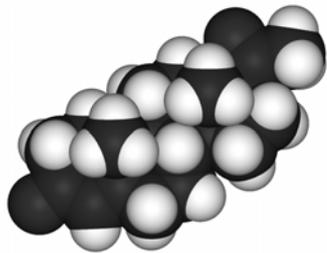


Motion: Progesterone has a potential role in recurrent miscarriage

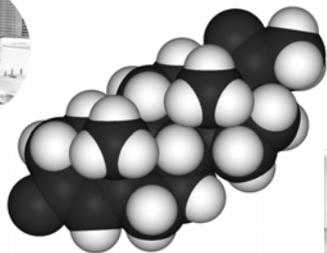


Arri Coomarasamy, MD MRCOG

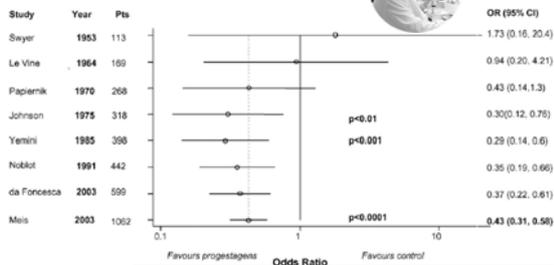
3 stories!



3 stories!

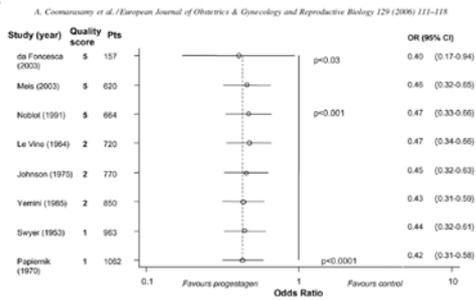


First Story: Progesterone in preterm birth.
Outcome: delivery before 37w



Coomarasamy et al, 2006

Progesterone in preterm birth.
Cumulative meta-analysis by quality



Coomarasamy et al, 2006

Progesterone in preterm birth.
L'Abbe plot

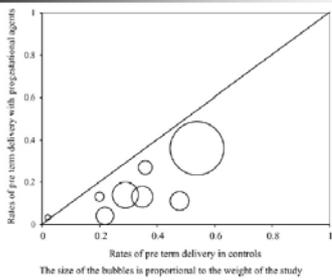
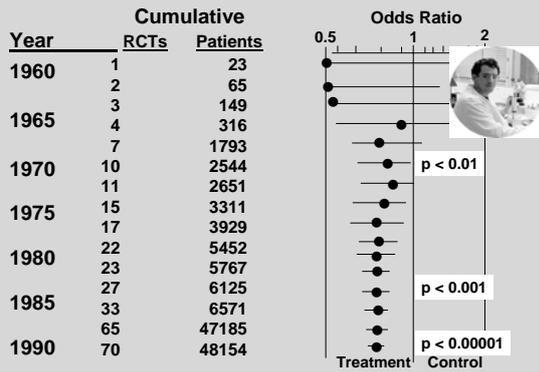


Fig. 4. L'Abbe plot of effect of progestational agents with varying baseline risk.

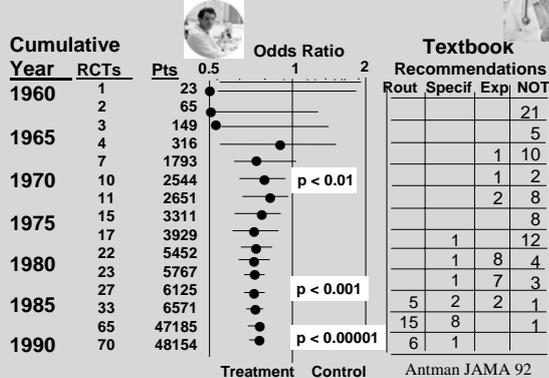
Progesterone in Preterm prevention.

- First trial to practice > 50 years!

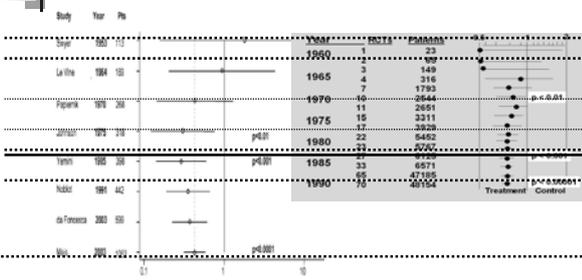
Second story: Thrombolytic Therapy Post MI



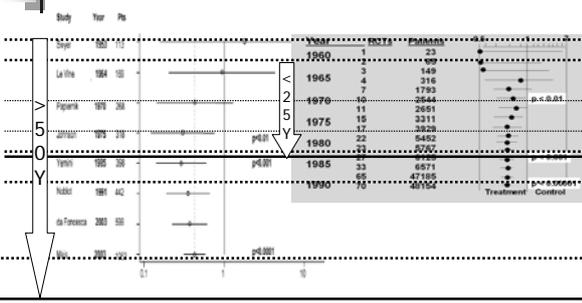
Thrombolytic Therapy Post MI



The two stories: head to head

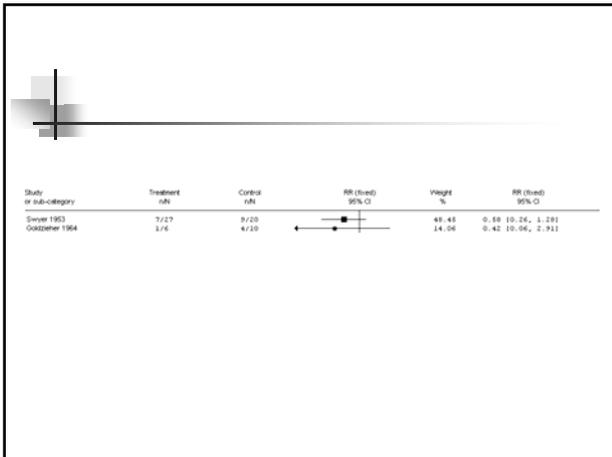


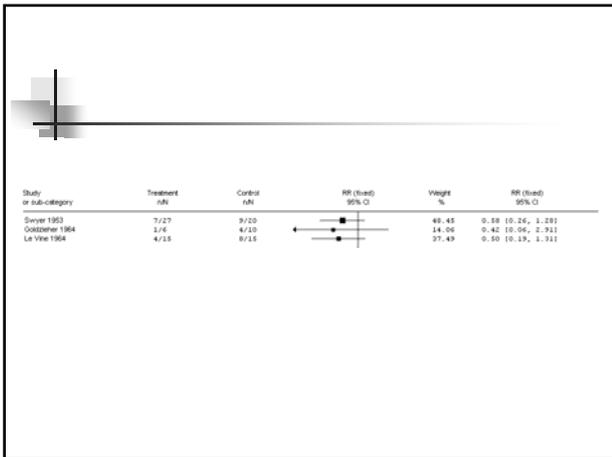
The two stories: head to head

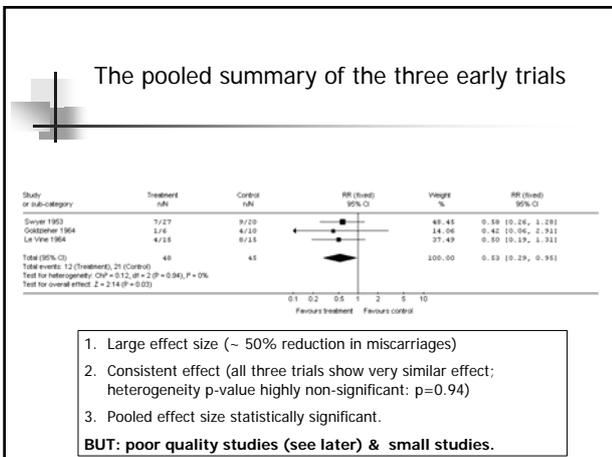


The third story!
 Population: those with history of RM
 Intervention: progestagen
 Outcome: miscarriage (following spontaneous conception)

Study or Sub-Category	Treatment n/N	Control n/N	RR (I-squared)	Weight %	RR (I-squared)
Sneyers 1993	7/27	9/20	0.58 (0.25, 1.28)	44.46	0.58 (0.25, 1.28)







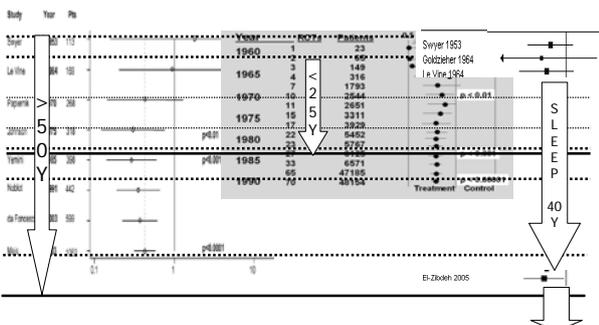
1. Large effect size (~ 50% reduction in miscarriages)
 2. Consistent effect (all three trials show very similar effect; heterogeneity p-value highly non-significant: $p=0.94$)
 3. Pooled effect size statistically significant.
- BUT: poor quality studies (see later) & small studies.**

Summary

- Current best evidence – is level 1a evidence!
 - Possibility of 50% reduction in miscarriages in those with RM (~4000/year in the UK)
 - Safe
- However,
 - Poor quality evidence
 - Small studies (lack of precision)
 - Publication bias
- **Do we need a definitive trial?**

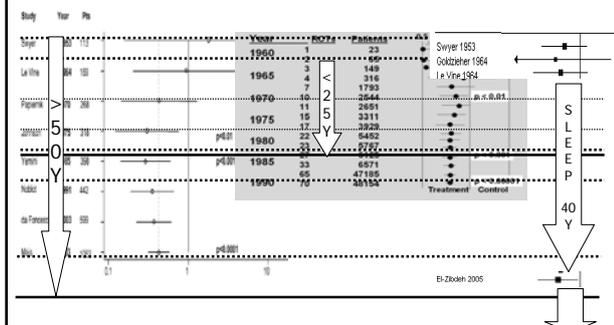
YES!

The three stories: head to head





The three stories: head to head



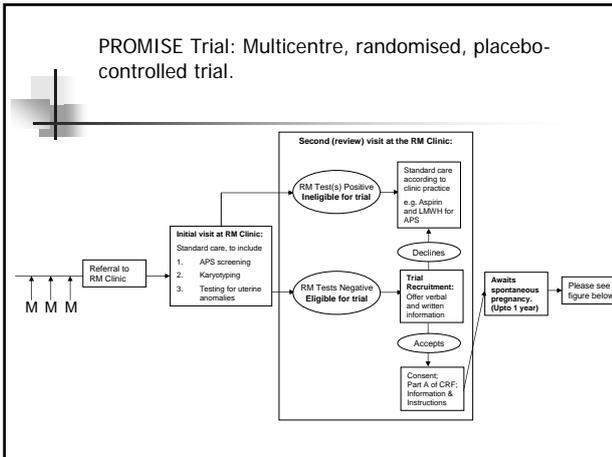
Did anyone try to wake us up?
What did the reviewer in 1989 say?

- "...before progesterone is used in this way....it should be assessed in prospective double blind randomised controlled trials mounted in the light of the results of this meta-analysis."
- Salim Daya, BJOG, 1989

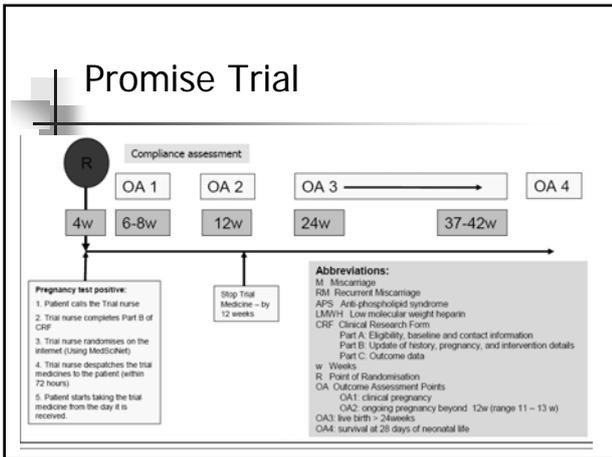
What did the Cochrane reviewers say [in 2003] (in the **abstract!**)?

- In a subgroup analysis of three trials involving women who had RM, progesterone treatment showed a statistically significant decrease in miscarriage rate compared to placebo or no treatment (OR = 0.39; 0.17-0.91)
- ..further trials in women with a history of recurrent miscarriage may be warranted..

PROMISE Trial: Multicentre, randomised, placebo-controlled trial.



Promise Trial



The three stories: Summary

	Thrombolytics in MI (Cardiologists)	Progesterone in Preterm (Obstetricians)	Progesterone in RM (Gynaecologists and Gynae nurses)
Researchers	Vigorously pursued the question	Slow to pursue the question	Sleeping
Clinicians	Quick to adopt into practice	Slow to adopt into practice	Sleeping

Motion

- Progesterone has a potential role in recurrent miscarriage
- PROMISE Trial
- arricoomar@blueyonder.co.uk
