Free continuing education for this webinar and how to obtain continue education will be announced at the and the call.

In compliance with continue education requirements, CDC our planners, presenters, and their spouse's partners wish to disclose they have no financial interests or other relationships with DA of commercial products, suppliers of commercial services, or commercial supporters with the exception of Dr. Munoz she would like to disclose the she received a royalty for writing the influenza chapter in the book up-to-date and she received research grants from industry Gilead and Jansen to study respiratory viruses, epidemiology prevention and treatment strategies the Planning Committee reviewed content to ensure there is no bias.

The presentation will not include any discussion of the unlabeled use of a product or product under investigational use with the exception of Dr. Dawood and Dr. Munoz who may discussed neuron neuraminidase, inhibitor medications, antivirus which I'd be approved only for the treatment of uncomplicated influenza.

However, they will discuss off-label use such as hospitalized since in ages not FDA approved then we also discussed the investigational use of other influence of antiviral agents such as block severe.

Dr. Munoz would like to disclose that she will discuss how antivirals for influenza are not licensed specifically for high hospitalized patients. However, CDC and API recommend them for this population. Influenza vaccine is not license specifically for pregnant women. However, CDC, recommended CDC did not accept commercial support for this continuing education activity.

At the conclusion of today's webinar, participants will be able to accomplish the following review data from the 2019 2020 US influenza season to inform preparations for the 2020 to 2020 US influenza season highlight key recommendations in the AAB Influenza Policy Statement recommendations for prevention and control of influenza in children 2020 to 2021 and in CDC's Advisory Committee on Immunization Practices document prevention and control of seasonal influenza vaccines recommendations of the Committee on Immunization Practices United States 20222021 influenza season discuss the importance of vaccinating dusting and treating influenza during the pandemic and review recommendations about influenza antiviral US in children. Participants joining us today are in listening mode. After the presentation, there will be a Q&A session.

If you joined today's webinar by zoom, you may submit a question at any time during the webinar simply by clicking the Q&A button at the bottom of your screen, typing your question in the Q and A box, and this submitting your question.

The video recording of this COCA Call will be posted on caucus web page and available to view on demand a few hours after the call ends.

If you are a patient, please refer your questions to your healthcare provider.

For those who may have media questions, please contact CDC Media Relations at 404- 639- 3286 or send an email to media@cdc.gov

I would now like to welcome our presenters for today's COCA Call.

We are pleased to have with us, Dr. Fatima, a medical officer in the influenza division of CDC's National Center for Immunization and Respiratory Diseases. Our second presenter is Dr. Campbell. Dr. Campbell is a pediatrician and epidemics delegate service officer who served in the maternal child health unit of CDC COVID response.

Our third presenter Dr. Flor Munoz. Dr. Munoz is an associate professor of Pediatrics, infectious diseases, and malaria biology and Microbiology at Baylor College of Medicine where she specializes in pediatric infectious diseases vaccine, safety respiratory pathogens, influence, and RSV.

Now like to turn it to order Dr. Dawood, please proceed.

Good afternoon and thanks very much for the opportunity to speak with you today.For my portion of the presentation, I will be covering recommendations for influenza prevention and treatment and children from the CDC perspective.

Next slide please.

I'd like to start with briefly reviewing what we saw with influenza activity during this past season, that's the 2019 influenza season.

There were two distinct ways of activity last season and circulation did begin early in some regions of the country.

There was an initial beat tour peak followed by an H1N1 PDM 09 peak.

In contrast, there was very little circulation of H3N2 viruses and beyond the viruses.

The overall preliminary estimated effectiveness of seasonal influenza vaccines for all age groups combined was 39% for preventing medically attended laboratory confirmed influenza and the is current as of June of this year and end of season final estimates on vaccine effectiveness are forthcoming from CDC.

Next slide please.

This slide is one illustration of the patterns that I just described.

It shows the types of viruses that were circulating last season.

The lines on this graph indeed the number of influence positive tests that were reported to CDC by US public health laboratories.

And on the x axis, we could see epidemiologic weeks. The dark yellow line shows us H1N1 detection, the red line is H3N2 detection, and dark blue is B the, dark green is beyond.

What we can see overall is there was a predominance of be Victoria viruses early in the season as indicated by the blue line with the peak and detection in late December early January that corresponds roughly to epi weeks 52 through four on the x-axis.

And then we can also see that influenza a H1N1 viruses were circulating during the same time period as indicated by the dark yellow the line, with a slightly later piece even in February of 2020 corresponding roughly to API weeks four through eight.

And finally, if we turn our attention to the pie chart to the right of the graph, that shows the distribution of viruses that were detected just over half of the positive samples reported to public health labs were H1 viruses and the third will be viruses.

And the that are shown on this slide are also consistent with data from influenza positive tests reported to CDC from clinical laboratories last season.

Next slide.

So since the pandemic began, there has been a sharp decline in influence activity.

On this slide, the bars indicate the number of specimens submitted for influenza testing during the 20 through 2020 season.

And then continuing through epidemic logic week 30, which corresponds to the end of September, the.

Solid line on the graph shows the percent of specimens that were positive for influenza during this time period and the various lines show the percent of specimens that were positive for influenza during the analogous time period previous seasons.

What we can see is there was a 61% decrease in the number of specimens tested for influenza and a 98% decrease in those testing positive since March of 20.

These declines maybe due to less health care seeking during the pandemic as well as mitigation measures that have been implemented..

Of no other seasonal circulates.

With influenzas at a historical low and evidenced by the solid black line that is relatively close to 0% starting April of this year.

Next slide please.

Similar declines in influenza activity had been observed in other countries including in the southern hemisphere countries.

Many of the countries in the southern hemisphere have their winter influenza season or roughly April through June.

On the next three slides, I am going to show you data from three different southern hemisphere countries.

This first slide shows data from Australia from April through July and the bars show the number of specimens that were tested, the line show the percent positive for influenza virus similar to the previous slide.

And so much of the data that we saw from the US perspective of specimens positive for inflow one approach to 0% during the April to July period and Australia.

Next slide, please.

This slide shows data from Chile, another southern hemisphere country, and against similar findings with very little influence detection during their winter influenza season.

Next slide, please.

And this final slide here shows data from South Africa again with very similar findings during their winter influenza season very little influenza detection.

Next slide.

I want to close this section on surveillance data by sharing some to additional sources of surveillance data as we head into the upcoming flu in the United States.

Typically, beginning in October we start to have more detailed reports on FluView.

So the website is a good resource to chec/k periodically for updates.

You also has a report feature called FluView interact, which is an online application where you can pull down data and look at it by different seasons or different age groups.

Next slide please.

So for this next section of my presentation I will talk about CDC antiviral treatment recommendations for the upcoming season as in previous seasons this season, CDC recommends antiviral treatment as early as possible.

For any patient with confirmed or suspected influenza who falls into three categories.

Those who are hospitalized, those who have severe complicated progressive illness, and those at high risk for and complications.

And to viral treatment males to be considered for any previously healthy symptomatic person in the outpatient setting who has confirmed or suspected influenza.

If treatment can be an issue dated within 48 hours of illness onset.

It's important to remember that clinical benefit from antiviral treatment is greatest when antivirals are given early.

So if you suspect and influenza based on a patient's symptoms and local influenza surveillance data, consider empiric treatment, do not delay treatment to wait for test results in those who are hospitalized have severe illness or at high risk of influenza complications.

Next, slide please.

This slide summarizes the groups of persons considered at high risk for influenza complications for whom and treatment is recommended these groups include children less than two years of age, adults 65 years of age and older, pregnant and postpartum women, children less than 18 years old receiving longterm aspirin therapy, American Indian and Alaska natives, people with underlying medical conditions and residents in nursing homes and chronic care facilities.

Next slide, please.

There are four FDA approved antivirals that are recommended for use in the United States.

Three are neuraminidase and those are oral inhaled and intravenous this parameter here.

The fourth antiviral is a cap dependent and inhibitor, which is oral blocks of beer.

And this table on this slide summarizes both route and age indications for these antivirals with respect to the H indications I do want to highlight one thing, also I'm a full time the FDA approved agents includes children 14 days of age and older but CDC and IDSA recommendations also time of year for treatment of any age and that includes infants under the age of 14 days.

Next slide, please.

So I'm now going to turn to the ACP recommendations for influenza vaccination in the US season.

And with previous seasons routine annual influence vaccination is recommended for all people six months of age each AND older we do not have a contraindication to vaccination.

In addition TO this university recommendation for vaccination, there are certain groups that are particularly important for receiving vaccine this includes persons who are six months of age and older who are at increased risk of influenza complications and severe illness.

It also includes contexts and caregivers of children less than five years of age, adults 50 years of age AND older, AND persons with medical conditions that put them at high-risk for severe complications from the.

Next slide, please.

This slide shows the groups at increased risk for influenza complications.

Important the groups on the slide are very similar to those that I showed a few slides ago in terms of the antiviral recommendations so I will just highlight that the slight age, difference between the previous slide and this slide, for the purpose of influenza vaccination, children aged 6 through 59 months of age and adults 50 a agent older are considered at increased risk for influenza complications and severe illness and particularly emphasized for influenza vaccination Next slide so there have been several updates to the recommendations from the Advisory Committee on Immunization Practices for influenza vaccination the upcoming season.

The mean changes are some changes to influence a vaccine stream composition, updates to contraindications, and precautions for the use of the live attempt you redid influence vaccine, which will be referred to as LEI before on subsequent slides, and updates on recommendations for vaccination persons with egg.

Alright next slide, please.

Influence a strains are constant changing and as a result, the World Health Organization and the FDA re-evaluate the composition of influenza vaccines every year for the northern hemisphere, these organizations meet in February and March of each year to come the optimal strength choices for the vaccine and the upcoming season.

Because there are now both egg based and non egg based vaccines are recommendations for strain composition for each of the two vaccine types.

What's important to know is that the stream is selected for the two types of at based and based our antigen actually similar they differ mainly in the way they can be grown for vaccine production.

For this upcoming season, three of the four vaccine strains were updated including the H1N1 H3N2 inventorial lineage vaccinate vaccine strains.

Next slide.

There have also been updates to the recommendations the season for the use of live attenuated influenza vaccine and the setting of recent antibiotic treatment.

In previous seasons, ACP recommendation stated that antiviral treatment from 48 hours before to two weeks after administration of LEI might interfere with the action of the vaccine.

There are now newer antivirals that have longer half-lives than enamel meaning that these medications state in the body for long and.

There are few data about the use of LEI in the in the context of treatment with these antivirals.

For that reason, based on data on antiviral half-life, ACP has proposed the interval shown at the bottom of the slide as the periods of time for which there may be interference between antiviral treatment and live attenuated influenza vaccine.

Next slide.

The recommendations for this upcoming season also address persons with cochlear implant and active cranial cerebrospinal fluid leak.

There few data on the use of live attenuated influenza vaccine these populations and there are alternative vaccines that are available the inactivated and vaccines.

So for this reasons, persons in these three groups are having added to the list of contraindications for the use of live attenuated influenza vaccine for this upcoming season.

Next, slide please.

The last update that I'd like to cover are some updates so recommendations pertaining to vaccination persons with severe egg allergy.

For the purposes of this discussion, severe allergies defined as any allergic reaction to egg that is not limited to hives.

The first thing I'd like to emphasize is that ACP recommendations do recommend that persons with egg allergy receive influence vaccine in previous seasons persons with severe egg allergy were recommended to get their vaccine in a medical setting supervisor by healthcare providers capable of managing a severe allergic reaction.

Now in recent seasons are too Egg free available which are the cell culture-based vaccine or CCI and the recombinant vaccine or our IV.

Rib of note is licensed just for adults.

Because there are now these egg-free vaccines available, ACP has recommend has update recommendations so that vaccination persons with severe egg allergy in a medical setting supervised by a health care provider that can manage severely allergic reaction applies now just in situations when a [inaudible] facts seen cannot be used.

Next slide.

This slide summarizes available vaccines for children six through 35 months OF AGE AND dosing considerations in this age group.

There were no changes here compared to last season, but I do think information here is with high there are now four inactivated influenza vaccine licensed for children H6 through 35 months OF AGE.

And as you can see, there are different doses across the different vaccine shown here.

So it will be important to be aware of these differences and I'll be sure to administer the appropriate dose.

Next slide.

In my last couple of slides, I want to talk about what we can share in our conversations with families about influenza vaccination for children in the upcoming season.

First, we know that influenza vaccination is the most effective way to prevent Influenza Vaccines can also protect against severe influenza as an example data from a recently published study pediatrics showed that during the 2018 season, flu vaccination reduced influenza related Hospital by 41% and emergency department visits by half in children.

What's notable is there was significant protection against these serious complications despite a sub-optimal match for one vaccine component which was the H3N2 component.

Previous studies have also shown that influence of can reduce not only influenced related illnesses but also doctors visits, missed work and school days, hospitalizations, and even death.

Next slide please.

So now, let's turn to the upcoming season.

It's unclear what the impact of the ongoing pandemic will have on the upcoming influenza season in the United States.

It's possible that influenza viruses and the virus may coast circulate people may be with the two viruses.

It's also possible there may be less influenza than usual because of social distancing and other measures to reduce if stars and influenza viruses like Kosovo, this could place tremendous burden on the healthcare system cause many illnesses, hospitalizations, and deaths.

For that reason, it's important to do what we can to take preventive measures.

Annual influenza vaccination is the best tool we have to prevent influenza and it's particularly important to get children and their families vaccinated against influenza of the season Next slide.

And I'll end my presentation with this slide showing some additional resources both for health care professionals as well as for children and their fans.

Thank you very much and I will turn the next part of the presentation over to Dr. Campbell.

Next slide.

Thank you.

Now, this year's flu season maybe a little different than prior years.

So let's talk about COVID-19 children.

We will cover epidemiology, recommendations FOR testing, isolation and quarantine, and considerations for when there is coasts are collation of the viruses and SARS.

Next slide.

Start with epidemiology.

Next, while 20 of the US population or children only 8.6% of all cases of and less than 0.1% of all deaths in the United States reported to CDC have been among children aged less than 18 years as an October fourth.

Our data might underestimate the actual burden among children because testing has been prioritized for persons with symptoms and those with severe illness.

These numbers also do not recognize the important social emotional and educational impact of the pandemic on children and their families.

Next.

The weekly incidence of among us school age children increased drastically from March to July and remains high in September.

Incidence among adolescents, age 12 to 17 year, shown in green has consistently been double that of younger school age children.

Age five to 11 years shown in blue transmission of SARS among children and two children may have been reduced early on in the pandemic due to community mitigation measures and school closure.

Next.

Reason experience in camps and schools suggests that children might be as susceptible to infection as adults.

200 and 60 campers and staff members tested positive for after an outbreak in an overnight summer camp in Georgia in June.

76% of those with known test results tested positive.

Next the attack rates.

Which are calculated by dividing the number of persons with Parkinson's test results by the total number of campers and staff were actually higher in children compared to adults at 50 you 1% in children age six to ten years and 29 in adults age 22 to 59.

Next.

Recent evidence also suggests that children can transmit sorry effectively.

Next.

Experience in childcare centers in Utah documented transmission from 12 infected children to at least 12 contacts outside the childcare center including one parent who was hospitalized.

Two of the asymptomatic children were observed to have transmitted the virus to others.

Also, earlier this week, findings from another outbreak investigation were published in MMWR where minimally symptomatic 13-year-old was the index case for an outbreak associated with a family gathering.

Next.

Children infected with SARS may have any of these signs and symptoms, which are nonspecific and are similar to the signs and symptoms of influenza in children.

Some children may only have upper respiratory symptoms and some only have gastro-intestinal symptoms.

Some are asymptomatic.

Next, the most common symptoms and children are cough and fever next.

New loss of taste or loss of smell is one of the more specific symptoms of infection in adults, but it's not commonly reported in joules.

Next.

A meta-analysis of 20 articles published in May as that 16% of children with SARS infection were asymptomatic.

A more recent study from Korea that followed 90 children with stars Gobi to infection through their course of illness found that 22% of children were asymptomatic.

In this study, children were if they had symptoms, had close contact, or an epidemiologic links to cases.

As they observed children from the day of the positive test through the day of their negative test, this may be a more accurate estimation of asymptomatic.

Children with stars are less likely to develop severe illness compared with adults with lower rates of hospitalization mechanical ventilation and death, but children can develop severe illness and complications from next.

Among children who were hospitalized with, about one in three are admitted to the.

ICU and the proportion of hospitalized children who were admitted to the ICU is actually very similar to the proportion among adults as you can see in this figure.

Next.

With severe may develop respiratory failure, myocarditis, multi-organ system failure, and other complications but these occur less frequently in children than in adults.

Some children with have also presented with other serious problems like into society question or diabetic ketoacidosis.

Next.

Children with a prior history of SARS infection are also at risk for developing multi-system inflammatory syndrome in children or MIC, which we'll discuss a little bit later.

Next children with underlying medical conditions are at increased risk for severe illness from source code to infection but there's limited evidence around which conditions are associated with severe illness.

The conditions that might be associated include obesity, medical complexity, just disorders, There's no logic disorders metabolic disorders congenital heart disease diabetes asthma and other chronic lung disease and immunosuppression.

Additionally, infants less than one year might be at increased risk for severe illness but a recent cohort study out of New York suggested that young infants have high rates of hospitalization but do not actually have or severe illness compared with older children.

Next.

A recent CDC report included data through July 31st described characteristics of one 121 children under the age of 21 who died with the majority being male and older children which tend to be 20.

The majority were Hispanic or Latino and black or African American, and 75% of these children who died had underlying medical conditions.

Next.

Now, back to MIC.

MIC is a rare but serious inflammatory syndrome that develops usually two to four weeks after infection. Risk factors for developing of MIC are not known, and most children with MIC OR previously held which is different from children who developed severe illness from acute you should think about MIS in a child with fever, inflammation, clinically severe illness and evidence of multi-system organ dysfunction.

Initial evaluation should include laboratory testing for markers of inflammation, SARS testing by PCR or antigen, and serology as well as evaluation for cardiac dysfunction.

Children with MIC can rapidly decompose, and they require high levels of care.

Next slide.

As of October first, there have been one cases MIC reported to CDC, which includes 20 deaths cases have been reported by 44 states.

The average age of cases is eight years and more than 70% of reported cases have occurred in Hispanic or black children.

Next.

Now let's review indications for viral testing for source code as well as isolation and quarantine measures.

Children should be tested for by PCR if they have signs or symptoms of and they are increased likelihood for exposure.

Now increased likelihood for exposure means that they live in or have traveled to a community with substantial transmission per the local public health department.

Children should also be tested if they had close contact with a person with SARS infection.

And this is for children who have signs and symptoms and for children who are asymptomatic we defined close contact as being within six feet of someone for a total of 15 minutes or more another reason to obtain viral testing for source code would be 2040 hours prior to elected surgery per your local hospital or surgery center policies Next slide now what should you recommend for return to school or other in-person activities for a child who has symptoms of viral illness.

The length of time the trial stay away from others outside the home depends on whether the symptoms or likely due to COVID 19 due to another etiology.

So if the child has some and had either close contact or was at increased likelihood for exposure, then we recommend viral testing by PCR.

Remember, close contact refers to being within 60 for a total of 15 minutes, someone increased likelihood for exposure is someone who lives in or has traveled to a community with substantial transmission.

Next slide.

So what do we do these test results?

If the child’s PCR is positive, the child must isolate for ten days from symptom onset.

With resolution of fever and improvement of other symptoms.

If the test was negative and your indication for testing was that the child was an increase likelihood for exposure along with their symptoms, then we recommend that the child can actually return to school or other in-person activities per non policies such as being a February for 24 hours.

Now, if the test is negative but the child had close contact with someone with stars, then the child and all the other close contexts must quarantine for 14 days.

You cannot test out of quarantine after exposure.

If no testing was performed for a child with SYMPTOMS who either had close contact with someone or was at high risk for exposure, then you should presume that the symptoms are from COVID 19 and recommend the ten days of isolation from symptom onset.

Next.

Slide now if the child had symptoms but did not have any known close contacts and was not an increase likelihood based on the levels of community transmission, we recommend that you clinically evaluate for other etiologies.

If you believe the child does not have based on your assessment and the child can return per null policies.

But again, if the child has had close contact for someone with stars, you should test the changes must remain in quarantine for the 14 day incubation period.

Even if the test is negative, which is in accordance with CDC's quarantine guidance.

Next slide.

Now in the final few minutes of my section, we're going to talk about Covid-19 and influenza in children.

We know that the symptoms COVID infection in children are very similar, and the outcomes may be similar to a recent retrospective cohort study of children's national compared clinical outcomes between 300 and children with and 1400 children with influenza a or B.

As you can see there were similar proportions of children who were hospitalized who were admitted to the ICU and who required mechanical ventilation and about a third of those hospitalized required ICU care in both groups.

The median age among hospitalized children with was higher than those with influenza and the proportion of those homes but allies who had underlying medical conditions was higher among children with compared to children with influenza.

Next.

Now as mentioned, co-infection with influenza a viruses and SARS can occur and it should be considered particularly for those who are hospitalized for severe and when there is known community coasts.

Because of the possibility of co-infection, a positive result for either influenza virus or source code does include infection with the other if you've only tested for one of these pathogens.

But if you've tested from both SARS and influenza either separately or with multiplex assay, you can exclude the other keeping in mind the sensitivity and specificity of the assay that you used.

There are currently four multiplex assays authorized for simultaneous detection of influenza viruses] through FDA's emergency use authorization.

Next slide.

As the symptoms are so similar understanding community epidemiology and testing will be your main tools because coast circulation of source code and influenza virus will lyse happen in many communities this fall and winter.

It'll be incredibly important to monitor levels of flu and SARS and your community from your local health department and your local hospital laboratory.

When there is circulation, testing will be necessary to distinguish between influenza and SARS infection and testing all so helps inform local epidemiology.

Next.

Here are a few management considerations for when there is circulation and your community.

Do not wait for the results of influenza or SARS testing to initiate empiric antiviral treatment for him.

If you suspect influenza and antivirals are indicated.

Again, obtaining viral testing will be very important to guide public health measures, clinical decision-making, and infection prevention and control recommendations.

And finally, you have suspicion for based on symptoms, community prevalence, and individual exposures, recommend ten days of isolation to stop continued transmission.

Remind families about the importance of prevention, which includes getting flu shots, wearing masks, practicing social distancing, and washing or sanitizing hands.

Next.

We did not address management of COVID 19 and children today, but here are a few resources if you're interested in reading more.

Next.

Thank you very much, I will turn it over to our presenter.

Thank you very much.

If you could please move on to the next slide.

So my name is Dr. Munoz, I'm a pediatric infectious specialist at Texas Children's hospital Baylor College of Medicine and I am also a member of the committee of infectious diseases of the American Academy of Pediatrics. It is in my role, as a member of the American Academy of Pediatrics group, that drafts the recommendations for influenza prevention that I will be speaking with you today regarding an update on the 2020-2021 influenza recommendations for children from the.

Next slide please.

So what I would like to do today is briefly share with you the recommendations of the American Academy of Pediatrics for influenza immunization this season and talk about some of the salient points specific to children when we have heard already the conversation regarding influencing what would be the recommendation from the API regarding planning for vaccine administration and other factors that provide might have to consider.

Next slide, please.

The articles for American Academy of Pediatrics is already available to you. They were released early on September 8th and the publication is in the pediatric journal for October this year and this is what they looked like.

We'll be talking about these.

Today next, slide please.

I already heard how different last flu season was in terms of a sharp decrease in flu cases as soon as we started to see and the mitigation strategies were put into.

But I did want to share with you this slide regarding the 10192 thousand and influenza season because it gives you the breakdown of the influenza like illness cases reported last season for the United States by age group.

And you see how children do remain an important group that is affected by influenza every year.

So the top line and orange is actually children less than four years of age which is a that has a very high tax rate in suffers from influenza like illness very characteristically during the flu season.

And we had several peaks during the last season due to the circulation of the both influenza B and influence a viruses as Dr. Dawood would already mentioned to you.

And the next leader is actually the older children so school-age children, five to adolescents and young adults.

Next slide, please.

So we've heard as well already from Dr. Campbell the importance of this season being unique because of the closer collation of influenza and so sorry to viruses. We don’t know that they will both be spreading and circulating this year.

And I've heard this question many times, why is that given that we are having all of these for now for, wouldn't that also decrease the chances that we have influenza as an important virus this season.

It is possible, we did see that in the southern hemisphere, but we do have to keep in mind that we are now in a different print phase of the covid19 pandemic where there is actually more activity out there.

We are moving more than at the early phases and they use of masking and the use of social distancing and even handwashing might not be as strict as in the beginning.

We also will have more opportunities to be endorsed during the winter and we understand that these viruses because actually both of them spread more readily when you are together in a closed environment this is why some groups are at higher risk so I think that it is very likely and many things the same way that we will have both viruses and that some of these symptoms for these viruses look very much the same.

So it might be difficult to tell the difference especially early on in the illness, and this is why we need to understand testing and prevention.

Next slide, please.

We already heard a bit about the similarities and the differences of influenza and covalent, but the focus a little bit more in children.

I did want to highlight a couple of points. While clinically they may look like the same illness early on, there are some characteristics for us for example we do have when that is present that changes in or loss of taste and smell that you can give you a hint. They're both very contagious as we've heard, but influenza is actually a lot part contagious if you think about the incubation period when it's on average about two days, one to four days.

Now then period for isn't little bit longer although we do know that most people do get infected in the first five days of so order of their contact.

Both viruses can be shared either before, during, or after the onset of symptoms.

This COVID 19 SARS virus is particularly difficult because it does seem to be shed a few more at least a day earlier so before we see for influenza, so that is what makes it particularly contagious. The transmission mode is similar in terms of contact area and also droplets.

One difference to think about an hour highlight this in a moment as well is that a for both we have seen more likelihood of disease and hospitalization in the very young so for flu lesson five years of age, for those under two, but there are other groups of children as we've heard with MIC that could be affected and in terms of adolescence.

One big difference, of course is that for influenza have treatments and vaccines that are available safe and effective while we are still learning about that.

For COVID 19 so the next slide is just a to point out again, to you can go to the next slide please.

That with influenza, we have a lot of knowledge about influencing.

And this is very consistent in children that they have the highest attack rates especially school-age children because of their ability to transmit and pass this virus one to another, in a given season regular flu season on average about 20 is the attack rate in children.

It can be as high as 40% depending on the season.

So we do understand that they are at risk, that they have a very important role in the transmission of the flu virus in their home and schools with friends and the community at large, and we do know that children do have a high morbidity and mortality potentially some complications considering that this is a vaccine preventable disease. We have seen how influenza like illness results in a lot of doctors visits, but they also can have increased hospitalization compared to other groups.

Next slide.

Now, a couple of key differences maybe.

So talking about healthy children and those with underlying conditions.

Healthy children consistently have been at risk for influenza hospitalization even more potentially than those with underlying conditions.

When you look at our seats you see data from every season, about 50% of children who are hospitalized with the flu are previously healthy with no underlying model conditions.

And the is true in particular, as we mentioned before for young children under two, but for probably we see more of that in otherwise healthy children related to complications such as MIC and adolescent groups.

But what we have seen as you've heard these previous presentations and to emphasize the point is that there are children that are at risk for both fluids and those will be our children that have underlying medical conditions who are at for both.

The next slide, I just wanted to point out that the compare between what are the risk factors that increase, the chances of complications from these two diseases, and how similar they are.

So in addition to young, we know that any patient who has immune deficiencies or altered immune system we have also seen cardiac and chronic lung disease as an underlying problem, chronic kidney disease, obesity, diabetes as you can see even some hemoglobin such as singles so our common to both viruses.

So your patients who have these conditions should be particularly paid attention to in terms of trying to prevent what we can prevent, such as influenza, and trying to diagnose these viruses when they occur.

In the next slide, we will then talk briefly about testing because you heard already about the availability of tests and we can test for both influenza and.

COVID it is recommended that patients with symptoms are tested for both.

As you've also heard for, we are continuing to test close contacts and those who are undergoing seizures or admissions according to your local policies.

I did want to mention briefly that types of tests that you can use because PCR testing, obviously which is the molecular base testing is going to have the highest sensitivity and specificity and it is recommended for the most optimal diagnosis of both flew manned of fact and PCR tests are available that include now both these viruses depending on where you practice, but they will be becoming more and more available because we do need to look for both in patients with symptoms.

But the other possibility is that you can use rapid antigen testing especially in outpatient settings such rapid test if you will, it has lowered sensitivity.

So you do need to be aware of the fact that if you have a positive rapid antigen tests, that can be appropriate to make a diagnosis for especially.

But if it's negative, it's necessary to still look for the virus by PCR.

So very important though, to be aware of what is circulating.

Community so if you have a patient with flu-like symptoms and you already have influencing your community, it is likely that it could be influenza especially if there's no in your area.

But you do need to be aware making testing decisions and treatment decisions what is circulating in your local region.

Next slide, please.

I will now discuss briefly the vaccine recommendations of the US will see that they're very much in line with the CDC recommendations ACP recommendations.

That we haven't really made very big changes this year.

As every year, the API recommends that all children starting at six months of age and anybody older than six months of age receives their influenza vaccination.

It's a universal vaccine recommendation.

For this, we will have many vaccines available license influenza vaccine that is appropriate for the age of the patient and their health status can be used for vaccination in children.

The API does not have any preference for any influenza vaccine product over another, especially when there are no contraindications and the vaccine is licensed for that age group.

So in the next slide, I will like to show you just in a table format because it changes every year, some of the vaccines that we have a.

Available and what you can see is importantly all vaccines for children this year, are quadrillion vaccines.

They all include to influenza a and two influenza be influenced BY strength and that is going to really increase the likelihood that any circulating strain will be covered by vaccine.

As you've heard before, we have the injected or inactivated influenza that are listed as IV which are recommended for anybody as according to the age groups that you see there depending on the product but regardless of age each and regardless of underlying medical conditions, if you meet the criteria for the age indication, you can receive the injectable influenza vaccine.

The live vaccine which is spray nasal spray vaccine, is licensed for children two years of Agent Orange.

So not for your various babies, and it's going to be mostly healthy children.

There are some specific contraindications that in the package insert.

The next slide is going to go through our usual recommendation regarding the number of doses it has not changed if you are nine years of age and older you need only one dose it's the first time you get the vaccine or not, or you have repeated vaccination.

But if you have a child six months to eight years of age and that has not received any flu vaccine before or has not received at least to vaccines before ever, they do need to doses because they need that much to be able to mount a good in response similar to older children responses.

So they're not fully protected and it is important to know and until they receive their two doses of vaccine.

And with that in mind, we do emphasize the goal of completing immunization by the end of October, so we do have a few weeks right now.

With goal of having full protection before influenza virus circulates in the community.

That is the best way to have protection.

So it takes if you need one dose of vaccine it takes about two weeks to mount a very appropriate immune response to be protected, but if you are under age eight and you need to doses, it might take up to six.

This is why we continue to recommend a spec for children under eight to start giving the vaccine the knows as soon as possible and for everyone to have full immunization by the end of October.

The next slide.

I will not go through this anymore other than to say that for this year.

For early then important to make sure that we get our flew vaccine because it's a different style of strains that are in the vaccine that we might not have immunity from previous vaccination or exposure.

Next, please.

In terms of contraindications, we have at the API harmonized are contraindications similar to a CIP where this year there is an inclusion of additional groups which is those would CSF leaks and those with a split for the live vaccine.

The reason behind this is not necessarily that there is an increased risk or known risk but actually concerned with alive inactivated or attenuated vaccine to be able to somehow get into the CSF when you have a leak or anything for communication between the nasal passages and the CSF.

We also emphasize, of course, the importance of influence vaccination during the pandemic and we do not anticipate a supply issue, so we should be able to provide vaccine.

I have in the next slide just one word to know that there are a little bit of differences between the ACP and the API recommendations regarding egg allergy.

With the API recommendation after review of data and egg allergic children if even those with severe allergies, we understand that there's not an increased risk of an epileptic reactions from influenza vaccination in these patients.

So children with egg allergy can receive any license recommended vaccine for influenza with no special precautions compared to those recommended for other routine vaccines.

And so even a history of egg allergy should not be a reason not to receive the influenza vaccine.

As a matter of fact, API that if you have an allergic reaction to any flu vaccine not the egg itself, or any are vaccines that it is best to actually see an allergies to determine if vaccination should be administered or not and that if necessary when there is a concerned, supervise the administration in a setting where you can manage the allergic condition.

However, again, the mile difference here is that the proposal is that we should try to vaccinate as much as we can and not consider egg allergy itself trying to.

The next slide, I just have two quick points regarding treatment.

The recommendations that API has treatment of children are exactly the same as those of CDC, where we do want to treat as early as possible child who's hospitalized with flu, either suspected or confirmed, who has progressive illness related to flu or even if they're not hospitalized but they have high-risk conditions that increase the risk for complications.

And pediatricians in definitely decide to treat any child with suspected or confirmed flu if they can administer the treatment within 48 hours of onset of symptoms.

And even if they don't need to be hospitalized but this is particularly important again the timing of 40 hours and when you have a child with underlying conditions in the home.

So I will pass on to the next slide, down to die already mentioned the antivirals.

We have many options, so we just need to be aware that they are available.

And the final slides, if you go to the next one, please, let’s try to understand that as providers for providers and pediatricians, we don't really know yet the impact of the co-infections of and flew but we know there has been an impact on the pandemic on accessing care and vaccines and that we do need to make sure that we continue to provide that access even while we implement these infection control measures to control the pandemic.

We need to make sure we vaccinate and that the recommendations as to went to vaccinate my vary depending on the illness it is very similar so just like any other acute illness, we expect that patients recover from it before we can give the flu vaccine but still, it's not contraindicated to give the flu vaccine if someone has had a disease.

The next slide.

Gives you just a couple of points regarding medical home is our option that is preferred so that children can come to you, received their routine immunizations, review their immunizations to catch up, and have a good overall care in addition to their flu vaccine.

And we also recommend of course you can prevention measures and follow the CDC guidelines on how to vaccinate.

For IB using your surgical face masks and eye protection and when you give the live vaccine, add the globe so that you prevent any contact which secretions the.

Next slide will give you just a quick overview regarding maybe being ready for higher number of demand for vaccines this year.

And that you are ready as well to communicate with your patients all of the concerns regarding flu vaccine in the context of and adapt to what we need to do, I've seen a lot of people do that already derived through vaccination mobile units and Any other quick way to get children vaccinated.

The next slide is just a brief summary, I will not go through all the details but again, I think that with our presentations today with been able to highlight our concerns regarding both viruses and the community and the importance of testing but also preventing influenza and treating when it's appropriate.

And finally, just to give you hopefully a little bit of a time for wrap-up.

In the last slide, set of different tools and resources that you can have available both from CDC and from a to answer your questions on influenza immunization.

Thank you very much.

I'll pass it back to our moderator.

Thank you, Dr. Munoz.

And our presenters for providing our audience with such beneficial information.

We will now go into our Q&A session, where I would like to welcome Dr. Angela Campbell, Dr. Campbell is a medical officer in CDC's influenza division and she'll be joining our presenters for the Q&A session.

In the time we have remaining, I am going to ask few questions that have come into the webinar system.

Our first question asks, is it possible that this influenza season might be delayed due to the current social mitigation measures and how will this impact recommendations for vaccination will protection be expected the last this new influenza season?

If it's delayed because however patients receive their vaccinations in September and October. This is Dr. Munoz, maybe I can start, but based on what we have seen in southern hemisphere we might see lower impact lower number of cases of influenza but I don't think we have really data or concerns wrinkled guarding shift in command recommend as we do every year by end of October because typically, we will see influenza mostly during the month of December through February and with a peak usually at the beginning of the year.

So I think we don't read we expect a change sufficient to change our recommendations.

Thank you Dr. Munoz.

Our next question asks, children who previously tested positive for school V2 who present within new onset of influenza like illness within 90 days of initial positive test, should they be read test it for?

Sorry this is n I can start at also would like to see if Angie Campbell would like to add something, our current guidance is to not test again within 90 days for SARS.

CoV 2 and I would most likely be worried about other viral infections. In that case the only thing I would add would be flu and other tests are negative and there's still no cause at that point as far as tests could be considered De. Campbell Do you have something to add to that?

I think you I think your answer is very appropriate it's difficult but that's the state of the guidance right now, thank you.

Thank you very much.

Next question asks, you listed type two diabetes as an increased risk for complications to both influenza and, is there any guidance or recommendations for type one diabetes?

This is Dr. Campbell. I can comment on the literature around and then can pass it off to one of my colleagues to speak on influenza. So our current list of underlying medical conditions that are associated with increased risk for severe illness from COVID 19 is based on the level of evidence we have right now and conditions for which there IS strong and consistent evidence currently make it on that list that does mean that conditions that are more rare, more not be on the list just because there is less evidence about this currently.

So type one diabetes is currently on what we refer to as our second year list as conditions that might be associated with increased risk for severe illness among people of any age and the reason it's on this second tier last is just because of the limited evidence that currently exists.

So it's not necessarily that there's no risk is just based on the fact that we just don't have a lot of data on that right now.

And I can turn it over to someone else who wants to talk about flu.

This is Dr. Dawood. I can just add a bit on the flu perspective from the purpose of groups that are considered at increased risk for influenza complications and should be a emphasize for receipt of influenza vaccination that visor Committee on Immunization Practices does not differ between type one or type two diabetes.

Persons with either our considered as increased risk, which that is the same for API for children.

Thank you very much for that and we have time for one last question and this question about vaccination specifically and the inquirer asks Can you please comment on specific length for needles for intro injection based on patient's age, weight, or muscle mass should there'll be a differentiation sometimes needles that come a fixed to the syringes are may not be appropriate for the specific patient?

This is Dr. Dawood, perhaps I can start and then my colleagues may want to add.

I think as the person who asked this question points He's out, there I several considerations in terms of choosing an appropriate needle length for intramuscular injection including the age and size of the child or the person being vaccinated and the injection site.

So the needle recommended needle length will vary depending on those factors.

So rather than list out recommendations for each of those considerations, I want to direct our listeners to a resource on the CDC website if you go to www.cdc/vaccines there actually information that addresses this question a table for needle length by age group and injection site.

Thank you very much for that.

Those who participate in today's COCA call and wish to receive continuing education please complete the online evaluation by Monday November 9, 2020 with the access code core 10082020.

Continued education certificates can be printed immediately upon completion of your online evaluation.

Continued educations about to the CDC training and continuing education on system will be maintained for each user.

The transcription of the call will be available on demand a few hours after the live call.

You can find the video recording of today's call at coca.cdc.gov. Our next coca call will take place on Thursday, October 22nd at two PM Eastern, where the topic will be leveraging existing resources to meet the challenges for by people who use drugs or who have substance use disorders during the COVID 19 pandemic.

Please continue to visit emergency.cdc.gov/coca to get more details about this call and others as we intend to host coca calls to keep you informed of the latest guidance and updates on.

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Again, thank you for joining us for today's call and have a great day.