## LETTER TO THE EDITOR UPDATED RECOMMENDATIONS OF RCOG ON PREVENTION OF EARLY ONSET NEONATAL GROUP B STREPTOCOCCUS INFECTION

## Fizzah Arif

Aga Khan University and Hospital, Karachi-Pakistan

Dear Editor,

Period of first 28 days of life is the most crucial as there are increased risks of paediatric morbidity and mortality arising due to birth related complications. Globally, 45% of under 5 childhood mortality belongs to neonatal group and this can project to 52% by 2030. Moreover, up to half of neonatal deaths occur at first day whereas 75% die within the first week of life. Prematurity and infections are important factors behind neonatal deaths.<sup>1</sup>

Among infections, group B streptococcus (GBS) or Streptococcus agalactiae is a known culprit to cause severe early onset infection in neonatal period. It is a gram-positive bacterium that harbours gastrointestinal and genital tracts.<sup>2</sup> New-borns are infected during vaginal delivery when passing through birth canal of carrier mothers.<sup>3</sup> Preterm labour, prolong rupture of membrane and maternal pyrexia are few of the risk factors of early onset neonatal group B streptococcal (GBS) infection.<sup>2</sup> Neonatal deaths due to early-onset group B streptococcal (EOGBS) infection is eight times higher among premature new-borns than term babies.<sup>4</sup> Updated guidelines released by the Royal College of Obstetricians and Gynaecologists (RCOG) on September 13, 2017 is targeted to prevent earlyonset group B streptococcal (GBS) infections in newborns of mothers with the risks mentioned earlier. Royal College of Obstetricians and Gynaecologists (RCOG) recommends intrapartum intravenous antibiotics (benzylpenicillin) in women with preterm labour before 37 weeks of gestation, those with positive urine test for group B streptococcal (GBS) in current pregnancy, women with fever (more than or equal to 38°C) during labour, history of group B streptococcal (GBS) infection in previous baby and carriers of group B streptococcal (GBS) with either term or preterm rupture of membrane. However, if patient is a carrier with intact membrane and is planned to undergo caesarean section (C-section) then there is no need of intravenous antibiotics. Universal group B streptococcal (GBS) screening of all pregnant women should not be done routinely

until there are any indications because it normally colonizes female genital tract during pregnancy and if required then screening should be performed at 35–37 weeks of pregnancy. Cephalosporin or Vancomycin are given to women allergic to penicillin.<sup>5</sup> Antepartum oral antibiotics and birth canal washes are not found to be effective strategy to reduce vertical transmission of infection.<sup>3</sup> Cases with known GBS colonization when refuses antibiotic prophylaxis, should be asked to closely monitor baby for 12 hours and if baby develops sign of group B streptococcal (GBS) infection, then treatment with penicillin and gentamicin should be commenced within the first hour of presentation.<sup>5</sup>

Decline in neonatal mortality has been observed to be at slower pace among low and middleincome countries in the past few years and it is expected from 2016–2030 that nearly 50% of 69 million deaths will comprise of those who died within first 28 days of life.<sup>1</sup> Adequate awareness and education regarding group B streptococcal (GBS) and its possible outcomes should be provided to mother during antenatal follow ups and implementation of these updated recommendations should be practiced as a routine by obstetricians as it will help in reducing early onset neonatal infections and neonatal mortality rate, worldwide.

## REFERENCES

- WHO. Report, Children: reducing mortality. Updated on September 2016 [Internet]. [cited 2017 Sep 29]. Available from: http://www.who.int/mediacentre/factsheets/fs178/en/
- Al-Kadri HM, Bamuhair SS, Johani SMA, Al-Buriki NA, Tamim HM. Maternal and neonatal risk factors for earlyonset group B streptococcal disease: a case control study. Int J Womens Health 2013;5:729–35.
- GBS, About GBS Infection. Group B Strep, CDC [Internet]. 2017 [cited 2017 Sep 29]. Available from: https://www.cdc.gov/groupbstrep/about/index.html
- Phares CR, Lynfield R, Farley MM, Mohle-Boetani J, Harrison LH, Petit S, *et al.* Epidemiology of Invasive Group B Streptococcal Disease in the United States, 1999-2005. JAMA 2008;299(17):2056–65.
- Hughes RG, Brocklehurst P, Steer PJ, Heath P. Prevention of early-onset neonatal group B streptococcal disease. Greentop Guideline No. 36. BJOG 2017;124(12):e280–305.

## **Address for Correspondence:**

Fizza Arif: Aga Khan University and Hospital, Stadium Road, Karachi-Pakistan Email: aarif.fizzah@gmail.com