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Demographic and clinical characteristics of deceased COVID-19 patients in Oromia region, Ethiopia.

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Introduction

- COVID 19 declared pandemic by WHO since January 2019
- It has caused significant morbidity and mortality.
- As of June 29, 6,354,251 deaths were reported globally where as , 7,535 nationally and 1,227 reported regionally.
- But, the real magnitude of COVID 19 is likely to be higher as the number of tests was limited.



Introduction

- Clinical spectrum of COVID-19 varies from asymptomatic cases to severe life threatening disease.
- Acute injury to lung, ARDS, cardiac or kidney injury, shock and coagulopathy are commonly reported complications
- Higher prevalence of these complications among patients who died from COVID 19 than survivors



Objectives

- The study aims to describe the
 - socio-demographic characteristics,
 - clinical and laboratory profiles, and
 - management



Methods

- Retrospective chart review using e-data collection tool
- 9 facilities with higher case load and mortality (1 HC, 4 10hospital, 1 GH, 3 teaching hospital)
- A total of 454 deaths from April 25, 2020, to November 9, 2021 were reviewed
- Basic information were collected from charts



Result

Demographic characteristics and comorbidities.

- Adama hospital medical college and Jimma university hospital had the highest death.
- **Age: 4 month – 102 yrs (IQR 46 – 74)**
- hospital stay: mean 6 days, IQR (2 - 8) maximum of 50 days.



Variables (N=454)	Categories	n (%)
Sex	Male	288 (63.4)
	Female	166 (36.6)
Age	<18	7 (1.5)
	18-30	29 (6.4)
	31-45	77 (17.0)
	46-60	149 (32.8)
	61-102	192 (42.3)
Any comorbidity	Yes	271 (59.7)
	No	183 (40.3)



Variables (N=454)	Categories	n (%)
Number of comorbidity	0	183 (40.3)
	1	179 (39.4)
	2	69 (15.2)
	3	19 (4.2)
	4	4 (0.9)
Types of comorbidities	Hypertension	117 (25.8)
	Diabetes Mellitus	81 (17.8)
	Cardiac Disease	55 (12.1)
	Chronic kidney disease	21 (4.6)
	Neurologic disease	19 (4.2)
	Asthma	14 (3.1)
	Chronic liver disease	5 (1.1)
Length of in facility stay	< 24 hrs.	39 (8.6)
	1 - 2 days	105 (23.1)
	3 - 5 days	111 (24.5)
	6 - 8 days	90 (19.8)
	9 - 50 days	109 (24.0)



Presenting clinical characteristics and vital sign

- Cough 427 (94%) and shortness of breath 417 (91.85%) were the commonest symptoms

Sign and symptoms (N=455)	n (%)
Cough	427 (93.8)
Shortness of breath	417 (91.9)
Easy fatigability	292 (64.3)
Fever	266 (58.6)
Poor appetite	207 (45.56)
Chest pain	136 (30.0)
Headache	118 (26.0)
Other	72 (15.9)

Sign and symptoms (N=455)	n (%)
Myalgia	71 (15.6)
Arthralgia	60 (13.2)
Chills	48 (10.6)
Nausea/ Vomiting	41 (9.0)
Rigor	39 (8.6)
Sore throat	29 (6.4)
Loss of smell and taste	17 (3.7)
Runny nose	6 (1.3)



• Severity and respiratory support

	Day 1 / n (%)
Severity	454 (100)
Mild	4 (0.9)
Moderate	11 (2.4)
Severe	257 (56.6)
Critical	182 (40.1)
Respiratory support	454 (100)
Yes	428 (94.3)
No	6 (5.7)
Type of respiratory support	
Intranasal O2	157 (36.7)
Facemask	240 (56.1)
Continuous positive airway pressure	5 (1.2)
Mechanical ventilator	26 (6.1)



Laboratory results

- CBC, RFT and LFT were the most commonly done laboratory tests.



Laboratory test	N	Range	n (%)
WBC count (10 ³ / μL)	280	< 4	9 (3.2)
		4 – 11	135 (48.2)
		11-80	136 (48.6)
Neutrophil (%)		< 40	18 (6.6)
		40 - 70	26 (9.5)
		> 70	230 (83.9)
Lymphocyte (%)		< 20	240 (87.6)
		20 - 50	27 (9.6)
		> 50	7 (2.6)
Platelet count (x10 ³)	287	<150	63 (21.9)
		150-450	215 (74.9)
		>450	9 (3.1)
Creatinine (mg/dl)	239	< 0.6	26 (10.9)
		0.6 – 1.2	136 (56.9)
		> 1.2	77 (32.2)
BUN (mg/dl)	201	< 8	2 (1.0)
		8 - 21	19 (9.5)
		> 21	180 (89.6)



Medication

- Steroid and vancomycin were the most commonly prescribed drugs.
- The 3rd and 4th generations of cephalosporin were the most commonly used antibiotics group.



S.N	Drug (N=454)	n	%
1	Dexamethasone	349	77
2	Vancomycin	329	72
3	Cefatazidime	224	49
4	UFH	197	43
5	Ceftriaxone	136	30
6	Cemitedine	89	20
7	Cefepime	78	17
8	Azithromycin	76	17
9	Lasix	67	15
10	Tramadol	50	11



Conclusion

- Old age and with comorbidities were affected more
- Majority presented with cough and shortness of breath
- Understanding common symptom and vulnerable groups early could help reduce number of deaths



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