Using the "EML Antibiotic book" in the Primary care setting

Dr Pem Chuki MBBS, MD, DTM&H JDWNR Hospital Thimphu Bhutan





Introduction

- Percentage of patients attending a primary health care facility receiving an antibiotic should be less than 30%
- Oral Watch antibiotics use globally is increasing
- Reducing the inappropriate use of Watch antibiotics is a critical strategy
- Ensure vulnerable populations have continued or, where appropriate, improved "access to Access" antibiotics
- WHO Global Programme of Work includes a target that at least "60% of total antibiotic prescribing at the country level should be Access antibiotics by 2023"
- Not intended to replace existing local and national antibiotic prescribing guidelines and clinical judgment
- Relevant diagnostic tests (including imaging and laboratory tests) are suggested based on the WHO's Essential in-vitro Diagnostics List (EDL)





Improving the use of antibiotics with the WHO EML antibiotic book

- No Antibiotic Care safely reducing antibiotic use
- Improving Access use and reducing inappropriate oral Watch antibiotics
- Reducing the use of Not Recommended antibiotics
- Improving AWaRe-ness!
- Appropriate antibiotic dosing and duration
- Most otherwise healthy patients with mild common infections can be treated <u>without</u> <u>antibiotics</u> as these infections are frequently self-limiting
- The risks of taking antibiotics when they are not needed should always be considered (e.g. side effects, allergic reactions, *C. difficile* infection, selection of resistant bacteria)







A self-limiting inflammation of the trachea and bronchi characterized by persistent cough +/- fever usually caused by a viral infection



O Clinical Presentation

- Acute onset (<2 weeks) of cough lasting > 5 days +/sputum production and shortness of breath (colour of the sputum does not indicate bacterial infection) +/fever
- Generally a mild condition; cough usually lasts 10-20 days (can last longer)

Important: Symptoms can overlap with pneumonia and this can lead to inappropriate treatment with antibiotics. This should be avoided with a careful patient assessment

- Bronchitis: Less severe presentation, usually self-limiting (but cough may take weeks to resolve)
- Pneumonia (see "Community-acquired pneumonia" infographic): More severe presentation with shortness of breath and systemic signs of infection (e.g. increased heart and respiratory rate)

Microbiology Tests

Usually not needed; consider testing for Influenza virus or SARS-CoV-2 (e.g. during influenza season or outbreaks based on local epidemiological risk/situation/protocols)

Other Laboratory Tests

Usually not needed



Usually not needed



Respiratory viruses:

- · Rhinovirus
- · Influenza virus (A and B)
- Parainfluenza virus
- · Coronavirus (including SARS-CoV-2)
- · Respiratory syncytial virus
- Metapneumovirus
- Adenovirus

R Treatment

No Antibiotic Care

- · Symptomatic treatment
- Bronchodilators (in case of wheezing), mucolytic or antitussive agents, can be considered based on local practices and patient preferences
- Patients should be informed that:
- Great majority of cases are self-limiting and of viral origin.
- · Cough can persist for several weeks

R Symptomatic Treatment

Ibuprofen 200-400 mg q6-8h (Max 2.4 g/day)

Paracetamol (acetaminophen) 500 mg-1 g q4-6h (max 4 g/day)

OR -

· Hepatic impairment/cirrhosis: Max 2 g/day

R Antibiotic Treatment

Antibiotic treatment is **not recommended and should be avoided** as there is no evidence of a significant clinical benefit and there is a risk of side effects of antibiotics

BRONCHITIS "No Antibiotic Care"

- Most respiratory tract infections have a viral cause
- Even when its bacterial, many are frequently selflimiting
- Focus on symptomatic treatment

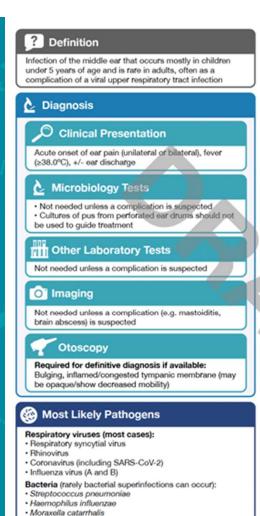


First & second choice if antibiotic indicated

- Diagnose what is the clinical diagnosis, is there evidence of a significant bacterial infection?
- **Decide** are antibiotics really needed? Do I need to take any cultures or other tests?
- **Drug (medicine)** which antibiotic to prescribe is it Access or Watch or Reserve? Are there any allergies, interactions, or other contraindications?
- **Dose** what dose, how many times a day, are any dose adjustments needed e.g. because of renal impairment?
- **Delivery** what formulation to use, is this a quality product? If intravenous treatment, when is Step Down to oral possible?
- **Duration** –for how long what is the Stop Date?
- **Discuss** inform the patient of the diagnosis, likely duration of symptoms, any likely medicine toxicity and what to do if not recovering.
- Document write down all the decisions and management plan.







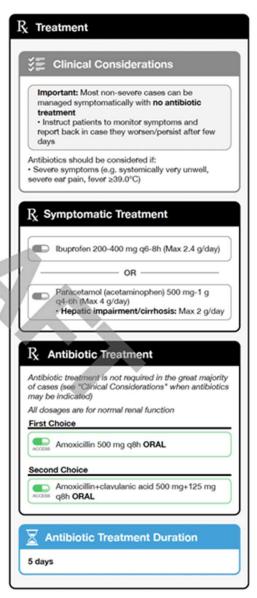
· Streptococcus pyogenes (group A Streptococcus)

Overlaps with prevention of upper respiratory tract

infections; hand hygiene, vaccination against S. pneumoniae, H. Influenzae and influenza viruses can be

Prevention

useful



ACUTE OTITIS MEDIA

- Focus on symptomatic treatment
- If antibiotic required then to use "Access" category



Use of the 'WHO EML Antibiotic book in Bhutan'

- Adoption into the Standard treatment guidelines mainly for infectious diseases
- Using the infographics in patient and outpatient settings for easy decision makings (both investigations and treatment)
- Setting Key Performance indicators (KPI) in our primary health centers
- Adoption into the academic curriculums for prescribers and dispensers



