Prevalence of XDR-Salmonella typhi in Patients with Enteric Fever in a pediatric emergency of a public sector Hospital in Sindh.

Introduction:

In Pakistan, extensive drug-resistant (XDR) S.Typhi strain has emerged that is resistant to all recommended antibiotics, including third-generation cephalosporins. Pakistan Health Authorities documented the outbreak of XDR S. Typhi from 2016 to 2018 in the province of Sindh, citing 5,274 cases of XDR S.Typhi out of 8,188 cases of Enteric fever. Poor Sanitation, Contaminated water supply and poor personal hygiene are the top most factor contributing to the spread. Increasing number of patients are reporting with persistence of symptoms and requiring prolong hospitalization along with increased healthcare cost. Childlife Foundation is a non-profit Organization facilitating seven pediatric emergencies (PED) throughout Sindh. We are receiving an overwhelming number of XDR S.Typhi require prolong stay in emergency department due to lack of space in pediatric ward.

Objective: To determine prevalence of XDR S.Typhi in patients diagnosed with Enteric fever in pediatric emergency of a public sector hospital in Sindh.

Methods: We have conducted a retrospective review of patients record over a period of 6 months (Jan 2019 to Jun 2019) in a pediatric emergency of a public sector hospital supported by Childlife foundation. All patient diagnosed as Enteric fever on clinical basis and their blood culture sent were enrolled in the study. We collected the data on MR#, age, presenting complaint, diagnosis and blood culture report. Percentages and frequencies were calculated for quantitative variables.

Results: 42772 patients visited the PED during the study period. 1157 (2.7%) patients diagnosed clinically as enteric fever. 246 (21%) patients had their blood culture done hence enrolled in the study. Mean age was 5 .5 years (4 years – 7 years). 70% were male. 42 (17%) blood culture showed growth of XDR S. Typhi while 149 (60%) showed no growth. 55 (22%) patient had growth of non-resistant S. Typhi and other organisms. The overall cost of treatment per patient per day is 15 USD.

Conclusion: Emerging outbreak of XDR S.Typhi is alarming in Sindh. Increasing number of patients are being diagnosed daily adding additional healthcare cost. There are insufficient facilities to care for these sick children leading to increase length of stay in pediatric emergencies.