

# Rheumatic Fever and sore throat management

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# Overview

- Rheumatic Fever (RHF)
- Group A Streptococcal (GAS) Infections
- Resources and links

# Rheumatic Fever



- RHF mostly eradicated in developed nations
- NZ still has high rates of RHF, disproportionately affecting Maori and Pacific families
- RHF can result in damaged heart valves, decreased life expectancy and loss of life

**RHF is completely preventable by correct detection and treatment of GAS sore throats**

# Who is most at-risk?

- Māori and Pacific families
- Aged 4 - 19
- Families who have had rheumatic fever
- Families who live in houses with lots of people



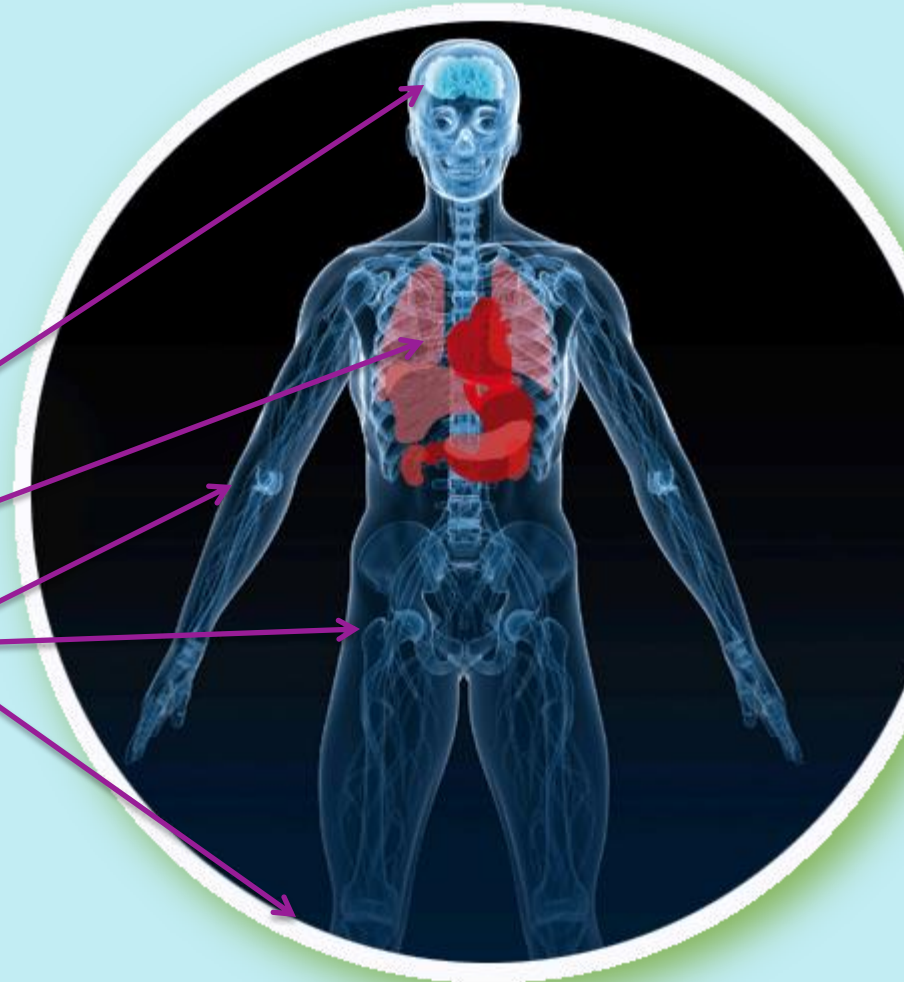
# How does rheumatic fever affect the body?

Acute rheumatic fever  
*affects 3 organ systems*

Brain

Heart

Joints (arthritis)



 **STOP  
SORE THROATS  
HURTING HEARTS**

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# How does a sore throat cause heart damage?



GAS throat infection

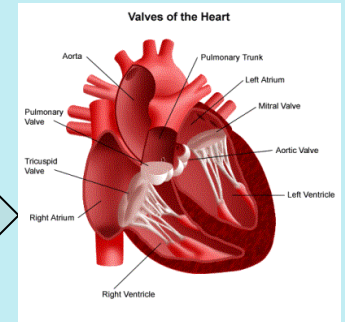
(0.3 – 3%)

<9 Days

**Acute Rheumatic Fever**

- ☹️ sore or swollen joints
- ☹️ a skin rash
- ☹️ a fever
- ☹️ stomach pain
- ☹️ fatigue
- ☹️ jerky movements

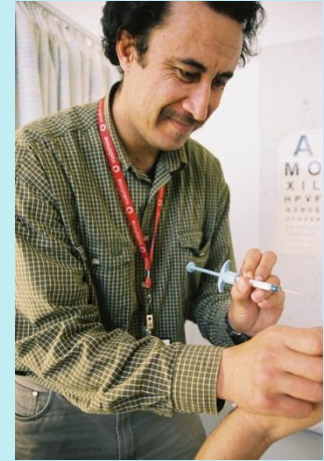
80%



Damaged heart valves/  
carditis

# How does Rheumatic Fever affect children's lives?

- Secondary prophylaxis – 13 injections (one every 28 days)/year
- Education – DN once a month
- Dental Review – twice a year
- Authority completed once a year
- Details updated on register once a year
- Clinic reviews
- Echocardiography - variable depending upon severity
- Influenza vaccine for medium to high risk - annually
- Pneumococcal vaccine recommended for medium or high risk – 5 yearly



- Enrolled with PHO



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# What do we know about sore throats?



- Most sore throats are caused by a virus or a bacteria and go away in a few days
- Sore throats caused by group A streptococcal (GAS) bacteria can lead to Rheumatic Fever – particularly in high risk populations
- Only a throat swab can tell if the GAS bacteria is present

**If a Maori or Pacific child or young person complains of a sore throat make sure they have a throat swab taken**



# What do we know about strep throats?



## GAS sore throat:

- Bacteria
- Can cause RHF

## Symptoms of GAS sore throat can include:

- Sore red throat
- Pus like fluid around tonsils
- Fever and chills
- Swollen, sore lymph nodes around the neck
- Vomiting and sore stomach, especially in children

# Preventing spread of GAS sore throats



## **Droplet spread**

### Spread through:

- Coughing and sneezing
- Unwashed hands
- Sharing toothbrushes
- Sharing drinks and kai

### Prevented by:

- Hand hygiene
- Covering mouths
- Prompt treatment of GAS

# Treating Strep Throat



A quick throat swab



A/Bs for GAS +ve  
(approx 20% of throat swabs  
= GAS+ve)

Child needs to take the full 10-day course of oral antibiotics to eradicate and kill GAS

## Options:

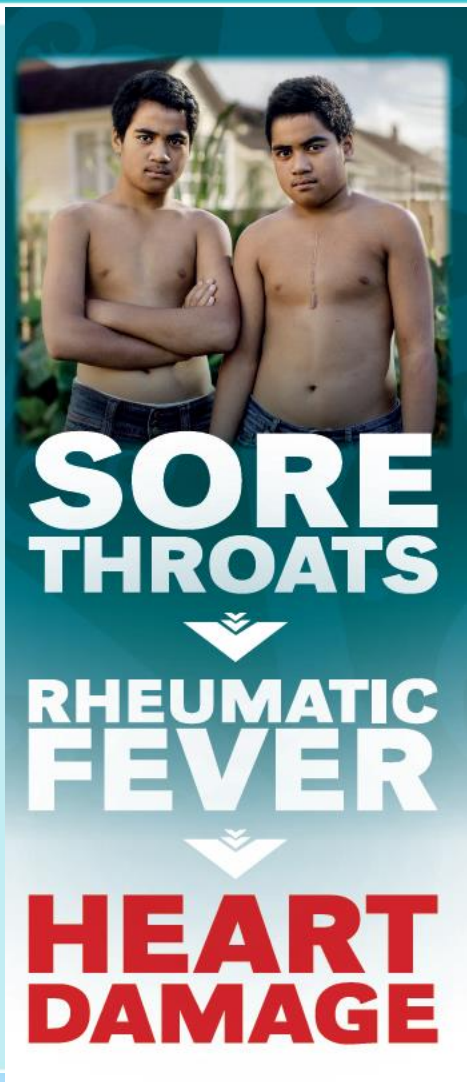
- Amoxyl - OD – 10 days
- Erythro – option for allergy to Amoxyl
- IM Penicillin – once only - adherence tool, given with lignocaine

# Intramuscular penicillin

- Given with lignocaine
- Once only
- No risk of forgetting
- Eradicates GAS (for up to 28 days)
- Ministry of health guidance:
  - <https://www.health.govt.nz/our-work/diseases-and-conditions/rheumatic-fever/rheumatic-fever-resources/rheumatic-fever-learning-resources>



# Patient Education



Make it easy for high risk patients to come back

- Praise their attention to sore throats
- Stress importance of not ignoring symptoms
- Educate clients and whanau that 'Sore throats Matter'
- Check for other household members with sore throats
- Contact details for community swabbers



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# Support for adherence

All the work that goes into swabbing and following up is wasted if antibiotics are not completed!

ABC of health literacy:

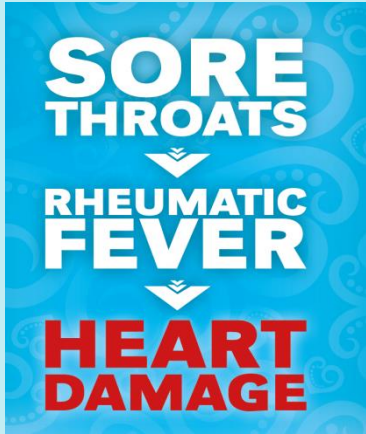
- **A**ssess current knowledge
- **B**uild on that knowledge
- **C**heck for understanding

# Support for adherence

1. Assess for ability to return for antibiotics
2. Assess for ability to complete course  
?single dose of IM Benzathine penicillin
3. Consider reminder devices -  
scratchy charts, phone call/txts
4. Consider widening reminders
5. Invite wider family groups to attend



# Resources



## Waikato DHB Rheumatic Fever site:

- <https://www.waikatodhb.health.nz/for-health-professionals/rheumatic-fever>

## Ministry of Health

- <https://www.health.govt.nz/our-work/diseases-and-conditions/rheumatic-fever/rheumatic-fever-publications>
- <https://www.health.govt.nz/our-work/diseases-and-conditions/rheumatic-fever/rheumatic-fever-resources/rheumatic-fever-resources-health-professionals>

## National Heart Foundation

- <https://www.heartfoundation.org.nz/resources?keywords=rheumatic+fever>



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# Online learning modules

- Ministry of Health Rheumatic Fever e-learning module:  
<http://www.waikatodhb.health.nz/public-health-advice/a-z-of-public-health-topics/p-r/rheumatic-fever/ministry-of-health-rheumatic-fever-e-learning-module/>
- Rheumatic Heart Disease Australia e-learning modules:  
<http://www.rhdaustralia.org.au/e-learning-discussion-forum>



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# RHF Contacts and Links

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Waikato DHB Rheumatic Fever pages:

- <https://www.waikatodhb.health.nz/for-health-professionals/rheumatic-fever>
- <https://www.waikatodhb.health.nz/your-health/wellbeing-in-the-waikato/rheumatic-fever>
- <https://www.waikatodhb.health.nz/your-health/wellbeing-in-the-waikato/whare-ora>



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# References

## References

- <sup>1</sup> National Heart Foundation of New Zealand (2014) New Zealand Guidelines for Rheumatic Fever 1. Diagnosis, Management and Secondary Prevention of acute rheumatic fever and rheumatic heart disease. Auckland, National Heart Foundation of New Zealand
- <sup>2</sup> Atatoa-Carr, P., Bell, A. & Lennon, D. (2008) Acute Rheumatic Fever in the Waikato District Health Board region on New Zealand: 1998-2004. Journal of the New Zealand Medical Association, 121 (1285)
- <sup>3</sup> National Heart Foundation of New Zealand (2014) New Zealand Guidelines for Rheumatic Fever Algorithm 4 Guide for sore throat management. Auckland, National Heart Foundation of New Zealand
- <sup>4</sup> National Heart Foundation of New Zealand (2014) New Zealand Guidelines for Rheumatic Fever 2. Group A Streptococcal Sore Throat Management. Auckland, National Heart Foundation of New Zealand



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