

Aira Salter

1. Aira Salter

1.1 Meet Aira Salter

Aira Salter

Aira is an immunized patient in for new onset respiratory illness.

She is at day-care and required a COVID test at the start of symptoms. Her test was negative and her family is well.

[Learn More](#) [Dad](#)

What do you think?

Learn More (Slide Layer)

Aira Salter

Aira remains active and drinking well with wet diapers but her appetite is reduced.

Before you start your examination, you note she is interactive but a bit fussy and wiggly on her Dad's lap.

[Learn More](#) [Dad](#)

What do you think?

Dad (Slide Layer)

The screenshot shows a slide layer interface. On the left, there is a vertical sidebar with icons for home, search, and user profile. The main content area has a blue header with the text 'Aira Salter' and a speech bubble icon. Below the header is a testimonial box with a close button (X). The testimonial features an illustration of a man and the text: 'Aira's Dad: "Her runny nose and cough started 4 days ago but now I can really hear her wheezing"'. Below the testimonial are two buttons: 'Learn More' and 'Dad'. At the bottom of the testimonial box is a yellow button that says 'What do you think?'. To the right of the testimonial is a large blue rectangular area containing an illustration of a young girl with her hands clasped in prayer.

1.2 True or False Question



(Multiple Choice, 10 points, 1 attempt permitted)

The screenshot shows a 'True or False?' question slide. The header is blue with the text 'True or False?' and a circular icon of a girl's face. The question text is: 'There are physical findings that can reliably diagnose pneumonia.' Below the question are two radio button options: 'True' and 'False'. The 'False' option is selected. At the bottom right of the slide is a yellow 'Submit' button. The left sidebar is identical to the previous slide.

1.3 Question Review

SCFPCLearn

Review



Answer: False



No single physical sign can rule-in or rule-out pneumonia. Increased respiratory rate had a positive Likelihood Ratio (LR) of 2.0, and its absence, a negative LR of -0.32. Presence of crepitations had a positive LR of 2.1. These LR values mean the findings are not particularly helpful ruling pneumonia in or out

Additional **Wheezing** **Next Steps** **Proceed**

Additional (Slide Layer)

SCFPCLearn

Review



Answer: False



Additional X
The absence of respiratory distress (indrawing, grunting, nasal flaring), absence of tachypnea and normal breath sounds together had a negative LR of 0.0 (0.0-0.4) - meaning if all findings are negative, ruling out pneumonia is quite reliable

Additional **Wheezing** **Next Steps** **Proceed**

Wheezing (Slide Layer)

SCFPCLearn

Review



Answer: False



Assessment of Wheezing
Interrater reliability of wheezing ($\kappa=0.63$, moderately good agreement) is better than for crackles ($\kappa=0.3$, poor agreement).

Additional **Wheezing** **Next Steps** **Proceed**

Aira (Slide Layer)

SCFPCLearn

Review



Answer: False

Next Steps

- Observe Aira before interacting to get an accurate respiratory rate (RR).
- Measure RR over 60 seconds (30 seconds can overestimate RR).
- Fever can increase RR by 10.
- Abnormal Respiratory Rate by age:
 - <2months RR>60; 2-12 months RR>50; >12 months RR>40.

Additional **Wheezing** **Next Steps** **Proceed**

1.4 Aira Salter

SCFPC Learn


Aira Salter

On Examination

- Aira has rhinorrhea. Her Respiratory Rate is 35 (when not wiggling on her dad's lap). Her temperature of 38.
- Upper Respiratory exam reveals rhinorrhea, coryza, moist mucous membranes and normal tympanic membranes.

[More Details](#) [Wheezing](#) [Dad](#)

What do you think?



Learn More (Slide Layer)

SCFPC Learn


Aira Salter

Additional Examination Details

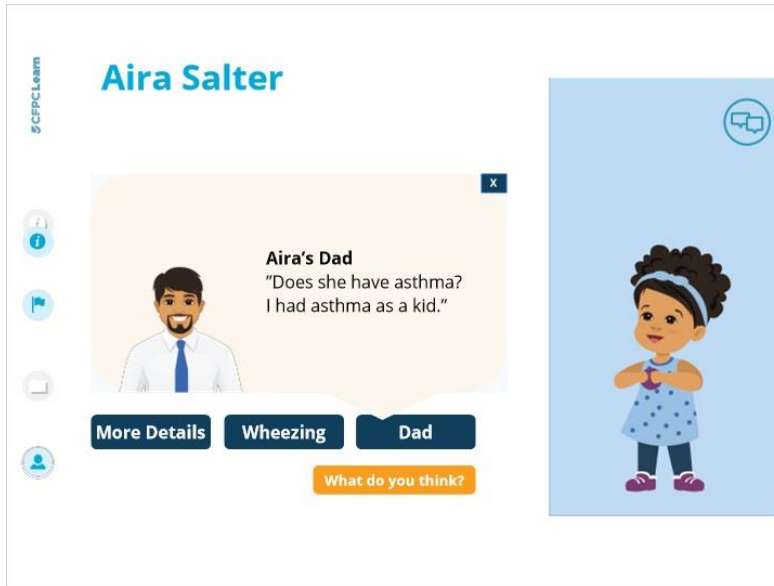
- Inspection of breathing finds mild indrawing. This video shows more severe indrawing
- On auscultation, she has bilateral wheezing.

[More Details](#) [Wheezing](#) [Dad](#)

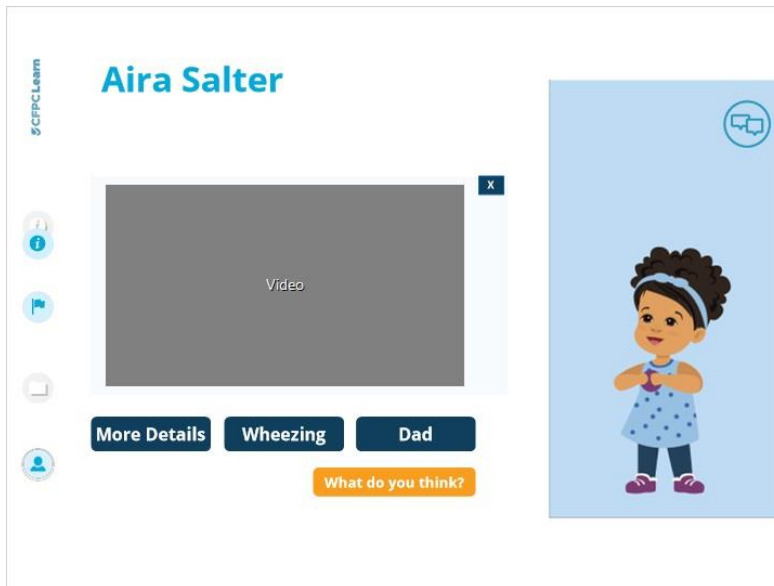
What do you think?



Dad (Slide Layer)



Wheezing (Slide Layer)





1.5 Question

(Multiple Choice, 10 points, 1 attempt permitted)

SCFPCLearn

What is the most likely diagnosis?



Select one of the answers below



- Bronchiolitis
- Asthma
- Cystic Fibrosis
- Covid
- Bacterial Pneumonia

Submit

1.6 Question Review

SCFPCLearn

Review



Answer: Bronchiolitis

Review

- Bronchiolitis is a clinical syndrome of lower respiratory symptoms (tachypnea or indrawing **and** wheezing or crackles) in children <2 years of age, starting with an upper respiratory prodrome.
 - Consider Pneumonia if fever >39 or unilateral crackles.
 - One parent with asthma increases a child's risk of asthma by 2.6 times.



Severe Learn More #1 Learn More #2

Proceed

Severe (Slide Layer)

SCFPCLearn

Review



Answer: Bronchiolitis

Severe Bronchiolitis



- Severe bronchiolitis is associated with.
 - Recurrent wheezing at 3 years old, Hazard Ratio 1.45 (1.24,1.69) $p < 0.001$.
 - Diagnosis of asthma by 4 years old, Hazard Ratio 1.62 (1.02-2.59) $p < 0.04$.

Severe **Learn More #1** **Learn More #2** **Proceed**

Learn More (Slide Layer)

SCFPCLearn

Review



Answer: Bronchiolitis

Learn More



- Pneumonia annual incidence of 3.3 per 1000 (0.33%) in children <5 years.
- Annual incidence for RSV (respiratory syncytial virus, the primary cause of bronchiolitis) is 206 per 1000 (among outpatient clinics).
- Asthma is common, but this is the first wheezing for Aira, it is associated with a respiratory infection (likely viral) and she is too young for formal asthma testing. This is not the most likely diagnosis for today's problem.

Severe **Learn More #1** **Learn More #2** **Proceed**

Learn More Continued (Slide Layer)

SCFPCLearn

Review



Answer: Bronchiolitis

Learn More Continued X

- Cystic Fibrosis prevalence is one in 3200. As of 2018, all provinces have a newborn screening program for cystic fibrosis. 87% of diagnoses among infants under six months old were detected by newborn screening so this is likely to have been picked up before now.
- COVID prevalence variable – as we have experienced!



Severe **Learn More #1** **Learn More #2** **Proceed**

1.8 Question

(Multiple Choice, 10 points, 1 attempt permitted)

SCFPCLearn

Treatment options include:



Select one of the answers below



- Antibiotics
- Inhaled bronchodilators
- Admission to hospital
- Hydration and close follow-up
- Inhaled corticosteroids

Submit

1.9 Question Review

CFPC Learn

Review



Answer: Hydration and Close Follow Up

Review



- 50% of children will have a wheezing episode before the age of 6.
- Asthma prevalence in age 10-14 is 19%.
- History of eczema and recurrent wheezing are risks for subsequent asthma

Additional **Learn More** **Proceed**

Additional (Slide Layer)

CFPC Learn

Review



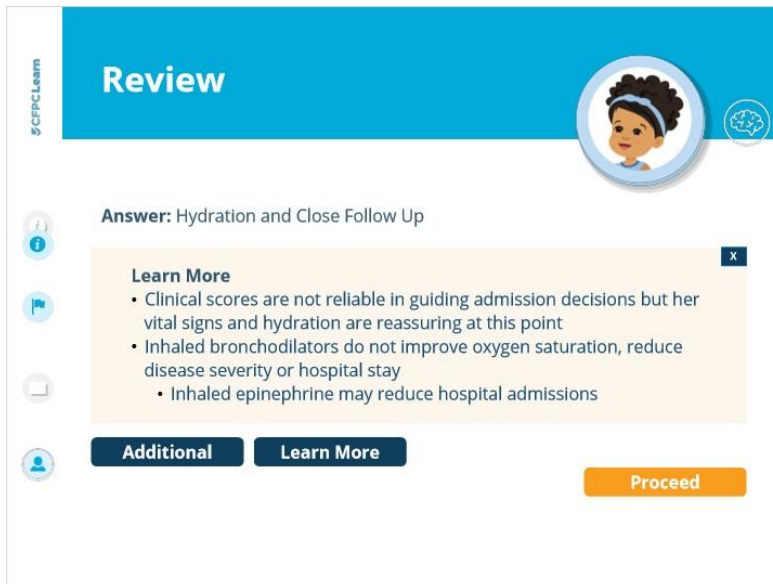
Answer: Hydration and Close Follow Up

Additional

- Oral hydration and close follow-up are most important.
- Inhaled or oral corticosteroids do not reduce disease severity or hospital stay and are not recommended by the Canadian Pediatric Society, the American Pediatric Society and NICE.

Additional **Learn More** **Proceed**

Learn More (Slide Layer)



The slide features a blue header with the word "Review" in white. On the left, there is a vertical sidebar with icons for home, search, and user profile. The main content area includes a circular profile picture of a woman with a blue headband. Below the header, the text "Answer: Hydration and Close Follow Up" is displayed. A "Learn More" box with a close button (X) contains a bulleted list of clinical points. At the bottom, there are buttons for "Additional", "Learn More", and "Proceed".

Review

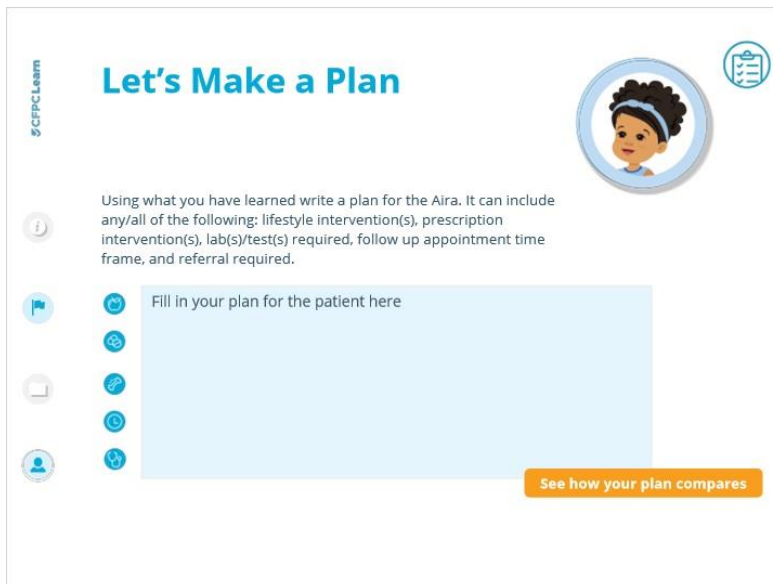
Answer: Hydration and Close Follow Up

Learn More

- Clinical scores are not reliable in guiding admission decisions but her vital signs and hydration are reassuring at this point
- Inhaled bronchodilators do not improve oxygen saturation, reduce disease severity or hospital stay
 - Inhaled epinephrine may reduce hospital admissions

Additional **Learn More** **Proceed**

1.10 Create a Plan



The slide has a blue header with the text "Let's Make a Plan". The sidebar on the left includes icons for home, search, and user profile. The main content area features a circular profile picture of the same woman. Below the header, there is a paragraph of instructional text. A large light blue text box is provided for the user to write a plan. A "See how your plan compares" button is located at the bottom right.

Let's Make a Plan

Using what you have learned write a plan for the Aira. It can include any/all of the following: lifestyle intervention(s), prescription intervention(s), lab(s)/test(s) required, follow up appointment time frame, and referral required.

Fill in your plan for the patient here

See how your plan compares

1.11 Plan Answers

Aira Salter

This is the proposed plan for Aira. How does your plan compare?

Plan
Monitoring
Follow Up

Select details on the left to see suggested recommendations

What's in a name? Next Patient Back to Day Sheet

Plan (Slide Layer)

Aira Salter

This is the proposed plan for Aira. How does your plan compare?

Plan
Monitoring
Follow Up

Plan

- Advise parents to keep Aira hydrated
- Indicate that cough generally resolves between 8 and 15 days - 90% resolved by 21 days

What's in a name? Next Patient Back to Day Sheet

Monitoring (Slide Layer)

The screenshot shows a software interface for a patient named Aira Salter. On the left, there is a vertical sidebar with the text "#CFPCLearn" and several icons. The main area has the patient's name "Aira Salter" at the top. Below the name is a circular profile picture of a young girl. A question asks, "This is the proposed plan for Aira. How does your plan compare?". Three blue buttons labeled "Plan", "Monitoring", and "Follow Up" are stacked vertically. The "Monitoring" button is selected, and a light blue box displays the text: "Monitoring Watch for increased rate and work of breathing and if worsening to go to ER". At the bottom, there is a green button labeled "What's in a name?" and two orange buttons labeled "Next Patient" and "Back to Day Sheet".

Follow Up (Slide Layer)

The screenshot shows the same software interface as above, but with the "Follow Up" button selected. The light blue box now displays the text: "Follow Up Plan for follow-up in 2 days". The "Monitoring" button is now unselected, and the "Follow Up" button is highlighted. All other elements, including the sidebar, patient name, profile picture, and navigation buttons, remain the same.

Name (Slide Layer)

The screenshot shows a digital interface for a patient named Aira Salter. On the left, there is a vertical sidebar with the text "#CFPCLearn" and several circular icons representing different functions. The main area features the patient's name "Aira Salter" in large blue text, accompanied by a circular profile picture of a young girl. Below the name, a question asks, "This is the proposed plan for Aira. How does your plan compare?". Three blue buttons labeled "Plan", "Monitoring", and "Follow Up" are stacked vertically. To the right, a light blue information box titled "Meaning Behind the Name: Aira Salter" provides etymological details. At the bottom, there are three buttons: a green "What's in a name?" button, and two orange buttons labeled "Next Patient" and "Back to Day Sheet".

#CFPCLearn

Aira Salter

This is the proposed plan for Aira. How does your plan compare?

Plan

Monitoring

Follow Up

Meaning Behind the Name: Aira Salter

Aira means "of the wind" and is likely Spanish origin. [In Arabic, it means respectable]. Salter for last name of one of the first authors writing on asthma.

What's in a name?

Next Patient **Back to Day Sheet**