

# Do Cochrane reviews influence guidelines for acute respiratory infections?



National Prescribing Service Limited

Alice Bhasale, Elspeth Kay

## Who is the National Prescribing Service?

NPS is an Australian organisation that provides balanced, evidence-based information and services to consumers and health professionals about quality use of medicines. As users of Cochrane reviews and clinical guidelines, we wanted to know how much Cochrane reviews inform prescribing practices through guidelines. Antibiotic prescribing for acute respiratory infections by Australian general practitioners participating in NPS clinical audits is consistent with local guidelines in over 75% of cases. Use of Cochrane reviews in guidelines can potentially influence appropriate prescribing, but how much they do so is currently unknown.

## Aims

- To determine how frequently Cochrane reviews are used to support recommendations about antibiotic prescribing for acute respiratory infections.
- To identify the level of consistency between recommendations and the reviews' conclusions

## What did we do?

- Identified English-language guidelines for common acute respiratory infections.
- Extracted recommendations about antibiotic use from each guideline.
  - recommendations related to the use, choice, dose or duration of antibiotic.
- For each recommendation, we identified all relevant reviews in the Cochrane Library.

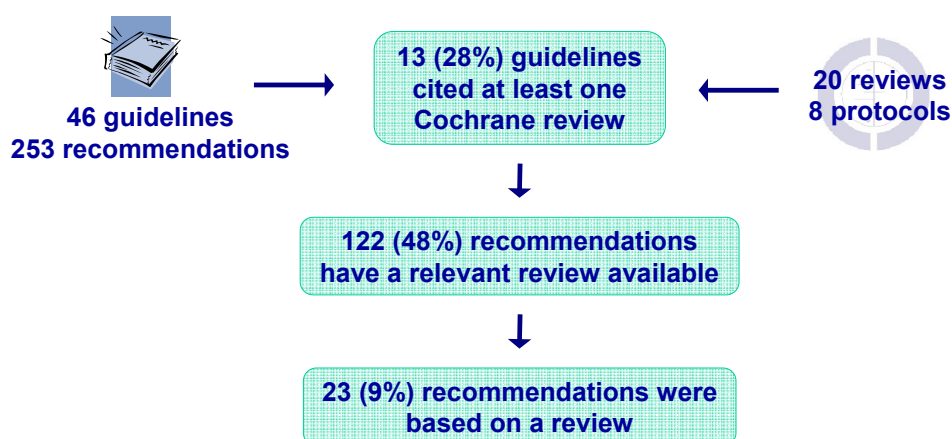
If a relevant Cochrane review was available, we assessed:

- was the review cited in the recommendation?
- which sources of evidence were used if the review wasn't cited?

## We found:

- 46 guidelines covering management of common acute respiratory infections.
- 253 recommendations about antibiotic prescribing we could extract from these guidelines.
- 20 Cochrane reviews and 8 protocols relevant to the recommendations.

## Guidelines and recommendations citing Cochrane reviews



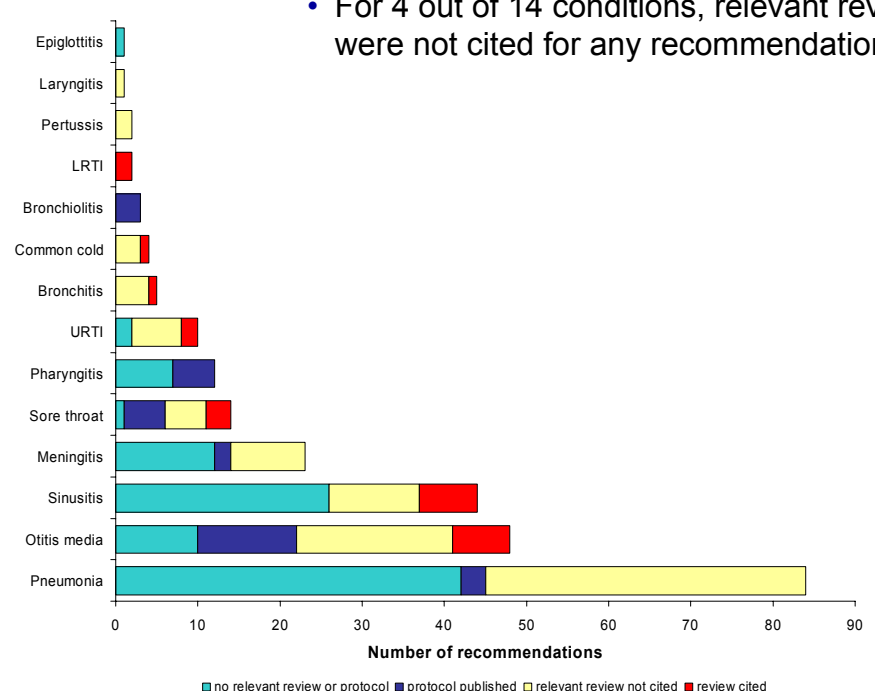
## Where were there the fewest relevant reviews?

- use of antibiotics as second-line treatment
- different disease severities
- antibiotic use according to known or suspected bacterial pathogens
- specific age groups (e.g. very young children, elderly people)
- high-risk groups (e.g. Australian Aboriginal and Torres Strait Islander people with otitis media)

## How can this information be used?

- This is a potentially useful exercise for Cochrane review groups to identify areas where reviews may be needed.
- Future work could focus on identifying aspects of reviews that are cited more frequently by clinical guidelines, and identifying barriers to the use of reviews.
- It provides one measure of the dissemination of evidence into practice.

## Recommendations based on Cochrane reviews by condition



- For 4 out of 14 conditions, relevant reviews were not cited for any recommendation

## Why weren't reviews used?

A relevant review was available, but not cited, for 99 recommendations. The relevant review:

- was published after the guideline for 36 (36%) recommendations.
- drew no conclusion due to a lack of trials or inconclusive evidence for 24 (24%) recommendations.

## Which other sources did guidelines cite?

- Clinical consensus/opinion was most commonly cited instead of the relevant Cochrane review.

## Sources used instead of a Cochrane review\*

Other source used	No. of recommendations (%)
Clinical consensus/opinion	33 (37%)
RCTs	19 (21%)
Other systematic review	17 (19%)
Other guideline	9 (10%)
Journal article of Cochrane review	7 (8%)
Other	5 (6%)

\* Where a relevant review was available

An independent, non-profit organisation for Quality Use of Medicines, funded by the Australian Government Department of Health and Ageing.