MEETING TARGETS AND MAINTAINING EPIDEMIC CONTROL (EPIC) PROJECT

COOPERATIVE AGREEMENT NO.
7200AA19CA00002

Test to Treat for COVID-19

A clinical training for health care workers

FACILITATOR'S MANUAL
NOVEMBER 2022

USAID
FROM THE AMERICAN PEOPLE

EpiC
Meeting Targets and Maintaining Epidemic Control

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Introduction & Guidelines for Use:

The ongoing COVID19 pandemic has stressed the healthcare system in innumerable ways, while simultaneously providing an incredible success story of scientific and public health advances to improve care and treatment of infected patients. Oral antivirals are proven to improve clinical outcomes for eligible high-risk patients when initiated within 5 days of symptom onset. This element of care is one element of a robust, systems-based approach, which together with other interventions such as vaccination and appropriate isolation and quarantine, will together support a robust, ongoing, integrated approach to appropriate care and treatment for COVID19 patients.

This training tool: 'Test to Treat for COVID19: A clinical training for healthcare worker's is designed to focus on implementation of Test to Treat, within the context of appropriate care and management of all COVID19 patients. There is dedicated attention to the oral antiviral medications Paxlovid (nirmatrelvir/ritonavir) and molnupiravir (brand names vary per country), including prescribing information and clinical case-based scenarios for practice. This fits within the context of initial evaluation, triage and treatment of all COVID19 patients, and consideration of management aspects for patients who do not meet criteria for oral antiviral treatment, either because they are too sick or do not meet eligibility criteria. The holistic approach is supportive of day-to-day management and practice in various clinical settings. The final module provides an opportunity for teams to consider the actual practical implementation of Test to Treat in their own clinical setting, considering process factors and developing plans to operationalize this important element of COVID19 care.

The training is divided into 6 modules, listed here:

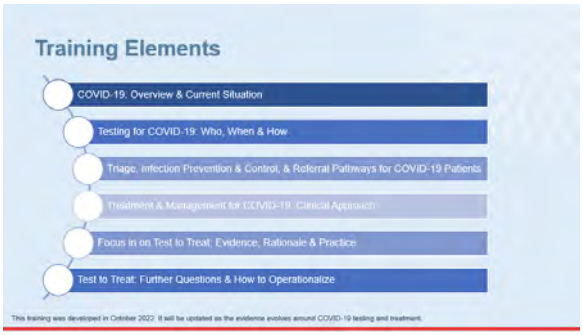
- COVID19 Overview & Current Situation
- Testing for COVID: Who, When & How
- Triage, IPC, and Referral for COVID19 patients
- Treatment & Management Update for COVID19
- Focus in on Test to Treat: Evidence, Rationale & Practice
- Test to Treat: Further Questions & How to Operationalize

These modules can be used together or independently, depending on the specific scenario and target learners. Additional resources which may be helpful can be found in the training tool Navigating COVID-19 Clinical Care Pathways Across the Health Care System: A practical guide for primary health care workers. The addition of oral antivirals as an effective treatment option aligns with the integration of COVID19 care within and across the acute and primary care systems, with a shared focus on improving patient care outcomes through early diagnosis and effective treatment.

Slide 1

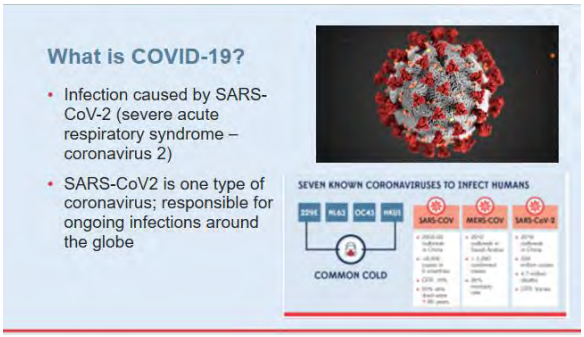
This training slide deck is composed of 6 main elements, which can be used in sequence as listed, or can be used separately depending on the specific learner groups brought together for the training, and the specific objectives of the training. Overall, this training is focused on Test to Treat as a new component of quality treatment for COVID19 patients. While Test to Treat is the focus of this training, it also can and should be thought of as one component of an integrated strategy to care for all patients with COVID19. There will be focus on the appropriate usage of oral antivirals as therapeutics, as well as broader thinking about appropriate and safe care for patients with more severe case presentations, and those who do not meet eligibility criteria for oral therapeutics. This holistic approach is designed to implement Test to Treat, as well as care for ALL covid patients. Case studies and exercises throughout the training can be used to practice specific scenarios, and also work with a team to consider the processes and plan for the implementation of T2T.

Slide 2



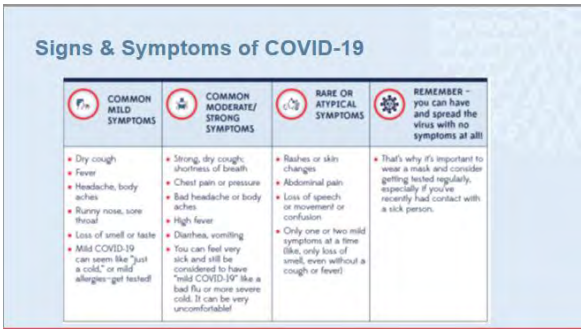
Slide 3

Slide 4



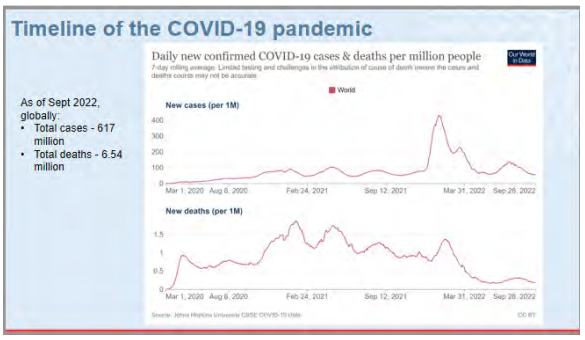
This is a reminder slide, to bring everyone back to the reason we are here.
COVID 19 is the infection caused by SARS-CoV02.

Slide 5



The spectrum of COVID-19 signs and symptoms. Keep in mind that there are more or less common symptoms with the different variants of COVID-19, and things may well continue to change.
It is important that even though in many places, numbers of cases are down, COVID-19 is still present in most communities.

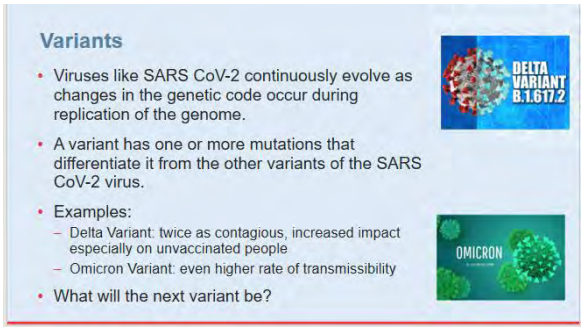
Slide 6



The pandemic is not over. These graphs depict the number of cases and number of deaths since March 2020. You can see various events and surges over that time, and thankfully the number of deaths per million has been going down since the spring of 2022. The total number of cases and total number of deaths is staggering, and continuing to increase. Advances in clinical medicine, diagnostics, health systems, and vaccine science have given us hope that COVID-19 is becoming less likely to be fatal or severe for most people.

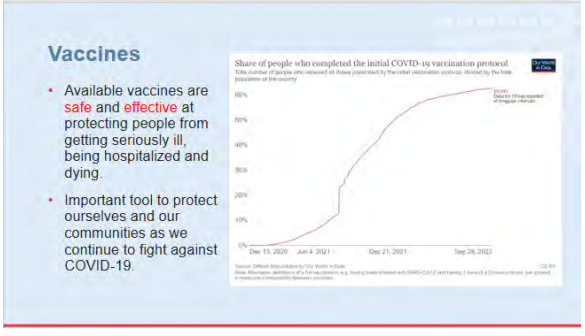
Mutations and variants are very normal for any virus. All viruses change over time – including the virus that causes COVID-19. Most of the time, variants don't impact how a virus works, or its ability to cause infection and disease. Sometimes however, variants can:
-make the virus spread more easily
-affect how well a person responds to treatment for the virus
-impact testing for the virus and how well it is picked-up
-reduce the effect of vaccines against the virus
-cause more severe illness from the virus.
A **variant of concern** is the name given to any variant of the COVID-19 virus (SARS-CoV-2) that behaves in any of the above ways.
Some variants can also have positive public health effects such as reducing a virus's ability to spread. Variants can also disappear over time.

Slide 7



https://www.who.int/news-room/feature-stories/detail/the-effects-of-virus-variants-on-covid-19-vaccines

Slide 8



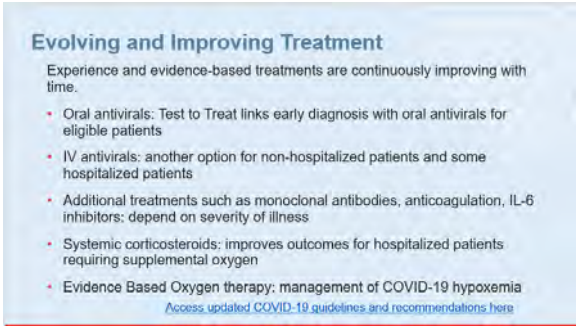
The development and distribution globally of COVID vaccines is an incredible scientific and public health achievement. There is still work to be done to reach targets, but the efforts as depicted on the graph above, preceded by the efforts to develop and test a vaccine for efficacy and safety, are nothing short of incredible.

The recognition of ongoing efforts to vaccinate as complementary to broad covid strategies including early identification of cases and initiation of treatment for vulnerable, eligible people will holistically provide a balanced approach towards prevention and care for COVID19.

https://www.who.int/emergencies/diseases/novel-coronavirus-2019/covid-19-vaccines

We have learned a ton! There are many more tools available for effective treatment for patients with COVID-19. This training is focused on Test to Treat, and we will do a in depth discussion of effective diagnosis of these patients, with the 5-day time frame, and appropriate treatment of those patients who are eligible.

Slide 9



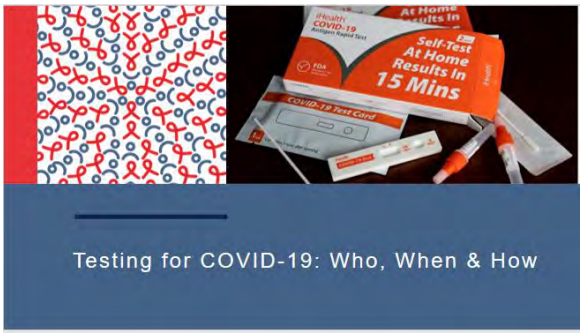
But remember – not everyone will need oral antivirals, and some people will need more advanced management for severe disease. Identification of cases of COVID-19 will allow for appropriate management of COVID-19, and appropriate management will continue to decrease death from COVID-19. These are just a few examples of treatment options, later in the training there will be more in-depth discussion of appropriate treatment options, and resources to stay up to date.

Slide 10

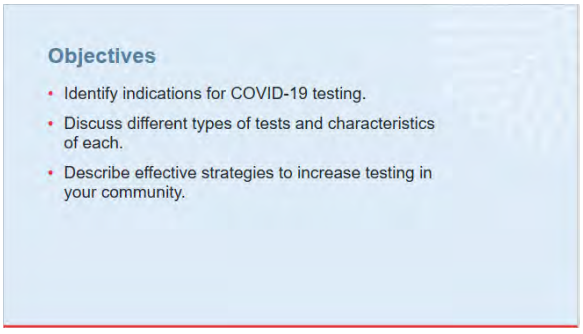
It is hard to predict what will happen next. What we do know is that we have significant advances in diagnostics and therapeutics, in addition to vaccines & prevention. This training is focused on Test to Treat, a strategy aimed at discovering and diagnosing cases at the right time to provide appropriate treatment, prevent disease progression, and reduce further disease spread. It is one element of a broad approach of appropriate care and management for COVID-19, which will ultimately help us all, regardless of what happens next.

"We are in this together – and we will get through this, together."

Slide 11

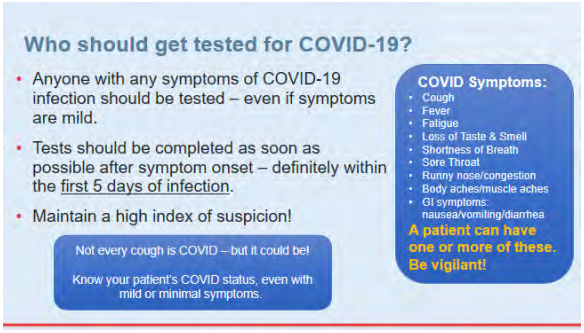


Slide 12



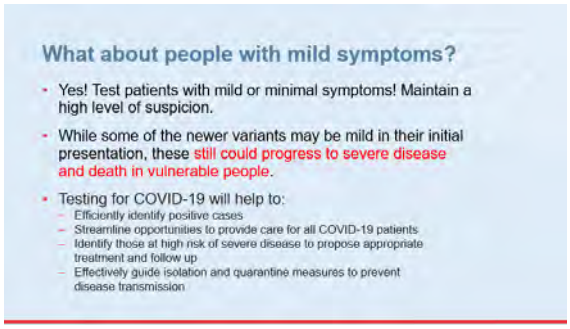
Review objectives for this section of the training. Remember, these trainings modules may be used together or separately as appropriate for the specific scenario.

Slide 13



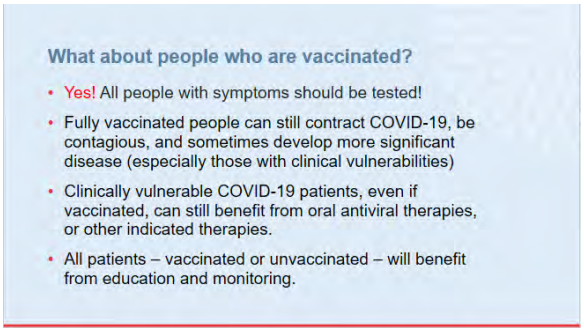
It is important to test broadly – symptoms can be variable and mild, but broad testing will identify cases and for evaluation and treatment and will also prevent spread in the community.

Slide 14



Broad testing will help us to contain the disease, learn more about the disease and its spread, and also work to protect vulnerable populations.
Patients with COVID19 who are not themselves within the vulnerable population group, if unidentified, can potentially spread the disease to other people.
And patients who are within the vulnerable population group can be better treated and managed if identified early.

Slide 15

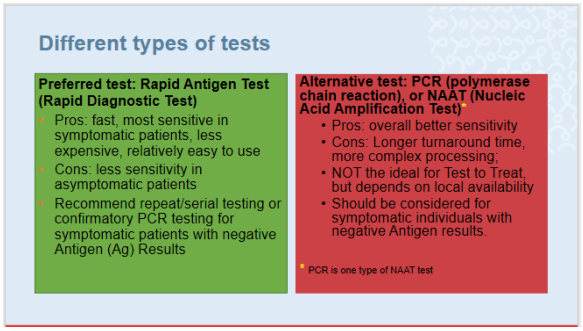


Vaccination is hugely successful in preventing severe and critical illness from COVID. However, it does not prevent ALL of these cases, and especially vulnerable patients, even when vaccinated, can still have clinically significant disease. Remember, testing provides information -- which can guide next steps, including isolation, monitoring, and possible treatment options.
The more we test, the more we know, and the better equipped we are to contain and treat the disease.

Rapid Antigen Tests are the preferred strategy for testing – considering their ease of use, fast turnaround time, and good test characteristics in symptomatic patients. Rapid Antigen tests are becoming more and more widely available, and while authorization for use depends on local guidelines, broad usage is becoming more common around the globe.

PCR tests do have a higher overall sensitivity, but are much more complex and have a much longer time for processing, between hours to days.

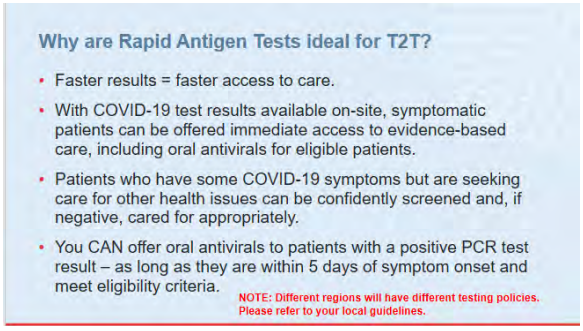
Slide 16



A few key tips:
1. Symptomatic patients with negative rapid tests should have repeat antigen testing, and may consider confirmatory PCR testing.
2. The sensitivity of rapid antigen testing is much less in asymptomatic patients – this strategy is really best for symptomatic testing, less good for screening tests.

Rapid antigen tests are preferred for Test to Treat because the time frame for efficacy of oral antivirals is within 5 days of symptom onset. Possible eligibility for T2T is one component, but effective monitoring, management, and isolation guidelines are best started early in the course of COVID19 infection.

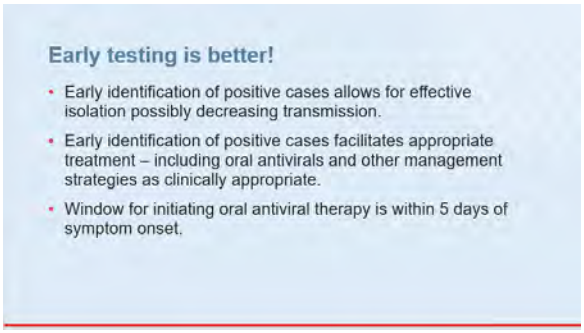
Slide 17



Therefore, early diagnosis and information can best inform treatment, including T2T.

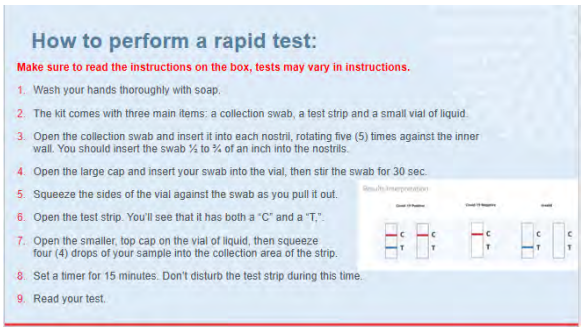
Please note, the last two points as well:
-You CAN offer oral antivirals to patients with a positive PCR test result – as long as they are within 5 days of symptom onset and meet eligibility criteria
-Different regions will have different testing policies so be sure to refer to your local guidelines.

Slide 18



As stated on the slide, early identification is better!

Slide 19

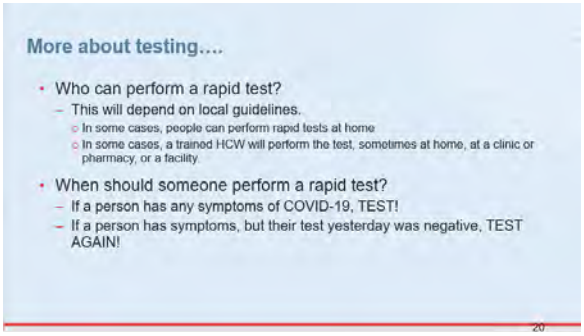


These instructions will be similar for most types of rapid tests, However, it is essential to familiarize yourself with the instructions for the specific type of test you will be using as there will be some variation.

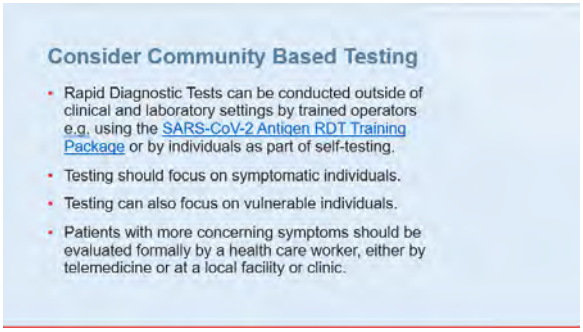
Please note, a positive test has two lines, a negative test has ONLY the control line, and an invalid test will have only the test line or no lines at all.

Be sure to check your local guidelines – and it could be very valuable to bring those local guidelines to the actual training.
The guidelines for who can perform a test will vary in different locations, and will likely change over time. Please discuss the local guidelines for your area at this time, and consider the potential strategies for your clinic or health care facility to optimize the testing options to best reach and serve their communities, particularly the most vulnerable populations and people they serve. Remember - only symptomatic patients are eligible for Oral Antiviral therapy, so while testing and identifying close contacts can be important, for T2T eligibility, patients need to have symptoms.

Slide 20



Slide 21

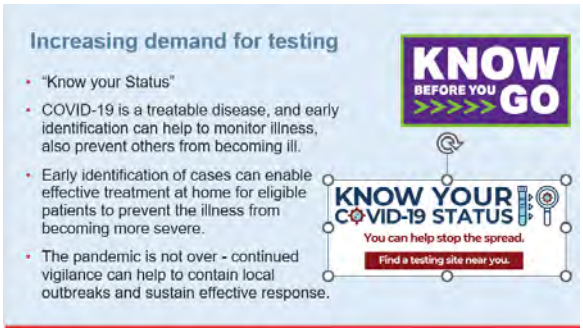


Different countries will have different policies, practice and strategy regarding testing. It is important to consider your own country's policies, and also consider how rapid tests are currently being used, and opportunities for usage in the future.

World Health Organization policy is supporting community based testing, and more details regarding an implementation strategy can be found here: https://www.who.int/publications/i/item/9789240017740

WHO has also put out a training package for Rapid diagnostic Testing which can be found here: https://extranet.who.int/hslp/content/sars-cov-2-antigen-rapid-diagnostic-test-training-package

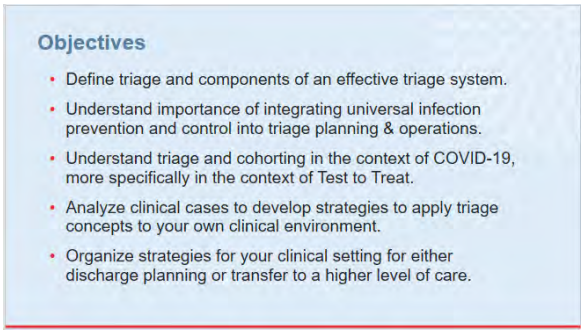
Slide 22



This is another time for group discussion.
What is happening in the community where you work/live?
Are people sick with COVID19? Are people testing for COVID19?
Are there existing outreach campaigns to assure people with signs or symptoms of COVID are encouraged to and able to access testing?

Slide 23

Slide 24



Slide 25

The term "triage" comes from the French verb trier, meaning to separate, sort, shift, or select. Initially applied during wartimes with their implied scarcity of resources, standardized triage is routinely used and considered the standard of care.

The basic concepts of triage become more complicated to apply in the context of COVID-19 (and other contagious diseases) because of the added need to separate suspected COVID-19 patients from other

patients, while always prioritizing the safety of clinical staff.

Training, the ability to assess clinical impression, and experience are essential for the person responsible for triage. If possible, someone with at least a few years of clinical experience should be put in the triage role, depending on who is available on your team.

The types of providers who perform triage vary by clinical setting — they are nurses in many settings, and technicians or paramedics in others.

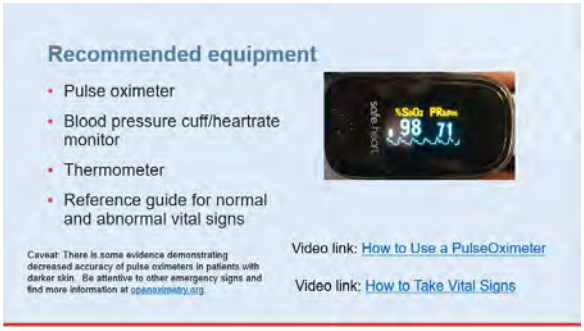
Think about your own clinical environment. Who first encounters a patient? Do you have a place where triage is conducted? Who is responsible for checking vital signs? Where are the tools to take vital signs? Do you have formal training on triage? Do you have a formal process for triage?

Slide 26

Ideally, you should have the equipment necessary for triage available for use during this module for the purposes of demonstration and practice.
Please keep in mind, this equipment and measurements are usually used for triage & vital sign measurements in facility based settings. For Test to Treat, particularly considering home settings or other clinical settings without this equipment, patients can be screened for mild and moderate symptoms without the listed equipment.

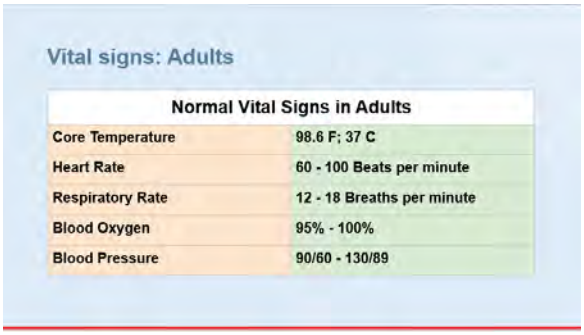
The slide also has links for videos that may be useful. However, please point out to participants that the videos may not display full IPC protocols. Also, remind all participants of the importance of universal masking and IPC.

Slide 27



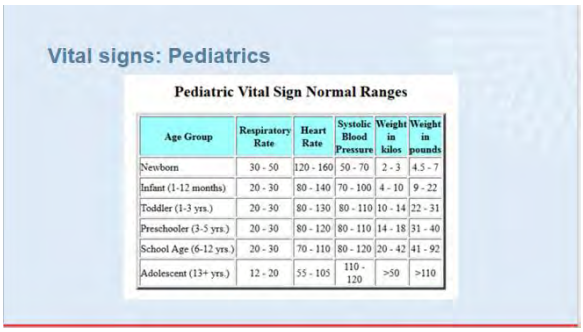
This slide is a reference tool showing the normal vital signs in adults.
While normal blood pressure is 120/80, there is a range of normal as there is with all vital signs.
Normal blood pressure can range from 90/60 - 130/89.

Slide 28



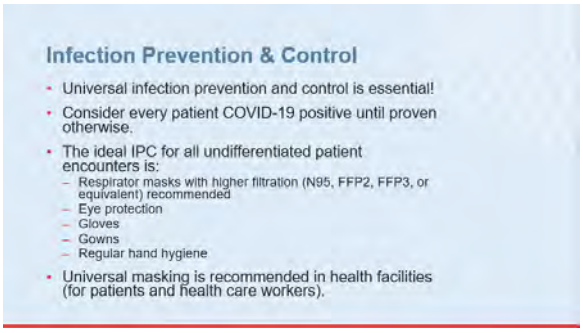
This reference tool shows the normal ranges of vital signs in pediatric patients. Please note that the normal ranges for children change as they grow. Because these ranges are hard to remember, it is best to post a chart or have a chart available for quick reference during triage.

Slide 29



There are many resources that present the principles and practices of IPC related to COVID-19.
We encourage the facilitator to access and review local guidelines as part of this session, if time allows.
However, the most important point to emphasize is the critical importance of universally high levels of personal protective equipment use with undifferentiated patients — including both those who are symptomatic and screen positive, as well as those coming to the clinical setting for other reasons. Personal safety during triage is essential, especially given the high levels of positivity and transmissibility of the omicron variant, or other possible variants that may emerge in the future.

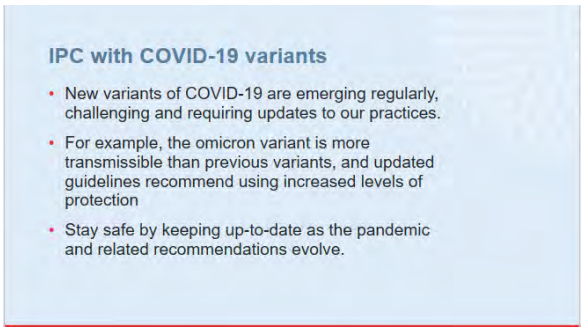
Slide 30



Slide 31

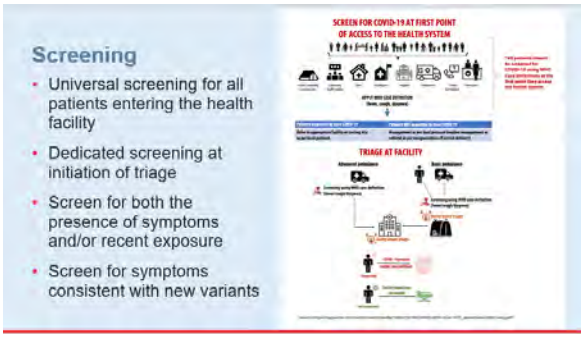
This slide provides links to additional IPC resources.

Slide 32



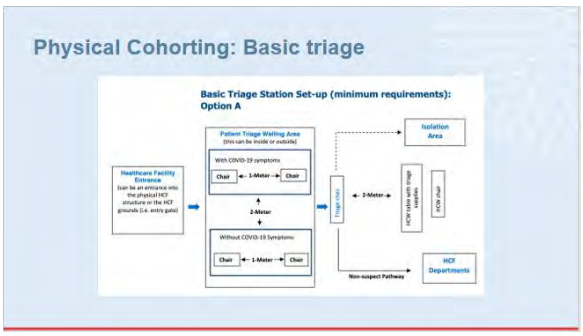
Reiterate the importance of a heightened level of IPC with the new COVID-19 variants and continued caution with the possibility of new variants in the future.

Slide 33



Screening should be initiated at the first point of entry for the health care facility. This is universal, meaning that it applies to everyone — staff, patients, and physicians. It can include temperature screening, symptoms, and close contacts. Universal masking should be maintained. Protocols relevant to local guidelines can be applied, while keeping in mind the importance of isolation and quarantine, particularly for unvaccinated individuals and those at higher risk of severe disease. Remember, the health care facility is designed to provide care to people who are at risk, so a high level of caution is needed.

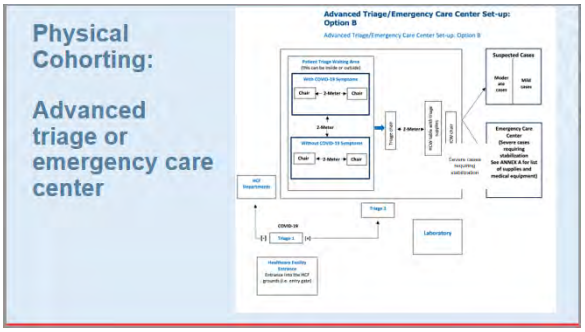
Slide 34



This slide shows a schematic for basic triage to initiate the isolation and care of patients.

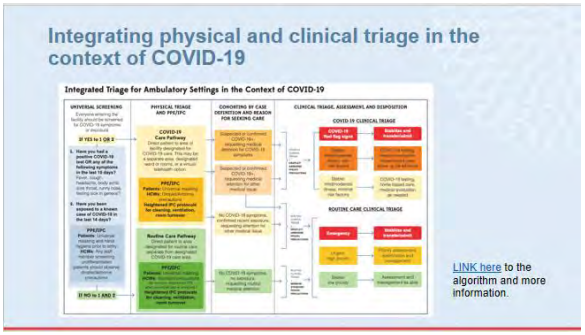
Physical cohorting should be maintained when possible to separate patients who do and do not have symptoms of COVID-19. Of course, there will also be asymptomatic patients who test positive, so universal precautions are important. Conversely, not every person with a fever, shortness of breath, or cough will have COVID-19 as their diagnosis.

Slide 35



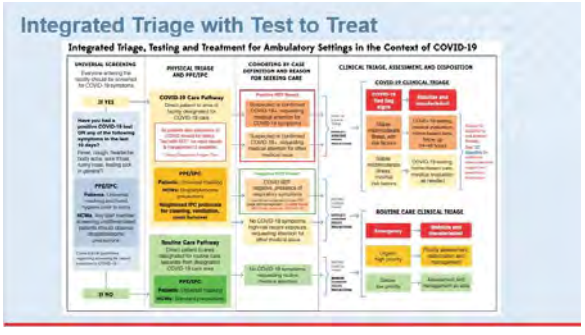
This schematic takes triage to a more advanced level — beyond the initial separation of symptomatic and asymptomatic patients to divided levels of clinical care based on severity of symptoms. Mild and moderate suspected cases may (or may not) need some further testing, whereas severe cases require immediate stabilization.

Slide 36



This diagram depicts an integrated approach to physical and clinical triage. The COVID-19 pandemic has necessarily focused on cohorting and the separation of symptomatic and exposed patients from asymptomatic and unexposed patients. However, a holistic approach must integrate the importance of prioritizing “red-level” patients, whether red-level status is due to COVID-19 or other concerns. Here, the goal is to provide a framework for an integrated approach to physical and clinical triage.
As you look at this diagram, it is very important to remember a few things:
1. Any RED patient (COVID-19 suspected or not) should move immediately to a resuscitation area for clinical evaluation and treatment.
2. IPC/PPE should be maintained for all patients, regardless of screening or test results — although higher levels of PPE should be maintained for very symptomatic, suspected, or confirmed positive patients.
3. All patients require full clinical evaluation. This is particularly important for patients in the yellow/orange zone who are stable but have risk factors and moderate illness. These patients require a detailed evaluation, as they may be eligible for close follow-up and may end up needing hospitalization. The purpose of triage is to categorize patients in terms of priority for evaluation; clinical evaluation contributes to the final patient disposition.

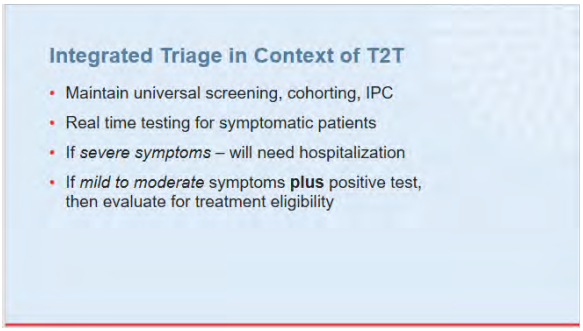
Slide 37



This graphic provides an updated view of integrated triage, incorporating Test and Treat as an important component to consider.
Few important elements to consider:

1. If available, rapid testing for symptomatic individuals can help to confirm positive infections. IPC should be maintained for health care workers even in the presence of a negative test.
2. All patients should be managed according to evidence based guidelines – the opportunity to provide oral antivirals to confirmed positive, symptomatic patients, within 5 days of symptom onset is one pillar of COVID-19 care and treatment. Patients with severe and critical illness should still be stabilized and transferred, and those with mild and moderate illness who do not require hospitalization but also are not eligible for oral antivirals should be managed supportively and according to updated evidence based guidelines.

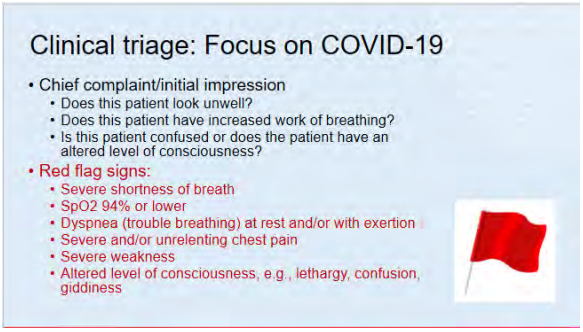
Slide 38



Important take home points for T2T reiterated.

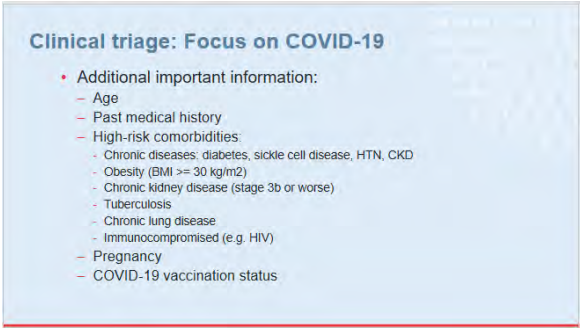
As you are initially evaluating the patient, consider their general appearance. Is the patient visibly short of breath, working hard to breathe, cyanotic, or confused? If so, the patient should be immediately moved into a red zone/resuscitation area, and the next steps of patient evaluation by the appropriate team should be initiated. Think ahead — the person doing the triage should usually not be the person conducting the next steps of resuscitation and stabilization, but in some cases there is no other option. Consider your environment, and plan for what makes the most sense given the resources you have.

Slide 39



The “red flag” symptoms should raise a higher level of concern. When a patient who appears ill or has unstable vital signs also has red flag symptoms, this raises higher levels of concern. However, even if a patient does not appear clinically unstable, these red flag symptoms require further consideration and often further investigation.

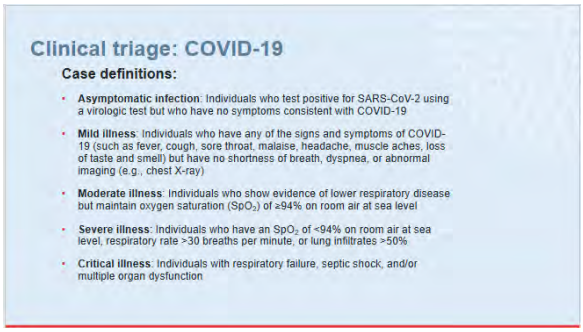
Slide 40



Age >= 65 is a risk factor for disease progression, regardless of vaccination status; or 50 – 64 and unvaccinated

- Age ≥ 50
- BMI ≥ 30 kg/m2
- Pregnancy
- Diabetes
- Sickle cell disease
- Neurodevelopmental disorders
- Chronic kidney disease, stage 3b or worse
- Cardiovascular disease, hypertension, or lung disease
- Immunocompromising condition (e.g. HIV)
- Tuberculosis
- Clinician-determined medical condition, or demographic factor presumed to place the patient at high risk for disease progression

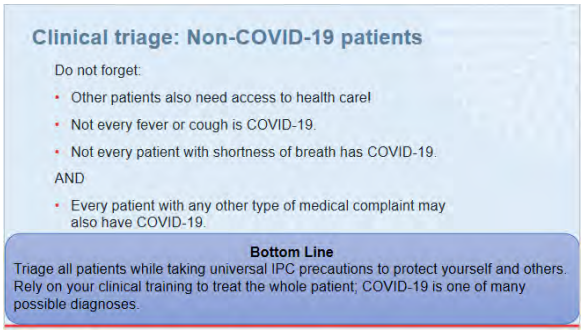
Slide 41



These case definitions are useful to review and consider as you encounter COVID-19 patients. Note the emphasis on vital signs as essential data points

Remember, mild and moderate symptomatic illness are targets for consideration for Test to Treat. All patients should be evaluated for disease severity and need for initiation of treatment.

Slide 42

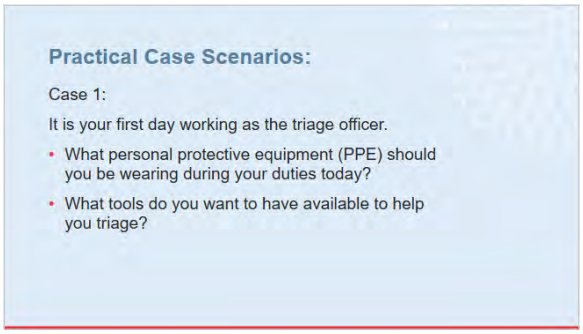


While this training and our focus is on COVID patients, remember, any patient may arrive at the clinic or facility in need of evaluation and care.

This patient may have COVID or may have another issue, and we are working to strengthen the health system to care for all of these possible things.

Maintain a high level of personal protection with appropriate IPC, and maintain a broad differential diagnosis when initially evaluating and caring for patients.

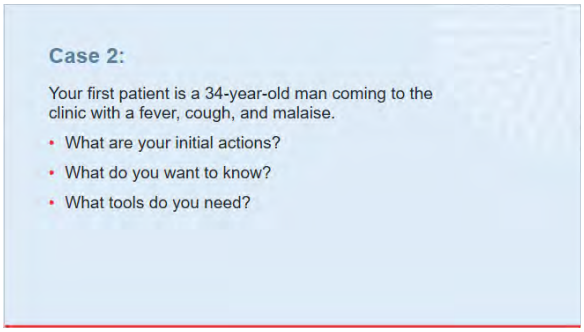
Slide 43



To prepare for your first day doing triage, you will need PPE and triage tools. PPE for undifferentiated patients should include a respirator mask, face shield/eye protection, gloves, and gown. Tools include pulse oximeter, HR/BP monitor, and normal vital sign charts for reference.

For this patient, you need more information. But first, you want to be sure you are in your appropriate PPE. You should be wearing a respirator mask, gloves, face shield or eye protection, and a gown.

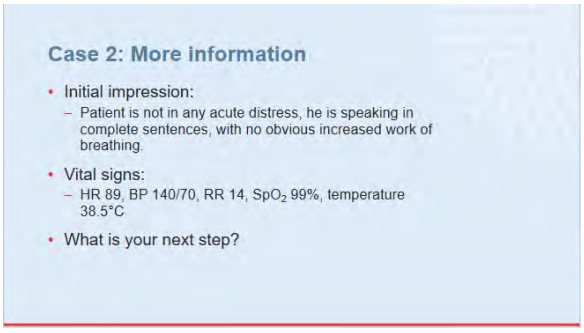
Slide 44



Then you want to develop an initial impression. How does this patient look? Do they have increased work of breathing? Do they appear pale or cyanotic?

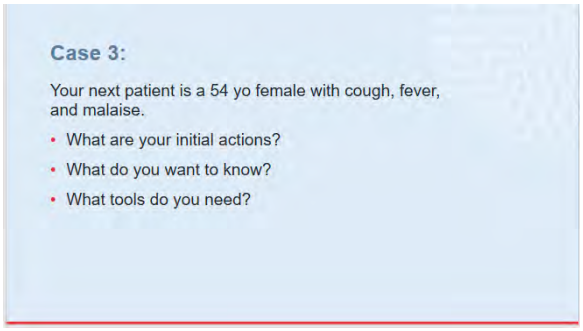
If you have tools such as pulse oximetry and monitors to obtain vital signs, you will need those tools. Think ahead. What else might you need?

Slide 45



This patient has a reassuring triage. He does have signs and symptoms of COVID, but his vital signs and clinical appearance are reassuring. He does not meet criteria for severe illness. In a full clinical evaluation, you will need to obtain a more extensive history and complete a full physical exam to determine if he needs any further testing or treatment. You will need to consider risk factors for eligibility for oral antivirals. For now, he can triage into the mild/stable category of patients and await a full clinical assessment to determine a plan.

Slide 46



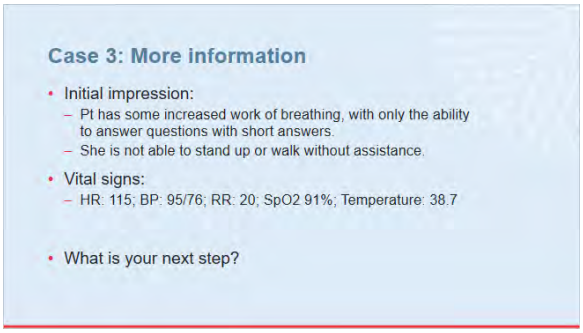
You need more information for this case. But first, you want to be sure you are in your appropriate PPE. You should be wearing a respirator mask, gloves, face shield or eye protection, and a gown.

Then you want to develop an initial impression. How does this patient look? Do they have increased work of breathing? Do they appear pale or cyanotic?

If you have tools such as pulse oximetry and monitors to obtain vital signs, you will need those tools. Think ahead. What else might you need?

This patient is sick. She should be moved to a resuscitation area where you can stabilize her with oxygen therapy and immediate resuscitation. She screens positive for suspected COVID, and also for severe symptoms.

Slide 47

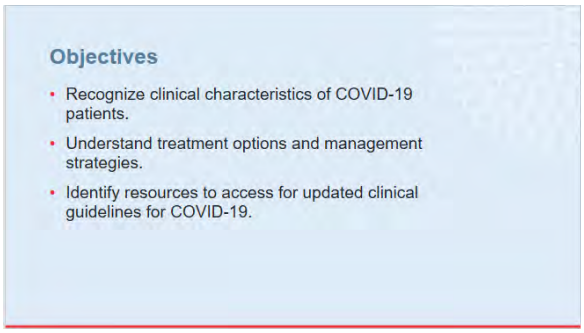


What tools do you have in your clinical area? Do you need help from another clinician? Do you have oxygen available?

Think ahead. How can you stabilize this patient? And if you need to move this patient to a higher level facility, what will you need to do? How can she safely get there, maintaining safety of the transport group along the way?

Slide 48

Slide 49



Slide 50

As you know, you can learn a lot about your patient within the first few moments of their visit.

When approaching a patient in your facility, you should already have a lot of information from the screening questionnaire and their presenting complaint.

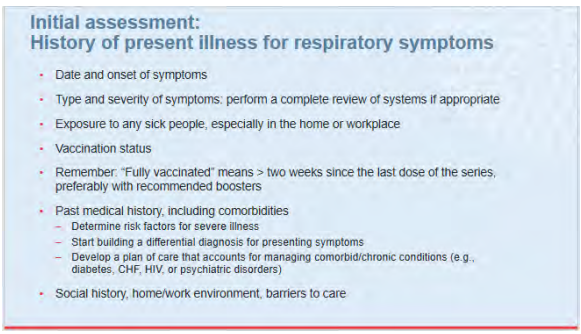
Are they sick? Are they here for symptoms of illness? Or are they here with other medical concerns and happen to have a mild cough?

When you walk in the door and lay eyes on the patient, you can make your first assessment about their clinical condition.

How would you assess each of these patients? Why?

1. Date of onset: are these symptoms new (within the past 7-10 days) or chronic? Does the patient have a chronic cough at baseline, but with a new fever? Determining the date of onset of acute viral symptoms will guide your recommendations about how long the patient should isolate.
2. Type and severity of symptoms
3. Exposure to sick people: Remember, COVID-19 can cause very mild symptoms, so even if someone in your home or workplace hasn't tested positive or had severe illness, exposure may explain your patient's current symptoms.
    - Vaccination status: Remember, people are only fully immunized two full weeks after their last recommended dose of their primary series.
    - Vaccinated people can get COVID-19, though their symptoms are typically less severe. Knowing a patient's vaccination status still helps to inform your clinical assessment.
4. Past medical history, including comorbidities: You want to know the patient's medical history to determine their risk of complications if they have COVID-19, to plan for their medical care for comorbid conditions, and to make a well-developed list of differential diagnoses to ensure you are rendering the best care. This will also help to assess for eligibility for oral antivirals in the case of mild or moderate COVID19 patients.
    - Cardiopulmonary conditions like chronic obstructive pulmonary disease (COPD), asthma, and congestive heart failure (CHF) are important to consider when developing a differential diagnosis and considering your patient's risk stratification in the context of suspected COVID-19.
    - Chronic kidney disease, including patients with total renal failure/on dialysis, are at increased risk of complications.
    - Tobacco use or other smoke exposure may affect cardiopulmonary risk factors.
    - Obesity is a risk factor for complications of COVID-19.

Slide 51



- Patients with diabetes may need medications adjusted to manager hyper- or hypoglycemic episodes; they are also at higher risk for complications of COVID-19 and should be monitored closely for signs of deterioration.
- Any patient with a compromised immune system is at higher risk of severe COVID-19, including people with HIV/AIDS and on chemotherapy or other cancer treatments.
- Screen for psychiatric and neuropsychiatric conditions, as these may mimic alterations in mental status or may affect a patient's ability to give a complete history and understand a plan of care.

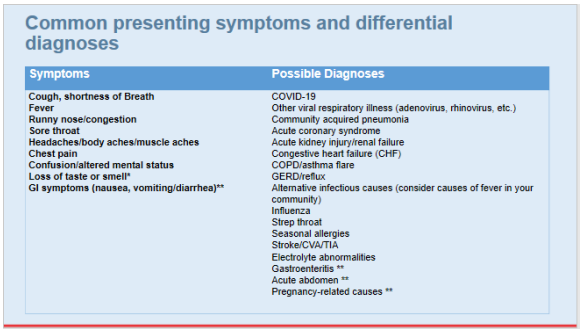
5. Social history: It is important to know your patient as a person. Even in a brief visit, you can assess important aspects of their lived experience, such as their living environment, support system, occupation, and access to necessities like food, clean water, and transportation. While this information may seem irrelevant to the clinical encounter, it is often essential to develop an effective plan of care.

Slide 52

What does this mean, and why must we build a full differential diagnosis (even if we're pretty sure the patient has COVID-19)?

Health care workers must balance the possibility that a sick patient is infected with COVID-19 with the possibility that they have something that is not COVID-19. Or they can be sick with COVID-19 and another medical problem! This can be confusing or overwhelming, but it is crucial to consider all possibilities when approaching a patient. If you only consider one diagnosis – you will only find one diagnosis – but patients can have various diagnoses, and sometimes have more than one thing going on at a time. It is important to stay open minded, and use your history and physical tools to narrow down the possibilities.

Slide 53

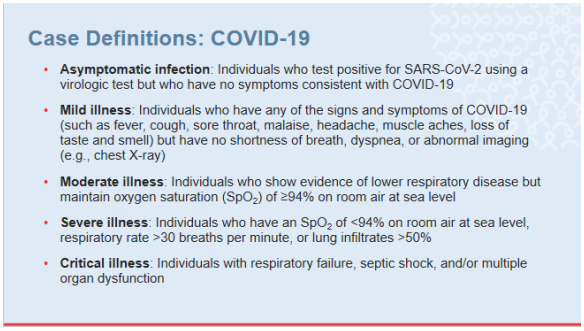


Additional notes: *Loss of taste and smell is a unique symptom for SARS-CoV-2 and a strong predictor of positive COVID-19 status. However, there are reports of a lower incidence of this symptom with the current Omicron variant.

**While GI symptoms like vomiting and/or diarrhea have been reported in 20-40% of COVID cases, these are rarely the only presenting symptoms (i.e., they are usually in addition to other symptoms like cough, respiratory symptoms). It is important to remember that GI

symptoms can be COVID but can be many other disease processes that should be closely assessed and managed.

Slide 54



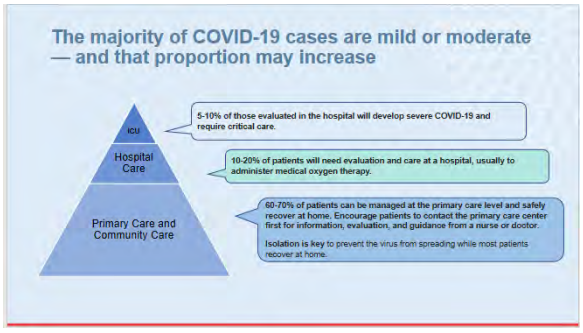
Again, these case definitions are useful to review and consider as you encounter COVID-19 patients. Note the emphasis on vital signs as essential data points

Remember, mild and moderate symptomatic illness are targets for consideration for Test to Treat. All patients should be evaluated for disease severity and need for initiation of treatment.

Even before the arrival of vaccination and other advances in medical management of COVID, the majority of COVID-19 infections did not require hospital care.
About 80% of positive COVID-19 patients have always mild or moderate symptoms; a priority for these patients is to keep them safe, comfortable, and away from others so they do not spread the disease, while identifying and treating those who are at higher risk of progression of disease. New treatments like oral antivirals are an important advance to prevent disease progression, coupled with early identification of COVID19 cases, and appropriate isolation and supportive measures to prevent additional disease spread.

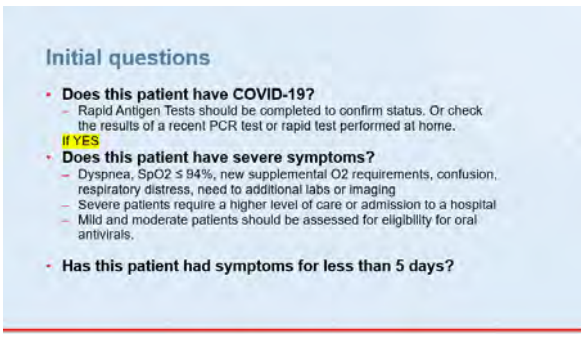
Primary care systems should be ready to care for all patients safely and effectively. This includes COVID patients with mild symptoms as well as other patients who need other medical care.

Slide 55



Notes for graphic:
ICU: Fewer people contracting COVID-19 means fewer critically ill patients.
Hospital care: You may see patients coming directly from the community or referred from the primary care center.
Primary care and community center: Of patients testing positive, 80-90% can self-isolate at home. Some of those will benefit from additional treatment, and these patients should be assessed for vulnerabilities and eligibility for Oral Antivirals. Some of these patients will only need observation for symptom resolution. Isolation is key to prevent the spread while patients recover at home.

Slide 56

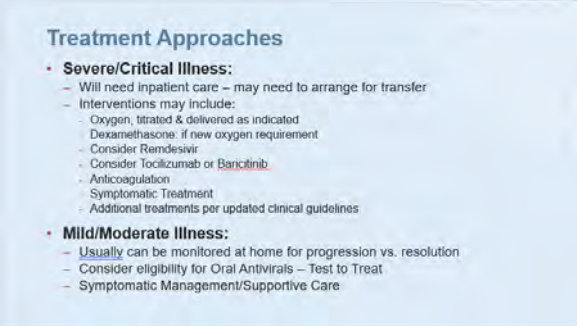


A rapid test performed at home or at another facility can be sufficient to confirm a positive case of COVID19 (confirm with local guidelines).
This patient will still need to confirm the symptom onset of less than 5 days, and that the test was done within that time frame as well.

Slide 57

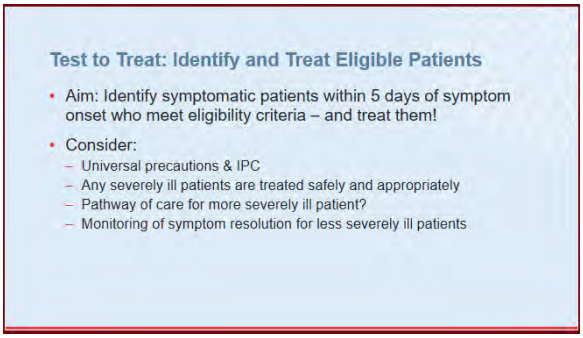
This test is positive!

Slide 58



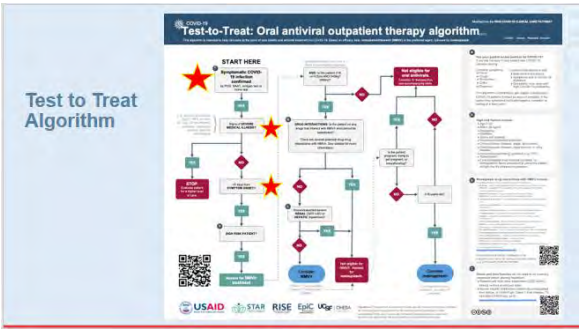
Remember, there are treatments we can offer to COVID19 patients – including oral antivirals for eligible patients with mild & moderate illness, as well as other treatments for more severe cases.
Can ask the group to name treatments they know of, treatments that are available in their local facility or other locations.

Slide 59



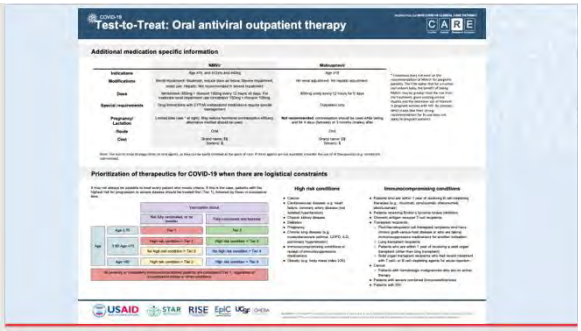
This is the basic description of the T2T strategy.
Remember, it is not an independent entity, but fits within the general care of patients with COVID19.
T2T is the best care strategy for COVID19 patients who meet eligibility criteria – and we should be working hard to identify these patients so they can have the best possible clinical outcomes!

Slide 60



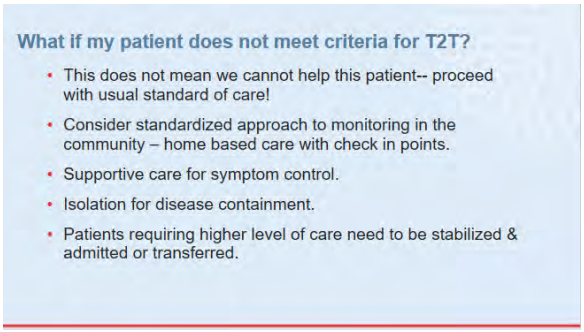
Does the patient have symptomatic COVID-19 infection that is confirmed?
Does the patient NOT have signs of severe medical illness? Remember – if they do have severe illness they need to be treated, stabilized as needed, and admitted to the hospital or transferred as necessary in a safe way.
Is this less than 5 days since symptom onset. If YES the proceed through the algorithm.

Slide 61



This second page of the Test to Treat guide provides additional specific guidance regarding dosing of Paxlovid (Nimatrelvir/ritonavir) and Molnupiravir.
It also provides a framework to consider prioritization of therapeutics if there are medication shortages or other logistical constraints – prioritizing treatment for the most vulnerable populations who are proven to have the most significant change in outcomes when treated.

Slide 62



We want to treat as many people as possible who meet eligibility criteria. But remember, if a patient does not meet criteria then we should not prescribe the medications. At the same time, this does not mean we have nothing to offer.
Mild and moderate patients will benefit from various supportive measures (acetaminophen, cough medications, other symptom management) – and monitoring for disease progression.

Slide 63

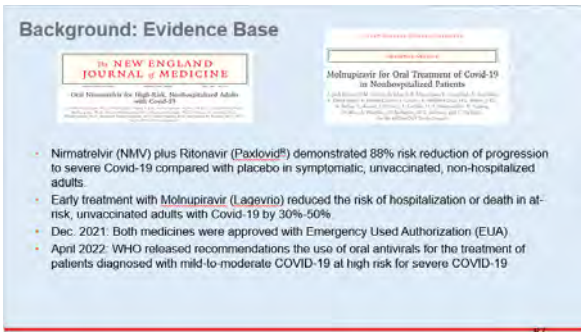
Here are additional resources for regularly updated evidence based therapy for COVID19.
The science is changing, we all are working to keep up to provide the best care to our patients at all times.

You can use this time to access these resources, discuss different approaches to integration of evidence based practice in various clinical settings, as well as look at, review, and discuss national guidelines.

Slide 64

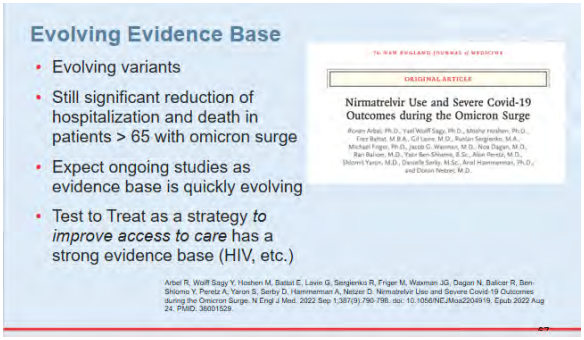
Slide 65

Slide 66



These studies are some of the initial evidence base to support the use of oral antiviral medications in COVID19 patients.
The medicines are still approved under an Emergency Use Authorization – but there are also global guidelines as described from the WHO that support the use of oral antivirals for at-risk patients with mild-moderate COVID-19.
Pfizer's paxlovid is prequalified by WHO, as is Hetero's generic molnupiravir.

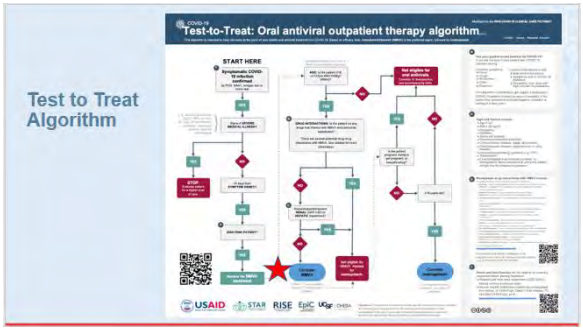
Slide 67



Remember, the evidence is continuing to evolve and studies are continuing to monitor the efficacy of oral antivirals with new variants, increased uptake of vaccination, etc.
Global guidelines based on evidence continue to see important outcomes in vulnerable, eligible populations with timely initiation of oral antivirals for COVID19.

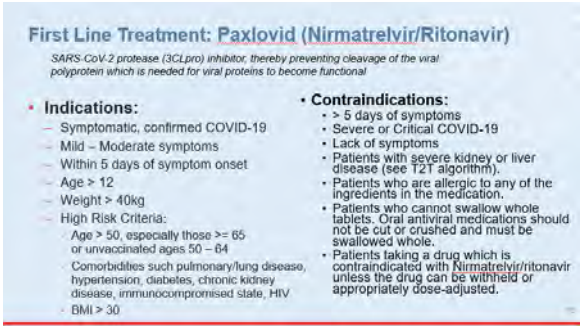
Additionally, this strategy to improve access to care is a known model for HIV, TB and other disease processes, and has a broader impact on strengthening health systems.

Slide 68



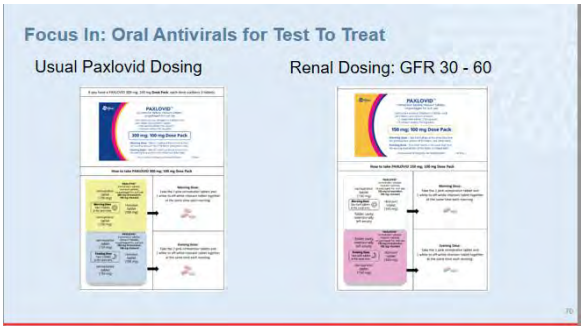
This is the Test to Treat Algorithm.
Work through this algorithm now, in the teaching session. See where the important decision points are, and for the first part of this session we are going to discuss Nirmatrelvir/Ritonavir – also known as Paxlovid. The star marks the point in the algorithm where you have screened in for consideration of treat to treat based on symptoms, absence of severe symptoms, and time frame. Then it is time to consider NMV/r.

Slide 69



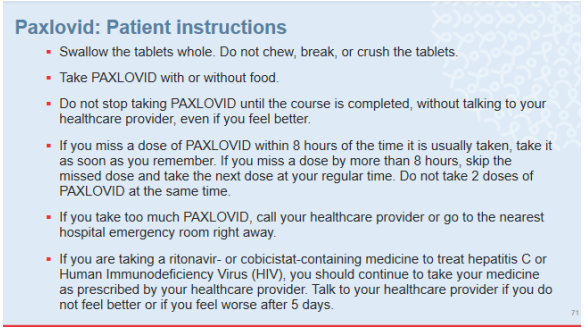
Paxlovid (nirmatrelvir/ritonavir) is the first line treatment for Test to Treat, and oral antivirals.
Listed here are the indications & contraindications.

Slide 70



These are examples of typical packaging and dosing – including both usual dosing and then renal dosing. Please note the renal dosing is half dose Nirmatrelvir (150mg), usual dose ritonavir (100mg)

Slide 71

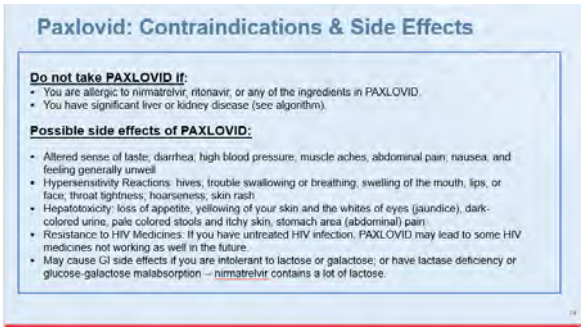


These are general patient instructions for Paxlovid.

Slide 72

Picture to help explain the dose pak/dosing instructions – the dose pack is designed to make it easy for patients to adhere to treatment!

Slide 73



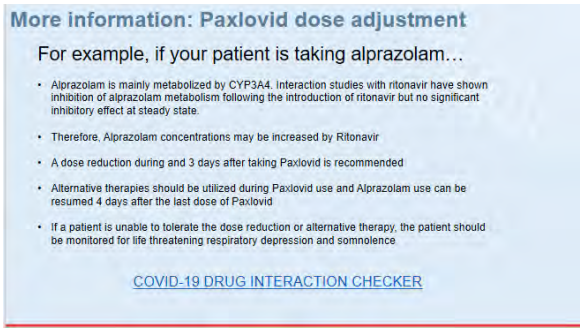
These are typical contraindications and side effects.

It is important to reinforce – while Paxlovid dose have a long list of drug-drug interactions, it is generally a safe medication!
The COVID-19 Drug interaction checker is linked – click on this link during the training and practice using it.
Add in typical medications for your patient population, and practice checking to see if there are issues with using Paxlovid.
While this list looks long and intimidating, it actually is pretty easy to navigate, and make recommendations for use of Paxlovid.

Slide 74

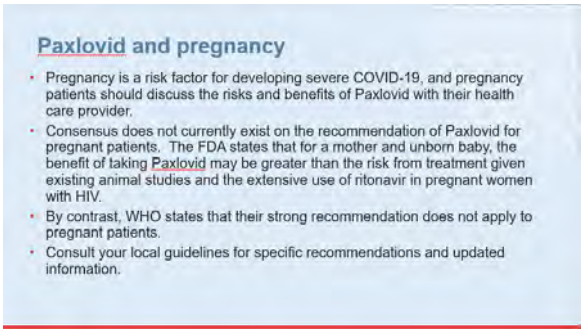
Also important to remember that this drug is only prescribed for 5 days – so sometimes a patient will need to stop a concurrent medication for those days and a few days afterwards, but it is not a long term treatment, but a short term intervention to improve outcomes.
This is manageable, and becomes easier with practice!

Slide 75

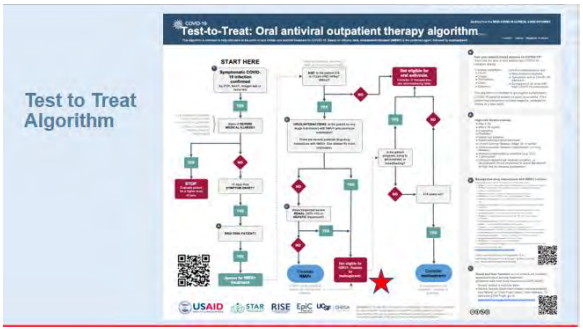


A good case to work through – can also access the drug interaction checker again

Slide 76



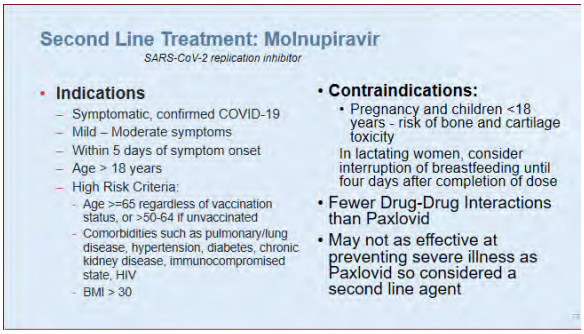
Slide 77



Marked here with a RED STAR is the decision point for molnupiravir – the second line oral antiviral.
If a patient meets criteria/eligibility for treatment, but cannot take NMV/r – this is when to consider molnupiravir.

For places with only Molnu available, you can skip to this place for now, but it is likely in the future that both of these drugs will be available, and therefore important to review the indications and contraindications for each of them.

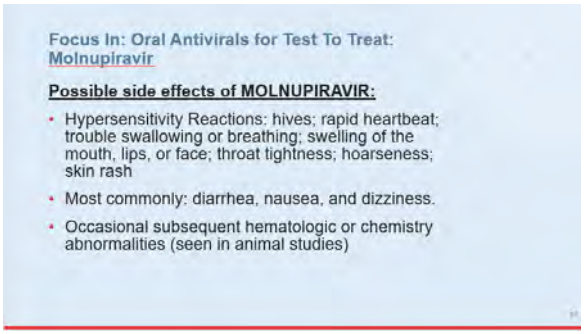
Slide 78



Here are listed the indications and contraindications for Molnupiravir.
Important to note that pregnancy is a contraindication for molnupiravir which will be discussed further in a few slides.

Slide 79

Slide 80

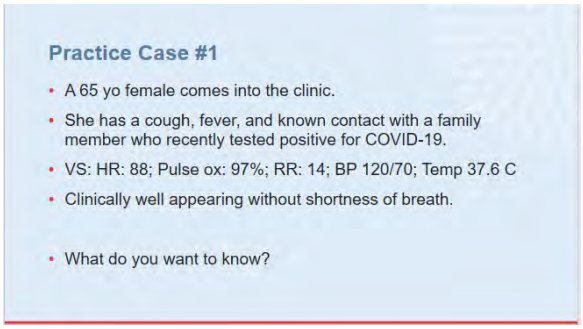


The contraception recommendation is very important for prescribers of molnupiravir.
Contraception should be used during treatment as well as for 4 days after usage for females, and for 3 months after taking for males.

Slide 81

Good time for a discussion of how to counsel patients appropriately, particularly men who require longer duration of contraception after treatment with molnupiravir.

Slide 82



Here are a series of practice cases for health care workers.

How can you start down the algorithm for Test to Treat?

Slide 83

3 important questions.

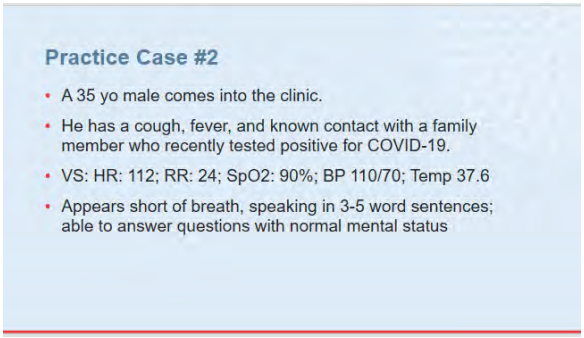
Answers are positive – now continue down the algorithm.

This case (and the subsequent cases) provide the opportunity to discuss the steps in patient evaluation - including criteria for treatment with oral antivirals, essential questions to ask (such as other medications and health issues).

Slide 84

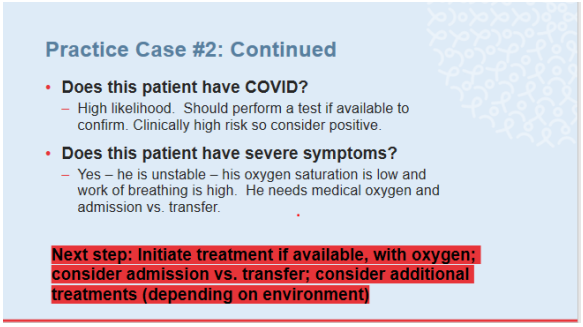
For some places where different medications are available (for example, molnupiravir is available and paxlovid is not) this learning can be extended by thinking – is this patient a candidate for molupiravir? In this case, yes - if paxlovid is not available and molnupiravir is available, then the patient is a candidate for molnupiravir.

Slide 85



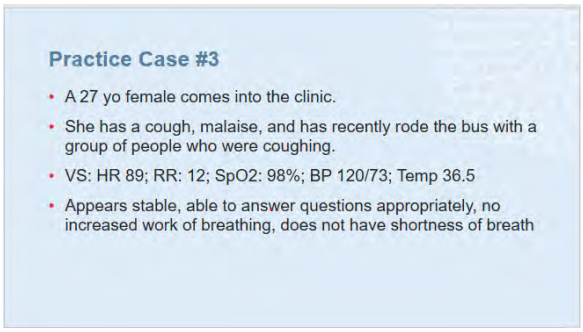
What are your starting questions as you evaluate this patient?
Any red flags?

Slide 86

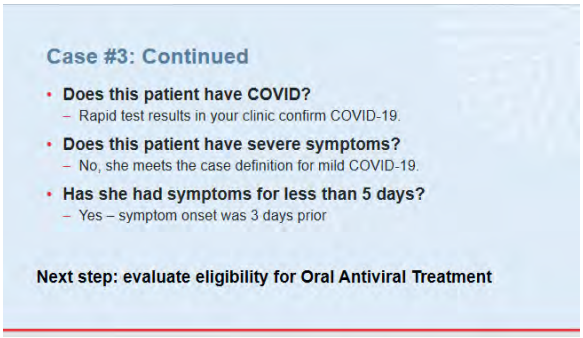


This is a great opportunity to consider what is the plan for management of a severe case of COVID?
What resources are available in your clinical space? What is a safe plan for transfer if transfer is necessary?
Take a few minutes to discuss and plan for this scenario.

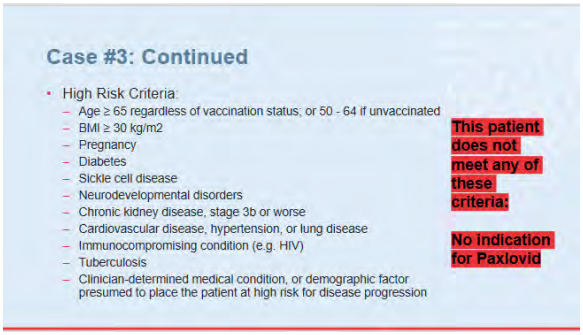
Slide 87



Slide 88

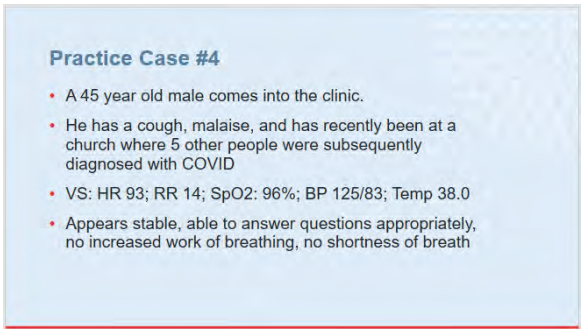


Slide 89



For a 27yo female, you may want to inquire about method of contraception and/or date of last menstrual period to assess if pregnancy is possible in this otherwise low risk patient.
Consider offering a pregnancy test if it will change the clinical decision making.

Slide 90



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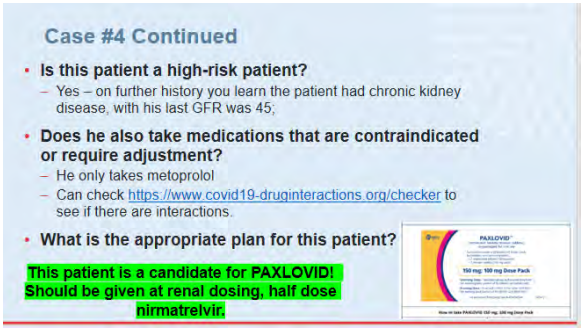
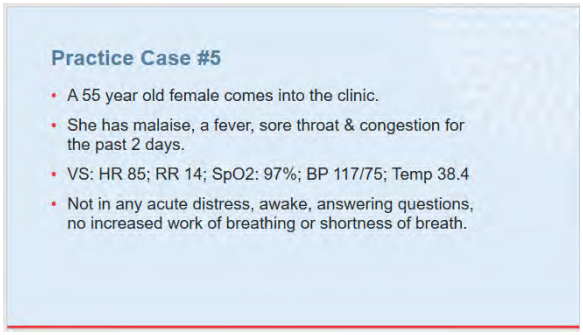
Slide 92



Note – confirmatory blood work is not necessary or recommended for patients with chronic kidney disease. Can decide based on thorough history, physical, and prior medical records.

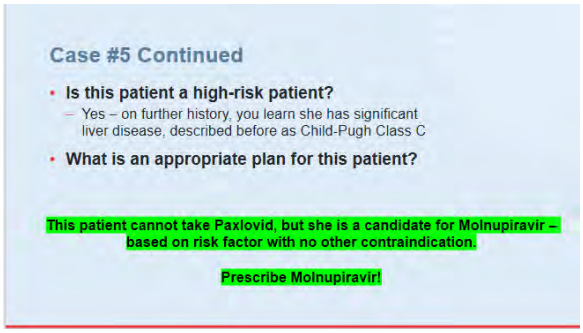
Slide 93



Slide 94

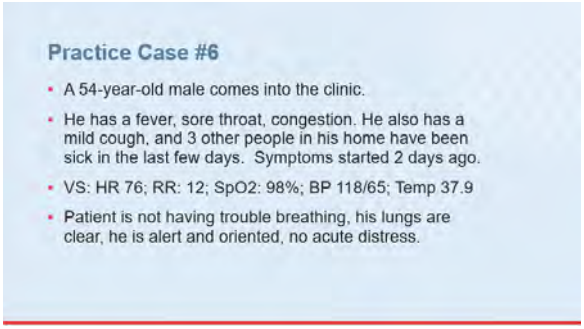
Molnupiravir is NOT contraindicated in patients with advanced liver or kidney disease.
This link is a calculator for determining liver disease severity. https://www.hepatitisc.uw.edu/page/clinical-calculators/ctp
If you are unsure about exact classification but have other reason to believe it is severe, then you can opt for molnuipiravir.

Slide 95



As this patient is post-menopausal –you confirmed with her – she does not require additional counseling regarding pregnancy or contraception.

Slide 96



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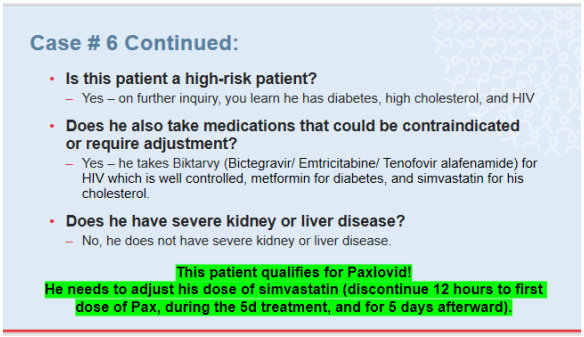
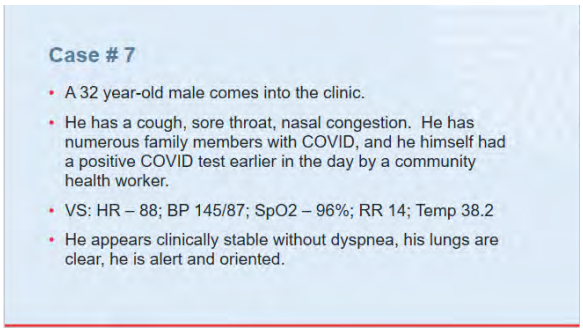
Slide 98



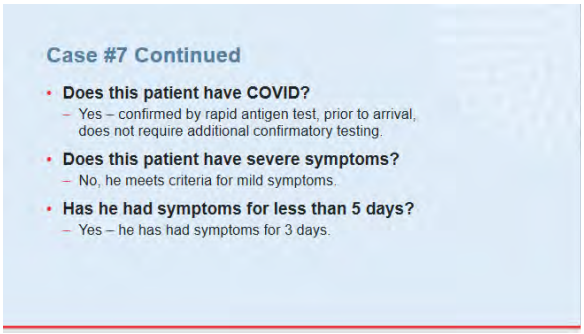
Walk the group through this case.
High risk so qualifies for Paxlovid
No true contraindication.
Can use https://www.covid19-druginteractions.org/checker – Liverpool drug interaction checker to see what medication adjustment is needed.

With simvastatin, the patient needs to discontinue use of simvastatin at least 12 hours prior to initiation of Paxlovid, during the 5 days of Paxlovid treatment and for 5 days after completing Paxlovid.

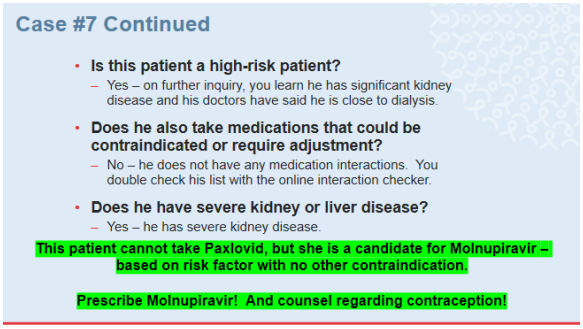
Slide 99



Slide 100



Slide 101

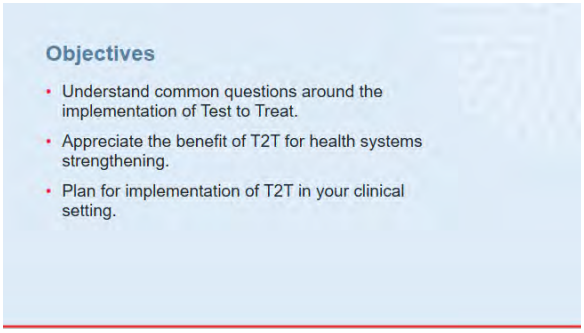


This patient with severe kidney disease is not a candidate for Paxlovid – you do not need to confirm blood work, can determine based on clinical presentation.

This patient can be a candidate for molnupiravir – but keep in mind the importance of counseling regarding contraception with prescription of molnupiravir. Specifically, for men, barrier contraception should be used for 3 months after taking this medication. This will be included on the patient information sheet provided to the patient, but should be reiterated by the clinician/health care worker as specific instructions at time of prescription.

Slide 102

Slide 103



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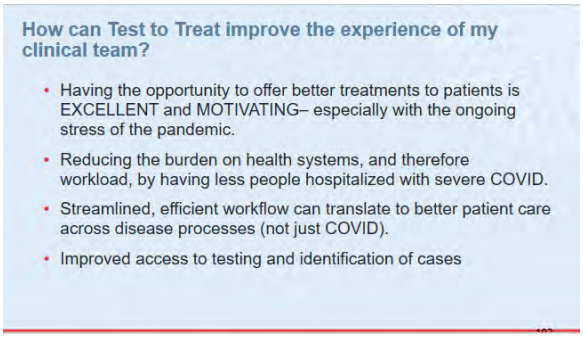
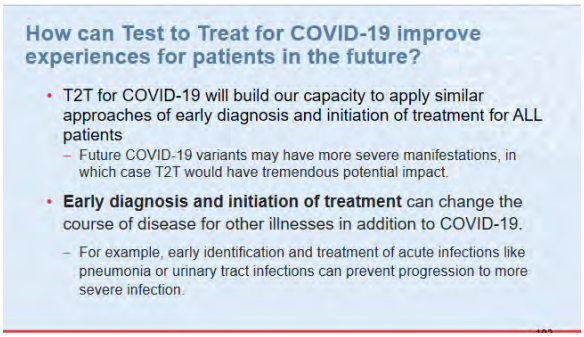


The opportunity to offer an effective treatment for patients with COVID19 – and prevent worsening of disease is awesome – it is great to have a treatment available. This is one part of improving care for all COVID patients, and subsequently supporting the health care system in responding to the pandemic and preparing for whatever is coming next.

This is not a stand alone thing – it is integrated, quality care.

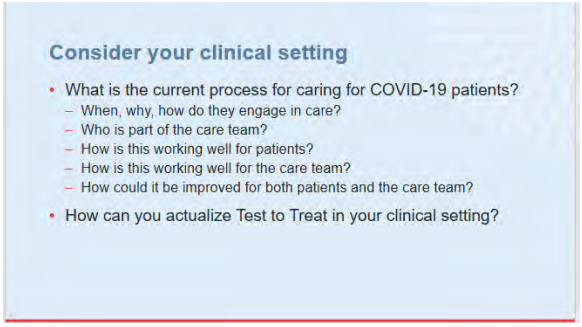
Slide 105



Early diagnosis and treatment is a lifesaving approach to many different diseases. This includes COVID19, as well as other acute infections such as pneumonia or UTIs, there is precedent among other public health efforts including HIV or TB.

Creating opportunities for success with this framework has great potential, and if the next variant or iteration of COVID is more severe, having this framework in place could have tremendous impact.

Slide 106



This is a brainstorming opportunity.
It will feed into a planning activity – that will hopefully empower clinical teams to return to their work environments with ideas to operationalize Test to Treat, and support other processes to streamline care for other patients as well.

The implementation and integration of test to treat into regular clinical services is not a simple process.
There are numerous factors to consider, at various levels.
The linked implementation guide is designed to identify factors and support countries as well as service delivery venues to systematically consider and address the issues necessary to implement Test to Treat.

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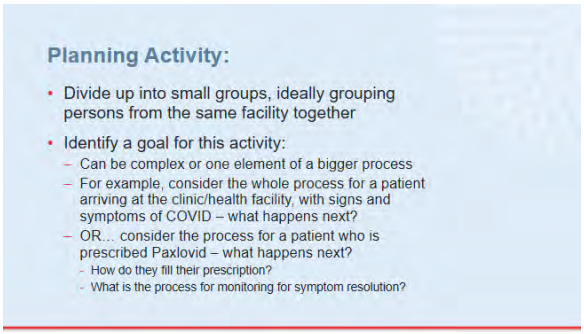
Consider these factors, and consider what has already happened at your facility, and what action steps you can identify to focus on.

https://opencriticalcare.org/wp-content/uploads/2022/06/Implementation-Guide-Test-to-Treat-July-2022-ipycid.pdf

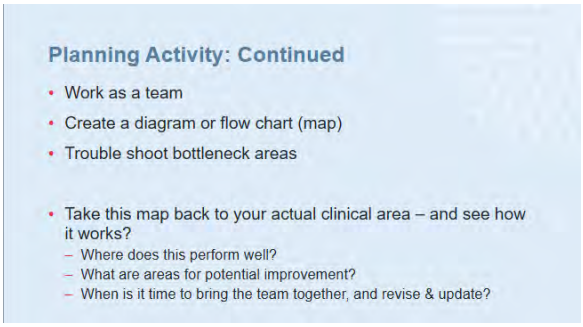
Slide 108



This activity is designed to allow for planning and consideration of the process, among the participants in the training/group.
Consider the current scenario, and consider what is necessary for Test to Treat.
Think about strengths, gaps and opportunities. Think about the space, and the healthcare workers working in that space. Think about the patients, and strategies to optimize patient care.

As a facilitator, you can consider accessing the full process mapping PPT and facilitator guide from the EpiC Clinical Pathways Guide (available as an annex).

Slide 109



Slide 110

In conclusion, remember to stay up to date as information regarding COVID19 care, including oral antivirals and Test to Treat continues to evolve. These are some good resources for staying up to date, and we encourage you to continue to stay updated with national guidelines as well as these global guidelines.

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