

# Improving rational use of antibiotics in childhood upper respiratory tract infections in rural China



## POLICY BRIEF

Irrational use of antimicrobials is a serious issue worldwide, especially in China. To deal with the situation, several national policies have been issued by the Ministry of Health, including the Essential Medicines List policy and the Zero Mark-up policy.<sup>1</sup>

However, there are no operational details on how to implement the policy, and no guidelines on the diagnosis and treatment of childhood URIs or any related necessary clinician training, especially for primary care doctors. In 2009, China launched the Essential Medicines List policy, which was supported by the centralised procurement of essential medicines and the Zero Mark-up policy. However, there was no significant improvement in the rational use of medicines and cost control so far.<sup>1</sup>



A child with upper respiratory infection is receiving antibiotics therapy through intravenous injection

### Key policy implications:



Provider-targeted and regular peer education on how to diagnose and treat URI correctly is important to improve prescribing practice.



Additional interventions need to be developed to tackle over-prescribing of antivirals and glucocorticoids.



To reduce antibiotic prescription for childhood URIs, the most effective interventions involve clinicians and parents.



A health systems approach is urgently needed. This includes:

- stopping hospitals' global budgets being tied to their previous year's budgets to encourage cost reductions;
- ensuring strong leadership on combating anti-microbial resistance (AMR);
- establishing an AMR audit and reporting system; and
- raising AMR awareness.



### Findings on antibiotics prescribing rate in township hospitals

Township hospital has the highest antibiotics prescribing rate (APR), almost two times higher than that in county hospital and village clinics;<sup>2</sup>

### Policy implications

Further research should be conducted to find out the reasons behind this issue.



### Findings on systematic reviews regarding interventions on childhood URIs

1. Interventions that targeted both clinicians and parents for up to 3 months' duration, particularly training on doctor-patient communication skills, showed better effects than individual interventions;<sup>3</sup>
2. APR feedback and updated guidelines were effective in reducing APR for childhood URIs;<sup>3</sup>

### Policy implications

1. Further training for clinicians is required on clinical skills and their communication with patients.
2. Improved communication between clinicians and parents is an essential part of antibiotic stewardship for childhood URIs.



### Findings on the antibiotics prescription rate and other medicine prescriptions

1. The antibiotic prescription rate in the intervention arm dropped from 82% to 40%, while the prescription rate in the control arm decreased from 75% to 70%;<sup>4</sup>
2. Large variation in APR changes between baseline and endpoint across the trial clusters;<sup>4</sup>
3. A minor increase in prescribing of traditional Chinese medicine in the intervention arm;<sup>4</sup>
4. High prescription rates for antivirals (30-50%) and glucocorticoids (20%);<sup>4</sup>

### Policy implications

1. Reinforcing the stewardship on the peer review meetings is critical to change antibiotics prescribing behaviours.
2. Traditional Chinese medicine may be a substitute for antibiotics to reassure patients, and/or as a compensation for hospital revenues lost due to reduced antibiotics prescribing.
3. Additional interventions need to be developed to tackle over prescribing of antivirals and glucocorticoids.

#### References:

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03/17

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