






# Sinusitis

'It's my sinus again, doc!' Sinusitis, or more correctly rhinosinusitis, is a condition characterised by mucosal inflammation of the nasal mucosa and paranasal sinuses, leading to nasal obstruction, facial pain and nasal discharge. It is a frequent presentation to Australian general practice, ranking in the top 20 most common problems managed. It can be a difficult condition to assess and treat, especially when a chronic problem.

<b>TEACHING AND LEARNING AREAS</b> 	<ul style="list-style-type: none"> <li>• <a href="#">Anatomy of the sinuses</a></li> <li>• Clinical features of acute and chronic rhinosinusitis, including red flag symptoms of serious disease (complicated acute bacterial rhinosinusitis)</li> <li>• Differential diagnoses</li> <li>• Indications for investigation</li> <li>• Approach to treatment, both symptomatic and indications for antibiotics/steroids</li> <li>• How to undertake nasal irrigation</li> <li>• Indications for referral and appropriate pathways</li> </ul>						
<b>PRE-SESSION ACTIVITIES</b>	<ul style="list-style-type: none"> <li>• Read the 2016 AFP article <a href="#">Sinusitis</a></li> </ul>						
<b>TEACHING TIPS AND TRAPS</b> 	<ul style="list-style-type: none"> <li>• Rhinitis is a very common accompaniment of acute sinusitis</li> <li>• Bacterial rhinosinusitis is typified by high fever, protracted course, severe facial pain, and a purulent nasal discharge</li> <li>• Bacterial rhinosinusitis is often self-limiting, and antibiotics make little difference to the course of the illness</li> <li>• Sinus X-rays are rarely helpful and CT scans only indicated for specific indications – patients failing medical therapy, with atypical or severe disease</li> <li>• Less than 2% of patients with acute rhinosinusitis develop a bacterial infection – thus, <a href="#">there is no place for antibiotics for the patient with uncomplicated acute rhinosinusitis in adults</a></li> <li>• <a href="#">Intranasal steroids have a modest benefit for acute rhinosinusitis</a></li> <li>• Facial pain in chronic sinusitis is uncommon and other causes should be sought</li> <li>• Consider formal allergy testing in patients with chronic rhinosinusitis and allergic symptoms</li> <li>• Chronic rhinosinusitis commonly coexists with asthma</li> <li>• The presence of nasal polyps in chronic rhinosinusitis influences treatment</li> </ul>						
<b>RESOURCES</b> 	<table border="1"> <tbody> <tr> <td data-bbox="328 1760 438 1865"><b>Read</b></td> <td data-bbox="438 1760 1497 1865"> <ul style="list-style-type: none"> <li>• Therapeutic Guidelines chapter on Rhinosinusitis</li> <li>• Read the 2016 Australian Prescriber article <a href="#">Acute sinusitis and sore throat in primary care</a></li> </ul> </td> </tr> <tr> <td data-bbox="328 1865 438 1966"><b>Listen</b></td> <td data-bbox="438 1865 1497 1966"> <ul style="list-style-type: none"> <li>• <a href="#">How to use a nasal spray correctly</a></li> <li>• <a href="#">How to irrigate the sinuses</a></li> </ul> </td> </tr> <tr> <td data-bbox="328 1966 438 2024"><b>Watch</b></td> <td data-bbox="438 1966 1497 2024"> <ul style="list-style-type: none"> <li>• Cochrane podcast - Podcast: <a href="#">Treatments for chronic rhinosinusitis</a></li> </ul> </td> </tr> </tbody> </table>	<b>Read</b>	<ul style="list-style-type: none"> <li>• Therapeutic Guidelines chapter on Rhinosinusitis</li> <li>• Read the 2016 Australian Prescriber article <a href="#">Acute sinusitis and sore throat in primary care</a></li> </ul>	<b>Listen</b>	<ul style="list-style-type: none"> <li>• <a href="#">How to use a nasal spray correctly</a></li> <li>• <a href="#">How to irrigate the sinuses</a></li> </ul>	<b>Watch</b>	<ul style="list-style-type: none"> <li>• Cochrane podcast - Podcast: <a href="#">Treatments for chronic rhinosinusitis</a></li> </ul>
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<b>FOLLOW UP/ EXTENSION ACTIVITIES</b>	<ul style="list-style-type: none"> <li>• Registrar to undertake clinical reasoning challenge and discuss with supervisor</li> </ul>						

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## Clinical Reasoning Challenge

Dan Grady, a 31-year-old chef, presents to you and says that his sinuses are 'playing up'. He says that he had a cold about 10 days previously and now he has facial pain and fullness, and a nasal discharge. He denies any significant medical history and says that his sinuses are 'not usually a bother'.

QUESTION 1. What are the MOST IMPORTANT key features of history to assess the likelihood of a bacterial rhinosinusitis? List up to FOUR.

- 1 \_\_\_\_\_
- 2 \_\_\_\_\_
- 3 \_\_\_\_\_
- 4 \_\_\_\_\_

QUESTION 2. There are no features to suggest a bacterial infection. What is the most likely diagnosis? List ONE diagnosis.

- 1 \_\_\_\_\_

QUESTION 3. What are the next actions in Dan's initial management? Select as many management actions from the following list as appropriate.

- Commence oral antibiotics
- Recommend regular oral analgesia
- Discuss saline irrigation
- Commence intranasal corticosteroids
- Refer for sinus x-rays
- Refer for sinus CT scan
- Refer for ENT opinion
- Commence nasal decongestants
- Commence oral decongestants
- Commence 5-day course of oral corticosteroids
- Commence oral antihistamines
- Assess smoking status
- Offer pneumococcal vaccination
- Refer for spirometry to exclude co-existent asthma
- Undertake swab for MCS of the nasal discharge

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## ANSWERS

### QUESTION 1

What are the MOST IMPORTANT key features of history to assess the likelihood of a bacterial rhinosinusitis?

- High fever
- Protracted course (longer than 7-10 days)
- Purulent nasal discharge
- Severe facial pain
- Improvement and then worsening of symptoms

### QUESTION 2

There are no features to suggest a bacterial infection. What is the most likely diagnosis?

- Acute viral rhinosinusitis

### QUESTION 3

What are the next actions in Dan's initial management? Select as many management actions as appropriate.

- Recommend regular oral analgesia
- Discuss saline irrigation
- Commence intranasal corticosteroids
- Commence nasal decongestants
- Commence oral decongestants
- Assess smoking status