

## *A study of antibiotic prescribing practices and the effectiveness of educational intervention program in improving them among pediatricians*

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### *Abstract*

**Objective:** To study the antibiotic prescribing practices of pediatrics residents and to measure the effectiveness of a structured educational intervention program on their empirical antibiotic prescribing practices.

**Methodology:** It is a time interrupted, non randomized trial conducted from November 2017 to march 2019 in Kalawati Saran Children's Hospital, a tertiary care center in India. 200 children aged between 0-18 admitted with infectious illnesses were randomly selected and their antibiotic prescriptions at admission, adherence of prescriptions to national guidelines and the course during hospital stay was noted. A fish bone analysis for cause of not following guidelines was done. An antibiotic policy was prepared and disseminated to all the residents through seminars, posters and cellphone friendly documents. The change in prescribing patterns and the course of the child's illness in hospital was observed by taking 50 cases each in the 1, 2, 3 and 6 months each after the intervention.

**Results:** The commonest reason for not following antibiotic guidelines was found to be subjective variation in how each resident perceives the severity of sickness of a child and that the guidelines were not easily accessible. The adherence of empirical antibiotic prescriptions was 59% before intervention which improved to 72% in the first month, 90% in the second month, 86% and 78% in the third and sixth month respectively ( $p=0.01$ ). The children in non adherent group were more likely than the children in adherent group to have their antibiotics changed during the course of their treatment ( $p=0.03$ ). There was no significant difference in duration of stay and the outcome in the adherent and non-adherent group.

**Conclusion:** Quality improvement interventions can lead to appropriate use of antibiotics in hospitalized children with no negative consequences and prevents antibiotic resistance.



### *Biography:*

Kushala completed her MBBS from Bangalore Medical College in the year 2016. She joined her Postgraduation in Lady Hardinge Medical College by clearing one of the tough competitive exam in India. She is currently in her final year of her postgraduation and has received gold medal in Pediatrics for best thesis during Postgraduation. She has done a lot of work in Quality improvement and antibiotic stewardship, which is the need of the hour through out the world.

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