Feasibility of Implementing Advance Directive in Hong Kong Chinese Elderly People

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• AD is commonly used in selected patients as part of ACP in advanced incurable illnesses.
• AD/ACP is part of the full spectrum of palliative care for patients with terminal illnesses.
• Geriatric patients belong a group of frail elderly with multiple comorbidities. Though they may not have “terminal illnesses”, they are at risk of sudden deterioration and becoming mentally incompetent.
Theoretical Trajectories of Dying

Figure 1. Theoretical Trajectories of Dying

- **Sudden Death**
  - High Function
  - Death

- **Terminal Illness**
  - High Function
  - Death

- **Organ Failure**
  - High Function
  - Death

- **Frailty**
  - High Function
  - Death

Lunney JR et al. JAMA 2003; 289:2387-2392
Advance Directive: Advance refusal of life sustaining treatment

To Patient
• Avoid prolongation of suffering & dying
• Human dignity & autonomy respected

To Family
• Feel less burdened by decision making
• Less anxiety, depression, and post-traumatic stress

To Health care team/service
• Fewer aggressive medical interventions at the end of life
• Less health care expenditures

(2) Wright JAMA 2008;300:1665;
Is it feasible to implement AD in geriatric patients?

Knowledge (Understand) → Preference (Agree) → Engagement (Consent)
<table>
<thead>
<tr>
<th>Study pop</th>
<th>Setting</th>
<th>Age</th>
<th>Knowledge of AD</th>
<th>Preference of AD</th>
<th>LST if terminally ill</th>
<th>Tube feeding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chu et al(^1) 2011</td>
<td>Age &gt; 65; n=1600</td>
<td>RCHEs</td>
<td>82.3</td>
<td>96% - nil</td>
<td>88%</td>
<td>61.4% refuse LST</td>
</tr>
<tr>
<td>Ting et al(^2) 2011</td>
<td>Age &gt; 60; n= 219</td>
<td>Med ward, Queen Mary Hospital</td>
<td>73</td>
<td>81% - never heard</td>
<td>49%</td>
<td>80-81% refuse CPR/Artificial Vent.; 48% refuse blood product transfusion; 43% refuse antibiotics</td>
</tr>
<tr>
<td>Tsang et al(^3) 2013</td>
<td>Age &gt;65;</td>
<td>Outpt Clinic &amp; Geri Day Hospital</td>
<td>n/a</td>
<td>n/a</td>
<td>77.1%</td>
<td>60.9% refuse CPR; 63.3% refuse Artificial Vent. 49.2% refuse antibiotics</td>
</tr>
</tbody>
</table>

Feasibility of implementing AD among HK Chinese elderly

Knowledge (Understand) [x] 81-96%

Preference (Agree) [✓] 49-88%

Engagement (Consent) [?] Research question

Feasibility of implementing AD in HK Chinese Elderly People

Dr Chiu KCP, Dr Chan Fei, Prof. Chu LW

Objective:

To assess the feasibility of AD engagement among elderly people and to explore contributing factors achieving this
## Methods

### Subjects

<table>
<thead>
<tr>
<th>Geriatric ward in Grantham Hospital in Hong Kong</th>
</tr>
</thead>
<tbody>
<tr>
<td>- 38-bed</td>
</tr>
<tr>
<td>- Patients receiving subacute, rehabilitative &amp; convalescence care</td>
</tr>
<tr>
<td>- ~1000 patients admission / yr</td>
</tr>
<tr>
<td>- Length of stay ~ 12 days</td>
</tr>
</tbody>
</table>
## Methods

<table>
<thead>
<tr>
<th>Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period</td>
</tr>
<tr>
<td>Inclusions</td>
</tr>
<tr>
<td>Exclusions</td>
</tr>
<tr>
<td>Data</td>
</tr>
<tr>
<td>Analysis</td>
</tr>
</tbody>
</table>
# Methods

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Inclusions</th>
<th>Exclusions</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Age &gt;=65</td>
<td>• MMSE &gt;= 20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Physically fit</td>
<td>• With consent</td>
<td></td>
</tr>
</tbody>
</table>
Methods

Subjects
Period
Inclusions
Exclusions
Data
Analysis

- Dementia, delirium, depressive mood
- Suffering from severe illness/ medically unfit
Methods

Subjects
- Demographic data
- Social history
- Functional status
- Comorbid diseases (Charlson Comorbidity Index)
- Dementia, cancer
Methods

- **Subjects**
- **Period**
- **Inclusions**
- **Exclusions**
- **Data**
- **Analysis**

- Those engaged in AD is compared to those declined AD
- Rationale for engagement or decline is explored
Process

Suitable patients +/- family interviewed by a geriatrician

- Understanding of their health condition
- Their values and beliefs about EOL care and specific medical procedure
- Detailed explanations about disease prognoses and treatments by doctor

Concept of AD discussed and introduced

- Knowledge and preference of AD assessed
- Educational pamphlets & information provided

Time allowed for decision-making

- AD Engagement
- Decline AD
- Decision undetermined
(A) **Case 1 - Terminal ill**  
- Suffer from *advanced, progressive, and irreversible* disease  
- *Fail to respond* to curative therapy  
- Have a *short life* expectancy (days, weeks or a few months)  
- LST only serve to *postpone* the moment of death

(A) **Case 2 - Persistent vegetative state or a state of irreversible coma**
I do not want to be given the following life-sustaining treatment(s):

- Cardiopulmonary resuscitation (CPR)
- Others: Artificial ventilation, Blood products, Pacemakers, Vasopressors, Treatments such as chemotherapy or dialysis, Antibiotics for a potentially life-threatening infection, tube feeding*

Save for basic and palliative care, I do not consent to receive any life-sustaining treatment. Non-artificial nutrition and hydration shall, for the purposes of this form, form part of basic care.

However, I want to continue to receive artificial nutrition and hydration, if clinically indicated, until death is imminent and inevitable.

* HA Guidelines on Life-sustaining Treatment in the Terminally Ill 2002
Alert made known to hospital staff (HA)

Advance directive with a refusal of CPR and artificial ventilation

If persistent vegetative state, irreversible coma or terminal illness
Results

- 33 patients had made a decision
- 12 engaged (36%) in AD
- 21 declined (64%)
- Others with information pamphlet provided /need further discussion among family/relatives
Patients who engage in and who decline AD

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>AD engaged (n=12)</th>
<th>AD declined (n=21)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean age (years)</td>
<td>83.7</td>
<td>81.6</td>
<td>0.362</td>
</tr>
<tr>
<td>Gender ( Female)</td>
<td>58.3%</td>
<td>38.1%</td>
<td>0.261</td>
</tr>
<tr>
<td>Education level - illiterate</td>
<td>33.3%</td>
<td>33.3%</td>
<td>1.000</td>
</tr>
<tr>
<td>MMSE</td>
<td>23.8</td>
<td>24.9</td>
<td>0.286</td>
</tr>
<tr>
<td>Religious belief - Yes</td>
<td>33.3%</td>
<td>33.3%</td>
<td>1.000</td>
</tr>
<tr>
<td>Ambulatory - unaided</td>
<td>25.0%</td>
<td>42.9%</td>
<td>0.457</td>
</tr>
<tr>
<td>BADL - Independent</td>
<td>75.0%</td>
<td>90.5%</td>
<td>0.328</td>
</tr>
<tr>
<td>Charlson Comorbidity Score</td>
<td>2.33</td>
<td>2.86</td>
<td>0.347</td>
</tr>
<tr>
<td>No. of co-morbidities</td>
<td>3.58</td>
<td>3.86</td>
<td>0.561</td>
</tr>
<tr>
<td>Known active cancer</td>
<td>8.3%</td>
<td>9.5%</td>
<td>1.000</td>
</tr>
</tbody>
</table>
## Patients who engage in and who decline AD

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>AD engaged (n=12)</th>
<th>AD declined (n=21)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Live alone</td>
<td>83.3%</td>
<td>38.1%</td>
<td>0.027</td>
</tr>
<tr>
<td>Single or widowed or divorced</td>
<td>91.7%</td>
<td>38.1%</td>
<td>0.004</td>
</tr>
<tr>
<td>Children - Yes</td>
<td>41.7%</td>
<td>85.7%</td>
<td>0.016</td>
</tr>
<tr>
<td>Social support – Good or very good</td>
<td>16.7%</td>
<td>85.7%</td>
<td>0.000</td>
</tr>
<tr>
<td>Spouse or children as main carer</td>
<td>8.3%</td>
<td>42.8%</td>
<td>0.054</td>
</tr>
<tr>
<td>Self-perceived health status – Poor or very poor</td>
<td>33.3%</td>
<td>0%</td>
<td>0.012</td>
</tr>
</tbody>
</table>
### Rationale of patients who engage in and who decline AD

<table>
<thead>
<tr>
<th>Rationale for engaging in advance directive * (n=12)</th>
<th>Rationale for declining advance directive * (n=21)</th>
</tr>
</thead>
<tbody>
<tr>
<td>66.7% <strong>To avoid suffering</strong></td>
<td>71.4% <strong>Family will decide for me</strong></td>
</tr>
<tr>
<td>33.3% <strong>To avoid burden to my family members</strong></td>
<td>28.6% <strong>Not ready to discuss it</strong></td>
</tr>
<tr>
<td>25% <strong>Quality of life is important than length of life</strong></td>
<td>23.8% <strong>Let nature decide for me</strong></td>
</tr>
<tr>
<td>25% <strong>Past experience of friends or others</strong></td>
<td>9.5% <strong>Not familiar with the concept</strong></td>
</tr>
<tr>
<td>8.3% <strong>Ensure my wishes will be respected</strong></td>
<td>9.5% <strong>Religious belief</strong></td>
</tr>
<tr>
<td>0% <strong>Religious belief</strong></td>
<td>0% <strong>Doctor will decide for me</strong></td>
</tr>
</tbody>
</table>

* May choose more than one
Conclusions

• It is feasible to engage our Chinese elderly people in advance directive if properly introduced.

• Important factors in determining engagement of AD include living alone, inadequate social support and a perception of poor health state.
Conclusions

• It is feasible to engage our Chinese elderly people in advance directive if properly introduced.

• Important factors in determining engagement of AD include living alone, inadequate social support and a perception of poor health state.

• Decision would be influenced by the presence of supportive family members. Important to involve family in the ACP/AD planning.
Whenever patients show **insight** about their poor prognosis and there is **no family objection**, it may be a prime time for considering AD engagement.
Acknowledgement

• Dr Chan Fei (Fellow in Geriatric Medicine)
• Prof CHU Leung Wing (Consultant i/c)
• Nursing staff of Geriatric unit in Grantham Hospital
THANK YOU
<table>
<thead>
<tr>
<th>Strength</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>• New information about AD engagement among elderly with non-cancer</td>
<td>• Subjects</td>
</tr>
<tr>
<td>diseases</td>
<td>- small number,</td>
</tr>
<tr>
<td></td>
<td>- inpatients,</td>
</tr>
<tr>
<td></td>
<td>- a small proportion with unknown decision</td>
</tr>
</tbody>
</table>
Further research

• Larger sample size of Chinese elderly living in the community including those in residential care homes

• Long term follow-up of these subjects (engaged in AD) to look into
  – whether their wishes are followed,
  – impact of AD engagement on the family.
Is it feasible to discuss an advance directive with a Chinese patient with advanced malignancy? A prospective cohort study

Patients fulfilled the inclusion criteria: (191)
- Age ≥ 18 years
- Cancer diagnosed by clinical, radiological, or pathological measures
- No further anti-cancer treatment

Patient attended hospice day centre or admission to palliative care ward

Doctor assessed the feasibility of introducing an AD

71 (37%) Not signed the AD
120 (63%) Signed the AD
Introduction

- Under the common law framework, a valid and applicable AD refusing LST is legally binding in HK.
Barriers to Advance directive in Chinese HK

• Patient
  – Chinese adults viewed overt reference to death as taboo → it brings bad luck → not willing to talk about death.
  – Prefer to consult family before making health decisions.

• Health care staff
  – May not have time, competence & confidence to discuss ACP with patients

• Organizational commitment and policy
  – Lack of wide promotion and education → lack of knowledge & awareness in the public