Characteristics and challenges of palliative medicine patients who elect full resuscitation status

Evan Fonger, MD
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Objectives

 Explore reasons why patients choose full resuscitation status in the face of terminal illness
 Discuss characteristics of patients who elect full resuscitation status while on hospice care
 Identify strategies to help patients work through CCDM related to DNR discussions
Sexy CPR video
CPR on TV

- NEJM study 60 episodes of CPR from 97 episodes of ER, Chicago Hope, and Rescue 911
- % Survival rate of episode = 75%
- % Survival rate to hospital d/c = 67%

Diem et al, NEJM, 1996
The real story

Figure 1. Survival to Hospital Discharge after In-Hospital CPR, According to Year and Race.

Survival is poorer for black and other nonwhite patients (P<0.001). There is no significant change in overall survival from 1992 to 2005 (P=0.57 with the use of the likelihood-ratio test).
The ROSC and survival to hospital discharge for patients 70 years and older.

Legenda:
- □ All wards
- ○ All wards, excluding emergency settings
- △ Geriatric wards

Myke S. van Gijn et al. Age Ageing 2014; ageing.afu035
It gets worse...

Chronic illness, more than age, determines prognosis in the elderly; elderly with chronic illness have an average survival rate of less than 5%. For those with advanced illness, survival rates are often less than 1%. Bedfast patients with metastatic cancer, who are spending fifty percent of their time in bed, have a survival rate of 0-3%.

Annals IM 1989; 111:199-205
JAMA 1990; 264:2109-2110
Why is CPR offered to everyone?

- Discomfort with conversation (?)
- Patient self-determination act
- Currently an opt-out decision
- Autonomy
Poll

Poll Everywhere Poll
Why do patients on hospice decide to be “full code”?

- Too many decisions at once
- Want some sense of control
- They think it’s going to work
- They’ve had CPR before and they survived, why would this be any different?
- They think they’ll get Baywatch CPR
- They don’t want “comfort focused care”
What’s going on in Michigan hospices?

Our research study.
Questions we asked:

1) How many people in hospice are full code?
2) What are the characteristics of those who are full code?
3) How does being full code impact the live discharge rate from hospice?
Methods

- EMR data from Arbor Hospice and Hospice of Michigan
- Data from 2009-2014
- Included individuals with Advance Directive paperwork
Data collected

- Primary variable: advance directive stating DNR vs full code.
- Demographics: age, sex, race, diagnosis, location (hospice, NH, hospital, home)
- Hospice length of stay, live discharge
Results
Who is in our study?

N=25,636 people
How many in hospice are full code?

17.4%

Average, 12.9%

9.1%
Who chooses full code?

- Men: 14%
- Women: 12%
Who chooses full code?

- White: 10%
- African American: 25%
- Other: 10%
Who chooses full code?

- Home: 14%
- Hospital: 6%
- Nursing home: 4%
- Hospice: 12%
Who chooses full code?

![Bar chart showing age distribution]

- <20: 30%
- 20-29: 25%
- 30-39: 20%
- 40-49: 15%
- 50-59: 10%
- 60-69: 5%
- 70-79: 2.5%
- 80-89: 2.5%
- 90+: 2.5%

Age categories from left to right:
- <20
- 20-29
- 30-39
- 40-49
- 50-59
- 60-69
- 70-79
- 80-89
- 90+

The chart indicates a significant peak in the 18-24 age group.
Who chooses full code?

<table>
<thead>
<tr>
<th>Disease</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer</td>
<td>16%</td>
</tr>
<tr>
<td>Lung disease</td>
<td>14%</td>
</tr>
<tr>
<td>Dementia</td>
<td>12%</td>
</tr>
<tr>
<td>Heart disease</td>
<td>10%</td>
</tr>
<tr>
<td>Sepsis/ID</td>
<td>10%</td>
</tr>
<tr>
<td>Neuro/Stroke</td>
<td>8%</td>
</tr>
<tr>
<td>Renal disease</td>
<td>8%</td>
</tr>
<tr>
<td>Other</td>
<td>6%</td>
</tr>
<tr>
<td>GI/liver</td>
<td>6%</td>
</tr>
</tbody>
</table>
What is the impact of being DNR on live discharge?

*adjusting for age, race, sex, condition, location, year, length of stay*
Adjusted live discharge rates for those with and without DNR orders in place.
Does having a DNR have different effects on live discharge rate by race?

- **White**
  - No DNR: 19.1%
  - DNR: 9.5%

- **African American**
  - No DNR: 32.0%
  - DNR: 13.4%

- **Other**
  - No DNR: 29.0%
  - DNR: 8.6%
Does having a DNR have different effects on live discharge rate by location?

- **Home**: 23.7% (No DNR), 11.2% (DNR)
- **Hospital**: 8.0% (No DNR), 4.9% (DNR)
- **NH**: 18.7% (No DNR), 8.2% (DNR)
- **Hospice**: 21.3% (No DNR), 3.1% (DNR)
Take home points

- It’s not great to have a full code hospice patient
- Some people will never sign DNR order
- Lack of DNR strongly predicts live discharge from hospice care
- We can’t FORCE someone to sign DNR
Strategies

- Tell people you will intervene when it’s appropriate (DNR does not equal DNT)
- CPR = hospital stay
- Build trust
- Don’t worry about it so much if patients are at home and they call you for issues
DNR video study

Patients asked to participate (N = 164)

- Patients declined (N = 14)
  7: focus on health/too ill
  5: don’t like research
  2: spend time with family

Patients consented (N = 150)

Baseline Questionnaire:
- Demographics and health status
- Baseline CPR and intubation Preferences
- Whether patient had a discussion with inpatient physician about CPR/intubation

Randomization (N = 150)

Usual care (control group) (N = 75)
Post-randomization assessment:
- Knowledge
- Code status in medical record at admission and discharge

Video (intervention group) (N = 75)
Post-randomization assessment:
- Knowledge
- Code status in medical record at admission and discharge
- Post-video CPR/intubation preferences
- Comfort with the video

Readmitted within one year to same hospital (N = 55)
Assessment of:
- Code status in medical record
- Receipt of CPR and intubation

Readmitted within one year to same hospital (N = 49)
Assessment of:
- Code status in medical record
- Receipt of CPR and intubation
ACP Decisions Video
Special situations

- GIP
- Nursing homes/facilities
- Guardians
Conclusions

• Patients who do not sign DNR need special attention for GOC, understanding preferences
• DNR is likely a strong predictor for live discharge from hospice care
• Appropriate counseling may help patients work toward DNR decisions, but some families may never sign the paper while still wanting comfort focused care.
References

• NEJM 361;1 july 2, 2009
• Annals Int Med 1989; 111:199-205
• JAMA 1990; 264:2109-2110
• EPEC Project RWJ Foundation, 1999
• Diem SJ, Lantos JD, Tulsky JA. Cardiopulmonary resuscitation on television: miracles and misinformation. NEJM,1996:334:1578-1582