syndrome of acquired and persistent impairment in cognition and intellectual functioning.
- Irreversible & leads to progressive brain failure and death

Dementia

- Divided into four functionally defined categories:
  - Mild
  - Moderate
  - Severe
  - Terminal
- Terminal dementia is defined as loss of communication, ambulation, swallowing and continence

Illness Trajectory



Prognostic factors associated with shortened survival:

Male gender	Dehydration	CHF	COPD	Cancer	Peripheral Edema
Bowel incontinence	Recent weight loss/ Low BMI	Age	Fever	Pressure Ulcers	Cardiac dysrhythmias
Sleeping most of the day	Need for continuous oxygen	SOB	Aspiration	Low oral intake	Seizures

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Prognostic Factors

- **Malnutrition, feeding issues, and dysphagia** are the strongest associated factors with 6 month mortality in elderly patients with advanced dementia.
- Hospitalization with acute illness and terminal dementia is associated with a particularly poor prognosis:
  - the 6-month mortality after hospitalization for pneumonia was 53% compared with 13% for cognitively intact patients.
  - For patients with a new hip fracture, 55% of end-stage dementia patients died within 6 months compared with 12% for cognitively intact patients

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Prognostic Tools

Functional Assessment Staging (FAST)

Stages

1. No difficulties
2. Subjective forgetfulness
1. Decreased job functioning and organizational capacity
4. Difficulty with complex tasks, instrumental ADLs
5. Requires supervision with ADLs
6. Impaired ADLs, with incontinence
7. A. Ability to speak limited to six words
   B. Ability to speak limited to single word
   C. Loss of ambulation
   D. Inability to sit
   E. Inability to smile
   F. Inability to hold head up

Mortality Risk Index Score (Mitchell)

Points	Risk factor
1.9	Complete dependence with ADLs
1.9	Male gender
1.7	Cancer
1.6	Congestive heart failure
1.6	O_2 therapy needed w/in 14 day
1.5	Shortness of breath
1.5	<25% of food eaten at most meals
1.5	Unstable medical condition
1.5	Bowel incontinence
1.5	Bedfast
1.4	Age > 83 y
1.4	Not awake most of the day

Risk estimate of death within 6 months

Score	Risk %
0	8.9
1-2	10.8
3-5	23.2
6-8	40.4
9-11	57.0
> 12	70.0

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Table 2: Functional Assessment Staging (FAST)-Stage 7

Stage	Characteristics
7a	Speech ability is limited to six words
7b	Speech ability is limited to one intelligible word per average day
7c	Ambulatory ability is lost
7d	Unable to sit up without assists
7e	Loss of ability to smile
7f	Loss of ability to hold up head independently

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Hospice Eligibility Criteria Dementia

- NHPCO guidelines:
  - FAST Stage 7C

AND

  - One or more specific dementia-related co-morbidities in the past 12 months (aspiration pneumonia, pyelonephritis, septicemia, multiple stage 3-4 ulcers, persistent fever, weight loss >10% within six months or serum albumin <2.5g/dL).

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Senile Asthenia

- A syndrome that reflects a decline in physiological reserve and increased vulnerability to various stressors.
- Also known as age-related physical debility/frailty.
- Adult Failure to thrive and Debility Not Otherwise Specified (NOS) can no longer be listed as a principal terminal diagnosis
- AFTT and Debility NOS can instead be listed as secondary conditions to support prognosis if indicated.

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Adult Failure to Thrive

1. Irreversible nutritional impairment, as evidenced by both of the following:
   - Body Mass Index (BMI) less than 22kg/m^2
   - Declines enteral/parenteral nutritional support OR has not responded to such support, despite an adequate caloric intake

AND

2. Significant Disability as evidenced by the Palliative Performance Scale (PPS) equal to or less than 40 percent.

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PALLIATIVE PERFORMANCE SCALE (PPS)

%	Ambulation	Activity Level Evidence of Disease	Self-Care	Intake	Level of Consciousness	Estimated Median Survival in Days (a)	(b)	(c)
100	Full	Normal No Disease	Full	Normal	Full			
90	Full	Normal Some Disease	Full	Normal	Full	N/A		
80	Full	Normal with Effort Some Disease	Full	Normal or Reduced	Full		N/A	
70	Reduced	Can't do normal job or work Some Disease	Full	As above	Full	146		108
60	Reduced	Can't do hobbies or housework Significant Disease	Occasional Assistance Needed	As above	Full or Confusion	29	4	
50	Mainly sitte	Can't do any work Extensive Disease	Considerable Assistance Needed	As above	Full or Confusion	30	11	41
40	Mainly in Bed	As above	Mainly Assistance	As above	Full or Drowsy or Confusion	18	8	
30	Bed Bound	As above	Total Care	Reduced	As above	9	5	
20	Bed Bound	As above	As above	Minimal	As above	4	2	
10	Bed Bound	As above	As above	Mouth Care Only	Drowsy or Coma	1	1	6
0	Death	-	-	-	-	-	-	

(a) Survival post-admission to an inpatient palliative unit, all diagnoses (Ando 2002).
(b) Days until inpatient death following admission to an acute hospice unit, diagnoses not specified (Anderson 1996).
(c) Survival post admission to an inpatient palliative unit, cancer patients only (Morita 1999).

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Supporting Documentation

- Recurrent or intractable infections, such as pneumonia or other URI, sepsis, or UTI
- Decreasing serum albumin or cholesterol
- Dysphagia leading to recurrent aspiration and inadequate oral intake documented by the decreasing food portion consumption
- Nausea/vomiting poorly responsive to treatment

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Supporting documentation Asthenia

- Diarrhea, intractable
- Generalized pain
- Decline in systolic blood pressure to below 90 or progressive postural hypotension
- Edema
- Change in level of consciousness
- Abnormal electrolyte levels
- Progressive 3-4 stage pressure ulcers

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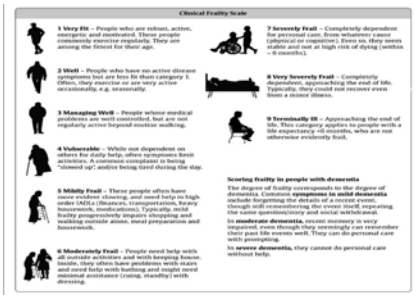
Clinical Frailty Scale



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Hospice Eligibility Criteria

- Terminal Illness: GENERAL (non-specific)
  - Terminal condition not attributed to a single specific illness.

AND

- Rapid decline over previous 3-6 months as evidenced by:
  - Progression of disease evidenced by symptoms, signs & test results
  - Decline in PPS to ≤ 40%
  - Involuntary weight loss >10% and/or Albumin < 2.5g/dL

End-Stage Lung Disease

Prognostic Indicators

- All lung diseases follow a common final pathway
- FEV 1<30% of predicted remains best indicator
  - 25% of pts die within 2 years
  - 55% of pts die within 4 years
- Low BMI
- Low oxygen sat/high CO2

Prognosis in hospitalized patients

- Age
- Functional status
- Co-morbidities
- Hypoxia
- Hypercapnia
  - PaCO2 > 50mmHg at admission
    - 33% die within 6 months
    - 42% die within 1 year
- If mechanical ventilation required, 25% die during admission

Eligibility Guidelines

- Disabling dyspnea at rest
- Poor response to bronchodilators
- Decreased functional capacity (bed-to-chair)

AND

- Increasing hospital/MD visits
- Hypoxia at rest (<88% on room air)

OR

- Hypercapnia (pCO2 > 50mmHg)

What our patients tell US…

- Patients were interviewed following hospitalization for life-threatening COPD exacerbation
- Identified 6 milestones:
  - Loss of recreation/change in relationships
  - Downsizing/needing residential care
  - Increased episodes of acute care
  - Initiation of long-term oxygen therapy
  - Dyspnea causes panic attacks
  - Needing help with self-care

Landers, Wiseman, Pitama et al. Patient perceptions of severe COPD and transitions toward death: a qualitative study identifying milestones and developing key opportunities. NPJ Primary Care Respiratory Medicine. 2015; 25: 15043

End-Stage Liver Disease

Prognostic Indicators

- Decompensated liver disease has LE <2 years
  - Bleeding varices
  - Spontaneous bacterial peritonitis (SBP)
  - Ascites
  - Hepatocellular carcinoma
  - Hepatorenal syndrome

Prognostic Tools

Child-Pugh Classification

Parameters	Points		
	1	2	3
Serum Bilirubin(mg/dl)	2.0	2-3	>3.0
Serum Albumin(g/dl)	>3.515	2.8-3.5	<2.8
Prothrombin Time (Prolongation (s))	1-4	5-6	>6
Hepatic encephalopathy	None	Minimal	Advanced
Ascites	None	Slight	Moderate
One and two year survival based on CTP Score			
Class	1 yr	2 yr	
A (5-6 points)	100 %	85 %	
B (7-9 points)	80%	60%	
C (10-15 points)	45%	35%	

Data from Child CG, Turcotte JG.Surgery and portal hypertension. In: Child CG. The liver and portal hypertension. Philadelphia: Saunders; 1964.p.50-64

MELD Score

MELD = 3.78 x $\log_e$ serum bilirubin (mg/dL) +
11.20 x $\log_e$ INR +
9.57 x $\log_e$ serum creatinine (mg/dL) +
6.43 (constant for liver disease etiology)

NOTES:
If the patient has been dialyzed twice within the last 7 days, then the value for serum creatinine used should be 4.0

Any value less than one is given a value of 1 (i.e. if bilirubin is 0.8, a value of 1.0 is used) to prevent the occurrence of scores below 0 (the natural logarithm of 1 is 0, and any value below 1 would yield a negative result)

Eligibility Guidelines

- **MUST have both:**
  - **INR >1.5**
  - **Albumin <2.5**
- **AND**
  - **Ascites (refractory to treatment or patient non-compliant)**
  - **Spontaneous bacterial peritonitis**
  - **Hepatorenal syndrome (increased BUN/Cr with urine output less than 400mL/day)**
  - **Hepatic encephalopathy (refractory or patient non-compliant)**
  - **Recurrent variceal bleeding despite intensive therapy**

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Other facts that support eligibility (but not required)

- Progressive malnutrition
- Muscle wasting
- Continued alcohol use >80g/day
  - 1 standard drink has 10g of EtOH
- Hepatocellular carcinoma
- Hepatitis B
- Hepatitis C refractory to treatment

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What about transplantation?

- Patients who are on the liver transplant list MAY be enrolled in hospice
  - Increased emotional support needs
- If a donor organ is procured, the patient must be discharged from hospice

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Cerebrovascular Accident

Prognostic Indicators

- Early (within first few days of hospitalization)
  - ✓Age >75
  - ✓Female gender
  - ✓Embolic cause
  - ✓Hemorrhagic transformation
  - ✓Symptom onset to treatment time > 2 hours
  - ✓ER stay >8 hours
  - ✓Failure to receive TPA
  - ✓Treatment not in a dedicated stroke center
  - ✓Low income
  - ✓Lack of social support

Prognostic Indicators

- Late (greater than 3 days s/p CVA)
  - Dysphagia lasting >3-7 days post stroke
  - Requirement of feeding tube
  - Post-stroke coma lasting >3 days
  - Absent response to verbal stimuli after 3 days

Eligibility Guidelines

- Hospice eligibility requires
  - Poor functional status (PPS <40)

    AND

  - Inability to maintain nutrition and caloric intake

Poor Functional Status

- Poor functional status
  - PPS score of 40 or less
  - Bed-bound
  - Unable to work
  - Needs maximal assistance for self-care
  - PO intake normal or reduced
  - Either fully conscious or drowsy/confused

Poor Nutritional Status

- Must include ONE of the following
  - Weight loss >10% in the past 6 months
  - Weight loss >7.5% in the past 3 months
  - Serum albumin
  - Aspiration
  - Calorie counts demonstrating inadequate intake
  - Dysphagia severe enough to prevent adequate intake

Additional supportive factors

- Present within the past 12 months, within the context or progressive clinical decline:
  - Recurrent infections (pneumonia or other URI)
  - UTIs
  - Sepsis
  - Stage 3-4 decubitus ulcers
  - Fever (persistent after antibiotics)

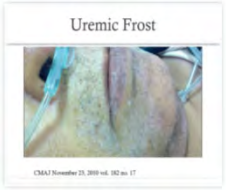
Can a feeding tube help?

- Feeding tubes generally NOT recommended
  - Do NOT prevent aspiration
  - Often require restraints
  - Infection
  - Functional issues

End-Stage Renal Disease

Prognostic Indicators

- Fluid overload
- Severe anemia
- GI bleeding
- Itching from uremia
- "Uremic frost"
- Hyperkalemia causing heart arrhythmias



End-Stage Renal Disease

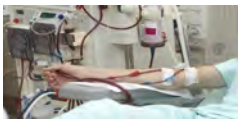
These criteria must be met:

- Must NOT be receiving dialysis (or must have a plan to d/c) or seeking renal transplant
- Laboratory evidence of renal failure:
  - Creatinine clearance <10 cc/min (more liberal for patients with DM and CHF)

    OR
  - Creatinine >8 mg/dL (>6.0 for diabetics)

What happens when you stop dialysis?

- When a patient decides to stop dialysis:
  - Death within 1-2 weeks
  - Longer if patient has nearly normal urine output
- Fluid overload (can be treated with diuretics)
- Hyperkalemia



Discussing Hospice Care

- Discussing hospice is hard
- Hospice = death vs. hope?
- Hospice care increases survival for selected non cancer diagnoses: surveillance, socialization, risk avoidance

Words That Work -

To the patient:

"If your illness can't be cured, how would you like the rest of your life to be?"

" Where do you want to be at the end of life"

To the family:

"I am worried about your mother,

- she is loosing weight
- she is sleeping more
- has been hospitalized three times in the last year…"

Words That Work -

- I know an organization that has helped a lot of our patients, can I tell your more?
- Let's get care that helps me take care of you and supports your family

Always include family in these discussions- be prepared for strong emotions

Calling the doctor:

- "Mrs. Jones has lost 15 pounds in the last 6 months".
- "Mrs. Jones has been hospitalized three times for heart failure and almost did not get back here this time".
- "Mrs. Jones husband died last month, she is not eating, is losing weight and is more confused I think she needs more emotional support".
- "I notice that Mrs. Jones meets the Medicare guidelines for hospice care with a diagnosis of _____".

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Thank you for attending our presentation!

Thoughts and discussion –

Please share your experiences!

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Online tools

- Prognostat
- E- prognosis