CVS 2: Please note – this learning resource has been produced by the GUMS Academic Team. It is possible that there are some minor errors in the questions/answers, and other possible answers that are not included below. Make sure to check with other resources.

**Case 3**

Penny G presents to the ED feeling generally unwell with aching joints, fever, cough and painful nodules on the hands and feet.

**20. List the possible differential diagnoses and state which two are the most likely**

Because you are a Griffith student you undertake a physical examination and a history. You examine her heart and find a holosystolic murmur in the fifth intercostal space at the midclavicular line. You notice she has a fever of 38.5oC and has poor dental hygiene. Penny also states she went to the dentist for a clean two days ago. You send her blood for two separate cultures which come positive for staphylococcus aureus and a Transthoracic echocardiography (TTE) is performed which detects vegetations on her mitral valve.

**21. What is the diagnosis**

**22. How would you differentiate between the two most likely diagnoses - Fill in the table below for both**

|  |  |  |
| --- | --- | --- |
|  |  |  |
| **Signs &** **symptoms** |  |  |
| **Cardiac** **manifestations** |  |  |
| **Diagnostic criteria** |  |  |
| **Epidemiology/ risk factors** |  |  |
| **Pathogens** |  |  |

**23. What is the pathogenesis of Penny’s condition**

**24. Why does this condition cause a heart murmur?**

**25. What is the most likely affected valve if IV drug users? What other patients groups are also likely to have this valve involved?**

**Please provide feedback for this case at:**

[**Microsoft Forms**](https://forms.office.com/r/WCpvGTCx99)



**References**

● Amboss

● Dissa Lectures

● UpToDate

● https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5442408/#:~:text=PATHOPHYSIOLOGY%20OF%20 HF%20AFTER%20MI,-Several%20overlapping%20mechanisms&text=HF%20during%20the%20ind ex%20MI,due%20to%20papillary%20muscle%20dysfunction.

● https://www.aihw.gov.au/reports/indigenous-australians/acute-rheumatic-fever-rheumatic-heart-disea se/contents/summary

● https://www.rhdaustralia.org.au/burden-disease

● https://www.ncbi.nlm.nih.gov/books/NBK2208/

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