

High Impact Trials

Tranexamic acid for bleeding

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LSHTM CTU Global Health Trials Group

LONDON
SCHOOL of
HYGIENE
& TROPICAL
MEDICINE



Tranexamic Acid (TXA)

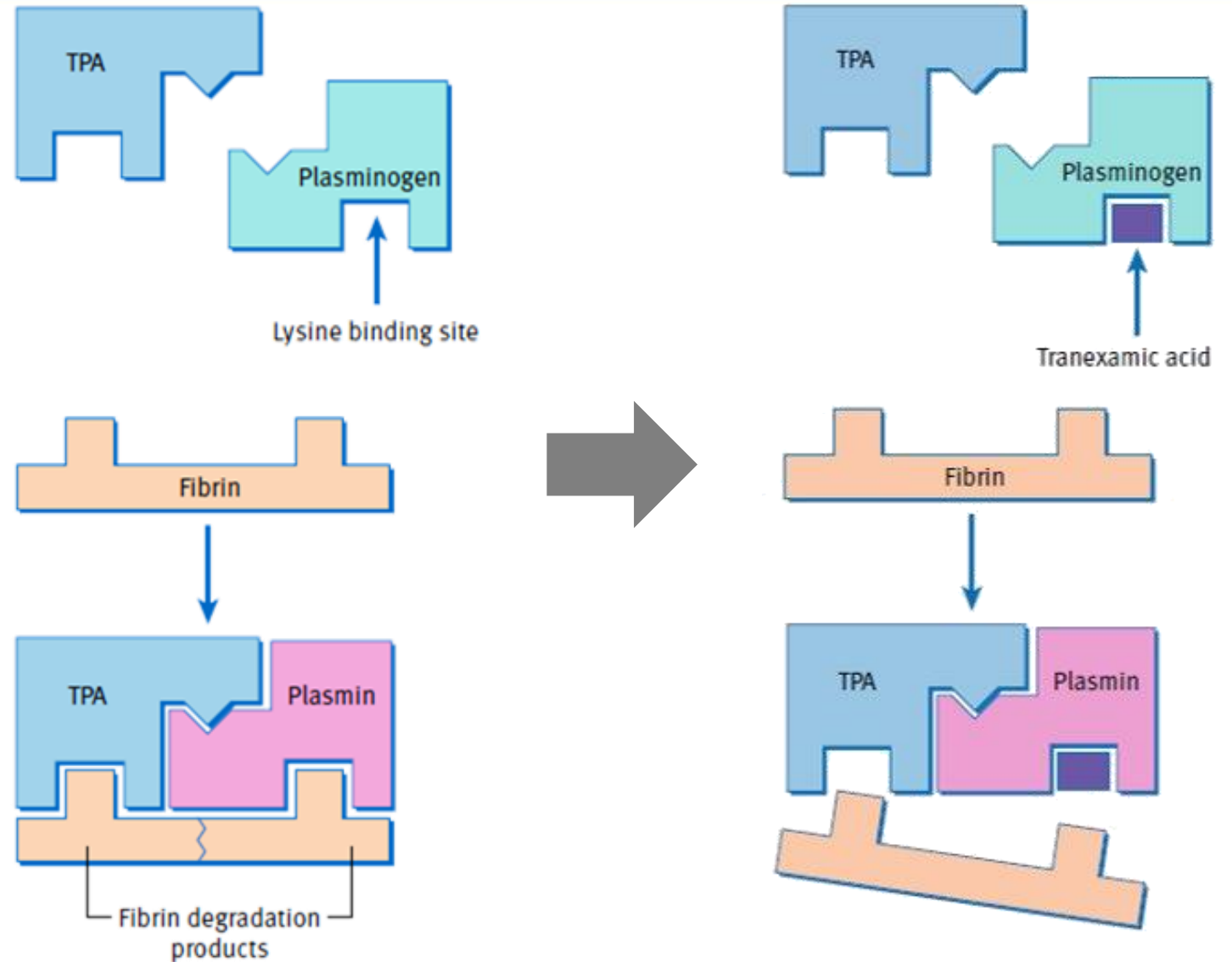
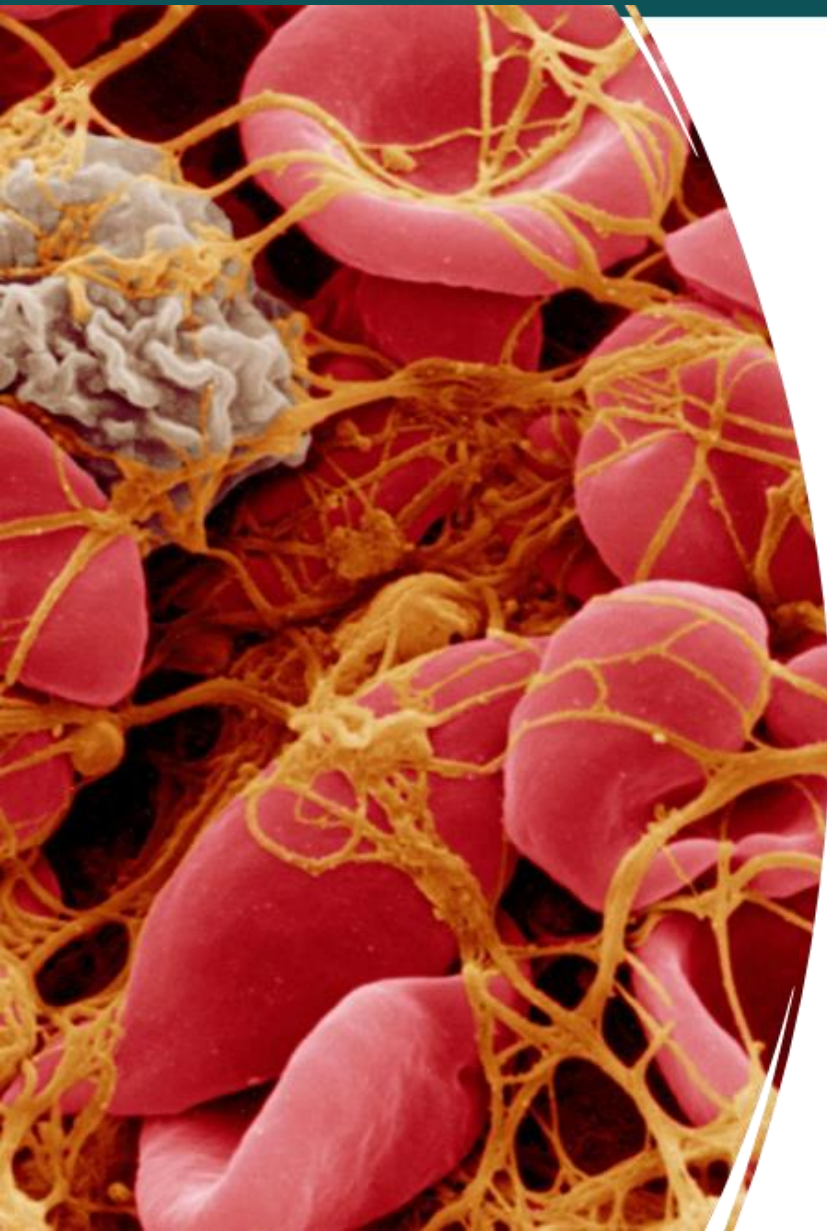


Invented in Japan 1962

Utako and Shosuke Okamoto

Keio University

Bleeding and Fibrinolysis



Reduces blood loss



Surgery and trauma are similar



TXA for Trauma

CRASH₂

Clinical Randomisation of an
Antifibrinolytic in Significant Haemorrhage 

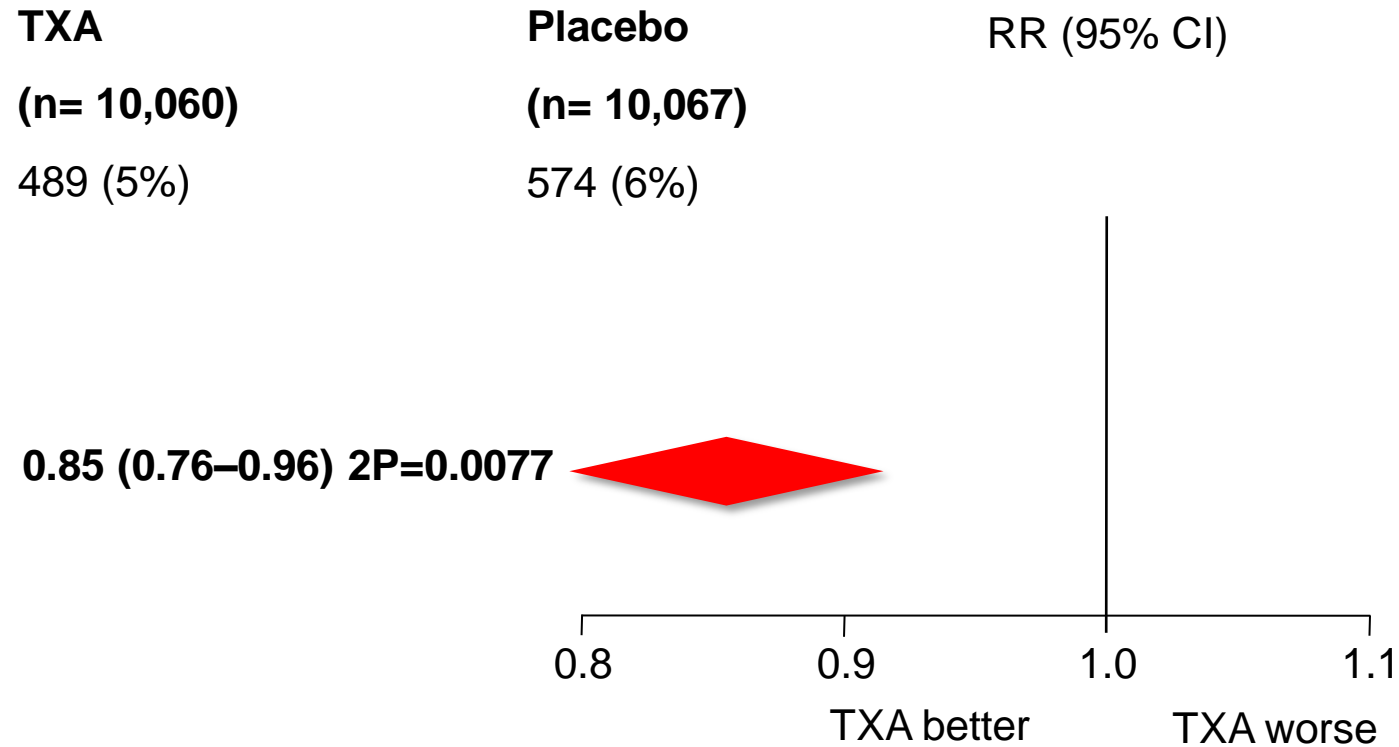
20,211 patients

274 Hospitals

40 countries

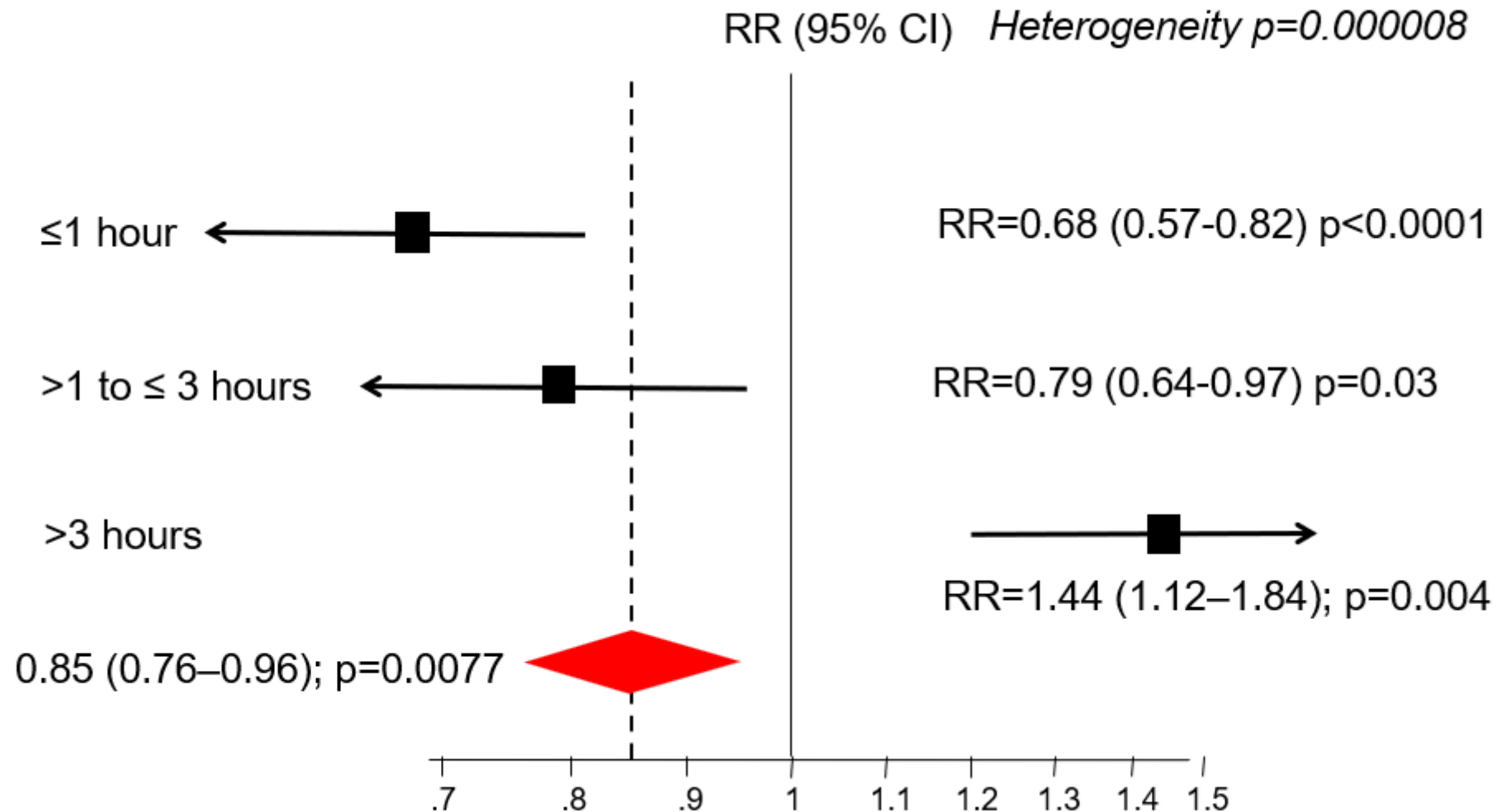


TXA reduces death from bleeding after trauma



No increase in vascular occlusive events RR= 0.84 (0.68 -1.02) p=0.084

Early TXA treatment is essential in trauma

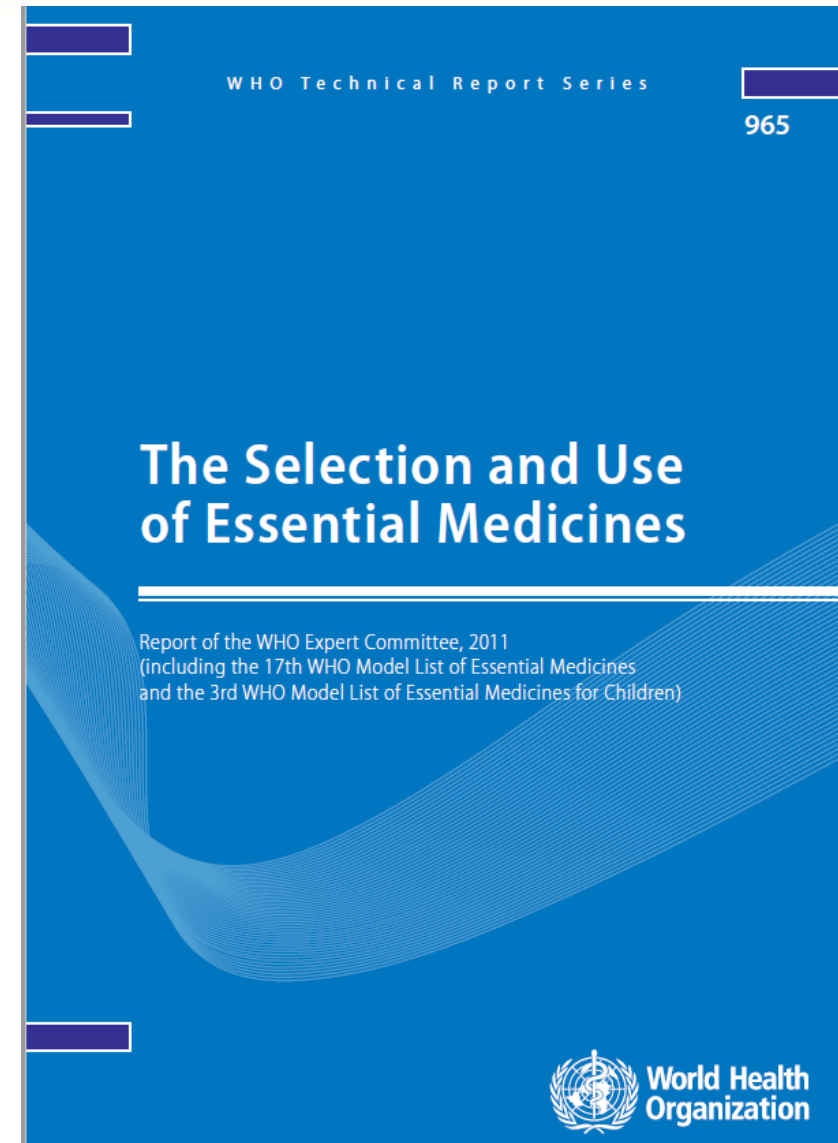


Disseminating results

Effects of tranexamic acid on death, vascular occlusive events, and blood transfusion in trauma patients with significant haemorrhage (CRASH-2): a randomised, placebo-controlled trial

CRASH-2 trial collaborators*

"Tranexamic acid safely reduced the risk of death in bleeding trauma patients in this study. On the basis of these results, tranexamic acid should be considered for use in bleeding trauma patients"



Drug used to treat heavy periods could save lives of soldiers injured in battle

19 January 2011



**Military application of TXA in trauma
emergency resuscitation study proves TXA's
value**

By Ms Tiffany R Holloway (Army Medicine) January 24, 2012

TXA reduces death from bleeding after trauma




TXA reduces death from bleeding after trauma





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Life saving TXA

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Great news has just been published. Tranexamic acid (TXA) has been proven effective at reducing deaths from head injuries by up to 20%. This was from a large, international, randomised, placebo-controlled clinical trial, involving over 12,000 patients from 179 hospitals in 29 countries. RoadPeace represented patients on the clinical trial, which showed that:

Disseminating results

Newsletter of
NEUROTRAUMA SOCIETY OF INDIA
 (Published Quarterly and distributed free to members)

Vol. 8 No. 3 New Delhi April 2010



From the Secretary's Desk

Trauma Quality Improvement globally: Quality Improvement programmes are generally regarded as a major foundation of trauma systems in high-income countries. Quality Improvement is based on structured

CLINICAL TRIALS WHICH COULD ALTER THE CURRENT NEUROTRAUMA PRACTISE

CRASH 2 Recruitment is over- results awaited



Each year, worldwide, more than five million people die as a result of injuries and violence. Injuries and violence account for as many deaths as from HIV, malaria and tuberculosis combined. In India, about 700,000 people die each year from trauma and about 86,000 of these are due to haemorrhage.

E premtë 16 korrik 2010 USHTRIA INTER

Një studim që shpëton mijëra jetë

Intervistë me nënkolonel Dr. i Shkencave Mjekësore Fatos Olldash, drejtor i Qendrës Kombëtare të Traumës

Për gjatë një periudhe gati 5 vjeçare, një studim i përmasave ndërkombëtare i ka hapur rrugë përdorimit të një medikamenti në të sëmurët e traumatizuar me hemorragji ose në rrezik për hemorragji. Studimi ka filluar që në vitin 2005 dhe përfundoi në pjesën e parë të vitit 2010. Janë përfshirë në këtë studim mbi 20000 pacientë, të trajtuar në 274 spitale, nga 40 vende të botës. Bëhet fjalë për përdorimin e medikamentit Ac. Tranexamik. Për këtë studim dhe rezultatet që u konstatuan, Gazeta "Ushtria" bësoi me nënkolonel, Dr. i Shkencave Mjekësore Fatos Olldash, drejtor i Qendrës Kombëtare të Traumës dhe shef i shërbimit të Neurokirurgjisë në Spitalin Usharak. Vetë Dr. Olldashi ka qënë pjesëmarrës aktiv në këtë studim, duke përfshirë 115 pacientë gjatë periudhës së studimit.



Dr. Olldashi, ç'përfaqëson ky studim? Studimi CRASH-2 ka të bëjë sakrësisht me testimin e medikamentit AC Tranexamik, në të sëmurët e traumatizuar me hemorragji ose në rrezik hemorragjesh. Bëhet fjalë për personë. Studimi përfundoi në maj të këtij viti dhe rezultatet e tij u publikuan zyrtarisht në revista The Lancet, në 15 qershor të këtij viti. Si u realizua studimi në QKTT? Studimi përfundoi nga Qendra në Londër, ku dërguat rregullisht tek ne Kite me preparate, të cilat u janë aplikuar të sëmurëve. Pas çdo aplikimi, ne më pas kemi duke kontrolluar dhe administruar rigorozisht rezultatet për çdo aplikant.

Traumas graves no serán fatales

Avance médico en el que participó el Hospital San Vicente, salva vidas.

AVANCE MÉDICO

Droga baja muerte por trauma severo

Descubren tratamiento que evita en 15% las hemorragias.

Tratamiento efectivo que será implementado

La frase "Esta investigación" a partir de marzo.

Un importante avance científico se presentó ayer en el Hospital San Vicente de Caracas. Los investigadores del Hospital San Vicente descubrieron un tratamiento que evita en 15% las hemorragias graves en pacientes con trauma severo. Este avance científico se presentó ayer en el Hospital San Vicente de Caracas. Los investigadores del Hospital San Vicente descubrieron un tratamiento que evita en 15% las hemorragias graves en pacientes con trauma severo. Este avance científico se presentó ayer en el Hospital San Vicente de Caracas. Los investigadores del Hospital San Vicente descubrieron un tratamiento que evita en 15% las hemorragias graves en pacientes con trauma severo.



2 ACTUALIDAD Lima, 19 de julio

Hasta 100 mil muertes a nivel mundial podrían evitarse

Una inyección puede salvar vida de miles de víctimas de accidentes

Miles de vidas podrían salvarse cada año si los pacientes con lesiones que les producen sangrados graves recibirían una droga barata, ampliamente disponible y fácil de administrar, que facilita la coagulación de la sangre.

Hasta 100,000 muertes a nivel mundial podrían prevenirse si el medicamento se usa de manera



significativo, o estuvieran en riesgo de un sangrado significativo, y estuvieran dentro de las primeras horas de la lesión. Los pacientes fueron asignados en forma aleatoria a recibir una inyección de 1 gramo de ATX en forma inmediata al arribo en el hospital, seguido de 1 gramo de ATX por goteo durante 8 horas, o a recibir un placebo. Los investigadores estudiaron el número de muertes en

resultados de estudios de estadísticas de donde se piden los datos de la población, las estadísticas que se dan en todas las emergencias. Añadió que los datos de este estudio beneficiarían a la población de personas que sufren un impacto



Cost-Effectiveness Analysis of Administering Tranexamic Acid to Bleeding Trauma Patients Using Evidence from the CRASH-2 Trial

Carla Guerriero^{1*}, John Cairns¹, Pablo Perel², Haleema Shakur², Ian Roberts², on behalf of CRASH 2 trial collaborators

“Early administration of TXA to bleeding trauma patients is likely to be highly cost effective in low-, middle- and high-income settings”



TRANMAN: A Clot Stabiliser Can **Save the Lives** of Trauma Victims

#EDUCATIONAL



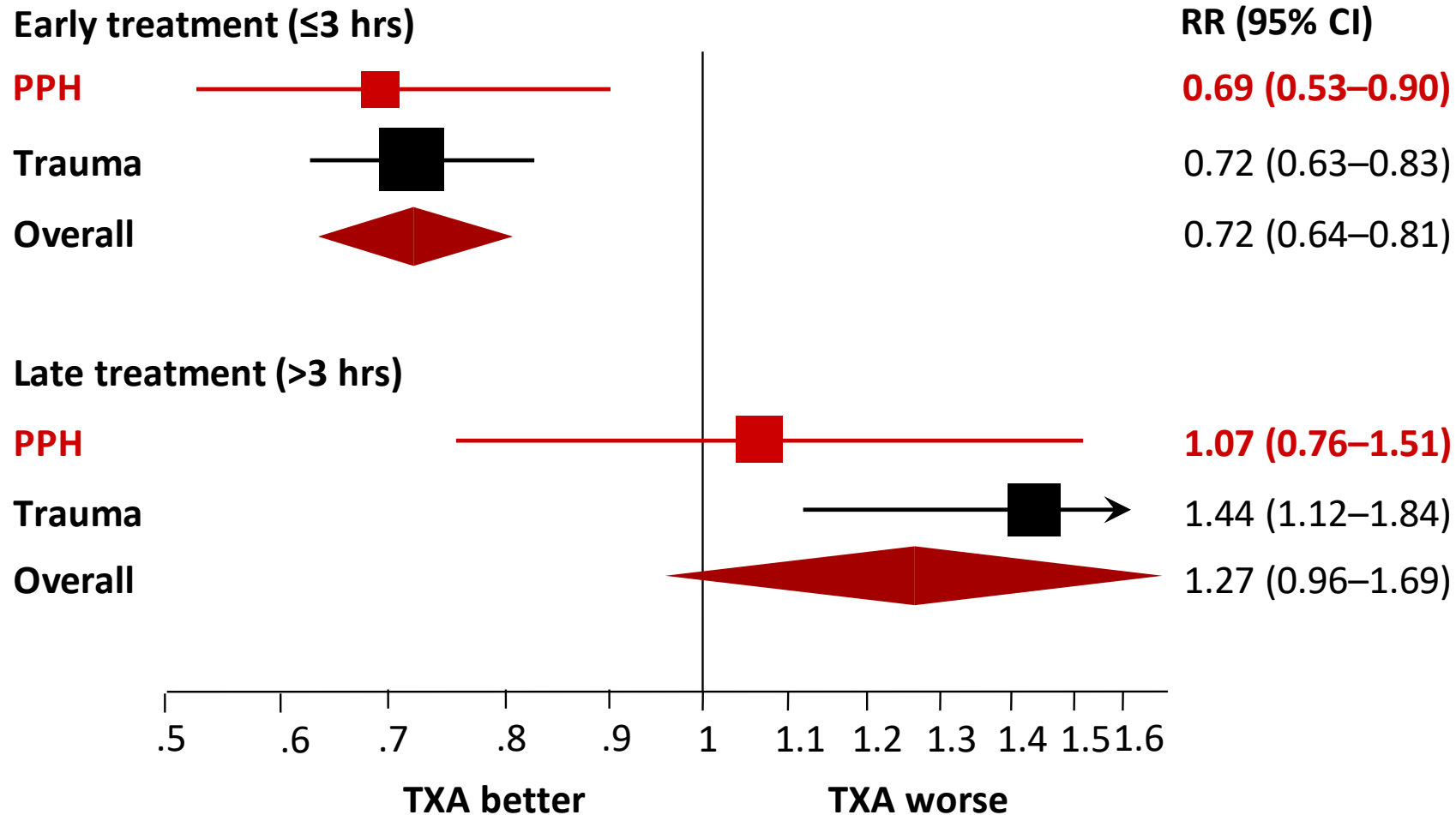
TXA for Postpartum Haemorrhage (PPH) treatment



20,060 patients
193 Hospitals
21 countries



Death due to bleeding in trauma and PPH



No increase in thromboembolic events RR= 0.88 (0.54 -1.43) p=0.60

Death due to bleeding in PPH



TRANEXAMIC ACID

A drug that stops bleeding

Results from the WOMAN trial



The drug could save

1/3

women who would otherwise
bleed to death after childbirth

An estimated **100,000** women die
from severe bleeding after giving birth every year



20,000 WOMEN
21 COUNTRIES
193 HOSPITALS



The drug reduced
the number of
women bleeding to
death after childbirth
by more than 30%



The drug reduced
the need for urgent
surgery to control
bleeding by more
than 35%

£2 (\$2.5)

The cost of tranexamic
acid in most countries



Tranexamic acid for treatment of women with post-partum haemorrhage in Nigeria and Pakistan: a cost-effectiveness analysis of data from the WOMAN trial

Bernadette Li, Alec Miners, Haleema Shakur, Ian Roberts, on behalf of the WOMAN Trial Collaborators

"Early treatment of post-partum haemorrhage with tranexamic acid is highly cost-effective in Nigeria and Pakistan and is likely to be cost-effective in countries in sub-Saharan Africa and southern Asia with a similar baseline risk of death due to bleeding".

TXA must be given early to save lives

Impact of treatment delay for severe bleeding

Immediate treatment



70%
improvement
in survival

For every
15 minute delay



10%
decrease in
survival benefit

After
3 hours



No benefit

Source: The Lancet (2017). Analysis of data for 40,000 trauma patients and women with severe bleeding after childbirth
Credit: Rebecca Robinson/LSHTM



Find out more at TXAcentral.org

Disseminating results



"The WHO recommends early use of intravenous tranexamic acid (TXA) within 3 hours of birth in addition to standard care for women with clinically diagnosed post partum haemorrhage"

Disseminating results



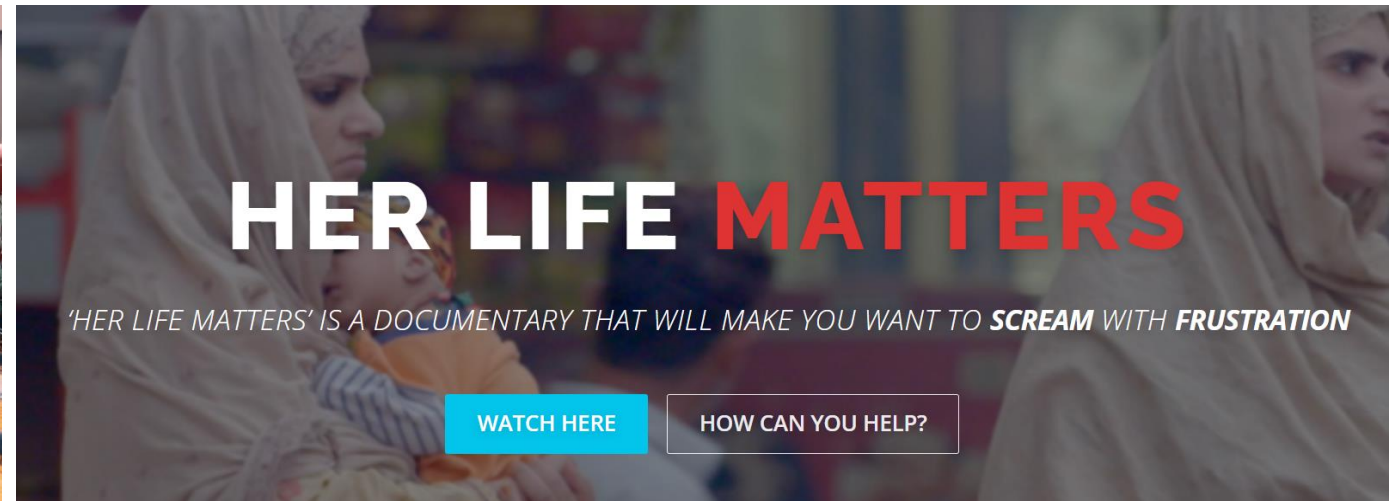
Disseminating results



The WOMAN
Trial: TXA for
the Treatment
of PPH

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HER LIFE MATTERS

'HER LIFE MATTERS' IS A DOCUMENTARY THAT WILL MAKE YOU WANT TO **SCREAM** WITH **FRUSTRATION**

[WATCH HERE](#) [HOW CAN YOU HELP?](#)

Disseminating results

If my Mum were alive
my education
would not have been
disrupted



Don't take my wife from me.



I can't live without my daughter



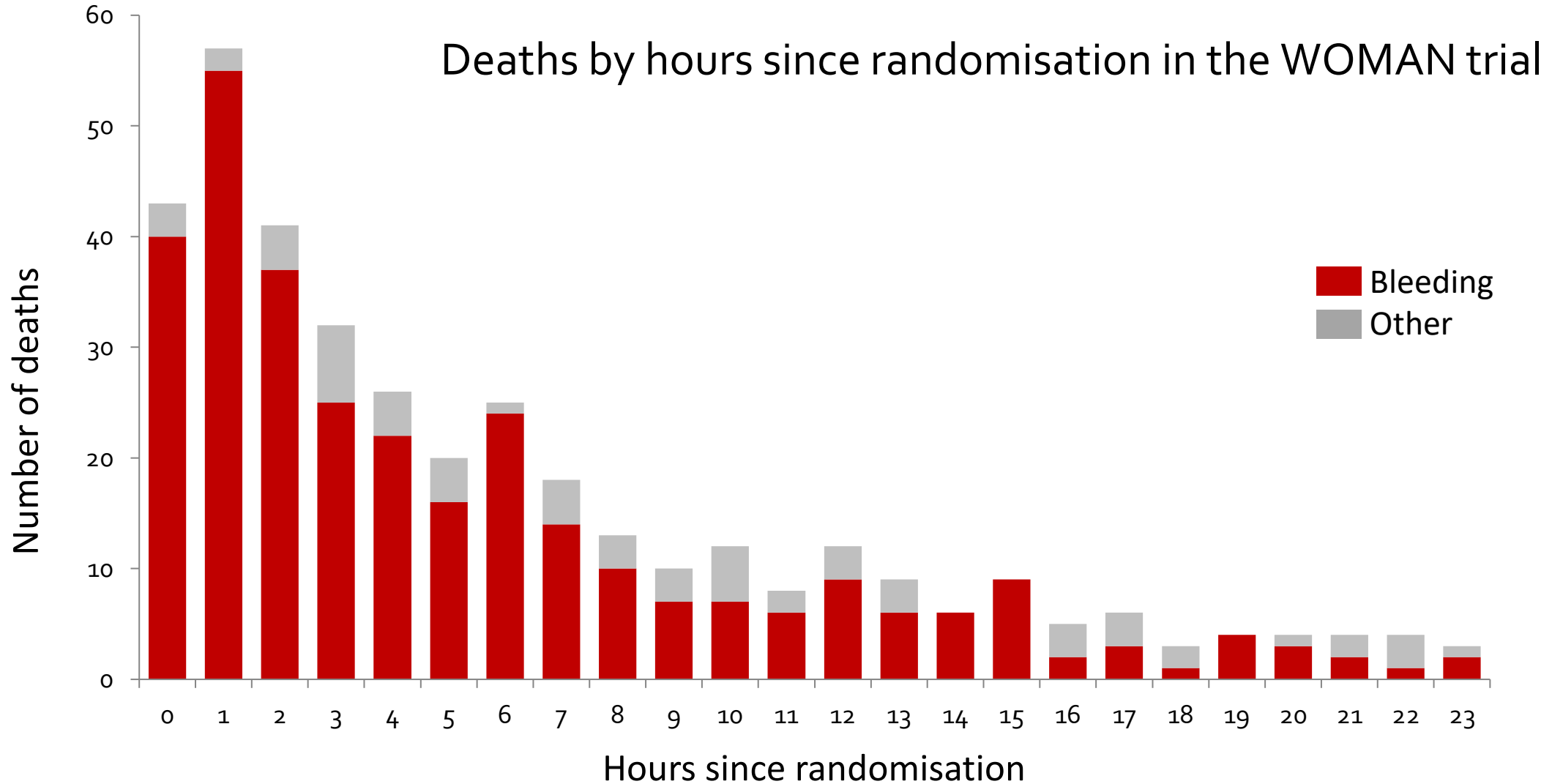
I just prayed to God, oh God
please save my life just for my daughter



The mood really did change as I started to lose
more and more blood



For some women treatment is too late



TXA for prevention of PPH

woman2

TXA for the prevention of PPH in women with moderate and severe anaemia

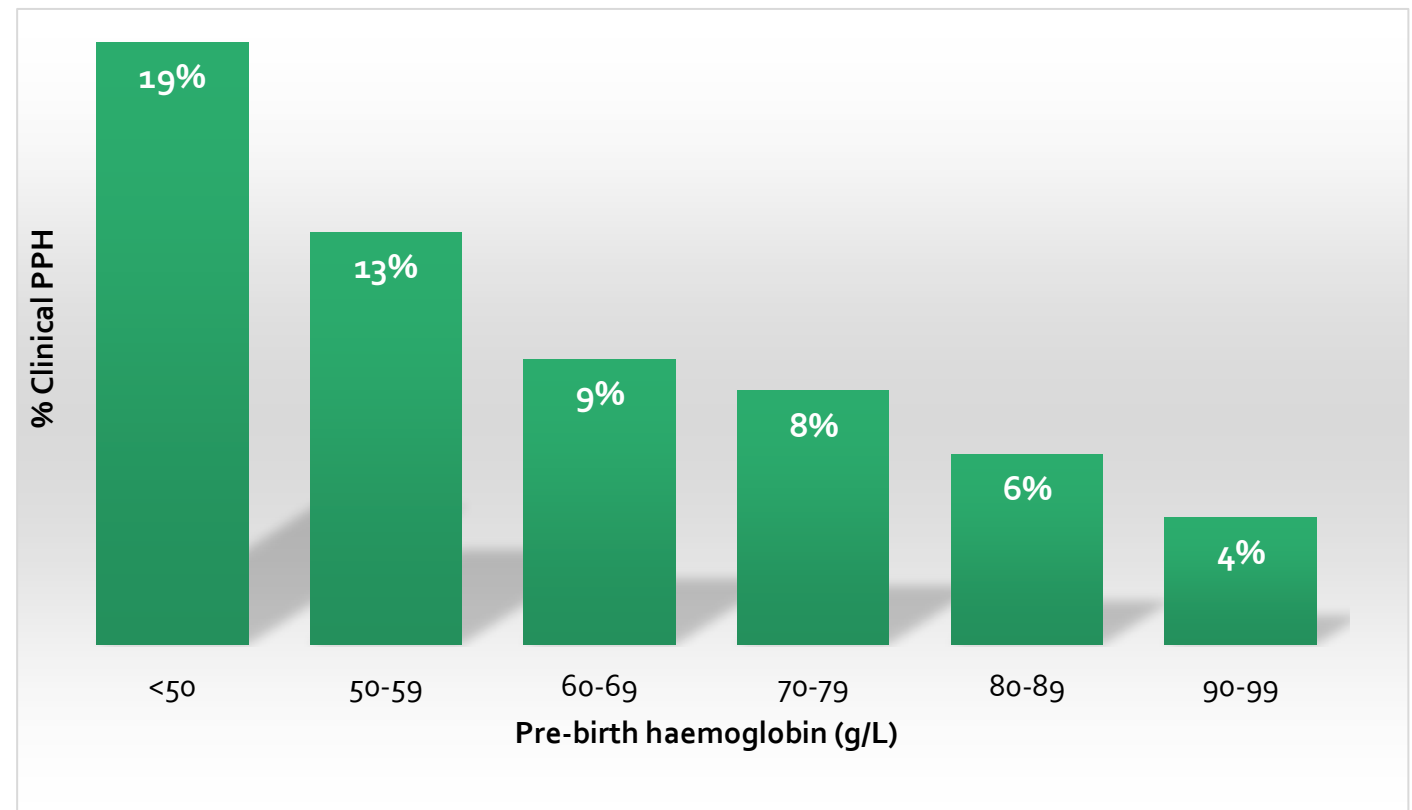
- 15,068 women randomised
- Results will be published in 2024



Maternal anaemia and PPH



- Cohort analysis of data from 10,500 participants
- Anaemia is strongly associated with postpartum haemorrhage and the risk of death or near miss.
- Urgent attention should be given to the prevention, diagnosis and treatment of anaemia in women of reproductive age.



Disseminating results

Roadmap to Combat
Postpartum
Haemorrhage



Together, we can help get back on track for ending maternal deaths.



Our work ▾ Our Members ▾ Events ▾ News ▾ Resources ▾

FIGO recommendations

- All health care providers become well versed in the factors that predispose to post-partum hemorrhage and patient groups at greatest risk, from preconception health care to pregnancy and childbirth.
- Anemia should be proactively managed with iron therapy, including consideration of intravenous infusion when moderate to severe.

Timely TXA treatment for PPH

im
w@man

IM or IV TXA for postpartum haemorrhage prevention

- Alternative routes for giving TXA
- Recruitment expected to start in 2024



Getting TXA where it is needed



Thank you to our amazing collaborators





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www.lshtm.ac.uk/research/centres-projects-groups/clinical-trials-unit

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