Antibiotic Insights

National AMR Committee Malta

Sore Throat? Pause Before You Prescribe

Summary

- Sore throat accounts for 25% of local antibiotic use.
- Antibiotic treatment does not reduce the risk of secondary bacterial infections such as pneumonia.
- Prescribe amoxicillin (or cefalexin if allergic) only if the Centor score suggests a bacterial infection.
- Avoid macrolides due to high local resistance rates.

Sore throat is the most common indication for prescribing antibiotics in local practice, accounting for 25% of community consumption. This has been confirmed by the publications of Erika Saliba Gustafsson, the most comprehensive studies on antibiotic prescribing among Maltese GPs. Antibiotic use in local ambulatory care has reached its highest level in the past 15 years:

Yearly antibiotic consumption in community care in Malta

Aetiology of Sore Throat

Evidence shows that 85–90% of sore throats in adults are viral in aetiology, typically caused by rhinoviruses, coronaviruses, adenoviruses, or influenza viruses. Bacterial causes - mainly Group A streptococci (*S. pyogenes*) - are quite rare, especially over 45 years.

Antibiotic therapy for viral upper respiratory infections offers no clinical benefit and does not prevent secondary bacterial infections such as pneumonia. Multiple large-scale studies have found that reducing antibiotic prescribing for upper respiratory tract infections (URTIs) did not lead to an increase in serious complications such as mastoiditis. The majority of sore throats resolve within 7 days without treatment. In the occasional bacterial case, antibiotics only shorten symptoms by about 16 hours on average.

Resistance levels of community strains in Malta (2024/5):

Resistance	Amoxicillin	Macrolides
S. pyogenes	**0%**	**20.7%**
S. pneumoniae	**8.3%**	**53.3%**

Centor Score

The Centor (or modified McIsaac) Score helps distinguish viral from bacterial causes and avoid unnecessary "just in case" prescribing. Routine use of this scoring system has been shown to safely reduce antibiotic use without increasing complication rates.

Score	Risk of GAS	Recommended Action (NICE)
0 - 1	Very low	**Do not prescribe antibiotics.** Provide self-care advice only. No throat swab or rapid test needed
2 - 3	Moderate	**Consider a delayed prescription.** If available, use a rapid antigen test or throat culture.
4 - 5	Higher	**Consider immediate antibiotics.** Ideally confirm with a rapid antigen test before prescribing.

Score 1 point for each of the following, if present:
- Fever >38°C
- Swollen/tender anterior cervical lymph nodes
- Absence of cough
- Tonsillar swelling or exudate

Age adjustment: 3 - 14 years: +1; 15 - 44 years: 0; ≥45 years: –1

Recommended Antibiotic Choices

For patients with a Centor score of ≥2:

- **Amoxicillin is the first-line treatment**, as *S pyogenes* remains universally sensitive to penicillin.
- **Co-amoxiclav offers no additional benefit**.
- For patients reporting mild penicillin allergy (e.g., an erythematous rash without anaphylaxis), **cefalexin is the recommended alternative**.
- Avoid second or third generation cephalosporins.

Avoidance of Macrolides

In Malta, high resistance rates to macrolide antibiotics (azithromycin, clarithromycin, erythromycin) are found among key respiratory bacterial pathogen, especially *S. pyogenes* and *S. pneumoniae*. This is almost certainly the result of high local levels of macrolide prescribing, which are twice the EU average. Therefore, **empiric prescribing of macrolides for respiratory tract infections should be undertaken with extreme caution,** unless guided by culture & sensitivity results.

Unnecessary antibiotic prescribing fuels resistance and exposes patients to avoidable adverse effects. Applying these principles will improve patient outcomes, reduce antimicrobial resistance, and preserve antibiotic effectiveness for the future.

Thank you for your continued commitment to evidence-based practice and antimicrobial stewardship.