Prognosis and Options of Care

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Goals and Objectives

• Be able to communicate the prognosis with patient and loved ones.
• Learn and use prognostic indicators.
• Use functional status and trajectory of decline to improve prognostication.
• Be able to use the prognosis to develop options of care near the end of life.
Tuesdays with Morrie

• “Everyone knows they are going to die, but nobody believes it.”
• “But if they did, they would plan better.”

Mitch Albom
The Problem with Prognosis

- A poor or terminal prognosis is unacceptable
- Scientific advances
- Second (maybe third) opinions
- Centers of excellence
- Miracles
The Problem with Prognosis

• We get it wrong
Prognostication

- 1563 predictions from 8 studies
- In 27% of cancer pts. survival was over estimated by 4 weeks.
- Only correct to within 1 week 25% of pts.

Glare P. et al. BMJ 2003;37
Prognostication

• Prospective cohort study:
• Only 20% of predictions are correct
• Survival was over estimated by a factor up to 5.3

Lamont & Christakis; Cancer. 2002;94
Prognostication

- Physicians are optimistic
- Over optimistic by a factor of 3
- Drs. predicted 6 weeks and pts. lived 2
- We are better very near the end of life

Christakis et al. BMJ
2000; 320
Prognosis

- Minutes to hours
- Hours to days
- Days to weeks
- Weeks to months
Minutes to Hours

- Decreased responsiveness
- Breathing pattern changes (Cheyne Stokes, Biots)
- Airway secretions (death rattle)
- Vasoconstriction (mottled)
- Hypo perfusion (pale, cold, clammy)
Hours to Days

- Delirium
- Debility
- Incontinence
- Poor airway protection, aspiration
- Sallow skin, decreased turgor
- Unstable vital signs, low oxygen sats.
Days to Weeks

- Weakness, muscle loss
- Exhaustion
- Cachexia, emaciation
- Loss of appetite
- Hyper somnolence
- Confusion, forgetfulness
Weeks to Months

- Emotional dynamics
- Second opinions
- Frequent medical visits and hospital admissions
- Weight, sleep, eating changes
- Polypharmacy, polydiagnostics
C.A.R.I.N.G.

- C  Cancer stage IV
- A  Admissions to hospital (2 in one year)
- R  Resident of a nursing home
- I  ICU admission, multi organ failure
- N  Non cancer, already on hospice
- G  Guidelines

Fisher et al; J of Pain and Symptom Man.;Vol 31, 2006
Admission to ICU

- Hospital stay > 10 days
- Age 80+ with two or more co morbidities
- Stage IV malignancy
- Status post cardiac arrest
- Hemorrhagic CVA requiring ventilation

Prognosis by Disease

• Cancer
  • Good at survival rates (per groups not per pt.)
  • Common to over estimate survival

• Non cancer
  • Very poor at prognosticating chronic disease
  • Dementia
  • End stage heart disease
  • Failure to thrive
Prognosis by Functional Status

- The less you can do, the worse you will do
Functional/Performance Status

• Karnofsky scale

• Palliative Performance scale
Trajectory of Decline

- Declining performance status
- Take a turn for the worse
- Dwindles
- Spiraling decline
- On the slippery slope
- One foot in the grave
- Circling the drain
Trajectory of Decline

• Dropped like a rock
  • 10% of deaths are sudden
  • Accidents, Asystole

• Steady decline
  • Metastatic cancer
  • Alzheimer's

• Good days and bad days
  • CHF, COPD, CVA
Gradual decline

Functional status

Time

Death
Variable decline

Functional status vs. Time

Death
Prognosis Markers

- Low lymphocyte count $^1$
- Low albumin $^2$
- Low Body mass index

1. Am Heart J 2001;142
2. Peralta, Pinsky, Medscape 2012
Options of Care

- Hope
Options of Care

• Continue hospital care
• Home with family
• Home with Home Health Agency
• Nursing home
• Hospice (anywhere)
Thank you