

APPENDICES

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Study Protocol. Detailed inclusion criteria.

a) 55 years or older with one or more of the following diagnoses:

Chronic obstructive lung disease

Defined by at least **two** of the four following criteria:

- a) Baseline PaCO₂ of ≥ 45 torr (mm Hg)
- b) cor pulmonale;
- c) Respiratory failure episode within the preceding year
- d) Forced expiratory volume (FEV) in 1 sec ≤ 0.5 L or FEV₁/FVC < 0.70 or FEV₁ $< 30\%$, or $< 50\%$ of normal with chronic respiratory failure present eg on home oxygen

Congestive heart failure

New York Heart Association class IV symptoms and left ventricular ejection fraction $\leq 25\%$.

Cirrhosis

Confirmed by imaging studies or documentation of esophageal varices and one of three conditions:

- a) Child's class C liver disease
- b) Child's class B liver disease with gastrointestinal bleeding.

Cancer

Metastatic cancer or stage IV lymphoma

Renal Failure

Defined as chronic renal failure requiring dialysis.

OR

- b)** Any patient 80 years of age or older admitted to hospital from the community because of an acute medical or surgical condition.

OR

- c)** 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.

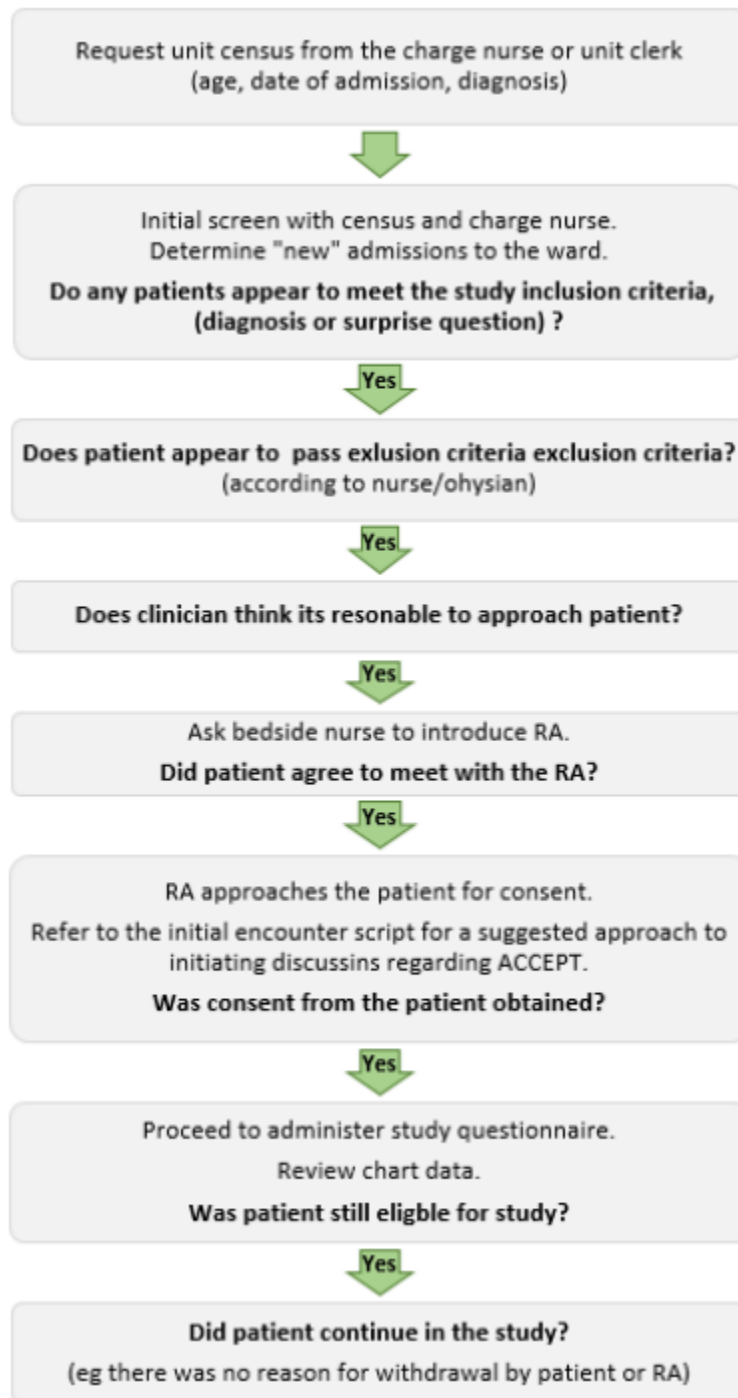
Study Protocol. Detailed description of the screening and recruitment procedures.

Screening was performed by a trained research nurse (12 across all sites) in conjunction with a unit charge or bedside nurse. Medical charts (electronic and paper) were used to identify patients meeting the inclusion criteria. An attending physician was consulted as needed (e.g., to evaluate the “Surprise Question”^{16,17}). The outcome of all patients meeting the inclusion criteria is given in Figure 1; this study was not permitted to collect information on screened patients that did not meet the inclusion criteria. The exclusion criteria were similarly evaluated by a research and unit charge or bedside nurse in collaboration. If a patient had no reason to be excluded, a bedside nurse would introduce the research nurse to the patient. The research nurse would invite the patient to participate in the study and obtain consent. Consenting patients were immediately administered the study questionnaire by the research nurse.

Study Protocol. Determination of specialist palliative care referral.

This included any order to a specialist PC team member (physicians, or nurse specialists providing consults in acute care), as recorded in a patients' medical chart or the electronic health record, depending on what was in use in each hospital. Whether a specialist PC consult was ordered during the index admission was determined, not whether a specialist PC consult occurred. In Calgary, this was determined by looking for a referral to PC in the electronic health record. In Lethbridge, this was determined by checking both the electronic medical record and the patient's physical chart for a doctor's order, or comment in the progress notes. In Edmonton, this was determined by inspecting medical orders in a patient's paper chart for an order written: "Consult Palliative Care."

Appendix Figure 1. Process study team followed in screening and enrolling patients.



Appendix Table 1. Study participants change in GCD over time, from pre-hospital admission to study enrolment, to last recorded at discharge, death, or end of study (6 months after enrolment).

Characteristic	All (n= 475), No. (col %)	GCD Type at Discharge, Death, or End of Study, No. (row %)			
		Resuscitative Care (n= 171)	Medical Care (n= 228)	Comfort Care (n= 59)	Not Recorded (n= 17)
GCD pre-hospital admission					
Resuscitative Care	43 (9.1)	32 (74.4)	8 (18.6)	3 (7.0)	0 (0)
Medical Care	93 (19.6)	3 (3.2)	71 (76.3)	19 (20.4)	0 (0)
Comfort Care	7 (1.5)	0 (0)	1 (14.3)	6 (85.7)	0 (0)
Not Recorded	332 (69.9)	136 (41.0)	148 (44.6)	31 (9.3)	17 (5.1)
GCD at study enrolment					
Resuscitative Care	177 (37.3)	163 (92.1)	9 (5.1)	5 (2.8)	0 (0)
Medical Care	248 (52.2)	2 (0.8)	212 (85.5)	34 (13.7)	0 (0)
Comfort Care	20 (4.2)	0 (0)	1 (5.0)	19 (95.0)	0 (0)
Not Recorded	30 (6.3)	6 (20.0)	6 (20.0)	1 (3.3)	17 (56.7)

Abbreviations: GCD, goals of care designation.

Appendix Table 2: Study participants discharge outcome and location by last recorded GCD of the index admission.

Characteristic	No. (%)					P value
	All (n= 475)	Last recorded GCD type of index admission				
		Resuscitative Care (n= 171)	Medical Care (n= 228)	Comfort Care (n= 59)	Not Recorded (n= 30)	
Discharge outcome						<0.001
Discharged from acute care	437 (92.0)	168 (98.2)	219 (96.1)	33 (55.9)	17 (56.7)	
Died in acute care	35 (7.4)	1 (0.6)	8 (3.5)	26 (44.1)	0 (0)	
In acute care at six months	3 (0.6)	2 (1.2)	1 (0.4)	0 (0)	0 (0)	
Discharge location	(n= 437)	(n= 168)	(n= 219)	(n= 33)	(n= 17)	<0.001
Home	309 (70.7)	134 (79.8)	154 (70.3)	5 (15.2)	16 (94.1)	
Retirement residence	63 (14.4)	23 (13.7)	36 (16.4)	3 (9.1)	1 (5.9)	
Long term care	32 (7.3)	3 (1.8)	22 (10.0)	7 (21.2)	0 (0)	
Hospice	17 (3.9)	0 (0)	0 (0)	17 (51.5)	0 (0)	
Rehab facility	14 (3.2)	8 (4.8)	6 (2.7)	0 (0)	0 (0)	
Other	2 (0.5)	0 (0)	1 (0.5)	1 (3.0)	0 (0)	

Abbreviations: GCD, goals of care designation.