Session: P-14. COVID-19 Epidemiology and Screening

Background: COVID-19, caused by the Severe Acute Respiratory Syndrome-Related Coronavirus 2 (SARS-CoV-2), has been a major cause of morbidity and mortality in the United States since its emergence in Wuhan, China. As of June 2020, there are over 20,000 confirmed cases and nearly 700 deaths due to COVID-19 in Wisconsin, with the majority of COVID-19 related deaths occurring within Milwaukee County. COVID-19 infections are disproportionately affecting minority communities across the United States. Presentation and outcomes vary, with the elderly and those with underlying diseases having poorer outcomes.

Methods: This retrospective chart review of patients tested for COVID-19 infection from March 2020-May 2020 at the Zablocki VA Medical Center, Milwaukee, WI evaluated demographics, comorbidities, presenting symptoms, and duration of symptoms. The primary outcomes analyzed were whether there were significant differences in demographic data, comorbidities, and presentation between patients testing positive or not positive for COVID-19.

Results: A total of 173 patients tested for COVID-19 were included during the study period, 82 positive and 91 otherwise. Univariate analysis of patient demographics and presenting symptoms are summarized in Table 1. A multivariable logistic regression using stepwise selection (AUC=0.7188) determined patients that tested positive for COVID-19, when controlling for demographics and comorbidities, were more likely to be African-American than White (OR 3.455, CI 1.733–6.887), and more likely to have a diagnosis of diabetes (OR 2.698, CI 1.36–5.353). However, race and diabetes were not informative when symptoms were included in a subsequent model (AUC=0.8458); patients testing positive for COVID-19 were more likely to present with diarrhea (OR 6.926, CI 1.760–6.926) and a higher temperature (OR 2.651, CI 1.533–4.584), but less likely to present with vomiting (OR 0.007, CI < .001-0.161) when compared to patients testing otherwise for COVID-19.

Table 1: Univariate Analysis of Variables Associated with Testing Positive for COVID-19 at Zablocki VA Medical Center 3/2020–5/2020

Table 1. Univariate analysis of variables associated with testing positive for COVID-19 at Zablocki VA Medical Center 3/2020-5/2020

Variable	COVID-19 Positive	COVID-19 Not Positive	p-value	
Variable	N = 82; N(%)	N = 91; N(%)	p-varue	
Sex				
Male	76 (92.68)	80 (87.92)	0.1193	
Female	6 (7.32)	11 (12.09)		
Race				
White	29 (35.37)	57 (62.64)	<.0001	
African American	49 (59.76)	23 (25.27)		
Other	4 (4.88)	11 (12.09)		
BMI				
Normal	14 (7.69)	27 (31.03)		
Overweight	31 (17.03)	28 (32.18)	0.1058	
Obese	37 (20.33)	32 (36.78)		
Tobacco				
Yes	14 (17.01)	23 (25.27)		
No	23 (28.05)	31 (34.07)	0.0224	
Former	45 (54.88)	33 (36.26)	0.0324	
Unknown	0	4 (4.40)		
Chief Complaint				
Cough	43 (52.44)	69 (75.82)	0.0007	
Shortness of Breath	40 (48.78)	51 (56.04)	0.0771	
Fever	27 (32.93)	29 (31.87)	0.1277	
Diarrhea	9 (10.98)	1 (1.10)	0.0053	
Fatigue/Myalgias	12 (14.63)	26 (28.57)	0.0128	
Symptoms				
Cough	63 (76.83)	78 (85.71)	0.0511	
Shortness of Breath	48 (58.54)	58 (63.74)	0.0973	
Rhinorrhea	18 (21.95)	32 (35.16)	0.0217	
Sore Throat	8 (9.76)	24 (26.37)	0.0290	
Diarrhea	29 (35.37)	10 (10.99)	<.0001	
Nausea	14 (17.07)	8 (8.79)	0.0491	
Vomiting	2 (2.44)	8 (8.79)	0.0556	
Fatigue	33 (40.24)	21 (23.08)	0.0069	
Myalgia/Arthralgia	28 (34.15)	34 (37.36)	0.1147	
Loss of Appetite	16 (19.51)	5 (5.49)	0.0035	
Change in Taste	6 (7.32)	0 (0)	0.0103	
Vitals	Mean ± STD	Mean ± STD		
Temperature	99.39 ± 1.43	98.36 ± 0.86	<.0001	
Respiratory Rate	21.88 ± 7.63	18.99 ± 3.07	0.3070	
Pulse	91.10 ± 16.56	86.13 ± 16.19	0.0479	
Systolic BP	139.23 ± 22.76	142.98 ± 22.75	0.3070	
Diastolic BP	78.08 ± 13.30	80.98 ± 12.59	0.1660	
Oxygen Saturation	93.44 ± 6.33	96.69 ± 2.89	<.0001	

Conclusion: Patients testing positive in Milwaukee County are more likely to be African-American and/or diabetic; further highlighting racial disparities in COVID-19. Symptomology at presentation is more related to positive COVID-19 test results than demographics and comorbidities.

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462. Prevalence and Outcome of Asymptomatic Procedural Patients with COVID-19 Infection

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Session: P-14. COVID-19 Epidemiology and Screening

Background: Guidelines recommend testing for SARS-COV-2 in asymptomatic individuals who are undergoing time-sensitive major surgery or aerosol generating procedures (AGPs) to guide infection prevention practices, including PPE use, and minimize risk of potential poor outcomes associated with COVID-19 infection by delaying the procedure in positive patients. However, evidence to support these recommendations are limited. We describe the outcome of asymptomatic patients with SARS-COV-2 undergoing surgery or AGPs.

Methods: We implemented a system-wide policy to test all patients requiring intubation or other AGPs at Henry Ford Health System (HFHS), a 5-hospital system in southeast Michigan. This was a retrospective review of asymptomatic surgical patients with COVID-19 infection between 5/1/2020–5/31/2020. All patients with positive polymerase chain reaction (PCR) of upper respiratory tract were included. Demographics, comorbidities, procedural/surgical categories, symptoms and outcomes were evaluated.

Results: 4381 COVID-19 PCR tests were performed pre-procedurally during the study period, of which 18 (0.4%) were positive. Summary of characteristics is presented in Table 1. Mean age was 49.7 years, and the majority were female (61%) and black (67%). Six (33%) of 18 surgeries were performed despite positive COVID-19 PCR as shown in Table 2. Of those who had the procedure performed, none developed symptoms within 14 days. Two (11%) patients developed symptoms within 14 days of positive PCR after their procedures were canceled. None of those who had their procedure delayed developed any symptoms. Of the total patients, none required hospitalization or died.

Table 1. Characteristics of asymptomatic patients with COVID-19 infection

	Total N= 18 (%)	Symptomatic within 14 days N=2 (%)	Asymptomatic within 14 days N=16 (%)	
Age, years	49.7	42	50.7	
Gender				
Male	7 (39)	0	7 (44)	
Female	11 (61)	2 (100)	9 (66)	
Race				
White	6 (33)	1 (50)	5 (31)	
Black	12 (67)	1 (50)	11 (69)	
Comorbidities				
COPD	1 (6)	0	0	
HTN	6 (33)	0	6 (38)	
Diabetes	0	0	0	
CHF	2 (11)	1 (50)	1 (6)	
ESRD	1 (6)	0	1 (6)	
Malignancy	2 (11)	1(50)	1 (6)	
Organ Transplant	1 (6)	0	1 (6)	
Rheumatoid Arthritis	2 (11)	0	2 (12)	
ВМІ	30.9	22.9	32.0	
Tobacco Use				
Current	2 (11)	0	2 (12)	
Former	5 (28)	1 (50)	4 (25)	
Never	11 (61)	1 (50)	10 (63)	

Table 2. Outcome of procedure in asymptomatic patients with COVID-19

Procedure Type	Total	Performed	Delayed	Canceled
	N=18 (%)	N=6 (%)	N=4 (%)	N=8 (%)
Cardiac	3 (17)	1 (17)	0	2 (25)
Gastrointestinal	6 (33)	1 (17)	2 (50)	3 (38)
Genitourinary	2 (11)	1 (17)	0	1 (13)
Orthopedic	6 (33)	3 (50)	2 (50)	1 (13)
Interventional radiology	1 (6)	O '	o ´	1 (13)

Conclusion: The prevalence of COVID-19 infection was very low in our asymptomatic patient population. Decisions around SARS-CoV-2 testing in asymptomatic patients undergoing procedures should be based on exposure history and prevalence of disease in the community to avoid unnecessary testing and diversion of resources away from symptomatic patients.

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463. Random Sampling of Asymptomatic Hospital Employees: A Period Prevalence Study

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Session: P-14. COVID-19 Epidemiology and Screening

Background: Novel coronavirus disease 2019 (COVID-19) has had a significant impact on the work force in hospital settings. Despite rigorous screening practices implemented at many institutions, reports have documented transmission from asymptomatic and presymptomatic individuals in community environments. Evidence of nosocomial transmission between healthcare workers and patients in the early phase of the pandemic has further compounded the fears of safety in the workplace. We sought to determine the asymptomatic carriage rate of employees to inform messaging and response in the context of universal masking and eye protection.

Methods: We conducted a period prevalence study in asymptomatic hospital employees at a quaternary pediatric hospital during April to June 2020. Eligible employees included clinical staff, administrative staff, food services workers, and