

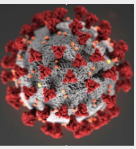
COVID 19 infection in a Massachusetts community hospital.

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- The study was conducted at Saint Vincent Hospital, an academic health medical center in Worcester, Massachusetts.
- The institutional review board approved this case series as minimal-risk research using data collected for routine clinical practice and waived the requirement for informed consent.
- All consecutive patients who were sufficiently medically ill to require hospital admission with confirmed severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection by positive result on polymerase chain reaction testing of a nasopharyngeal sample were included.
- Patients were admitted between March 15, 2020, and May 31, 2020, inclusive of those dates. Clinical outcomes were monitored until May 31, the final date of follow-up.

A total of 109 consecutive patients with COVID 19 were admitted between March 15 and May 31. Fifty six percent (n=61) were men, the mean age of the cohort was 68. Forty one patients were transferred from nursing homes. Twenty seven patients died (25%) and the majority of the deceased patients were men (63%). Fifty two patients (48%) required ventilation, nineteen patients on mechanical ventilation died (56%). The most common co-morbidities were essential hypertension (65%), obesity ((42%), diabetes (34%), chronic kidney disease (23%), congestive heart failure (17%), and COPD (15%). Five patients required hemodialysis. Admitted patients under the age of 60 were significantly more likely to be male (p < 0.001) as compared to those 60 years old or older. Fifty five patients received hydroxychloroquine, 24 received tocilizumab, 20 received convalescent plasma and 16 received remdesivir. Fifteen patient were on anticoagulation therapy and 8 were anticoagulated in the hospital. Our study showed significantly higher mortality in patients requiring mechanical ventilation (56%) compared to those who did not (11%), p<0.001. Hypertension, obesity and diabetes were highly prevalent in this aging population. Our cohort was too small to explore the impact of treatment with remdesivir, tocilizumab or convalescent plasma.



Table 1. Demographics of all patients

	%	n
Males (n)	56%	(61)
Age mean, (SD)	68	(16)
BMI mean, (SD)	29.5	(7)
LTC/SNF	38%	(41)
ICU Admission	48%	(52)
Ventil	31%	(34)
Death	25%	(27)
Hypertension	65%	(71)
Obesity (BMI ≥30) *	42%	(46)
Diabetes	34%	(37)
Chronic Kidney Disease	23%	(25)
Morbid Obesity (BMI≥40)	11%	(12)
Congestive Heart failure	17%	(19)
COPD	15%	(16)
Atrial fibrillation	15%	(15)
Received Hydroxychloroquine	50%	(55)
Received Azithromycin	17%	(19)
Received Tocilizumab	22%	(24)
Received Conv. Plasma	20%	(20)
Remdesivir	15%	(16)
Anticoagulation	14%	(15)

Table 2. Demographics of patients who died, n=27

	63%	(17)
Males	72	(13)
Age mean, (SD)	28.6	(8)
BMI mean, (SD)	30	(8)
LTC/SNF	81%	(22)
ICU Admission	70%	(19)
Mechanical Ventilation Yes	78%	(21)
Hypertension	22%	(6)
Obesity (BMI ≥30) *	11%	(3)
Morbid Obesity (BMI≥40)	41%	(11)
Diabetes	30%	(8)
Chronic Kidney Disease	22%	(6)
CHF	22%	(6)
COPD	22%	(6)
Atrial fibrillation	18%	(5)
Received Plasma	25%	(7) (4 missing)
Received Hydroxychloroquine	44%	(12)
Received Azithromycin	22%	(6)
Received Tocilizumab	25%	(7)
Received Remdesivir	11%	(3)
Anticoagulation	18%	(5)

Table 3. Demographics of patients who were vented, n=34

	68%	(23)
Males	65	(14)
Age mean, (SD)	30.5	(8)
BMI mean, (SD)	23%	(8)
LTC/SNF	100%	(34)
ICU Admission	73%	(25)
Hypertension	38%	(13)
Obesity (BMI ≥30) *	15%	(5)
Morbid Obesity (BMI≥40)	38%	(13)
Diabetes	56%	(19)
Death	18%	(6)
Chronic Kidney Disease	21%	(7)
CHF	15%	(5)
COPD	12%	(4)
Atrial fibrillation	47%	(16)
Received Plasma	53%	(18)
Received Hydroxychloroquine	23%	(8)
Received Azithromycin	41%	(14)
Received Tocilizumab	26%	(9)
Received Remdesivir	18%	(6)
Anticoagulation		

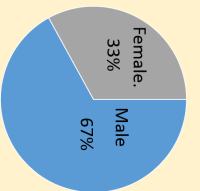
Table 4. Demographics of patients who were ≥60, n=74

	43%	(32)
Males	77	(10)
Age mean, (SD)	28	(7)
BMI mean, (SD)	49	(16)
LTC/SNF	43%	(32)
ICU Admission	76%	(56)
Hypertension	36%	(27)
Obesity (BMI ≥30) *	9%	(7)
Morbid Obesity (BMI≥40)	36%	(27)
Diabetes	27%	(20)
Chronic Kidney Disease	24%	(18)
CHF	19%	(14)
COPD	19%	(14)
Atrial fibrillation	43%	(32)
Ventil	28%	(21)
Death	28%	(21)
Received Plasma **	16%	(12) (8 missing)
Received Hydroxychloroquine	51%	(38)
Received Azithromycin	16%	(12)
Received Tocilizumab	16%	(12)
Received Remdesivir	13%	(10)
Anticoagulation	19%	(14)

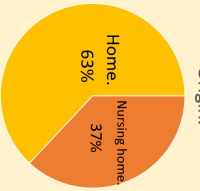
Table 5. Demographics of patients who were <60, n=35

	83%	(29)
Males	49	(9)
Age mean, (SD)	32	(8)
BMI mean, (SD)	17%	(6)
LTC/SNF	57%	(20)
ICU Admission	43%	(15)
Hypertension	54%	(19)
Obesity (BMI ≥30) *	14%	(5)
Morbid Obesity (BMI≥40)	26%	(10)
Diabetes	14%	(5)
Chronic Kidney Disease	3%	(1)
CHF	6%	(2)
COPD	3%	(1)
Atrial fibrillation	57%	(20)
ICU Admission	37%	(13)
Ventil	17%	(6)
Death	23%	(8) (2 missing)
Received Plasma	49%	(17)
Received Hydroxychloroquine	20%	(7)
Received Azithromycin	34%	(12)
Received Tocilizumab	18	(6/34) (1 missing)
Received Remdesivir	6%	(2)
Anticoagulation		

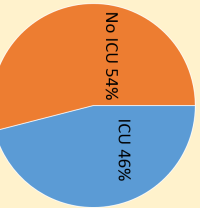
Gender.



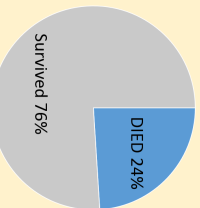
Origin.



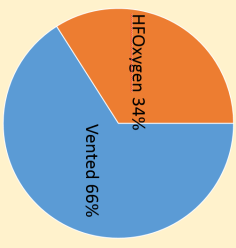
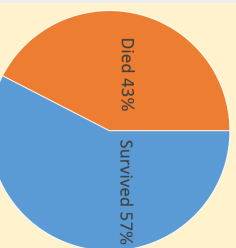
Treatment location.



Disposition.



ICU outcome.



Fifty six percent (n=61) were men, the mean age of the cohort was 68. Forty one patients were transferred from nursing homes.

Fifty two patients (48%) required admission to the medical intensive care unit and 34 (31%) necessitated mechanical ventilation, nineteen patients on mechanical ventilation died (56%).