

Intussusception surveillance after rotavirus vaccine introduction: preliminary findings from Burkina Faso, 2015 January – 2018 June

Tapsoba Wendlamita Toussaint, Centre Hospitalier Universitaire Pédiatrique Charles de Gaulle, Ouadougou, Burkina Faso Leshem Eyal Centers for Disease Control and Prevention, Ouédraogo Issa Ministry of Health, Burkina Faso, Aliabadi Negar Centers for Disease Control and Prevention, Belemilga Herman Centre Hospitalier Universitaire Souro SANOU, Ouédraogo Issa Centre Hospitalier Universitaire Pédiatrique Charles de Gaulle, Ouadougou, Burkina Faso, Mwenda Jason World Health Organization, Regional Office for Africa, Bandré Emile Centre Hospitalier Universitaire Souro SANOU, Koara Amadé Ludovic Centre Hospitalier Universitaire Pédiatrique Charles de Gaulle, Ouadougou, Burkina Faso, Tate Jacquelyne Centers for Disease Control and Prevention, Sawadogo Ali Centre Hospitalier Universitaire Pédiatrique Charles de Gaulle, Ouadougou, Burkina Faso, Wandaogo Albert Centre Hospitalier Universitaire Pédiatrique Charles de Gaulle, Ouadougou, Burkina Faso, Zampou Olivier Centre Hospitalier Universitaire Souro SANOU, Yabré Nassirou Centre Hospitalier Universitaire Souro SANOU, Ouattara Ma World Health Organization, Burkina Faso, Zaré Cyprien Centre Hospitalier Universitaire Souro SANOU, Ouédraogo Somkièta Modeste Francis Centre Hospitalier Universitaire Pédiatrique Charles de Gaulle, Ouadougou, Burkina Faso, Nikièma Moumouni Ministry of Health, Burkina Faso

Background

Intussusception (IS) is a rare, potentially fatal condition that has been associated with rotavirus vaccine receipt in some settings. Burkina Faso introduced pentavalent rotavirus vaccine (RV5) in October 2013. We present preliminary findings from IS surveillance in Burkina Faso.

Methods

Active prospective surveillance was established at two university hospitals, Charles de Gaulle in Ouagadougou and Souro Sanou in Bobo-Dioulasso in January 2015 and January 2016, respectively. Infants aged <12 months with confirmed IS using Brighton level 1 criteria were enrolled. Demographic and clinical information was obtained. Confirmation of RV5 status was obtained from vaccine cards or vaccine clinic registers. All children aged <8 months at the time of IS diagnosis were followed up at 8 months of age.

Results

Between January 2015 and June 2018, 89 cases of IS were identified. The median age of patients was 7 months. Fifty-seven (64%) were male. Two cases were confirmed by ultrasound and treated by hydrostatic reduction under ultrasound guidance with success in one case. Surgery confirmed the diagnosis and was the treatment modality in the remaining 88 (98.9%) patients, with 36 (40.4%) requiring resection. Fifteen patients (16.8%) died. Seventy (78.6%) patients received a complete 3-dose RV5 series, 9 (10.1%) received 2 doses, 7 (7.9%) received 1 dose and 3 (3.4%) were unvaccinated. IS was diagnosed in the first week after the last received dose in 1 patient (1.1%), after 2-4 weeks in 14 (15.7%) patients, and after 4 weeks in 71 (79.8%). Sixty-one patients (68.5%) were <8 months of age at diagnosis and among them, 12 (13.5%) died in the immediate post-operative period and 49 (55.1%) were followed-up and recovered without further episodes of IS.

Conclusions

We describe the initial findings from IS surveillance in Burkina Faso. Vigilant surveillance continues and will provide the rigorous data needed to determine the safety of RV5 with respect to IS in the African setting.