

CRP point of care testing helps to tackle antimicrobial resistance

Antimicrobial resistance is a global health concern

World Health Organization (WHO) has declared antimicrobial resistance (AMR) as one of the top 10 current global health threats¹. If actions are not taken to decelerate AMR, it is estimated that by 2050, 10 million people will die prematurely every year to AMR related infections. In addition to increased mortality, AMR will cause a huge economic burden for healthcare and individuals due to prolonged illnesses and hospital stays, more expensive drugs, and loss of income².

Antibiotics are commonly used incorrectly in primary care

Approximately 80–90% of all antibiotics are prescribed in primary care where the majority is used for the treatment of respiratory infections (RTI's)^{3,4}. However, it is estimated that 90% of RTI's, such as bronchitis, otitis, and sinusitis, have viral origin or are self-limiting, and therefore do not require antibiotic treatment⁵.

Antibiotics are commonly prescribed based on patient symptoms without diagnostic confirmation. As a result, 50% of prescribed antibiotics are unnecessary or incorrectly prescribed⁶.



Diagnostic uncertainty is a key factor that drives the overuse of antibiotics

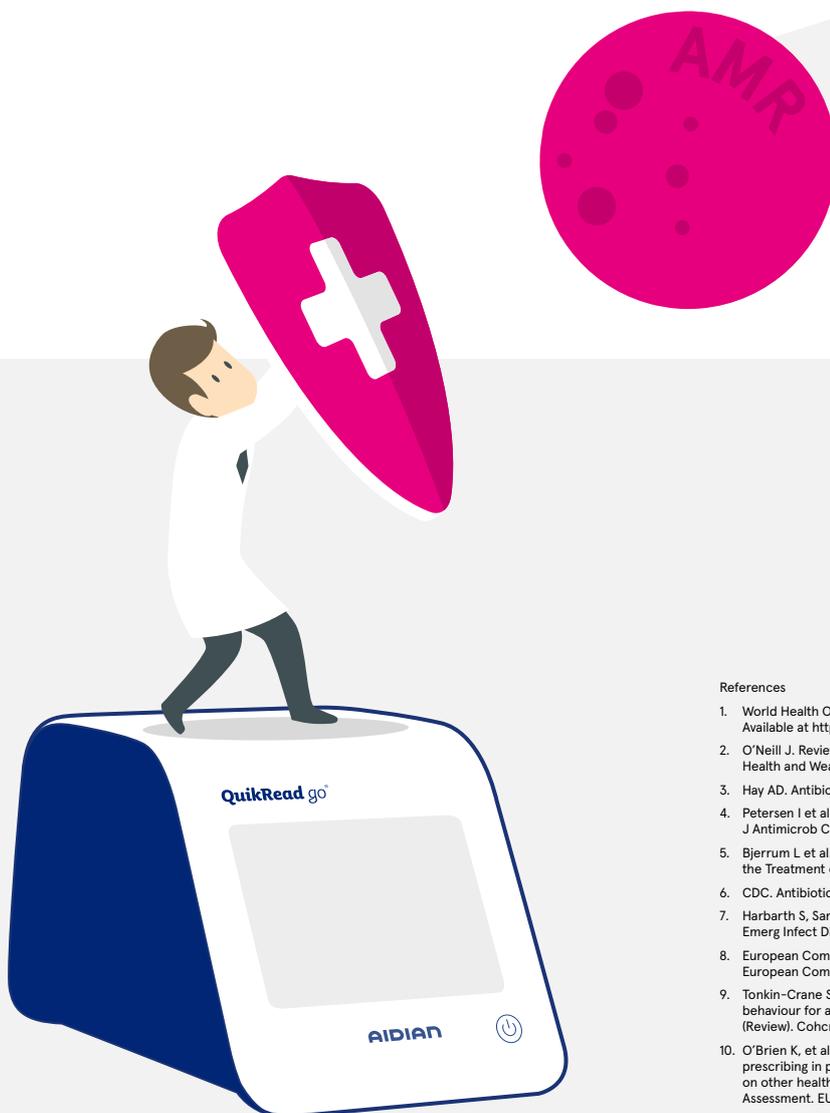
Overprescribing of antibiotics is influenced by several factors, but one of the key things that cause unnecessary antibiotic prescribing is the diagnostic uncertainty of the practitioners⁷. It is often difficult to differentiate viral and bacterial infections and self-limiting infections from the ones requiring treatment. To avoid malpractice, antibiotics are given just in case to minimize risk for the patients.

When diagnostic uncertainty is combined with the patient's demand for antibiotics due to common misbeliefs about antibiotics, such as that antibiotics can cure viral infections, antibiotic prescribing becomes easily irrational⁸.

Fast quantitative C-reactive protein point of care testing reduce unnecessary antibiotic prescribing

In healthcare, proper use of antibiotics is key in fighting against AMR. Fast, accurate, affordable, and easy to use diagnostics play an important role in decreasing antibiotic overuse². C-reactive protein (CRP) point of care (POC) testing before prescribing has several advantages that aid in tackling AMR:

- Fast results immediately available during the patient visit aid in diagnostic decision making whether antibiotics are needed or not
- Decrease the diagnostic uncertainty
- Decrease significantly unnecessary antibiotic consumption in RTI's without compromising patient's health^{9,10}
- CRP results can be used as a tool when explaining to the patient why antibiotics are not needed



References

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