Topic: Post-partum haemorrhage stakeholder webinar: Alternative routes for the administration of tranexamic acid (TXA) in post-partum haemorrhage (PPH).
Apr 26, 2021 13:00 London [14:00 Geneva]

Objective: Following the Woman trial, IV tranexamic acid became the first drug proven to reduce PPH deaths in a randomised trial. Early treatment cut PPH deaths by one third, also reducing the need for surgery to control bleeding. However, in LMICs many women give birth at home. Health workers attend most birth but many are not trained to give IV drugs. In response to the WHO call for alternative routes of administration, with the Bill & Melinda Gates Foundation and Wellcome, LSHTM began a programme of pharmacology research to find different routes. This webinar shared our results, and those of other research teams, with PPH stakeholder groups searching for better tools to treat PPH.

Dr Olufemi Oladapo, Unit Head, Maternal and Perinatal Health WHO chaired the meeting.

A brief summary of each presentation is shown below:

Why we need alternative routes. Rizwana Chaudhri of Shifa Tameer-e-Millat University highlighted the public health importance of finding alternative routes of administering TXA to women with PPH. Women die soon after bleeding onset and early TXA treatment is most effective. In Pakistan, about 40% of women deliver outside hospital and so easier ways of giving TXA that can put this lifesaving treatment in the hands of nurses and midwives are critical.

How much TXA is needed? What the literature says. Ian Roberts from LSHTM presented results from a systematic review of pharmacodynamics studies. He concluded that a plasma TXA concentration between 10 and 15mg/l resulted in substantial inhibition of fibrinolysis, with concentrations between 5 and 10mg/l being partly inhibitory.

How much TXA? Results from pregnant women. Homa Ahmadzia from George Washington University considered the optimal use of intravenous TXA for PPH prevention in pregnant women. She concluded that less than 1-gram TXA can be used to achieve PK/PD targets for PPH prevention when TXA was given at umbilical cord clamp but pointed out that further studies of IV and IM TXA prior to delivery are needed.

How much TXA? More results from pregnant women. David Faraoni from the University of Toronto presented results from PK-PD studies to define the concentration of TXA needed to inhibit fibrinolysis in pregnant women. He concluded that target plasma TXA concentrations are in the range 10-20 mg/L.

IV, IM, Oral TXA: Results from healthy volunteers. Stanislas Grassin-Delyle from the Université de Versailles Saint-Quentin presented PK data for IV, oral and IM TXA administration in healthy volunteers. Based on the PK profiles obtained he concluded that IM TXA due to its rapid and complete absorption offers an efficient and safe route for pre-hospital or emergency TXA administration.

Oral TXA in post-partum women: Results from Sri Lanka. Kopalasuntharam Muhunthan from the University of Jaffna presented data on plasma concentrations of TXA in postpartum women after oral Administration. He concluded that a TXA concentration of 5mg/L could be achieved within one hour following oral administration of 2g TXA.

IV, IM and oral TXA in CS: early results from Pakistan and Zambia: Haleema Shakur-Still from LSHTM presented early results from a PK-PD study in women giving birth by Caesarean Section. The full results will be available later this year.

IM TXA in patients with shock: Ian Roberts from LSHTM presented data from a study of IM TXA in bleeding trauma patients. The data showed that TXA is well tolerated and rapidly absorbed after IM administration even in shocked patients.