

## Appendix 1 - Detailed Inclusion criteria

#	Inclusion Criteria
1	<p><b>55 years or older with one or more of the following diagnoses:</b></p> <ul style="list-style-type: none"> <li>▪ <u>Chronic obstructive lung disease</u> Defined by at least <b>two</b> of the four following criteria: <ul style="list-style-type: none"> <li>(a) Baseline PaCO<sub>2</sub> of <math>\geq 45</math> torr,</li> <li>(b) cor pulmonale;</li> <li>(c) Respiratory failure episode within the preceding year</li> <li>(d) Forced expiratory volume in 1 sec <math>\leq 0.5</math> L</li> </ul> </li> <li>▪ <u>Congestive heart failure</u> New York Heart Association class IV symptoms and left ventricular ejection fraction <math>\leq 25\%</math>.</li> <li>▪ <u>Cirrhosis</u> Confirmed by imaging studies or documentation of esophageal varices and one of three conditions: <ul style="list-style-type: none"> <li>a) hepatic coma,</li> <li>b) Child's class C liver disease</li> <li>c) Child's class B liver disease with gastrointestinal bleeding.</li> </ul> </li> <li>▪ <u>Cancer</u> Metastatic cancer or stage IV lymphoma</li> <li>▪ <u>End-stage dementia</u> (inability to perform all ADLs, mutism or minimal verbal output secondary to dementia, bed-bound state prior to acute illness)</li> <li>▪ <u>Renal Failure</u> Defined as chronic renal failure requiring dialysis.</li> </ul>
<b>OR</b>	
2	Any patient 80 years of age or older admitted to hospital from the community because of an acute medical or surgical condition.
<b>OR</b>	
3	Any patient 55 to 79 years of age admitted to the hospital, who does not meet the above criteria, but in the opinion of a health care team member (Doctor, resident, nurse), he/she would not be surprised if the patient died in 6 months.

## Appendix 2

AUDIT CYCLE #1	
<input type="checkbox"/>	Aggressive use of heroic measures and artificial life sustaining treatments including CPR to keep me alive at all costs
<input type="checkbox"/>	Full medical care but in the event my heart stops, or my breathing stops, No CPR
<input type="checkbox"/>	Doctors will be focused on my comfort and alleviate suffering and not on being kept alive by artificial means or heroic measures such as trying to prolong my life with CPR and other life- sustaining technologies
<input type="checkbox"/>	A mix of the above options (e.g. try to fix problems but if not getting better switch to focusing only on my comfort even if it hastens death)
<input type="checkbox"/>	Unsure

AUDIT CYCLE #2	
<input type="checkbox"/>	Aggressive use of heroic measures and artificial life sustaining treatments, including resuscitation (CPR), to keep me alive at all costs.
<input type="checkbox"/>	Full medical care but in the event my heart stops, or my breathing stops, no CPR.
<input type="checkbox"/>	Doctors will be focused on my comfort, and to alleviate suffering, and not on being kept alive by artificial means or heroic measures such as trying to prolong my life with CPR and other life- sustaining technologies.
<input type="checkbox"/>	A mix of the above options (e.g. try to fix problems but if not getting better switch to focusing only on my comfort even if it hastens death).
<input type="checkbox"/>	Unsure

AUDIT CYCLE #3	
<input type="checkbox"/>	Use machines and all possible measures including resuscitation (CPR) with a focus on keeping me alive at all costs.
<input type="checkbox"/>	Use machines and all possible measures with a focus on keeping me alive but if my heart stops, no CPR.
<input type="checkbox"/>	Use machines only in the short term to see if I will get better but if my illness is prolonged, change focus to comfort measures only. If my heart stops, no CPR.
<input type="checkbox"/>	Use full medical care to prolong my life but if my heart or my breathing stops, no CPR or breathing machines.
<input type="checkbox"/>	Use comfort measures only with a focus on improving my quality of life and comfort. Allow natural death and no artificial prolongation of life and no CPR.
<input type="checkbox"/>	Unsure

### Appendix 3

**E-Table 1– Factors Associated with Potential Over-treatment\***

	Odds Ratio (95% CI)	P value for coefficient in multi- variable analysis
Age	1.0 (1.0,1.0)	0.32
Sex ( <i>Female vs. Male</i> )	0.8 (0.5,1.2)	0.29
Charlson comorbidity index	1.0 (0.9,1.1)	0.92
Marital status ( <i>Married or living as married vs. Other</i> )	1.1 (0.7,1.7)	0.62
Location of residence ( <i>Rural vs. Urban</i> )	1.1 (0.5,2.4)	0.88
Health literacy (REALM-R) score	1.0 (0.8,1.2)	0.73
Education		
<i>High school graduate vs. post high school graduate</i>	1.0 (0.5,1.9)	0.98
<i>Other vs. post high school graduate (any)</i>	1.1 (0.7,1.7)	0.67
Religion		
<i>Catholic vs. Protestant</i>	1.2 (0.9,1.7)	0.22
<i>None vs. Protestant</i>	1.4 (0.9,2.2)	0.11
<i>Other vs. Protestant</i>	1.1 (0.7,1.9)	0.67
Ethnicity ( <i>Non-Caucasian vs. Caucasian</i> )	0.9 (0.4,1.9)	0.76
Frailty ( <i>Frail vs. Other</i> )	0.7 (0.5,0.9)	<b>0.004</b>
Inclusion criteria ( <i>55 years or older with end stage chronic disease vs. Other</i> )	0.5 (0.3,1.1)	0.09
Family member participated ( <i>No vs. Yes</i> )	1.3 (0.9,1.8)	0.15

\*Note: 429 subjects included in the multivariate analysis.