COVID-19 Virtual Monitoring Program

-----CVMP-----

Support for COVID-19 Patients and Families through Monitoring, Education, and Counseling in Coordination with the Patient's Personal Physicians

HAWAI'I PACIFIC HEALTH

HAWAI'I HEALTH PARTNE

Pre-Test

- 67 year old office worker with low grade fever, fatigue and subjective shortness of breath. Just tested and PCR results positive for COVID-19. You are calling the patient to inform of test results.
 - Which of the following patient instructions are the optimal next steps in managing this patient?
 - a. Proceed to ED for evaluation and possible admission
 - b. Quarantine and call if any problem
 - c. Quarantine and enroll in home monitoring program
 - d. Proceed to REC for evaluation.
 - e. Inform patient's PCP.



Pre-Test

2. Which of the following are true statements?

- a. Patients with COVID-19 and moderate symptoms can be safely monitored and managed at home
- b. More than 80% of patients with COVID-19 do not require hospitalization
- c. Patients with COVID-19 using oxygen must be admitted to inpatient facility
- d. Patients being monitored at home can be stratified based on risk factors and symptom progression
- e. A, B and D
- f. All of the above



Pre-Test

- 3. My confidence level in being able to monitor and manage patients with COVID-19 and mild to moderate symptoms is:
 - a. High
 - b. Moderate
 - c. Low
 - d. Low with expectation of being better!



Hawaii COVID-19 Data: Trends

This dashboard displays state and county trends for new and cumulative cases, recoveries, hospitalizations, and deaths. The "Trend for" drop-down menu can be used to switch between indicators.



Trajectory will continue for at least the next 7 days, and longer if public health measures are not effective.

Hospitalization Rate assumptions vary from 1% to 20%; (we assume 10% at HHP).

ICU admission rate assumptions vary from 2% to 8%, (we assume 3%)

Every hospital bed, ER visit, and Respiratory Evaluation Clinic visit is a precious and limited resource.

The CVMP strives to assure optimum care of the COVID-19 patient at home, minimizing unnecessary in-person visits to health care facilities.



COVID-19 Virtual Monitoring Program

Facilitates home recovery from COVID-19 through:

- Education and Support
 - Help patients understand their diagnosis, what to watch for, and how to access care appropriately.
- Clinical monitoring
 - Care Companion online app, use of Thermometer, Pulse Oximeter, Blood Pressure cuff. How to keep accurate records.
 - Telehealth visits by phone or video.
 - My Chart enrollment if possible.
- Treatment
 - COVID-19 (e.g. mild hypoxemia, symptoms).
 - Pre-existing illness (e.g. hypertension, diabetes).
 - Concurrent illness (e.g. UTI, otitis media).
 - Social, nutritional, financial, and psychological complications of illness. (Help connect with appropriate resources).



CVMP Mission and Objectives

- Support COVID-19 patients and families to facilitate successful recovery from illness.
- Enroll Positive and Presumed Positive COVID-19 patients into the COVID-19 Virtual Monitoring Program via MyChart in EPIC.
- Provide ongoing daily clinical monitoring for 14 days, or longer if needed.
- Provide early intervention for symptom management and detection of clinical deterioration.
- Ensure proper documentation in patient's chart.
- Improve coordination of care across multiple providers and settings.
- Encourage home monitoring of symptoms by patient prior to contacting appropriate medical staff and receiving care in a hospital setting.

PACIFIC

If COVID-19 test was ordered by PCP:

This is what is supposed to happen:

- PCP receives notification from clinical lab.
- PCP notifies patient of positive result.
- PCP completes PUI (Person Under Investigation) form and faxes to HDOH (Hawaii Department of Health).
- PCP documents in Epic that patient has been notified, PUI form completed and faxed to DOH.
- PCP enrolls patient into MyChart home monitoring program or provide daily symptom calls if unable to enroll in MyChart



If COVID-19 test was <u>not</u> ordered by a PCP (i.e. Urgent care or ED):

And the patient already has a PCP:

- CVMP verifies that the ordering provider has contacted patient and has completed the PUI Form.
- CVMP will notify PCP via inbasket that their patient has tested positive for COVID-19
- PCP enrolls patient into MyChart home monitoring program or provide daily symptom calls if unable to enroll in MyChart



Patient Under Investigation (PUI) Form

v20200727



Test

Serologic test

Other (specify):

Address

Molecular amplification test (RT PCR)

Interviewer Information Name of Interviewer: Last:

Affiliation/Organization: Patient's Healthcare Provider (If different):

Human Infection with 2019 Novel Coronavirus Case Report Form

Telephone:

Telephone:

Patient last name:

Pos Neg Indet. Pend. Not Done Specimen collection date

First

Fax completed form to: DOH Disease Investigation Branch (808) 586-4595

Date of birth (MM/DD/YYYY): /

Symptoms present during course of illness

Onset date (MM/DD/YYYY): ____/_

Unknown symptom onset date

Symptomatic Asymptomatic Unknown

Email:

Email

Email:

If case was symptomatic:



Human Infection with 2019 Novel Coronavirus Case Report Form

Patient last name

Fax completed form to: DOH Disease Investigation Branch (808) 586-4595

Date of birth (MM/DD/YYYY): ___/___/

Clinical course, symptoms, past medical history, and social history

Patient first name

		Collected from (check all that apply):	Patient interview	Medical record review	Other, specify:_
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Did the patient experience any of the following complications due	to their illness?				
Did the patient develop pneumonia? Yes No Unknown	Did the patient have an abnormal EKG?				
Did the patient have acute respiratory distress syndrome? Yes No Unknown Did the patient have an abnormal chest X-ray?	Did the patient receive mechanical ventilation (MV)/intubation? Yes No Unknown If yes, total days with MV (days)				
Yes No Unknown N/A, no chest X-ray done Did the patient have another diagnosis/etiology for their illness? Yes No Unknown	Did the patient receive ECMO? Yes No Unknown				
If symptomatic, which of the following did the patient experience	during their illness?				
Fever ≥100.4°F (38°C) Yes No Unk Co	ugh (new onset or worsening of chronic cough) Yes No Unk				
Subjective fever (felt feverish) Yes No Unk Shi	ortness of breath (dyspnea) Yes No Unk				

Fever ≥100.4°F (38°C)		Yes	N	0	<u></u> ι	Jnk	Cough (new onset or worsening of chronic cough)		Yes	No	Unk
Subjective fever (felt feverish)		Yes		0	Πι	Jnk	Shortness of breath (dyspnea)		Yes	No	Unk
Chills		Yes	N	0		Jnk	Difficulty breathing		Yes	No	Unk
Muscle aches (myalgia)		Yes		0		Jnk	Chest pain		Yes	No	Unk
Runny nose (rhinorrhea)		Yes	N	0	_ ı	Jnk	Nausea or vomiting		Yes	No	Unk
Sore throat		Yes	N	0	<u></u> ι	Jnk	Abdominal pain		Yes	No	Unk
New olfactory and taste disorder(s)		Yes		0		Jnk	Diarrhea (≥3 loose stools/24hr period) Yes No U		Unk		
Headache		Yes No Unk Other, specify:, Yes		Yes	No	Unk					
Fatigue	Yes No Unk										
Did the patient's symptoms resolve? Ves. date of symptom resolution (MM/DD/YYYY): _/_/ Symptoms resolved, unknown date No, still symptomstic Unknown if symptoms resolved											

Did they have any underlying medical conditions and/or risk behaviors? Yes No Unknown							
Diabetes Mellitus	Yes	No	Unk	Disability			
Hypertension	Yes	No	Unk	(neurologic, neurodevelopmental, intellectual,	∏ Yes		
Severe obesity (BMI ≥40)	Yes	No	Unk	physical, vision or hearing impairment)			
Cardiovascular disease	Yes	No	Unk	If yes, specify:			
Chronic Renal disease	_ Yes	No	Unk	Psychological/psychiatric condition	∏ Yes		
Chronic Liver disease	Yes	No	Unk	If yes, specify:			
Chronic Lung disease	Yes		Unk	Other chronic diseases	∏ Yes		
(asthma/emphysema/COPD)				If yes, specify:			
Immunosuppressive condition	Yes	No	Unk	Other underlying condition or risk			
Autoimmune condition	Yes	No	Unk	behavior, specify:	Yes		Unk

History of substance use			
Tobacco smoking	Current	Former	Never
Vaping/E-cig	Current	Former	Never
Alcohol use disorder	Current	Former	Never
Other substances Specify:	Current	Former	Never

Additional Comments or Notes



Hospitalization, ICU, and Death Information

SARS-CoV-2 Testing (approved by FDA or other designated authority)

Was the patient hospitalized? Yes No Unknown	Was the patient admitted to an intensive care unit (ICU)? Yes No Unknown
If yes, admission date discharge date / / (MM/DD/YYY) / /	If yes, admission date discharge date / / (MM/DD/YYYY) / /
Did the patient die as a result of this illness? Yes No Unknown If yes, date of death (MM/DD/YYYY):/	Unknown date

Case Demographics

Date of birth (MM/DD/YYYY): /	Race (check all that apply): Vhite Native Hawaiian Pacific Islander, specify:	Ethnicity: Hispanic/Latino Non-Hispanic/Latino Unknown
Jeek: Maie Uther Female Unknown If female, currently pregnant? Yes No Unknown		Primary Language:
What is the patient's occupation? Industry: Occupation:	Other Asian, specifiy: Black Other, specify:	Yes No Unknown If yes, specify which language:

Healthcare Worker Information

Is the patient a health care worker in the United States? Yes No Unknown						
If yes, what is their occupation (type of job)?	If yes, what is their job setting?					
Physician Respiratory therapist Other, specify: Nurse Environmental services Unknown	Hospital Rehabilitation facility Other, specify: Long-term care facility Nursing home/assisted living facility Unknown					

Exposure Information

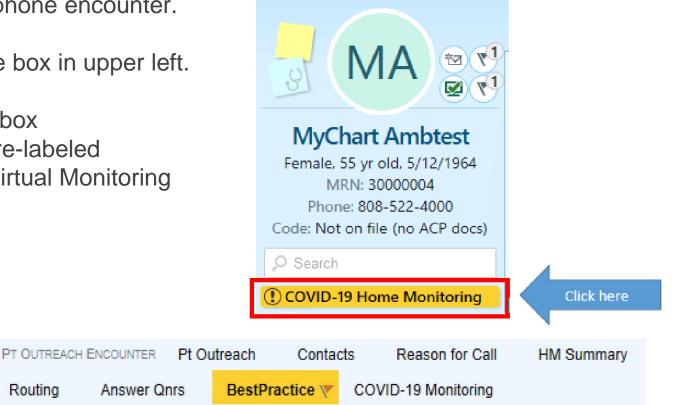
Exposure information	
In the 14 days prior to illness onset, did the patient have any of the following exposures (check all that apply):	Which would best describe where the patient was staying at the time of illness onset?
Contact with a known COVID-19 csz (probable or confirmed) // the points had contact with a known COVID-19 csze, what type of contact? Household contact Community-associated contact (patient, visitor, or healthcare worker) Travel Intersiland. Specify island(s): Mainland U.S. travel. Specify contry(s): Intervational travel. Specify contry(s): Airport/Alplane Cruise ship or vessel travel as passenger or crew member. Specify name of ship: Congregate settings Modul winesrity/childcare center Correctional facility (nursing, assisted living, or long-term care facility) School/university/childcare center Correctional facility Community event/mass gathering Animal with confirmed or supperted COUD-19. Specify animal:	Traditional housing House/single family home Apartment Apartment Long term care facility Long term care facility Acute care inpatient facility Rehabilitation facility Rehabilitation facility Home(ess Shelter Hote(/motel Outride, in a car, or other location not meant for human habitation Correctional facility Mobile home Group home Unknown Other (specify):
Other exposures, specify:	Is this case part of an outbreak? Yes, specify outbreak name: No Unknown

How to Enroll a Patient into CVMP

Open a telephone encounter.

Find the blue box in upper left.

Click yellow box (soon to be re-labeled COVID-19 Virtual Monitoring Program)





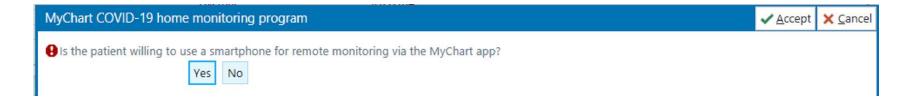
This will open up a Best Practice Alert (BPA) box with the CVMP order already selected for you. Click on Accept.

BestPractice Advisory - Ambtest, MyChart						
Care Plan Suggestion (1)	*					
This patient has suspected or confirmed COVID-19. It is recommended to order the MyChart COVID-19 home monitoring program.						
Last SARSCOV2: Not on file						
Order Do Not Order 🏠 MyChart COVID-19 home monitoring program						
Acknowledge Reason						
Not a good candidate Not at this time Other (see comments)						
✓ <u>A</u> ccept <u>C</u> ancel						



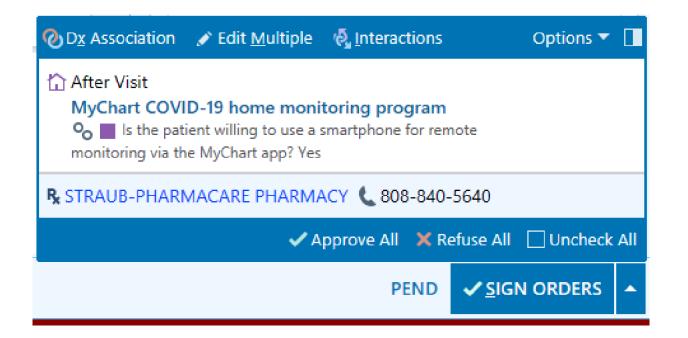
You will be asked "is the patient willing to use a smartphone for remote monitoring via the MyChart app?" Respond yes or no.

NOTE: In order to receive the answers to the Questionnaire patient MUST use the app on their phone. It will NOT work on MyChart website.





This box will appear. Click on "Sign Orders"





You may be presented with another BPA of "Temperature and oxygen monitoring." Choose to Order and Accept.

		· · · · · · · · · · · · · · · · · · ·					
	BestPra	actice Advisory - Ambtest, N	lyChart				
Care Plan Sugge	stion (1)			*			
① Order the temp	erature and oxygen monito	oring flowsheets.					
Order	Do Not Order	Temperature and oxyge	en monitoring				
The following actions have been applied: ✓ Added: MyChart Care Companion for COVID-19							
			✓ <u>A</u> ccept	<u>C</u> ancel			
) D <u>x</u> Association 🔗 Edit <u>I</u>	Multiple 🖗 Interactions	Options 🔻 [
	After Visit Temperature and oxyg O Normal, Expected: 4	en monitoring I/15/2020, Expires: 4/15/2021					
	-	me monitoring program g to use a smartphone for remote					

Select a pharmacy Approve All Refuse All Uncheck A PEND SIGN ORDERS



Click the box under "COVID-19" and then click Accept.





Enter in the patient's PCP in the "For procedures" box and click Cosign Required. Accept.

	Providers
Authorizing Providers For procedures	Filter: 🗌 Nearby
Enter in PCP Enter in PCP name	Q
Cosigners For procedures	Cosign required
	۹
	✓ <u>A</u> ccept <u>X</u> <u>C</u> ancel

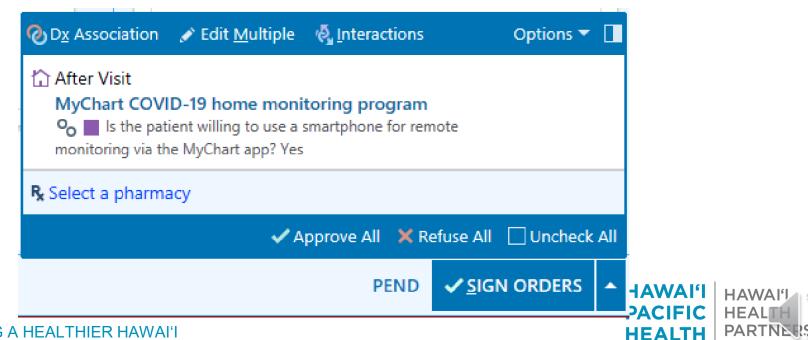
Orders will then go to the PCP's Epic In Basket to co-sign.



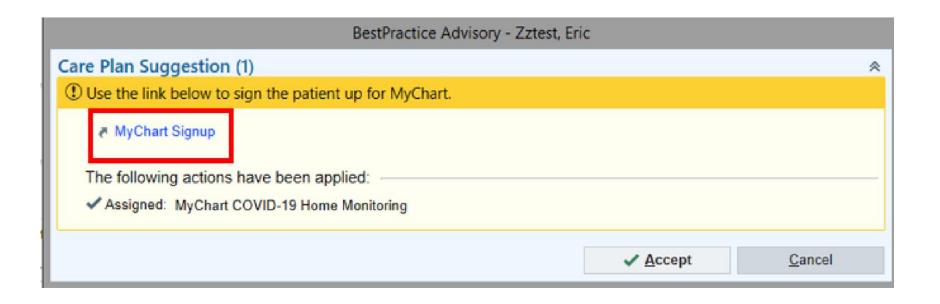
How to enroll a patient into Epic MyChart

If a COVID-19 patient is not already an active user of MyChart, Epic will detect this when you attempt to place CVMP order.

Send an Instant Activation for MyChart to the patient. Start by clicking the Sign Orders button in the box below:



When Epic detects MyChart Signup is needed, this BPA box will appear. Click MyChart Signup and Accept.





Click on either "Send Email" or "Send Text"

MyChart Signup						
How would this patient like to receive MyChart signup information?						
Send Email	Send Text	Print Letter	Ask Later	Patient Declined		
		Eune Forrei				



Confirm phone number and email with the patient.

Ph	ione:				
		Sen	d Activation Information	X	
ſ	Send activation	on information to	a phone number for the person listed	below.	
	(Patient)		808-333-3333	Send	
			Save phone number after sending		
En	nail:				
		Sen	d Activation Information	x	
	Send activation information to an email address for the person listed below.				

The patient will receive the MyChart activation immediately.

Instruct the patient to create a User ID and Password right away so that they may begin communicating with CVMP and their PCP.

Send

testing@hawaiipacifichealth.org

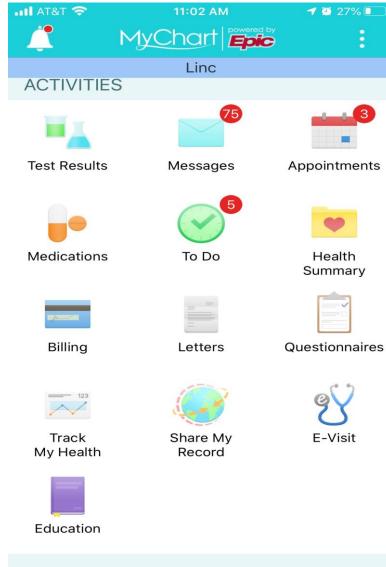
Save email address after sending



CREATING A HEALTHIER HAWAI'I

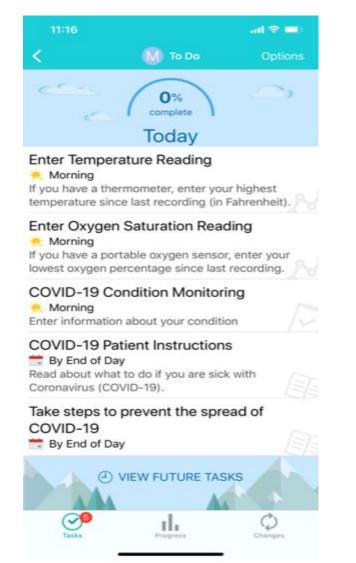
(Patient)

MyChart Questionnaire-Patient view





MyChart Questionnaire-Patient view





MyChart Questionnaire-Patient view

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HAWAIʻI

PACIFIC

HEALTH

HAWAI

HEAI

Year

M Track My Health

April 8 - April 14

Tap to add readings

Tap to add readings

CONNECT TO HEALTH

ADD READINGS

Month

Week

11:34 7		all 🗢 💼	11:33	
M Ques	tionnaires	Close	< To Do	
This is a non-production patient, contact the s immediat	environment ystem admir telv. [X]	. If you are a histrator	Da	ay
For the questionnaire serie	s Symptom (Check-in	Tempera	iture
When did you first start e elated to COVID-19?	experiencing	symptoms		
Are you feeling short of	breath toda	y?		
Yes	N	0	SPO2	
Are you having a cough	today?			
Yes	N	0		
Are you experiencing w	eakness tod	ay?		
Yes	N	0		
*How is your appetite co	mpared to y	esterday?		
Better	Sar	me		
Wo	rse			
*Are you vomiting?				a (
Yes	N	0		[
*Are vou experiencina a	200022			

Best Practice Alert Message (BPA)

- Shortness of Breath New or Worse
- Cough New or Worse
- Vomiting Yes
- Diarrhea New or Worse
- Weakness New or Worse
- Appetite compared to Yesterday Worse
- If have thermometer, temperature >100.3
- O2 saturation <92% (13+) or <94% (0-12yrs)



Best Practice Alert Message (BPA)-PCP view

	2020 Subject COVID-19 Shortness of Breath	or Vomiting	© Msg Date 04/15/2020 Pool?: X	3:50 PM	Ambtest, Andy
Read Visit: 04/15/	COVID-19 SP02 < 92 2020		04/15/2020 Pool?: X	3:50 PM	Ambtest, Andy
New ? Visit: 04/15/2	COVID-19 Temp > 100.3 F 2020		04/15/2020 Pool?: X	3:50 PM	Ambtest, Andy
1 New ? Visit: 04/15/2	COVID-19 SPO2 < 92 2020		04/15/2020 Pool?: X	1:06 PM	Ambtest, Ashley
t New Visit: 04/15/2	COVID-19 Shortness of Breath 2020	or Vomiting	04/15/2020 Pool?: X	10:26 AM	Ambtest, Chris
t New ? Visit: 04/15/	COVID-19 SPO2 < 92 2020		04/15/2020 Pool?: X	10:25 AM	Ambtest, Chris
New ? Visit: 04/15/2	COVID-19 Symptom Questionn 2020	aire Not Done	04/15/2020 Pool?: X	9:00 AM	Ambtest, Chris
+ E	Message E Help	Mychart, User → P Covid-19 Outbre		ol	Received: Today
	Andy Ambtest a e, 47 yr old, 7/17/1972 MRN: 30000862	Suspected or confirmed CC oxygen saturation less than			ded
PCP: N	one				Active

04/15/20 1550 Mychart, User

Send In

Message

[EBMYCHART001] Basket

Patient-

Entered Data

None

HAWAI'I HEALTH PARTNERS

Telephone Encounter Documentation

SYMPTOM ASSESSMENT:

Date of Onset of		Symptoms	Symptoms	NO	
symptoms: In the Past Day	Yes	Improving	Worsening	Symptoms	Comment
Fever >100.4					
Chills					
Pulse 100-120					
Respiration Rate 20-24					
Ambulatory SPO2 92-96%					
Cough					
Dyspnea interfering with					
ADL's					
Muscle Aches					
Abdominal Pain					
Loose Stools 3 or greater					
loose stools in a 24 hour					
period					
Urinating normally in a 24			[
hour period					
Tolerating food and liquids					
Anxiety					
Loss of smell					
Loss of taste					
Weakness					
Nursing Assessment:					
- Appears ill					
Other					



Risk Tiers

	Tier 1 (Low Risk)	Tier 2 (Moderate Risk)	Tier 3 (High risk)
Patient Criteria	• < 60 & Healthy	 60-75 <60 with any of the following: DM, asthma, COPD, smoker, HTN, CKD, pregnant 	 75 and greater <75 with any of the following: CVD, ESRD, immuno-compromise, advanced COPD, cirrhosis, cancer, frailty or multiple morbid conditions
Symptoms	 Non-Specific, mild URI Sx or mild cough and 	 More pronounced URI Sx or cough Fever SOB 	 Cough with pain, wheezing or shortness of breath lasting longer than 6 days; DOE, or chest tightness or
Data (if available)	 Normal BP, RR, Pulse Ox and Pulse (mild tachycardia is normal if febrile) Normal Chest X-ray and 	 Significant leuko/lymphopenia Elevated CRP Pulse Ox <100% but >93% Pulse >100 	 Hypoxemia (93% or less) Infiltrates on CXR or CT Chest
Support System	Able to self-isolateAdequate Support	 Otherwise Tier 1 but <u>uncertain</u> support 	Otherwise lower tier, but <u>unstable</u> support system

Risk Tiers

	Tier 1 (Low Risk)	Tier 2 (Moderate Risk)	Tier 3 (High risk)
Clinical Course	 Tier 1 with stable or improving symptoms <u>Previously Tier 2</u> <u>patient</u> with improving symptoms over 6 days 	 Tier 2 with stable symptoms <u>Previously Tier 1 patient</u> with symptoms not improving over 6 days <u>Previously Tier 3 patient</u> with improving symptoms over 6 days 	 Tier 3 with stable symptoms <u>Previously Tier 2</u> <u>patient</u> with symptoms not improving over 6 days <u>Previously Tier 1</u> <u>patient</u> with worsening symptoms (clinical judgement.)
When to escalate to next Tier	With worsening of any symptoms - or - symptoms not improving over 6 days	With worsening of respiratory symptoms, pleuritic pain, hemoptysis, Pulse Ox <93%, decreased urine output (<3 voids in 24 hours), decreased fluid intake (< 24 ounces of fluid in 24 hours), or signs of dehydration	With any worsening of symptoms: Contact: PCP, Urgent Care, or call 911



Symptom Monitoring & Management

Dyspnea (Shortness of Breath)

- Note: Dyspnea reflects perception of increased work of breathing, not of oxygen levels. The patient may be short of breath with normal O2 sat. Conversely, they may feel fine with low O2 sats.
- Goal: Oxygen saturation >94 most of the time. At this O2 sat he patient may still feel dyspnea, but more oxygen will not make them healthier, safer, or more comfortable. Oxygen supplies are precious and should not be wasted.
- Patient instruction:
 - Monitor oxygen saturation at least twice a day when you are ambulating, more frequently if experiencing increased shortness of breath.
 - If on home oxygen, raise flow rate up to maximum of 3 litres to achieve Oxygen saturation goal. O2 may be turned up with activity and back down at rest.
- For patients who use inhalers, instruct them to use hand-held rather than desktop nebulizers.



Symptom Monitoring & Management

- Fever
 - Temperature >100.4
 - Monitor temperature three times a day and record along with blood pressure, O2 saturation pulse, and patient's symptoms.
 - Fevers up to 104.0 are not harmful and do not need to be treated. Temperature can be a valuable indicator of the patient's progress or deterioration. Reducing temp with Tylenol or NSAIDS does not necessarily make patients feel better. Always record when these meds are given in the log to help with interpretation of vital signs.
 - Pharmacological treatment
 - Tylenol 500mg up to 6 a day as needed for comfort.
 - Nonpharmacological treatment
 - Stay hydrated
 - Keep your environment cool
 - Dress in light clothes



Symptom Monitoring & Management

Cough

- Medication containing dextromethorphan can be of some help (Robitussin-DM and Mucinex DM).
- Prescription medications such as benzonatate or those containing opiates like codeine can be more effective.



Home Isolation Guidelines

- Stay home except to get medical care.
- Separate yourself from others in your home.
 Avoid sharing the same bedroom and restroom.
- Wear a facemask at all times unless completely alone.
- Cover your coughs and sneezes.
- Clean your hands often.
- Avoid sharing personal household items.
- Clean all "high-touch" surfaces daily.



When to seek medical attention

- Seek medical attention immediately if you have:
 - Trouble breathing
 - Persistent pain or pressure in the chest
 - New confusion
 - Inability to wake or stay awake
 - Bluish lips or face
- Call 911
 - Notify the operator that you or the person seeking medical care tested positive for COVID-19.



Blood Bank of Hawaii

Following are some guidelines to help you determine if you are eligible. If you have questions about eligibility, please call our medical team at (808) 848-4745.

General Eligibility

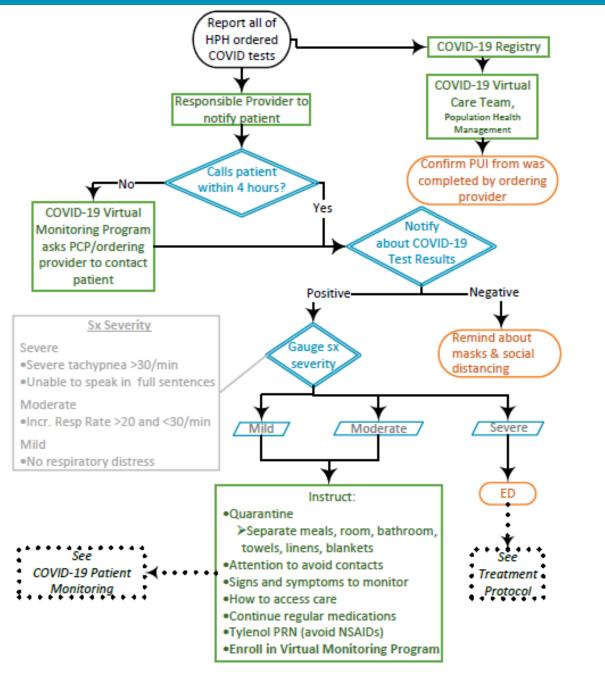
You are able to donate if you have:

- Diabetes
- Menstruation
- Surgery without transfusion

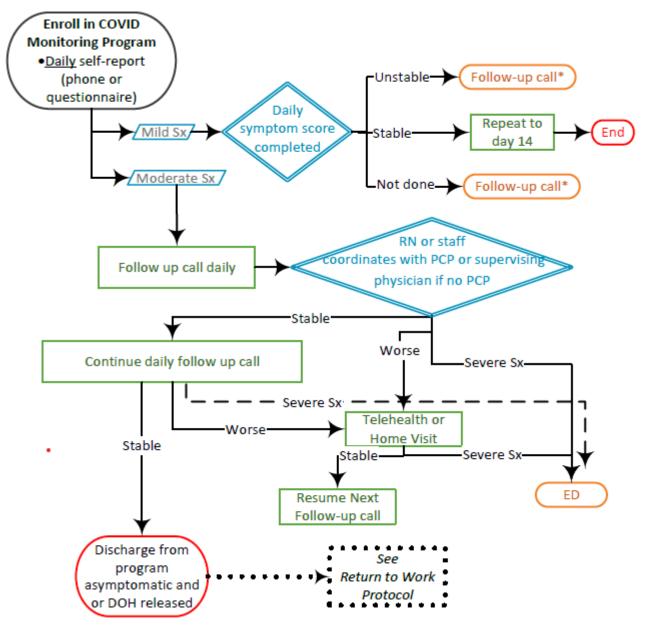
You are <u>unable</u> to donate if you have:

- AIDS or have ever engaged in high-risk activities including
 - o Male to male sex in the past year
 - o Intravenous drugs use
- Cold or flu
- Hepatitis B or C
- Pregnancy 6 week wait
- Surgery with transfusion of blood or blood components 1 year wait
- There are other guidelines for donating if you have Tattoos, Cancer, Heart conditions or Stroke, Lung conditions, Autoimmune disorders, Piercings/Brandings, if you've Traveled, if you are taking certain medications and received certain Vaccinations. Contact Blood Bank of Hawai'i for more information.











Thank you for your dedication to our patients and our community!

Please feel free to contact us for any questions: info@hawaiihealthpartners.org

HAWAI'I PACIFIC HEALTH

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