Medical Methods at Later Gestations

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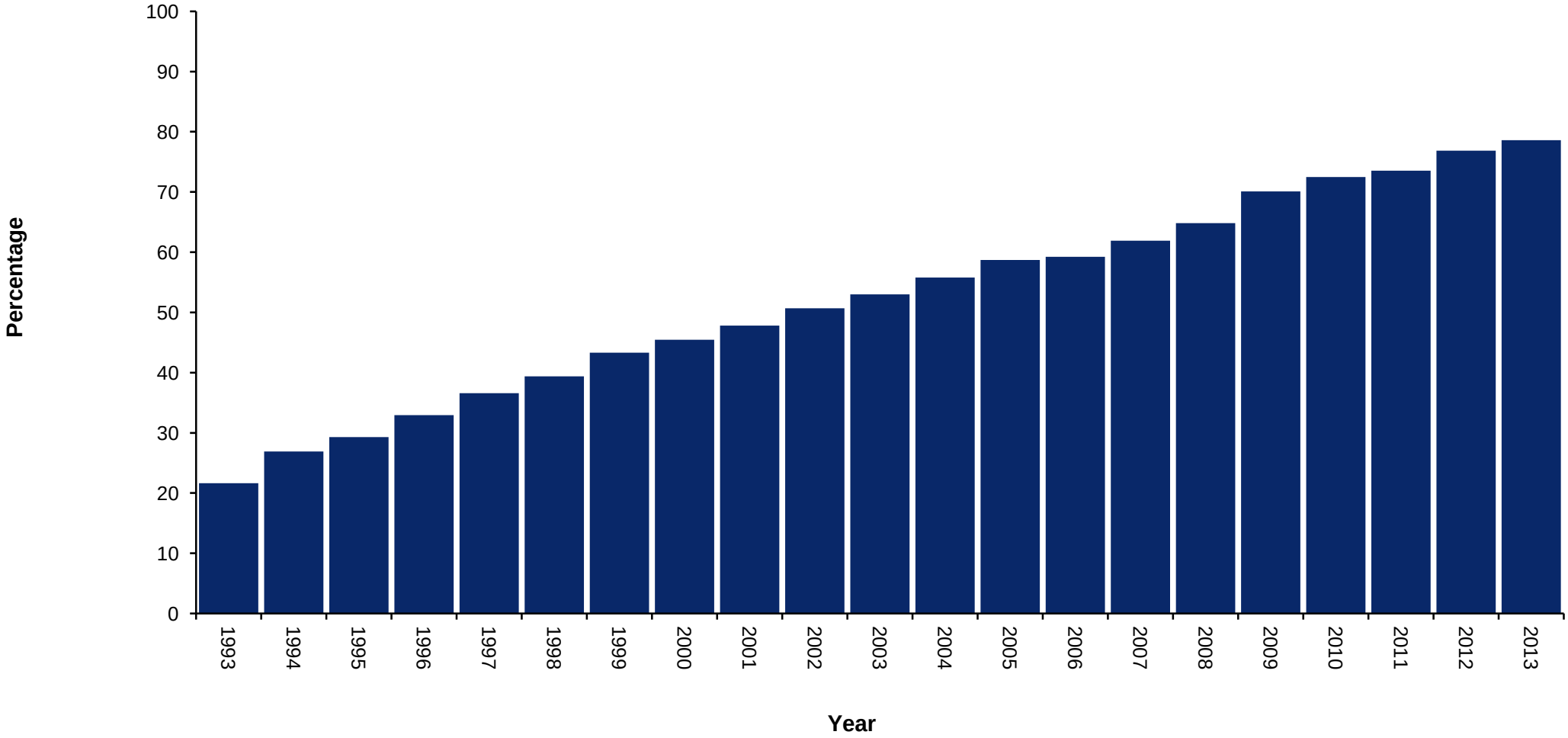
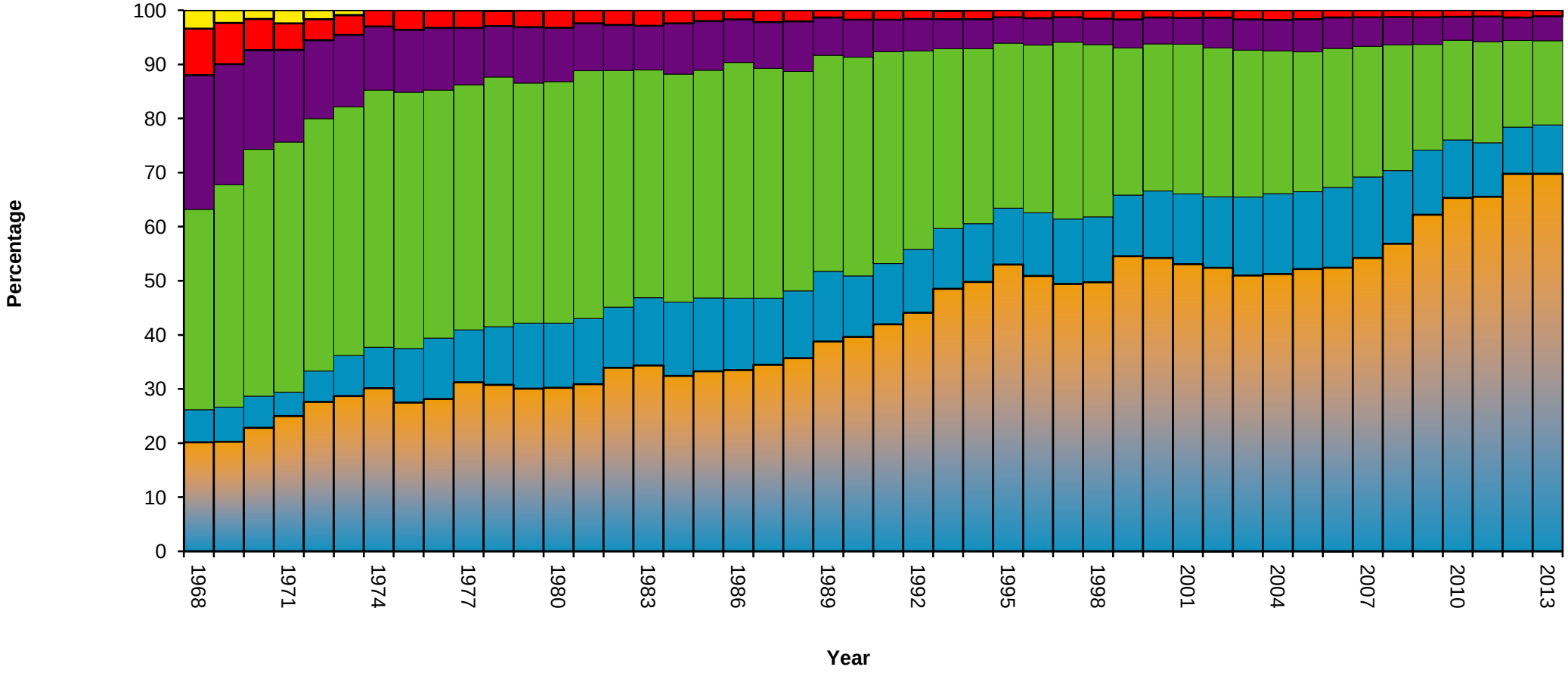
Medical Abortions in Scotland



Abortions by Gestation 1988-2013



Medical Abortions in England and Scotland 2009

	Gestation in weeks					
	<10	10 – 11	12 -1 3	14 – 16	17 – 20	21 - 24
England	55	13	18	25	25	28
Scotland	70	25	54	93	98	100

Development of medical methods of induced abortion with mifepristone

1984	Mifepristone alone
1985	Mifepristone and Pg
1987	Mifepristone and vaginal Pg
1991	Mifepristone and oral Pg
1993	Reduced doses of mifepristone
1995	Mifepristone and misoprostol
2000	Medical methods at all gestations

Comparing medical and surgical abortion at 13 – 20 weeks (n = 122)

	Medical	Surgical
Mean IES	3.7	3.0
Mean HADS	6.3	6.5
Same method again %	53	100
Worse than expected %	53	0

Kelly *et al*, 2010

Women approached but not randomised

67% had strong preference for surgical
wanting to be asleep
less traumatic psychologically
less painful

33% had strong preference for medical
not wanting to be asleep
shorter time to wait

Kelly *et al*, 2010

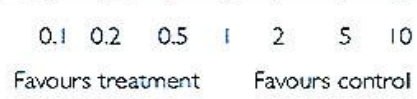
Analysis 2.3. Comparison 2 D&E vs. Mifepristone/Misoprostol, Outcome 3 Number of women experiencing adverse events.

Review: Surgical versus medical methods for second trimester induced abortion

Comparison: 2 D%E vs. Mifepristone/Misoprostol

Outcome: 3 Number of women experiencing adverse events

Study or subgroup	D%E n/N	Mife/Miso n/N	Odds Ratio M-H,Fixed,95% CI	Weight	Odds Ratio M-H,Fixed,95% CI
Grimes 2004	1/9	6/9	←	100.0 %	0.06 [0.01, 0.76]
Total (95% CI)	**9**	**9**	◆	**100.0 %**	**0.06 [0.01, 0.76]**
Total events: 1 (D%E), 6 (Mife/Miso)					
Heterogeneity: not applicable					
Test for overall effect: Z = 2.17 (P = 0.030)					



Subsequent Health and Reproductive Risks

Few long-term sequelae are evident after abortion ---- morbidity and mortality are lower with induced abortion (medical or surgical) than with pregnancy carried to term.

Induced abortion is not associated with an increased subsequent risk of ectopic pregnancy, placenta previa, infertility, or miscarriage

A subsequent risk of preterm birth, which increases with the number of abortions, has been reported (data from prospective cohort studies have not confirmed this finding).

There are no data to suggest that medical abortion differs from surgical abortion with respect to these risks.

Cervical Preparation before Surgical Abortion

	Misoprostol n=2427	Placebo n=2431	RR(CI)
Complications (%)	2	4	0.7(0.5-0.96)
Incomplete Ab (n)	19	55	0.3(0.2-0.6)

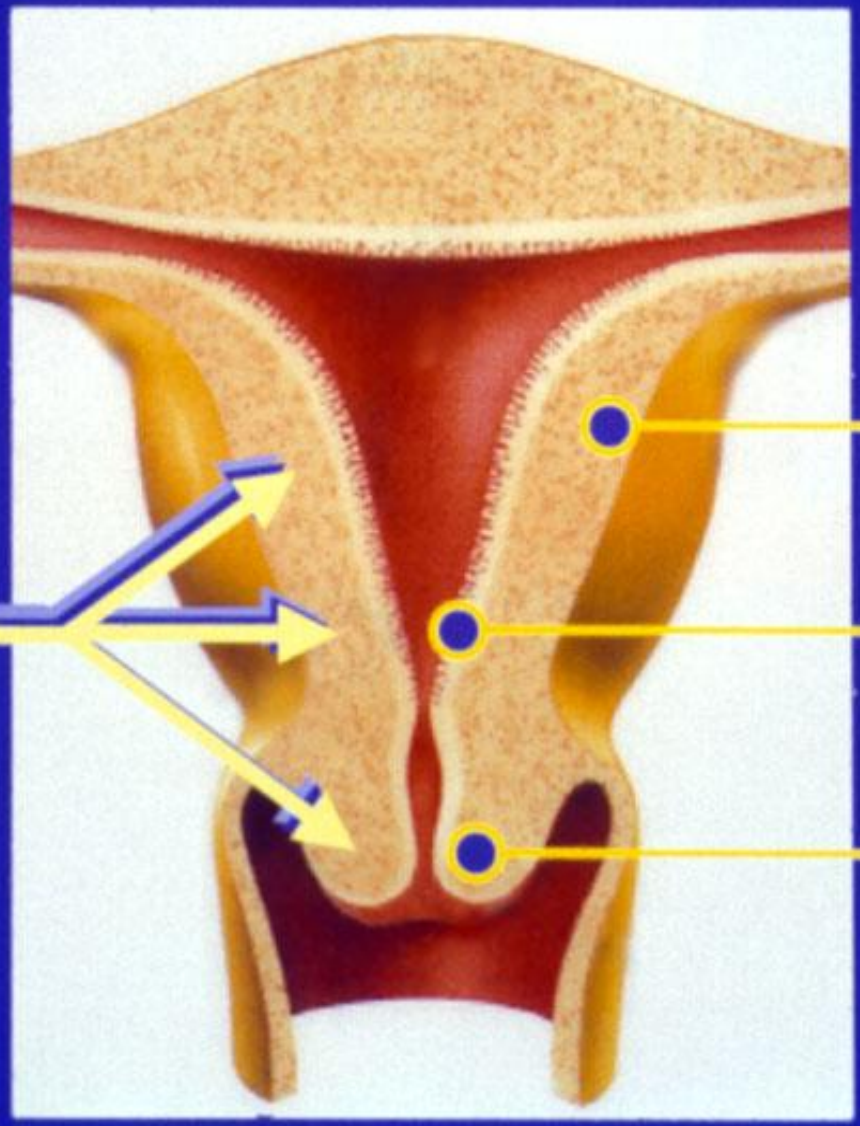
Meirik et al 2012

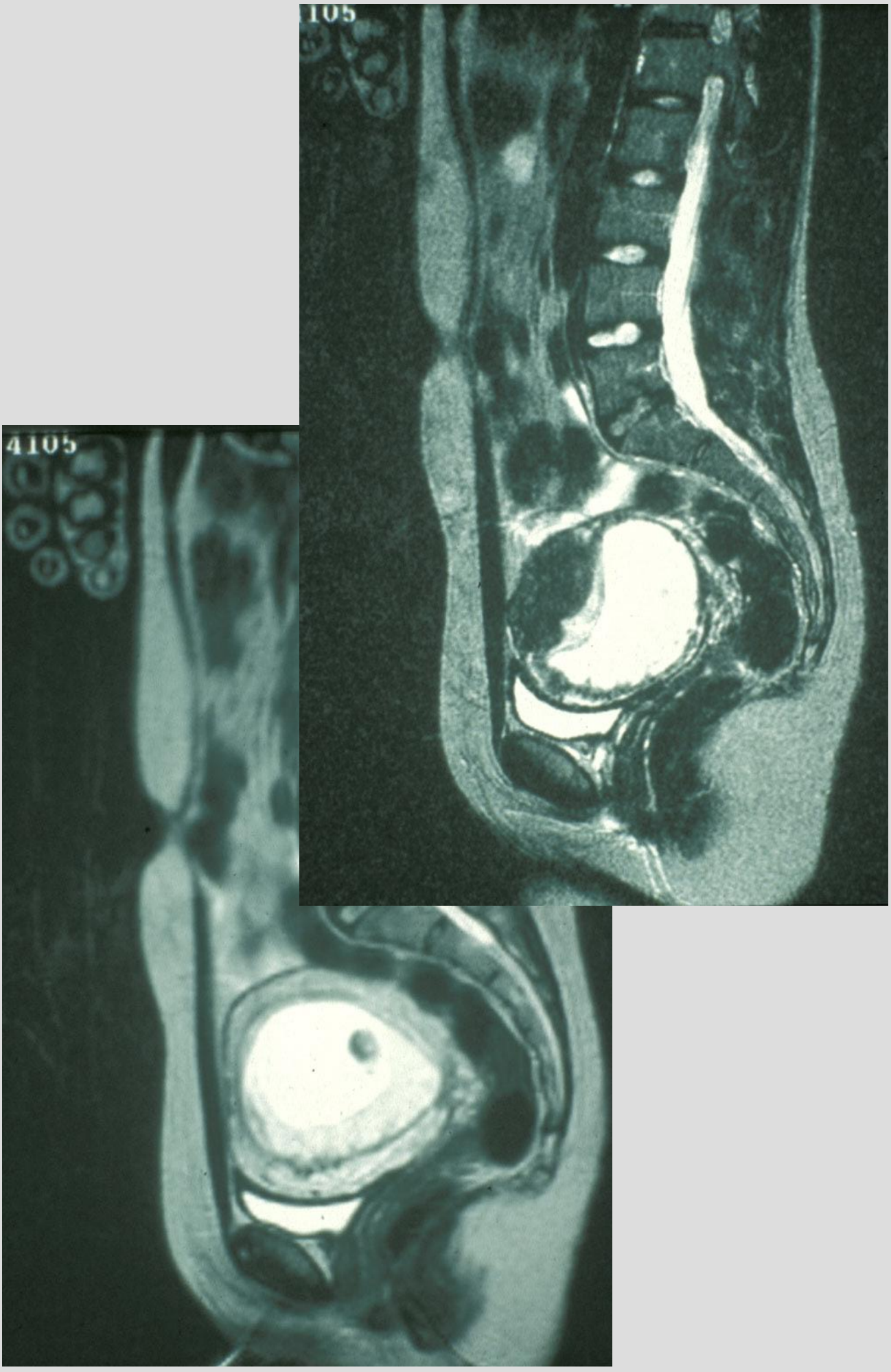
Misoprostol alone

Higher total dose is needed.
Less effective (failed and continuing).
Induction-to-abortion interval longer.
More side-effects.
80 – 90% within 24 hours.

Gemzell-Danielsson and Lalitkumar, 2008

Effects of Mifepristone on pregnant uterus

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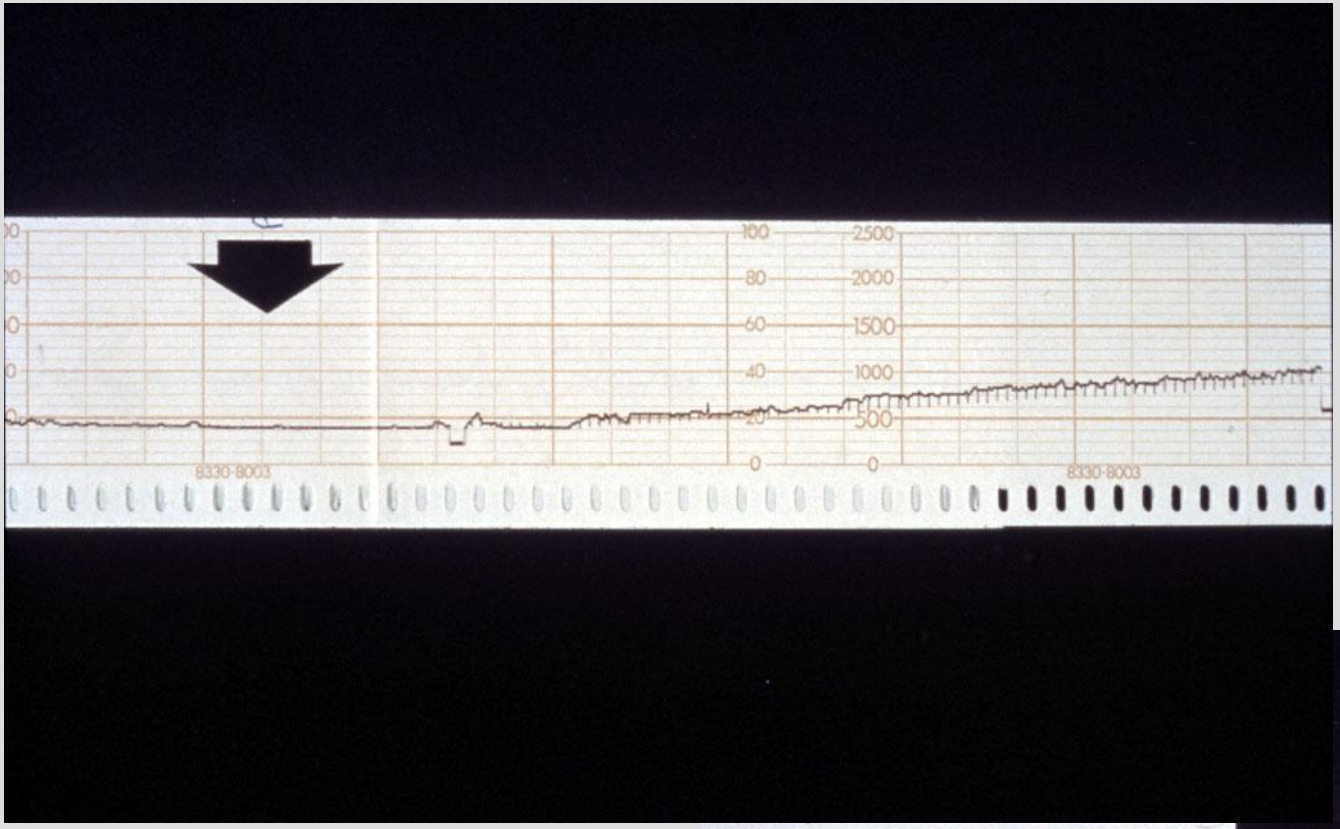
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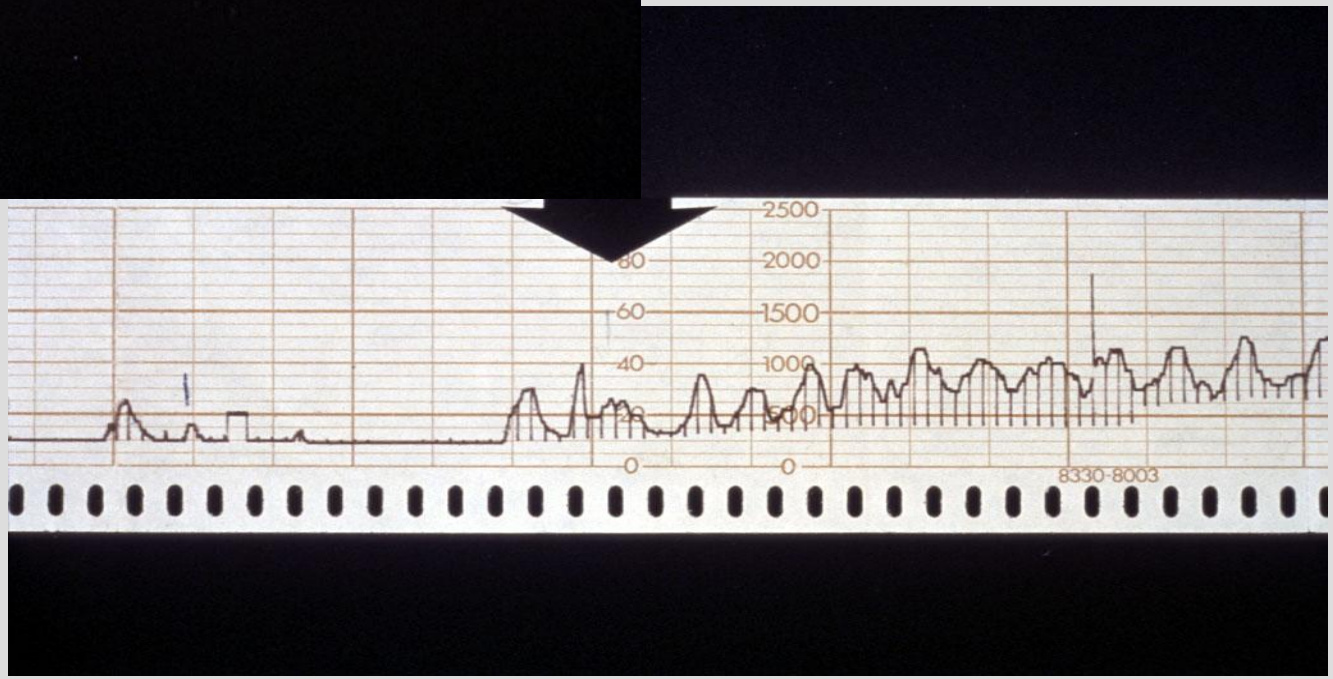
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Uterine activity after mifepristone at 14-18 weeks

	Control	24 hours	36 hours	48 hours
Uterine activity (n=7)	1	2	6	7
Dose of PG (mgs)	29	11	16	16

Urquhart and Templeton, 1990

Comparison of mifepristone and misoprostol

	Misoprostol	Mifepristone 24 hours	Mifepristone 48 hours
Cumulative force to dilate cervix	32	35	23

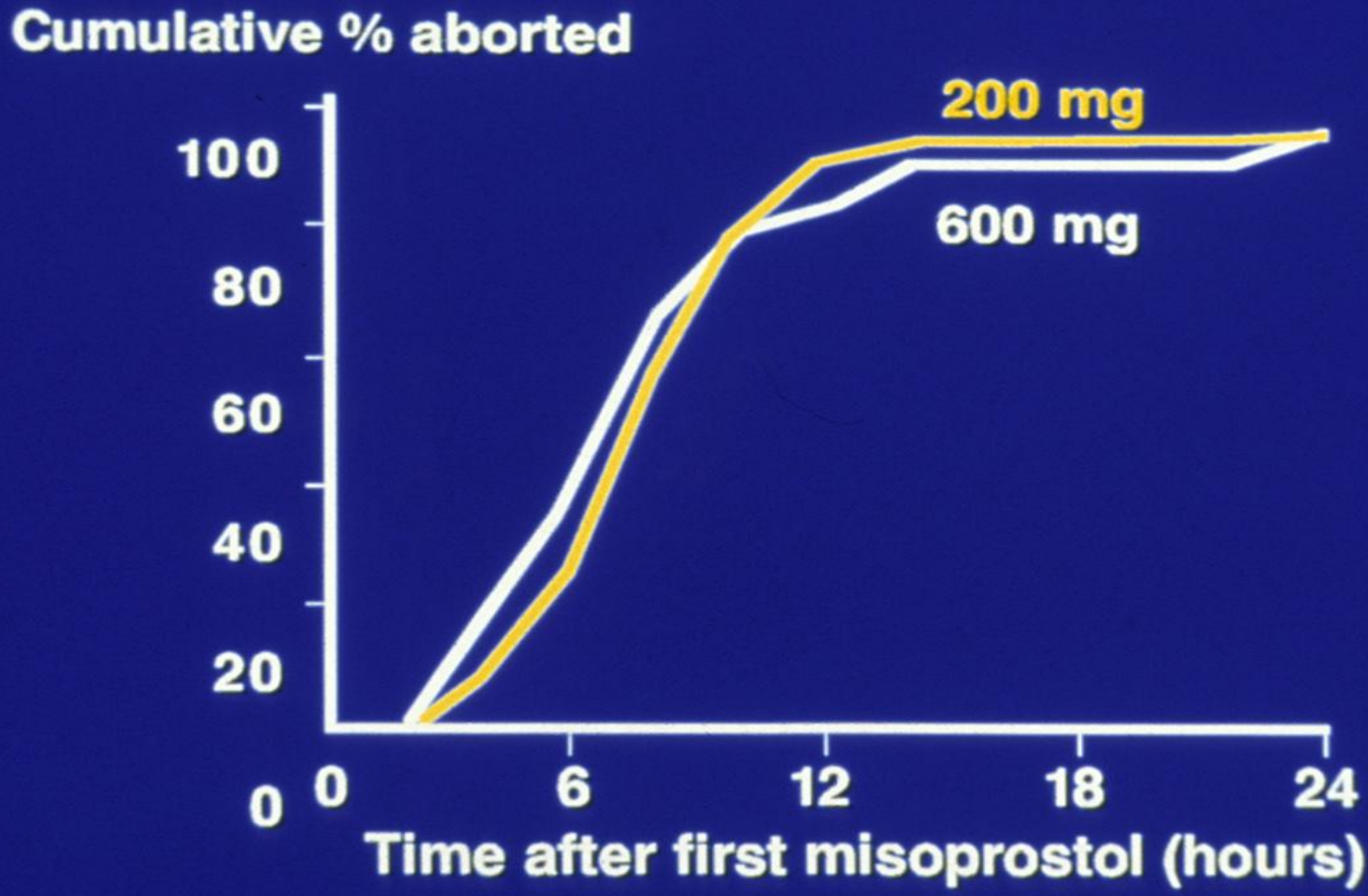
Ashok *et al*, 2000

Comparing mifepristone 200 mgs and 600 mgs for Second Trimester Abortion with misoprostol

	200 mgs (n = 35)	600 mgs (n = 35)
Induction to Abortion (hours)	6.9 (5.8 – 8.1)	6.9 (5.8 – 8.4)
Aborted within 15 hours n (%)	34 (97%)	33 (94%)

Webster et al, 1996

Second trimester abortion with mifepristone & misoprostol



Second trimester regimen

Mifepristone 200 mgs

36 – 48 hours later

Misoprostol 0.8 mgs vaginal (sublingual)

Then according to bleeding

Misoprostol 0.4 mgs vaginal/oral

Up to a total of 5 doses (15 hours)

Second day

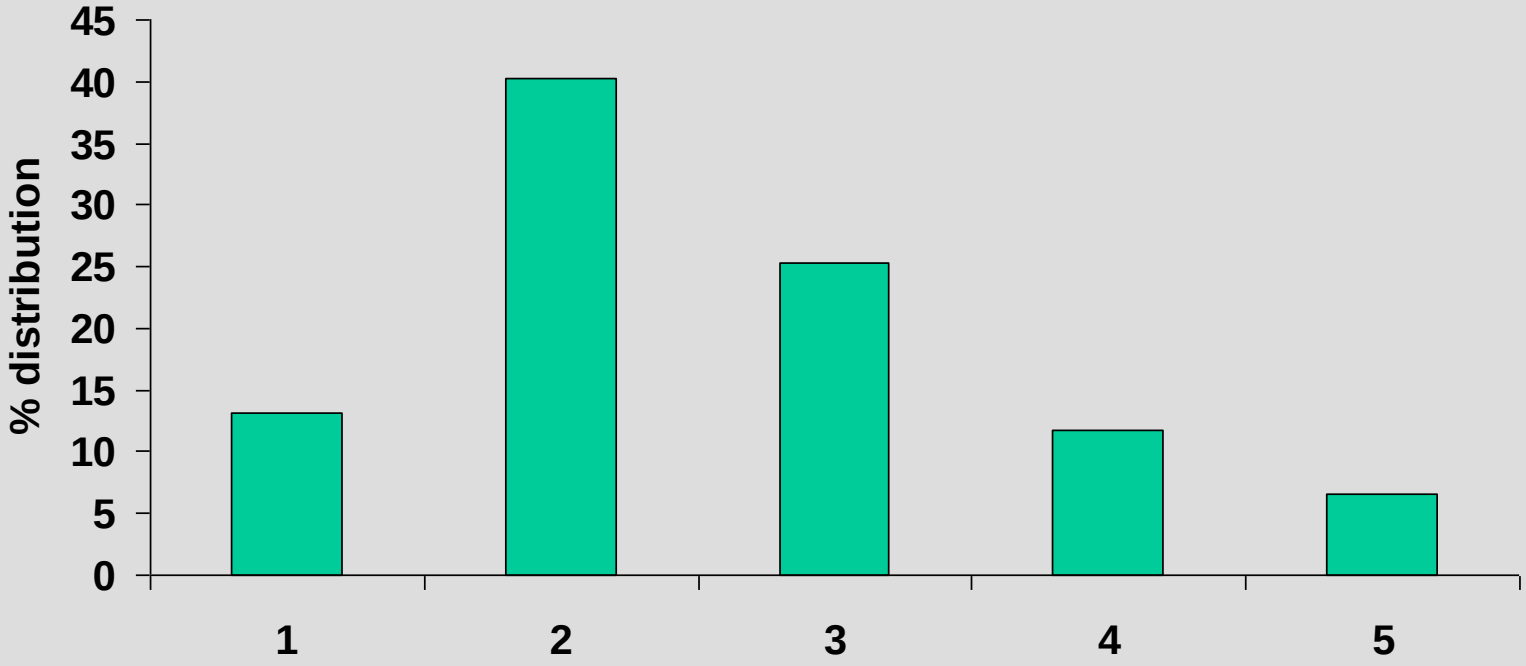
Repeat mifepristone 200 mgs evening
then repeat misoprostol regimen

If Third Day , no additional mifepristone
then gemeprost 1 mg , 5 doses

Second trimester medical abortion (n=1002)

	Cumulative success	
	No.	**%**
Day 1	970	97.1
Day 2	989	99.0
Day 3	999	99.9

Doses of PG used in second trimester



Surg evac (%)	2.3	2.7	5.9	17.1	23.1

Comparing misoprostol given sublingually or vaginally at 13-20 weeks in 76 women

	Sublingual	Vaginal
Surgical evacuation %	8.3	2.5
Analgesia used %	70	80
Intramuscular %	44	16
Nausea %	72	65
Diarrhoea %	53	52
Hot flushes %	36	70

Hamoda *et al* 2005

Comparing misoprostol given sublingually or orally at 12 - 20 weeks in 120 women

	Sublingual	Oral
Success rate %	91	85
Analgesia %	31	28
Nausea %	38	43
Diarrhoea %	14	22

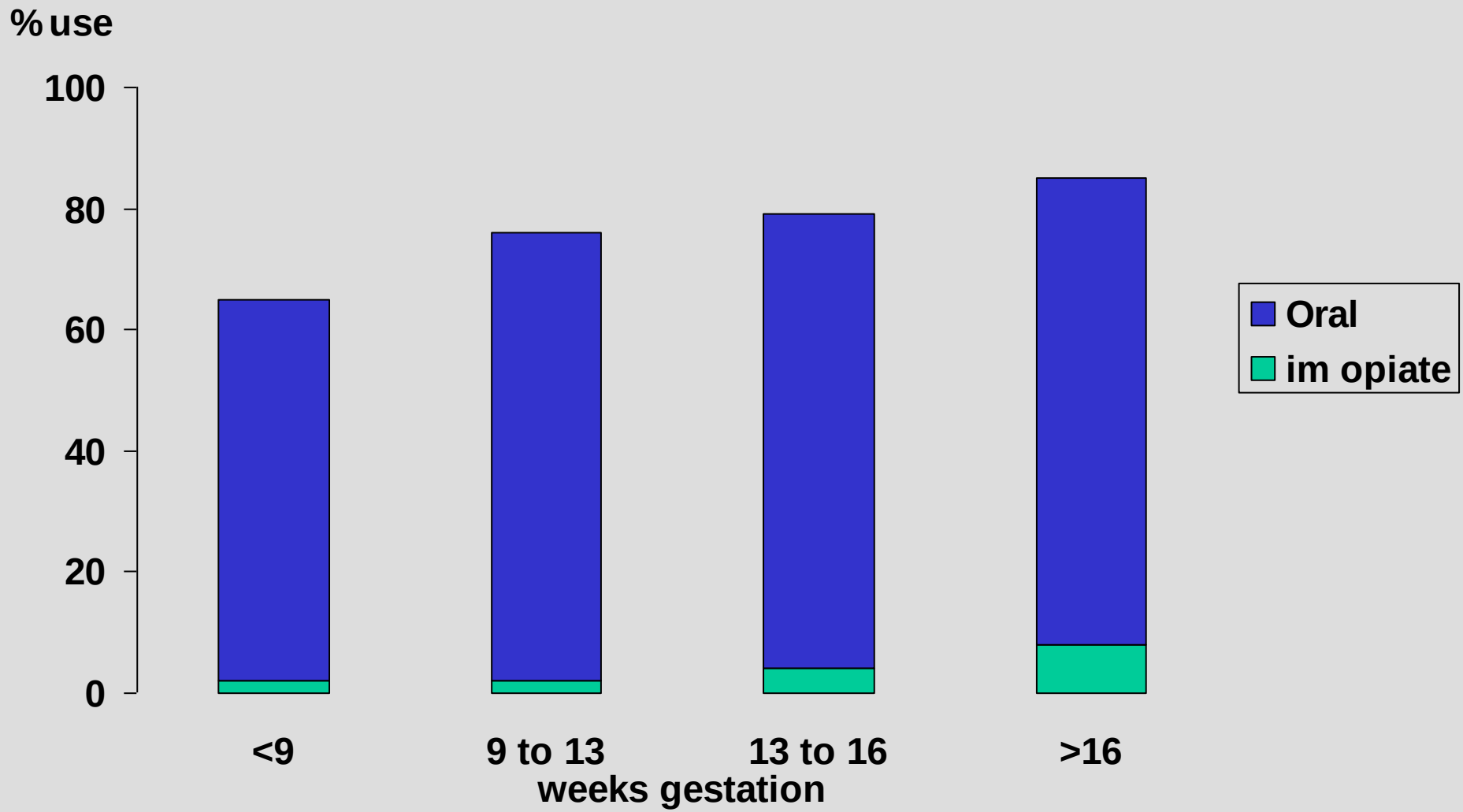
Tang *et al*, 2005

Outcome of midtrimester medical abortion

1998-2008 (n=1388)

Weeks	13-14	15-16	17-18	19-21
(Days	92-104	105-118	119-132	133-146)
N	600	394	284	109
Evacuation	***5.0***	***5.6***	***5.6***	***2.8***
Incomplete	**4.2**	**4.6**	**4.2**	**1.9**
Emergency	**0.8**	**1.0**	**1.4**	**0.9**

Analgesia use among 4343 women having medical abortion



Correlates with analgesia use (n=4343)

	Adjusted OR	95% CI
Age	0.98	0.97 – 0.99
Previous live birth	0.43	0.33 – 0.56
Previous abortion	1.06	0.88 – 1.29
Doses of misoprostol	1.31	1.13 – 1.51

Hamoda *et al*, 2004

Antibiotic Policy

- All women get metronidazole 800mgs
- All women screened for chlamydia and gc
- If positive given azithromycin
- If 18 years and under - prophylactic azithromycin (also if screening result unavailable)

Prevention of Subsequent Unintended Pregnancy

- **Immediate insertion of IUCD is safe and acceptable** **(Grimes et al 2003)**
- **Significantly fewer subsequent abortions** **(Goodman et al 2008, Heikinheimo et al 2008, Roberts et al 2010)**
- **Immediate insertion has higher rate of use at six months** **(Bednarek et al 2011)**

When a decision to abort a pregnancy after 21 weeks and six days …. feticide should be routinely offered.

When the fetal abnormality is not compatible with survival, abortion without feticide may be preferred by some women.

RCOG, 2010

Inducing fetal death before medical abortion may have beneficial emotional, ethical and legal consequences.

Diedrich & Drey, 2010

Randomised trial of Digoxin 1 mg IA prior to D & E

Primary outcome was procedure duration NS

Other outcomes no difference

Most women (91%) indicated preference that fetus dead

Jackson *et al*, 2001

Conclusions following SFP review

Digoxin 1 mg IA no better than placebo

IF injections require less Digoxin

KCl injections are safe and effective

Digoxin 1 mg IA is generally safe

Feticide may decrease induction to abortion interval in medical abortion

Diedrich & Drey, 2010

Comparing dose and route of Digoxin

Digoxin 1.0 or 1.5 mgs, either IA or IF

Fetal death in 87% of cases

IF much more rapid

Nucatola *et al*, 2010

Effective and safety of Digoxin

Overall failure rate was 7%

No failures using Digoxin 1 mg give IF

Failures higher with Digoxin 0.5 mgs given IA (8%) than IF (4%)

No adverse effects at any of doses

Molaei *et al*, 2008