

## Applied Clinical Research/Implementation Science

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### **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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### Applied Clinical Research/Implementation Science Results Abstract

**Aim:** 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 issuance of prescription antibiotics for pharmacists. However, this decision is not being adhered to. The aim of this study is to show how often antibiotic therapy is administered unjustified for colds and upper respiratory tract infections in rural areas among children under 5 years.

**METHODS:** The study was conducted in health clinics in rural areas of Kyrgyzstan. Children aged 2 to 59 months presenting with coughing and/or difficult breathing were included. The consultations were observed and we recorded the diagnosis given and what treatment was prescribed as well as the information provided to patient families by the attending family medicine physician, paramedic or nurse. After 5 days, the children's parents were called to ascertain what information they had received: Whether the child is sick still, whether there had been repeated consultation and whether the child was hospitalized.

**RESULTS:** In total, 494 children were screened. Of these, 232 fulfilled the inclusion criteria and were enrolled. All were diagnosed with ARVI. Of them, 49% were prescribed the following antibiotics: 86.2% amoxicillin, 8.3% ampicillin, 0.9% cephalosporins, 3.7% macrolides, 0.9% aminoglycosides, re-consultation 3.9%, hospitalization 1.3%.

**CONCLUSION:** Overall, the study found widespread irrational use of antibiotics and indications. Lack of knowledge regarding resistance to antibiotics has been widespread. Also, the study showed that many parents themselves administered uncontrolled antibiotics to their children.

Note: The data analysis is preliminary, and results may be subject to change.

### Declaration of Interest

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