A new "Tranexamic acid coated or eluted uterine balloon and co- attached cervical shutter in post-partum haemorrhage", is not merely a tamponade but more

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Described herein, a patent pending new combatant in armamentarium against worldwide women life threatening Postpartum Hemorrhage(PPH). It has been entitled "Tranexamic Acid (TXA)- Coated or Eluted Uterine Balloon and its co attached cervical shutter or" Barricade ". It enforces the tamponade effect of currently used non medicated uterine balloons with an additional inbuilt mechanism of local steady release of the antibrinolytic TXA into uterine cavity that has been evidenced to contribute to haemostasis in cases of PPH. The invention ushers a new era of utilizing the uterine balloon surface coat as a delivery vehicle for TXA. This can be achieved via different techniques including and not limited to matrix coating or eluting of nanoparticulate TXA in the outermost layer of the balloon. TXA coated or eluted balloon replenish non medicated balloons with a therapeutic modality of the TXA related anti-fibrinolysis especially in hemorrhages known to be associated with coagulopathy. This potential for topical application of TXA rather than systemic administration of the drug avails the merit of avoiding TXA related theoretical risk of thromboembolism. Moreover, drug coating of the balloon surface is not limited to TXA, but it may utilize other haemostatics and coagulants like thrombin, fibrinogen and activated F11v as well. Additionally, this invention offers an innovative solution for the technical difficulty of retaining the released drug inside an open hollow uterine cavity and its fast escape through the cervix by the co attached cervical shutter or “Barricade". The latter was designed to provide sustained residency and efficient drug transfer into the uterine cavity, thus contributing to a consistent and efficient TXA delivery at the site of action. Moreover, the cervical shutter exerts an additional function of extra counter pressure on the lower uterine segment which may be the bleeding site in cases of abnormally adherent placenta centers to become trauma- informed that would help this recognition.

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