

**THE EVIDENCE BASE TO TREATMENT IN THE
GUIDE FOR THE TREATMENT OF PATIENTS PRESENTING
RESPIRATORY SYMPTOMS AT THE PRIMARY LEVEL
OF HEALTH SERVICES (HEALTH POSTS)**

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Introduction

A recent assessment of WHO treatment guidelines¹ identified 71 primary treatment guidelines and 12 secondary treatment guidelines. Not all of these guidelines contained linked references, and only one documented the guideline development process, consistent with good practice on evidence-based treatment guideline development. The development process of the Adult Lung Health Initiative practice guidelines is well described². State-of-the-art-papers synthesising the available evidence preceded guideline development, but were not based on systematic reviews using standard procedures and methods. A systematic evidence assessment of the Adult Lung Health Initiative (ALHI) practice guidelines has now become important in order to enable WHO to comply with modern practice guideline standards, and to assist countries to adapt the generic ALHI guidelines in an evidence-based manner.

Objective To validate each intervention or group of interventions in the ALHI guidelines on the basis of available evidence, graded by quality of evidence and decision-making context (healthcare level and country setting).

This report assesses the evidence base of the *Guide for the treatment of patients presenting Respiratory symptoms at the primary level of health services (health posts)*.

Methods

- We listed the interventions included in the guideline by relevant clinical problem.
- We identified evidence of effectiveness and, where possible, safety by searching Cochrane Reviews and non-Cochrane systematic reviews in the following sources: Cochrane Database of Systematic Reviews (CDSR), Database of Abstracts of Reviews of Effectiveness (DARE).
- We assessed the evidence of effect on the basis of the evidence from identified systematic reviews.
- We graded the strength of evidence of effect using the following symbols:

A = Presence evidence of effect superior to either placebo, control or specified comparator

X = Presence of evidence of effect not superior to either placebo, control or specified comparator

H = Presence of evidence of harmful effect

I = Insufficient evidence from systematic reviews

¹ Review of WHO treatment guidelines (work in progress), by Ms E. Jambert, Dr R. Gray, Dr H. Hogerzeil, Department of Essential Drugs and Medicines Policy, WHO Geneva

² Report Adult Lung Health Initiative. WHO/TB/98.257. Dr Robert Scherpbier, Ms Christy Hanson, Dr Mario Raviglione (eds.)

- We classified the source of evidence of effect using the following symbols:

CR = Cochrane review
NCR = Non-Cochrane review

- We classified the setting of the reviews as:

Primary care (PC - in bold)
Secondary care (SC – in bold)
Tertiary care (TC – in bold)
Community care (CC – in bold)
Mixed setting (MS - in bold)

- Whenever possible we further classified the setting of the review as: mostly (MD) or completely in developed (CD) or developing country (MD+, CD+) or countries.
- We made recommendations by intervention categories (e.g. antibiotics).

When no reviews were available, a **non-exhaustive** review of the Cochrane Controlled Trails Register (CCTR) was carried out and good-quality single trial evidence is presented.

Findings and recommendations

Evidence of effect graded by strength, setting and source is presented in tabular format in Annex A. We identified clear evidence of effect in the great majority of interventions proposed in the guidelines. We identified clear evidence of harmful effect only in the case of local decongestants for relieving upper respiratory tract infections in children. Local decongestants are not recommended for use in children. They are moderately effective in adults.

For some interventions, such as oxygen therapy, codeine and morphine for pain relief and some types of antibiotics, the evidence was considerably thinner, a probable reflection of their long-established nature. Care must be taken not to confuse absence of evidence with evidence of absence (of effect).

The majority of interventions have been assessed in a mostly developed country setting. It is the opinion of the reviewers that this does not invalidate their use in developing country settings **within the framework of the guidelines**. Assuming the *primum non nocere* principle, all interventions listed (with the exception of local decongestants for relieving upper respiratory tract infections in children) are recommended for use.

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ANNEX A

Page	Intervention	Problem	Evidence (strength and setting)	References
7	Local decongestant	Common Cold	X, H*, NCR, PC/CC CD	1,2, 3
7	Local disinfectant	Nose disinfection	I, NCR	2
7	Aspirin & Paracetamol	Sinusitis	A, CR, PC/CC , MD	9, 10
7	Steam inhalations	Suppurative sinusitis	I, CR	4
7	Amoxicillin	Suppurative sinusitis	A, CR, PC/CC MD	5, 6
7	Co-trimoxazole	Suppurative sinusitis	I	5
7	Pen IM	Streptococcal sore throat	A, CR, PC/CC MD	11
7	Pen IM	Diphtherial sore throat	A Single trial PC CD+	12
7	Disinfection of throat	Non-streptococcal Sore throat	I	2
7	Pen	Non- streptococcal Sore throat (duration >3 days)	A, CR, PC/CC MD	11
7	Aural toilet	Otitis externa	I	
7	Aural toilet & Pen IM	Otitis externa & boil	I	
7	Paracetamol or Aspirin	Otitis media	A, CR, PC/CC , MD	9
7	Pen IM or amoxicillin or cotrimoxazole	Otitis media	A, CR, PC/CC , MD	13, 14
7	Local antiseptic solution	Otitis media	A, CR, PC/CC , MD	15
7	Paracetamol or Aspirin	Laryngitis	A, CR, PC/CC , MD	9, 10
8	Pen IM or Amoxicillin O + gentamycin	Severe pneumonia	A, single trials PC D+	16,17
10	Amoxicillin O or cotrimoxazole O	TB	I (A in HIV+TB, for cotrim, Single Trial PC CD+)	19
10	Codeine	TB	I	

Page	Intervention	Problem	Evidence (strength and setting)	References
10	Aspirin or paracetamol	TB	A, CR, PC/CC , MD	9, 10
10	O ₂	Asthma/ B.pneumonia	A, CR, CC (Domiciliary O ₂)	24
10	Hydrocortisone IV	Asthma/ B.pneumonia	A, CR, SC , CD	20, 21
10	Prednisolone O	Asthma/ B.pneumonia	A, CR, SC , CD	20, 21
10	Salbutamol Neb	Asthma/ B.pneumonia	A, NCR, SC , CD	22
10	Salbutamol SC	Asthma/B. Pneumonia	I	
10	Adrenaline SC	Asthma/B pneumonia	A, Single trial, SC , CD+	23
10	Metamizole IM	MI	I	
10	Morphine SC	MI	I	
10	Aspirin or paracetamol	Chest pain (Non MI)	A, CR, PC/CC , MD	9, 10
10	Furosemide IV	Pulmonary oedema	I	
11	Rhinopharyngeal disinfection	Acute bronchitis	I	1,2
11	Steam	Acute bronchitis	I	
11	Codeine	Acute bronchitis	I	
11	Dextromethorphan	Acute bronchitis	I	
11	Aspirin or paracetamol	Bronchial influenza	A, CR, PC/CC , MD	9, 10
11	Rehydration	Bronchial influenza	I	
11	Salbutamol inh	Asthma on chronic respiratory disease	A, NCR, SC , CD	22
11	Smoking cessation	Chronic bronchitis	A, single trial, CC , CD	25
11	Codeine or Dextromethorphan	Chronic bronchitis	I	
12	Amoxicillin O or cotrimoxazole	Acute bronchitis on chronic respiratory disease	A, CR, NCR, PC/CC , MD	7, 8
12	Steam	Acute bronchitis on chronic respiratory disease	I	
12	Amoxicillin O or cotrimoxazole	Mild pneumonia < 60 years	A, CR & single trials, SC , MD	16,17,19

Page	Intervention	Problem	Evidence (strength and setting)	References
12	Pen or Erythromicin	Mild pneumonia < 60 years	A, CR & single trials, SC , MD	16,17,18
12	Amoxycillin O + clavulanic acid or cotrimoxazole	Mild pneumonia > 60 years	A, single trial, SC , D+	16
15	Inah+Rif+Pyr+Etham/Strept	TB	A, CR, NCR, PC , MD	26, 27, 28

Table. Evidence of effect of interventions listed in Guide For The Treatment Of Patients Presenting Respiratory Symptoms At The Primary Level Of Health Services (Health Posts) by source and setting.

Key:

* = in children

A = Presence evidence of effect superior to either placebo, control or specified comparator

X = Presence of evidence of effect not superior to either placebo, control or specified comparator

H = Presence of evidence of harmful effect

I = Insufficient evidence from systematic reviews

PC - in bold = Primary care

SC – in bold = Secondary care

TC – in bold = Tertiary care

CC – in bold = Community care

MS - in bold = Mixed setting

MD = mostly or completely (CD) in developed country or countries

MD+ = mostly or completely (CD+) in developing country or countries.