

**Title:** A survey-based estimate of COVID-19 incidence and outcomes among patients with PAH or CTEPH and impact on the process of care

**Running head:** COVID-19 and PAH/CTEPH

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**ONLINE SUPPLEMENT**

**Table e1. Impact of the coronavirus outbreak on routine clinic operations including all response categories**

	Relative to the outbreak	
	Before	After
<i>Clinic Visits</i>		
Typical # of weekly outpatient visits (median, IQR)	30 (20-45)	12 (5-25)
Centers with routine use of formal telephone visits (n, %)	4 (7%)	48 (83%)
Centers with routine use of video-enabled visits (n, %)	5 (9%)	54 (93%)
<i>Testing</i>		
Centers obtaining fewer echocardiograms (n, %)	Ref	50 (91%)
Of these, centers with <20% reduction (n, %)		3 (6%)
Of these, centers with 20-60% reduction (n, %)		12 (24%)
Of these, centers with >61-99% reduction (n, %)		30 (60%)
Of these, centers total cessation (n, %)		5 (10%)
Centers obtaining fewer right heart catheterizations (n, %)	Ref	49 (89%)
Of these, centers with <20% reduction (n, %)		2 (4%)
Of these, centers with 20-60% reduction (n, %)		9 (18%)
Of these, centers with >60% reduction (n, %)		34 (69%)
Of these, centers total cessation (n, %)		4 (8%)
Centers obtaining fewer CT pulmonary angiograms (n, %)	Ref	35 (64%)
Of these, centers with <20% reduction (n, %)		5 (14%)
Of these, centers with 20-60% reduction (n, %)		7 (20%)
Of these, centers with >60% reduction (n, %)		18 (51%)
Of these, centers total cessation (n, %)		5 (14%)
Centers obtaining fewer VQ scans (n, %)	Ref	50 (91%)
Of these, centers with <20% reduction (n, %)		6 (12%)
Of these, centers with 20-60% reduction (n, %)		9 (18%)
Of these, centers with >60% reduction (n, %)		23 (46%)
Of these, centers total cessation (n, %)		12 (24%)
Centers who have switch to Q scans only (n, %)	Ref	21 (38%)
<i>Treatment</i>		
Centers limiting new starts of oral therapies (n, %)	Ref	10 (18%)
Of these, centers with <20% reduction in new starts (n, %)		3 (30%)
Of these, centers with 20-60% reduction in new starts (n, %)		5 (50%)
Of these, centers with >60% reduction in new starts (n, %)		2 (20%)
Of these, centers total cessation in new starts (n, %)		0 (0%)
Centers limiting new starts of IV/SQ therapies (n, %)	Ref	17 (30%)

Of these, centers with <20% reduction in new starts (n, %)		3 (18%)
Of these, centers with 20-60% reduction in new starts (n, %)		6 (35%)
Of these, centers with >60% reduction in new starts (n, %)		5 (29%)
Of these, centers total cessation in new starts (n, %)		3 (18%)
Centers with fewer transplant referrals (n, %)	Ref	15 (27%)
Of these, centers with <20% reduction in new referrals (n, %)		2 (13%)
Of these, centers with 20-60% reduction in new referrals (n, %)		8 (53%)
Of these, centers with >60% reduction in new referrals (n, %)		2 (13%)
Of these, centers total cessation in new referrals (n, %)		3 (20%)

**Table e2. Impact of the coronavirus outbreak on routine clinic operations of centers in states with a high reported prevalence of COVID-19 relative to a low reported prevalence including all response categories**

	<u>Low-COVID Prevalence</u>		<u>High-COVID Prevalence</u>	
	Before	After	Before	After
<i>Clinic Visits</i>				
Typical # of weekly outpatient visits (median, IQR)	35 (25-50)	25 (6-40)	30 (20-40)	9 (5-20)
Centers with routine formal telephone visits (n, %)	1 (4%)	18 (72%)	3 (9%)	30 (91%)
Centers with routine video-enabled visits (n, %)	2 (8%)	22 (88%)	3 (9%)	32 (97%)
<i>Testing</i>				
Centers obtaining fewer echocardiograms (n, %)	Ref	20 (87%)	Ref	30 (94%)
Of these, centers with <20% reduction (n, %)		3 (15%)		0 (0%)
Of these, centers with 20-60% reduction (n, %)		5 (25%)		7 (23%)
Of these, centers with >61-99% reduction (n, %)		10 (50%)		20 (67%)
Of these, centers total cessation (n, %)		2 (10%)		3 (10%)
Centers obtaining fewer RHCs (n, %)	Ref	21 (91%)	Ref	28 (88%)
Of these, centers with <20% reduction (n, %)		2 (10%)		0 (0%)
Of these, centers with 20-60% reduction (n, %)		5 (24%)		4 (14%)
Of these, centers with >60% reduction (n, %)		11 (52%)		23 (82%)
Of these, centers total cessation (n, %)		3 (14%)		1 (4%)
Centers obtaining fewer CTPAs (n, %)	Ref	13 (57%)	Ref	22 (69%)
Of these, centers with <20% reduction (n, %)		4 (31%)		1 (5%)
Of these, centers with 20-60% reduction (n, %)		3 (23%)		4 (18%)
Of these, centers with >60% reduction (n, %)		4 (31%)		14 (64%)
Of these, centers total cessation (n, %)		2 (15%)		3 (14%)
Centers obtaining fewer VQ scans (n, %)	Ref	22 (96%)	Ref	28 (88%)
Of these, centers with <20% reduction (n, %)		5 (23%)		1 (4%)
Of these, centers with 20-60% reduction (n, %)		3 (14%)		6 (21%)
Of these, centers with >60% reduction (n, %)		8 (36%)		15 (54%)
Of these, centers total cessation (n, %)		6 (27%)		6 (21%)
Centers who have switch to Q scans only (n, %)	Ref	12 (52%)	Ref	9 (28%)
<i>Treatment</i>				
Centers limiting new starts of oral therapies (n, %)	Ref	5 (22%)	Ref	5 (15%)
Of these, centers with <20% reduction in new starts (n, %)		2 (40%)		1 (20%)
Of these, centers with 20-60% reduction in new starts (n, %)		2 (40%)		3 (60%)
Of these, centers with >60% reduction in new starts (n, %)		1 (20%)		1 (20%)
Of these, centers total cessation in new starts (n, %)		0 (0%)		0 (0%)
Centers limiting new starts of IV/SQ therapies (n, %)	Ref	6 (26%)	Ref	11 (33%)
Of these, centers with <20% reduction in new starts (n, %)		2 (33%)		1 (9%)

Of these, centers with 20-60% reduction in new starts (n, %)		1 (17%)		5 (45%)
Of these, centers with >60% reduction in new starts (n, %)		1 (17%)		4 (36%)
Of these, centers total cessation in new starts (n, %)		2 (33%)		1 (9%)
Centers with lower transplant referrals (n, %)	Ref	4 (17%)	Ref	11 (33%)
Of these, centers with <20% reduction in new referrals (n, %)		0 (0%)		2 (18%)
Of these, centers with 20-60% reduction in new referrals (n, %)		2 (50%)		6 (55%)
Of these, centers with >60% reduction in new referrals (n, %)		1 (25%)		1 (9%)
Of these, centers total cessation in new referrals (n, %)		1 (25%)		2 (18%)

<sup>1</sup>States with a COVID-19 prevalence below the median on April 20, 2020 as reported by the CDC with an average prevalence of 0.7 infected individuals per 1,000 inhabitants

<sup>2</sup>States with a COVID-19 prevalence above the median on April 20, 2020 as reported by the CDC with an average prevalence of 3.1 infected individuals per 1,000 inhabitants

<sup>3</sup>From the CDC on April 20, 2020; <https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/cases-in-us.html#2>