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# Tough Decisions During the COVID 19 Pandemic: A Frail Latino Patient

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## Abstract

The pandemic of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) had overwhelmed the healthcare system worldwide with multiple ethical dilemmas. Several tools have been used to assess risk factors in these patients. One of them, the Clinical Frailty scale, has shown good correlation between the patient functional status and hospital stay with overall mortality. We present a case where the Clinical Frailty Scale was used to assess patient management and goals of care.

## Keywords

COVID-19, frail, clinical frailty scale, code status

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## Introduction

The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) pandemic has overwhelmed the health care system. In the United States, there has been an exponential increase in the number of cases, with most deaths in people aged 65 years or older (Le Couteur et al., 2020; Zhou et al., 2020). Different studies showed predictors of worse outcomes and prognosis. The Clinical Frailty scale (CFS) has shown better correlation between a patient's baseline functional status/frailty and the duration of hospital stay as well as overall mortality (Hewitt et al., 2020). We present a case where the CFS was used to guide our clinical decision making.

## Case

An 81-year-old lady with past medical history of hypertension, type 2 diabetes mellitus and obesity presented to the emergency department due to shortness of breath for 3 days associated with generalized body weakness, dry cough, fever, chills, nausea, and diarrhea. She denied any recent travel or contact with COVID-19 (Coronavirus disease 2019) patients.

Her vital signs on admission: Heart rate: 79 beats per minute, Respiratory rate: 25 breaths per minute with oxygen saturation of 80% on room air, Temperature: 100.4 Fahrenheit, Blood pressure: 127/58 mmHg. On physical exam she was tachypneic, in moderate respiratory distress, and had decrease breath sounds bilaterally.

The laboratory tests showed lymphopenia, hypokalemia, elevated International normalized ratio (INR), sedimentation rate, C reactive protein, ferritin, D-dimer, lactate dehydrogenase (LDH) and a positive SARS-CoV-2 PCR, further laboratory values are presented in Table 1. The chest x-ray showed multifocal diffuse ground glass opacities.

The patient was transitioned to high flow nasal cannula (HFNC) at 60 liters/min with improvement of oxygen saturation to 98%. She was started on dexamethasone 6 mg intravenous daily, enoxaparin 80 mg subcutaneous twice a day and potassium replacement with potassium chloride 10 mEq intravenous. A unit of convalescent plasma was ordered but was unable to get it due to lack of it in the blood bank. Based on her poor clinical status, the palliative care team was consulted. Unfortunately, she did not count with an advance directive or medical power of attorney. We talked with the family to assess her CFS before admission. As per patient's daughter, the patient used a walker to ambulate around the house and had recurrent falls in the last year. She required help to bathe, complete housework, and for

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**Table 1.** Laboratory analysis.

	Blood analysis	Result	Reference range
Complete blood count	White blood cell	14.4	(4.8–10.9)th/uL
	Percent neutrophils	87.4	(49.0–77.6)%
	Percent lymphocytes	5	(11.8–40.8)%
	Percent monocytes	4.9	(3.70–11.80)%
	Percent eosinophils	0	(0–4.8)%
	Percent basophils	0.3	(0–1.3)%
	Percent immature granulocytes	2.4	(0–1)%
	Hemoglobin	13	(10.8–14.7)gm/dL
	Hematocrit	40.1	(32.2–42.9)%
	Mean corpuscular volume	87.7	(84–96)fL
	Mean corpuscular hemoglobin	28.4	(28.3–32.3)pg
	Mean corpuscular hemoglobin concentration	32.4	(29.58–33.75)gm/dL
	Platelet count	255	(146–388)th/uL
	Red blood cell distribution width CV	13.7	(12.20–15.80)%
Red blood cell distribution width SD	43.9	(38.93–51.44)fL	
Complete metabolic panel	Sodium	140	(132–143)mmol/L
	Potassium	3.4	(3.5–5.1)mmol/L
	Chloride	105	(98–107)mmol/L
	Carbon dioxide	22	(21–31)mmol/L
	Creatinine	1	(0.6–1.2)mg/dL
	BUN	27	(7–25)mg/dL
	Calcium	8.4	(8.6–10.3)mg/dL
	Glucose	163	(70–113)mg/dL
	Anion gap	16	(2–12)mEq/L
	AST	36	(13–39)IU/L
	ALT	24	(7–52)IU/L
	Alkaline phosphatase	69	(34–104)IU/L
	Albumin	3.4	(3.7–4.9)gm/dL
	Total bilirubin	0.5	(0.2–1.2)mg/dL
Coagulation studies	PT	13.7	(10.6–13)second
	INR	1.16	(0.90–1.10)
	PTT	23.8	(24–36.7)second
Inflammatory markers	Sedimentation rate	109	2–30 mm/hr
	C Reactive protein	25.7	<1 mg/dL
	Lactic acid	1.87	(0.5–1.99)mmol/L
	D-dimer	50,887	<500 ng/mL
	Ferritin	531.3	(6–264)ng/mL
Molecular microbiology	LDH	376	(140–271)IU/L
	SARS-COV-2 PCR	Detected	Not detected
Arterial blood gas	pH	7.49	7.35–7.45
	PO <sub>2</sub>	48	(83–108)mmHg
	PCO <sub>2</sub>	28	(35–48)mmHg
	HCO <sub>3</sub>	21.3	(18–23)mmol/L
	FiO <sub>2</sub>	44	—
	P/F ratio	109	—

Note. AST = Aspartate aminotransferase; ALT = Alanine aminotransferase; PT = Prothrombin Time; INR = International normalized ratio; PTT = Partial thromboplastin time; LDH = Lactate dehydrogenase; PO<sub>2</sub> = Partial pressure of oxygen; PCO<sub>2</sub> = Partial pressure of carbon dioxide; HCO<sub>3</sub> = Bicarbonate; FiO<sub>2</sub> = Fraction of inspired oxygen.

meal preparation. Based on this report, we scored the patient's CFS of 6, indicating moderate frailty. The palliative care team discussed code status with the family explaining prognosis in patients with poor functional status. The family decided the patient should remain full code.

The following days remdesivir and colchicine were added to her regimen. The patient required several days of HFNC and was not able to be weaned off oxygen. She was discharge home with oxygen and full code status.

## Discussion

On December 2019, an outbreak started in Wuhan, China with a novel coronavirus known as SARS-CoV-2, which has spread worldwide, causing the COVID-19 pandemic (Zhou et al., 2020).

Several tools and risk factors have been used to determine poor prognosis/outcomes in these patients, like elderly age, high SOFA (sequential organ failure assessment) score, and D-dimer greater than 1 µg/mL (Zhou et al., 2020). Comorbidities such as cancer, chronic kidney disease, COPD (chronic obstructive pulmonary disease), obesity, heart failure, coronary artery disease, Type 2 diabetes mellitus and others are still being identified by the CDC (Centers for Disease Control and Prevention, 2019).

The worldwide pandemic came with difficult decisions where ethical dilemmas had to be faced. For example, in Italy, the decision for who was prioritized for ventilation was based on the patient's age, with the cutoff being at age 65 (Le Couteur et al., 2020). Fortunately, with the passage of time, other tools have been utilized to assess who might benefit from critical care management.

Recently, a previously known scale used in the elderly population has gained strong support for decision making. The CFS assesses the frailty/functional status of an elderly individual to predict death or need for institutional care (Rockwood et al., 2005). In the hospital setting, it correlates with a prolonged hospital stay and risk for a complicated course of disease (Juma et al., 2016).

The NICE (National Institute for Health and Care Excellence) guidelines proposed that patients with CFS score of 5 or less are considered less frail and can likely benefit from critical care management. Those with CFS score of 5 or more may require critical care advice to guide the decision about treatment as there is uncertainty in the benefits of critical care management (Moug et al., 2020; NICE, 2020). The CFS is an invaluable tool to recognize patients who have an increased mortality risk, longer hospital stays, risk of readmission, severity of disease and identify the patients who might benefit from a discussion about code status (Arie, 2020; Juma et al., 2016; Leclerc et al., 2020; Moug et al., 2020; Swiss Society of Intensive Care Medicine, 2020).

Our patient showed CFS score of 6, categorized as moderately frail. Based on this score, we had a discussion with the patient and her family about goals of care and explained pros and cons about further critical care management. The patient remained hospitalized for 13 days, which correlates with longer hospital stay in patients with CFS:5-9, with also increase mortality compared to those who were not frail (Hewitt et al., 2020). Furthermore, patients with higher CFS score

have higher readmission rate compared with its peers not frail (Juma et al., 2016).

Another main discussion in this pandemic is the code status. Initially, the patient was unstable and unable to communicate her wishes. In addition, she did not have an advance directive, medical power of attorney and the family never discussed code status before. In this patient, like other patients in the Latino population, several factors affect the discussion of code status, they include religious beliefs, cultural ideas, ethnicity, and language barriers (Shen et al., 2016). In the city of McAllen, 85.3% of the population is Latino (U.S. Census Bureau, 2019), which contributes to disparities seen in end of life care planning (Shen et al., 2016). This pandemic showed us that one of the main priorities is to discuss goals of care, mostly with a life-threatening illness in frail adults (Curtis et al., 2020).

## Conclusion

Multiple ethical dilemmas came up with this pandemic, where more tools are required to make crucial decisions for patients' life. The CFS is a tool to guide the clinician about the benefit or not of more aggressive measures in COVID-19 patients. Further studies and education need to be done in the Latino community to improve a better understanding of goals of care and discussion about code status in frail adults in which due to multiple factors this topic is often glossed over.

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