

# How to improve the effectiveness of ECV?

Joost Velzel MD, PhD candidate

## 'It was more painful than childbirth': Kim Kardashian reveals doctors manually turned baby from breech position during agonizing hospital procedure to avoid C-section

By DAILYMAIL.COM REPORTER

PUBLISHED: 18:06 GMT, 1 December 2015 | UPDATED: 09:18 GMT, 2 December 2015

## Kim Kardashian West's Baby Is No Longer Breech After 'Painful' Procedure

12/01/2015 AT 12:45 PM ET



Kardashian West added, "They don't give you any pain medication, and let me tell you: This was soooooo painful. Probably more painful than childbirth. BUT it worked!!!"

HollywoodLife *by Bonnie Fuller*

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### Kim Kardashian: It Was More Agonizing Than Childbirth To Turn Baby From Breech Position

Tue, December 1, 2015 3:13pm EDT by Chloe Meias 4 Comments

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HollywoodLife.com **INTERVIEW!**

Click For More Pics Of Kim

**Clarify best practice for tocolytic treatment**

**A network meta analysis**

**Routine implementation?**

# Proposed methods

Uterine relaxation

Pain relief

Amnioninfusion

Vibro-acoustic stimulation

Acupuncture

Moxibustion

# Tocolytics in ECV

## External Cephalic Version Tocolytic Necessary

ANDREW W. ROBERTSON, MD, JE  
PATRICK DUFF, MD, DAVID J. MA

British Journal of Obstetrics  
April 2000, Vol 107, pp. 562-5

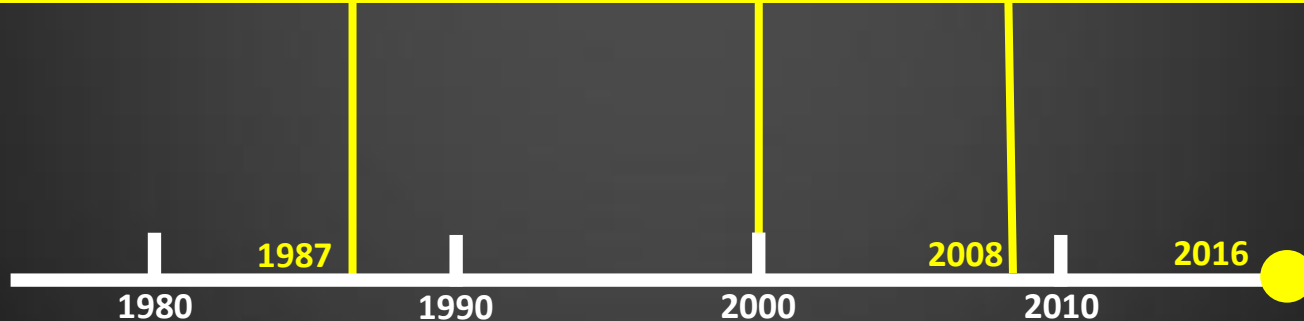
## Double-blind trinitra

\*Heba Yanny  
†K. Joanne  
‡Ray Fitzpatrick

## Nifedipine as a Uterine Relaxant for External Cephalic Version

*A Randomized Controlled Trial*

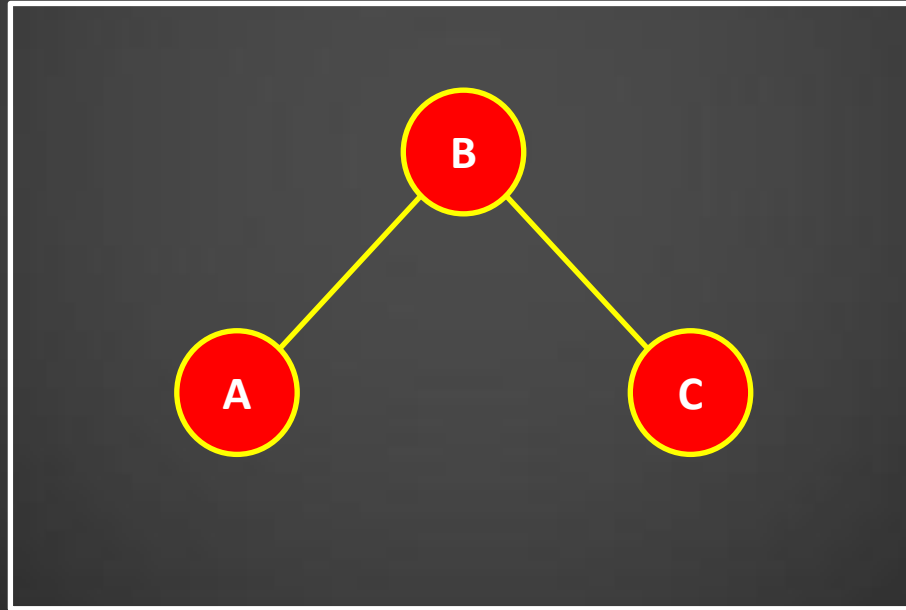
Marjolein Kok, MD, Joke M. Bais, MD, PhD, Jan M. van Lith, MD, PhD, Dimitri M. Papatsonis, MD, PhD,  
Gunilla Kleiverda, MD, PhD, Dahrs Hanny, Johannes P. Doornbos, MD, PhD, Ben W. Mol, MD, PhD,  
and Joris A. van der Post, MD, PhD



A total of 18 RCTs

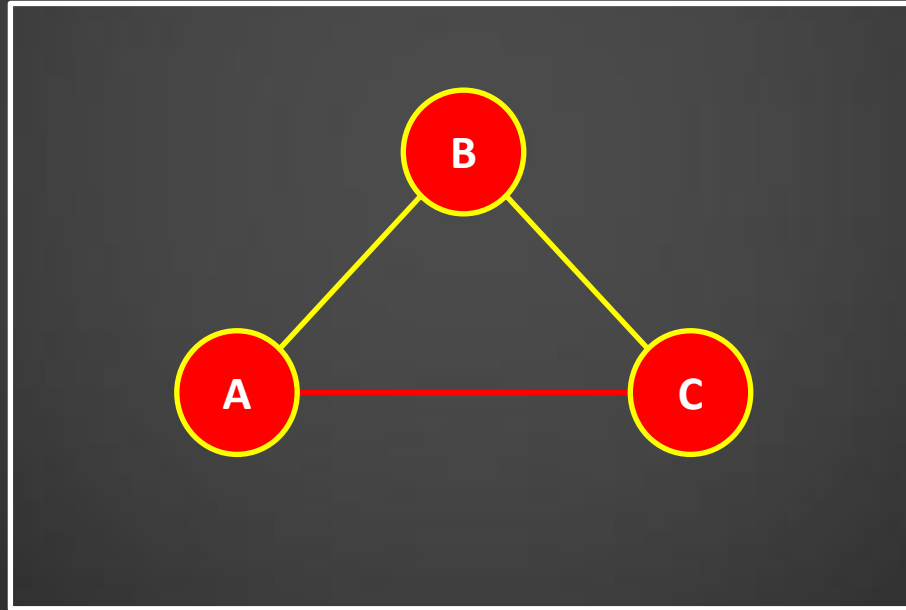
# A network meta-analysis?

meta-analyse



# A network meta-analysis?

Network meta-analyse



# Method

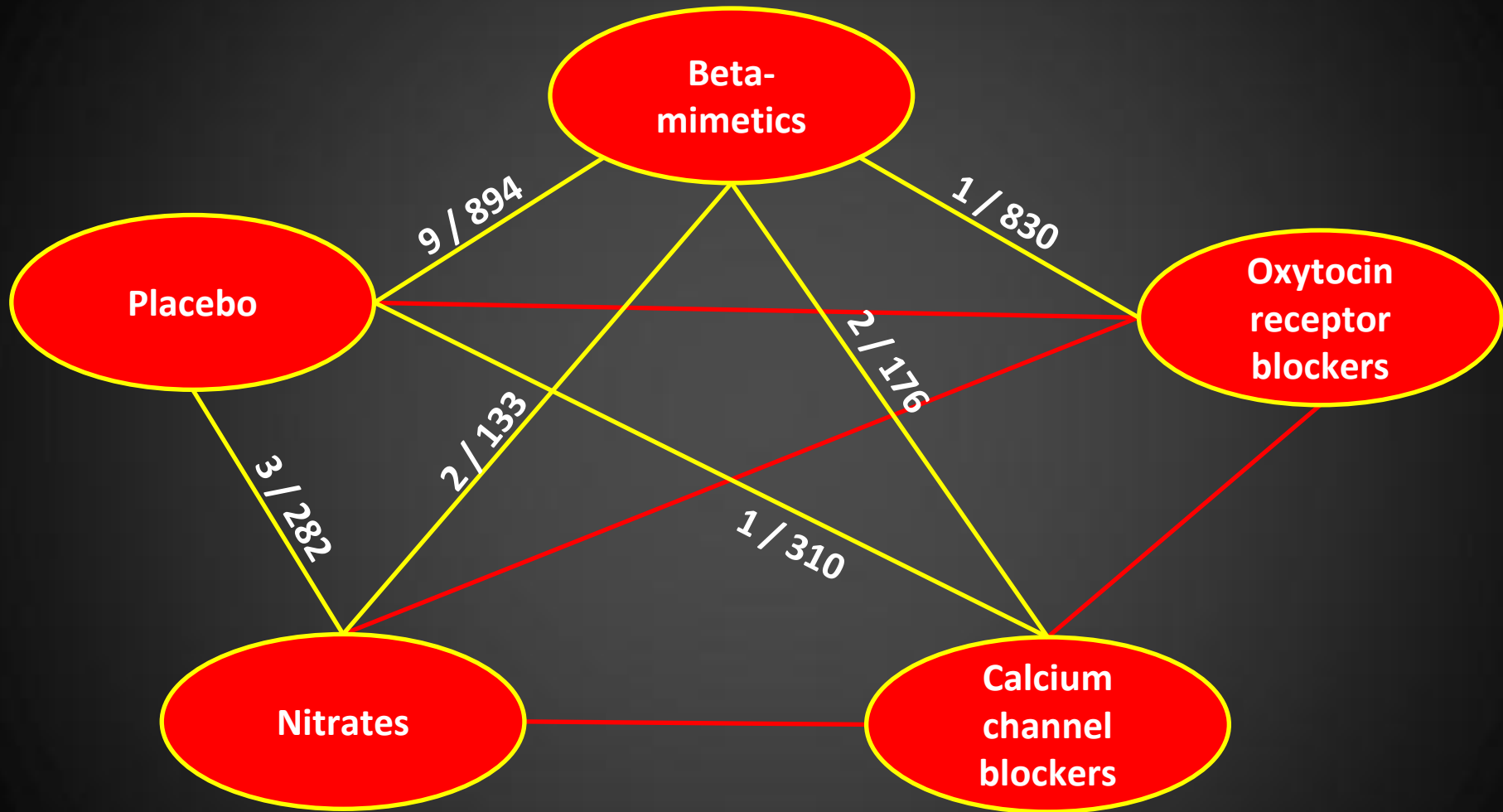
Outcome measures:

- 1 Successful ECV
- 2 Ceasarean delivery
- 3 Vaginal cephalic delivery

Placebo as reference treatment

Analysis in relative risks and ranking treatment





# Results

## Successful ECV

Tocolytic agent	Odds ratio	95% Confidence Interval
Beta mimetic	1.6	1.28 – 2.0
Calcium channel blockers	1.09	0.76 – 1.6
Nitrates	0.98	0.68 – 1.42
Oxytocin receptor blockers	1.31	0.78 – 2.2
Placebo	Reference	

# Results

## Caesarean delivery rate

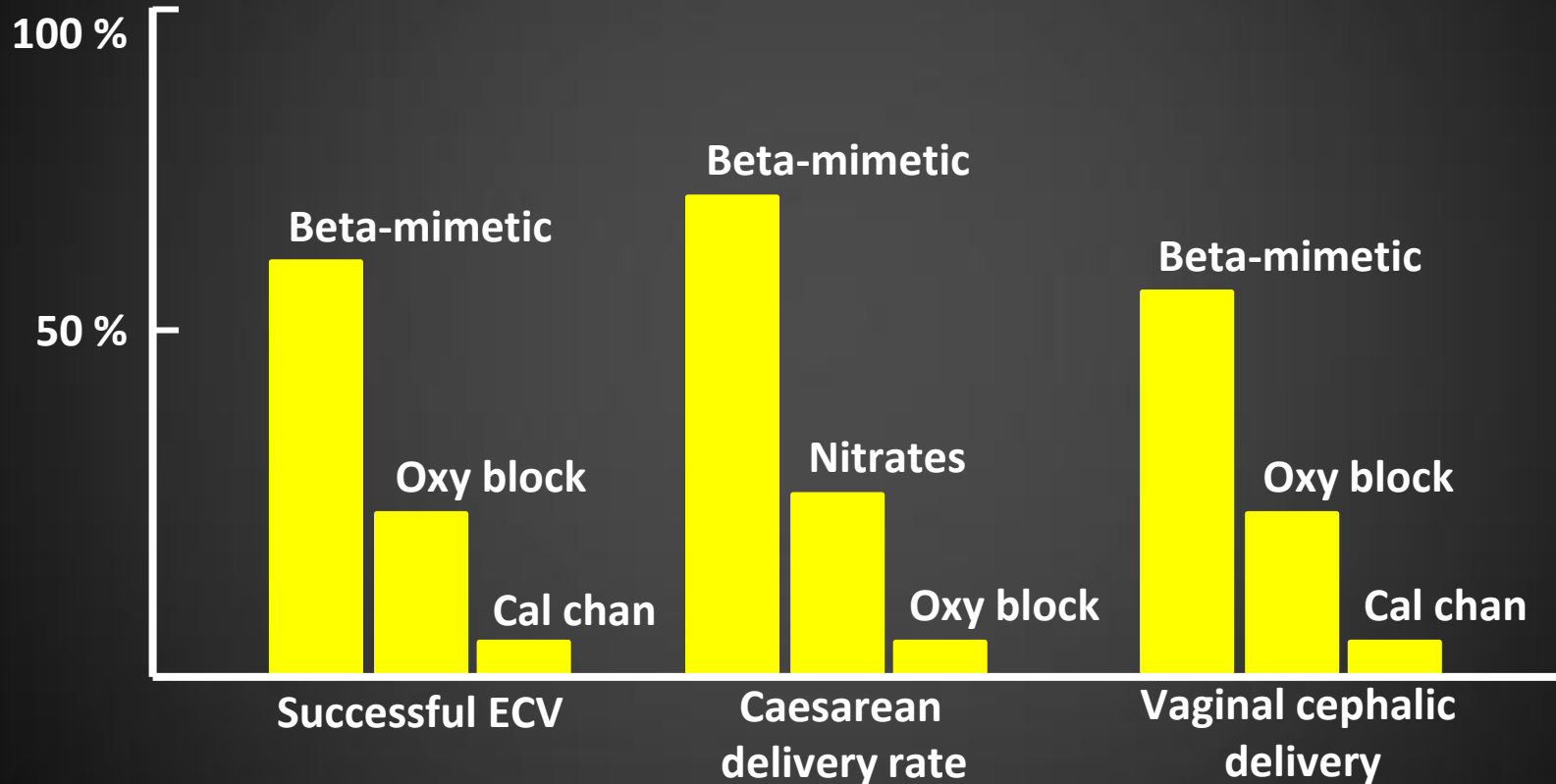
Tocolytic agent	Odds ratio	95% Confidence Interval
Beta mimetic	0.78	0.70 – 0.86
Calcium channel blockers	1.09	0.92 – 1.29
Nitrates	0.84	0.70 – 1.01
Oxytocin receptor blockers	0.85	0.72 – 0.99
Placebo	Reference	

# Results

## Vaginal cephalic delivery

Tocolytic agent	Odds ratio	95% Confidence Interval
Beta mimetic	1.6	1.15 – 2.3
Calcium channel blockers	1.04	0.51 – 2.1
Nitrates	1.13	0.71 – 1.8
Oxytocin receptor blockers	1.45	0.71 – 3.0
Placebo	Reference	

# Probability of best rank



A beta mimetic is the only proven effective tocolytic agent

# Routine tocolytic medication?

Adverse side effects?

Not possible for midwives?

**Only one goal...**

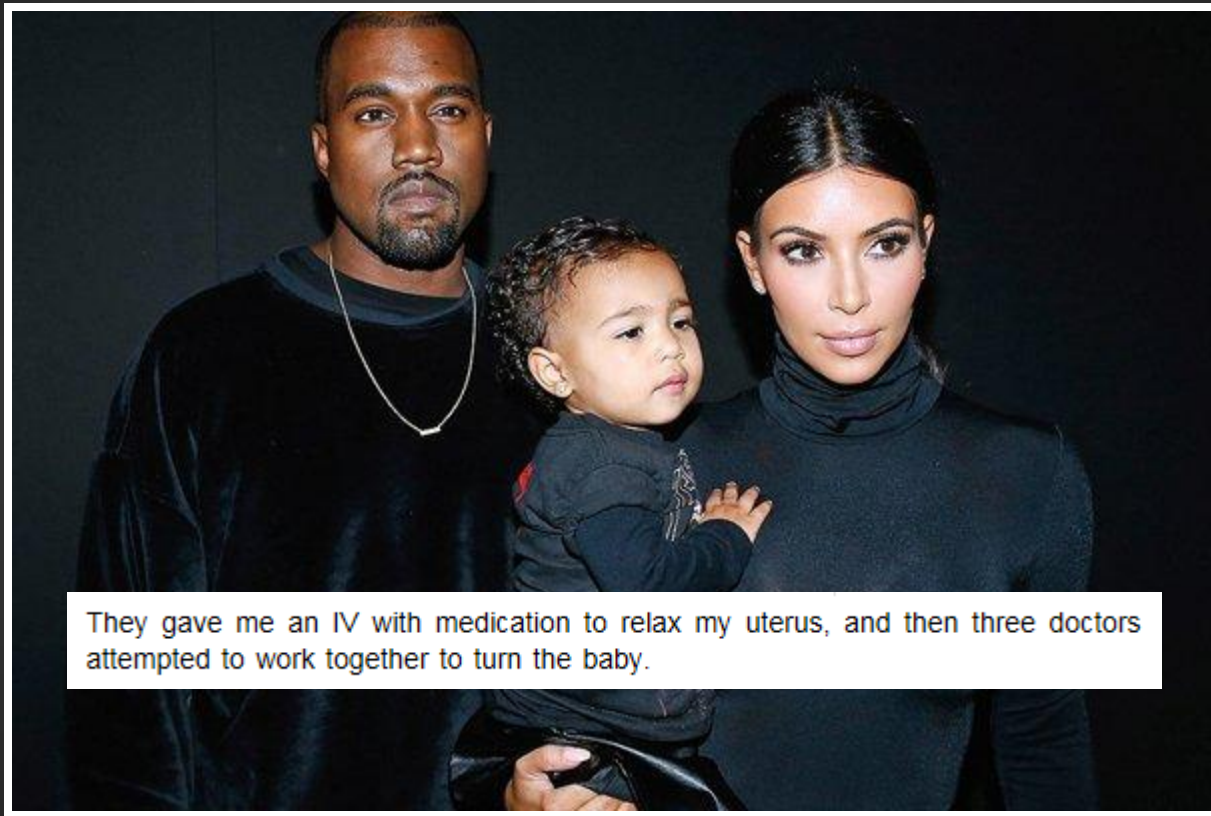


**breech presentation at term**



**fetal version**





They gave me an IV with medication to relax my uterus, and then three doctors attempted to work together to turn the baby.