

## Prophylactic antibiotic use in maternity units

In their large, randomised controlled trial on prophylactic antibiotics for prevention of maternal infection following operative vaginal delivery, Knight and colleagues<sup>1</sup> conclude that a change in WHO guidelines is warranted, given the reduction demonstrated in the primary outcome of confirmed or suspected infection in the 6 weeks after birth. A global recommendation for prophylactic antibiotics following operative vaginal delivery is however, not without risk.

In obstetrics, there are examples where interventions from high-income settings have caused harm when improperly implemented in low- and middle-income contexts.<sup>2</sup> Whilst antibiotics unquestionably save lives in childbirth, it is crucial that improvements in infection prevention and control (IPC) and water, sanitation and hygiene (WASH) are simultaneously prioritised.<sup>3</sup> Even in this UK-based trial, it is possible that the surprisingly high incidence of postnatal infections observed in both groups could have been improved with better postnatal IPC and WASH practices.

Estimates suggest up to 40% of women giving birth receive antibiotics pre-delivery<sup>4</sup> but in a study from India and Bangladesh up to 80% of maternity units routinely administered antibiotics to all labouring women.<sup>5</sup> With virtually no routinely collected data on antimicrobial use in maternity units globally an increase in the use of prophylactic antibiotics must be carefully monitored. Evidence-based strategies to reduce deaths from maternal sepsis must emphasise the importance of general measures to prevent infections in all women during and after birth, as well as capture the long-term efficacy of prophylactic antibiotic use in different settings, including the emergence of antimicrobial resistance.

### References:

1. Knight M, Chiochia V, Partlett C et al. Prophylactic antibiotics in the prevention of infection after operative vaginal delivery (ANODE): a multicentre randomised controlled trial. *Lancet*. 2019; (published online May 13.) [http://dx.doi.org/10.1016/S0140-6736\(19\)30773-1](http://dx.doi.org/10.1016/S0140-6736(19)30773-1)
2. Althabe F, Belizán JM, McClure EM et al. A population-based, multifaceted strategy to implement antenatal corticosteroid treatment versus standard care for the reduction of neonatal mortality due to preterm birth in low-income and middle-income countries: the ACT cluster-randomised trial. *Lancet*. 2015; 385: 629-639
3. Graham WJ, Morrison E, Dancer S, et al. What are the threats from antimicrobial resistance for maternity units in low- and middle-income countries? *Glob Health Action*. 2016;9:33381
4. Ledger W.J., Blaser M.J. Are we using too many antibiotics during pregnancy? *BJOG*. 2013; 120:1450–1452.
5. Afsana K, Banu M, Cross S, Mavalankar D, Rahman A, Roy T, et al. Clean delivery: a situation analysis of hygiene on maternity wards in India and Bangladesh. UK: IIPHG, BRAC, the University of Aberdeen & The Soapbox Collaborative; 2014.