Antibiotics prescribed by health care workers for children under 5 years with respiratory symptoms in rural areas in Kyrgyz Republic. A FRESH AIR study.

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Irrational use of antibiotics is a serious problem in Kyrgyzstan and internationally.

The use of antibiotics for the treatment of viral infections, such as influenza promotes the emergence of resistant strains of bacteria.

In 2014, the Kyrgyz Ministry of Health issued an order limiting the selling of antibiotics by pharmacists without prescription. However, this decision is not being adhered to.

The aim of this study was to describe how often antibiotic therapy is prescribed for viral upper respiratory tract infections in rural areas of Kyrgyzstan among children under 5 years.

Methods

The study was conducted in health clinics in rural areas of Kyrgyzstan. We screened 494 children between 2 to 59 months who consecutively came to medical centers. Of these, we included 232 children with cough and/or breathing difficulties.

We observed the consultations of these children by a medical worker - a family medicine doctor, a feldsher (medical assistant) or a nurse. We recorded the diagnosis given and what treatment was prescribed.

Results

We screened 494 children. We included 232 (47%) children in the study. Of these, most were diagnosed with a viral infection, and 114 (49%) received antibiotics.

Table 1: Age and gender of children included (N = 232)	
Gender:	%
Female	52,0
Male	48,0
Age:	
Up to 6 months	15,8
6 to 12 months	13,0
12 to 59 months	71,2

Table 2: Presenting symptoms and diagnoses assigned to children included (N = 232)	
Presenting symptoms:	%
Cough	100
Difficulty breathing	5,0
Fever	33,1
Diagnosis:	
Viral infections	72,7
Common cold	5,6
Bronchitis	18,1
Pneumonia	1,2
Other	2,4

Discussion

Irrational use of antibiotics could be because lack of knowledge regarding resistance to antibiotics is widespread. During the data collection we discovered that many parents themselves administered antibiotics to their children, without examination and consultation of a doctor. Unfortunately we did not document it because we did not anticipate it. This could explain why some health care workers decided to continued antibiotics therapy for a viral infection.

Conclusion

Overall, the study found widespread irrational use of antibiotics.

This study indicates the need for:

Training of primary health care workers in rural areas of Kyrgyzstan on the indication of the prescription of antibacterial medicine. Development of clinical protocols on the use of antibacterial medicines for children with respiratory symptoms. To conduct educational work among the population and parents. Teaching materials for parents, showing the outcome of self-treatment at home and the uncontrolled use of antibacterial drugs. Ministry of Health should continue to work to stop the sale of antibiotics without prescription.