THE UNIVERSITY OF AUCKLAND
FACULTY OF MEDICAL AND HEALTH SCIENCES
SCHOOL OF MEDICINE

Contraceptive Choices An Update on rules and methods

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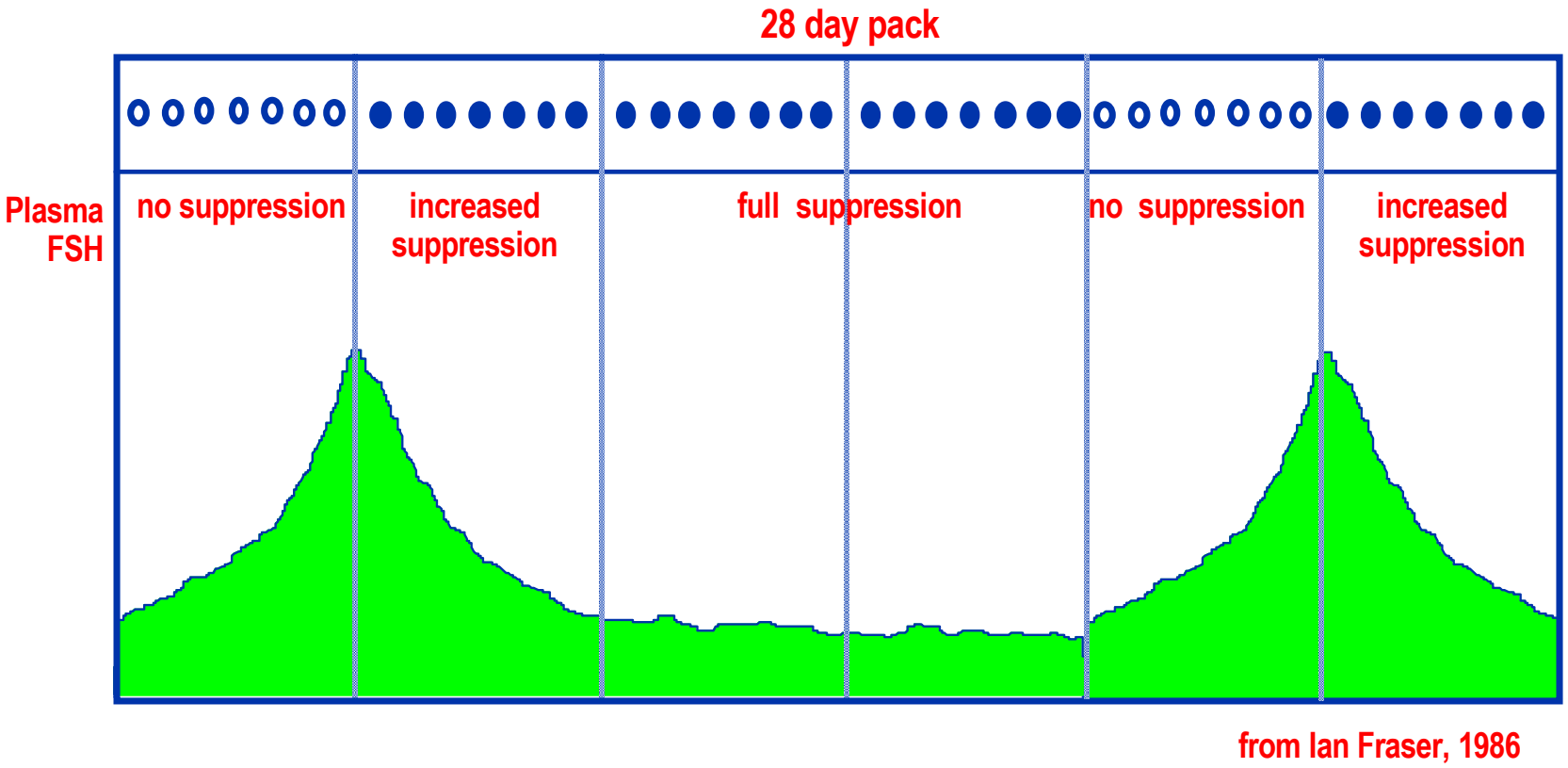
POSITIVE SEXUAL HEALTH
Family Planning

Newish Information

- COCs
- POPs
- ECP
- IUDs

New Rules-Combined Pill

- Allowed 1 missed pill
- If miss more than one pill-ie 48 hours since last pill was taken
- Need 7 day rule or ecp if unprotected sex
- Only applies 1st week of hormone pills


28 day pack
Plasma FSH
no suppression
increased suppression
full suppression
no suppression
increased suppression
from Ian Fraser, 1986

7 day rule flow-chart

POSITIVE SEXUAL HEALTH
Family Planning

If you….

…..miss 1 pill

- Take missed pill as soon as you can
- Take next pill at usual time
- This may mean taking 2 hormone pills together
- *You are still safe*

…..miss 2 pills

and there are more than 7 days since the 1st missed pill

- Take missed pill as soon as you can
- Take next pill at usual time
- This may mean taking 2 hormone pills together
- *You are still safe*

and there are 7 days or less since the 1st missed pill

…..are taking antibiotics then while you are taking the medicine and for 7 days after

…..have severe vomiting or diarrhoea

for more than 24 hours

for less than 24 hours

- Don't worry
- You are safe
- Take your next pill at usual time

Use the 7 day rule

- You will not be safe until you have taken 7 hormone pills in a row
- Use another method of contraception such as condoms or do not have sexual intercourse while taking the 7 hormone pills
- If during this time a condom breaks or slips off, you will need an emergency contraceptive pill (ECP)
- If there are less than 7 hormone pills left in the pack, finish the hormone pills and start your new pack immediately (miss the 7 inactive pills or the 7 day break)

If you have missed 2 or more pills in the 1st week of hormone pills, and have had unprotected sex (without a condom) in the week of inactive pills (sugar pills) you need the ECP (Emergency Contraceptive Pill)

Updated November 2007

WHO Medical Eligibility Criteria for contraceptive use (WHOMEC)

WHO have produced a wheel which summarises criteria –available at

www.who.int/reproductive-health/publications/mec/index.htm

UK MEC –Eligibility criteria www.ffprhc.org.uk-publications

- Have updated WHO MEC
- UK MEC summary sheets-see resource
- Have added some new med conditions
  - Inflammatory bowel disease
  - Raynaud's disease
  - Congenital heart disease
- Have added some new subheadings

Newish pills-Yasmin for PMS

Yasmin-Contains 30mcg EE + 3mg drospirenone which is an analogue of spironolactone
Costs $20 per month

- PMS-Non comparative studies benefit-? placebo response

Unblinded RCT v Marvelon

- No diff PMS-secondary outcome Foidart 2000

Unblinded RCT v Microgynon

PMS symptoms- 60% of women each arm

- Benefit for negative affect 2.5(Y) v 4.2(M) – SS

Sangthawan M 2005

Yasmin-PMS

Double blind RCT v placebo (3 cycles)

- Women with PMDD (n=82)
- Self evaluated COPE-daily phone in
- Greater improvement with Yasmin- not SS
- Underpowered -needed sample size of 300
- New YAZ-better rct evidence for PMS

Freeman 2002

New pop-Cerazette 75mcg desogestrel

- Works by preventing ovulation
- So can help heavy periods and period pain
- Irregular bleeding still a problem
- 50% amenorrhoea at 1 year
- Can use where estrogen contraindicated
- **Cost** $10 per month

Cerazette –pill taking rules

- Day 1 start –covered straight away
- Otherwise 7 days
- Not safe if miss one pill-like old coc rules
- ie more than 36hrs since last pill
- Safe after take 2 pills –mucus
- Really safe after take 7 pills-ovulation

New Rules
Emergency Contraceptive Pill

- WHO multicentre randomised trial of levonorgestrel emergency pill (n=2712)
- 0.75mg LNG-Postinor 2
- 2 doses 12 hours apart v 1.5mg single dose
- 2 tabs stat- as effective
- No difference in side effects
- Postinor 1 will be available in NZ later this year

von Hertzen, Lancet 2002

Efficacy and delay in taking single dose

Days delay in Rx after sex	Observed pregnancies	Proportion of expected pregnancies prevented
1-3 days	16/1198 =1.34%	84%
4-5 days	4/150 =2.67%	63%

Contraceptive Implants

- Norplant 6 - one rod 36 mg LNG
- Norplant 2 / Jadelle- one rod 70mg LNG
- Implanon-one rod -3 keto DSG

Contraceptive Implants

- Jadelle – 2 rod implant-5 years
- Preloaded inserter-under skin upper arm
- Prevent ovulation most cycles/Cx mucus
- 1,198 women-no pregnancies first 4 years
- 1% failure rate in fifth year (1.1>60kg)
- Not effective if on enzyme inducers

Jadelle Implants

Pregnancy rate

- Schering datasheet
- Taken from 3 studies by Population Council
- But not statistically significant. Sivin et al Contraception 2001;64:43
- Data sheet "a change to new implant could be considered after 4 years of use in women > 60Kg"

year	<60Kg	=>60Kg
one	0.1	0.2
two	0.1	0.2
three	0.1	0.3
four	0	0
five	0.18	1.1

Failure Rate with Jadelle

- In the US failure rates of implants were approximately1/4 of those with coc pill
- Implants and IUDs have the highest continuation rates among users of reversible contraceptive methods

Sivin Drug Safety 2003;26:303

Jadelle

- Improves dysmenorrhea
- Main side effect bleeding disturbances
- Amenorrhea 20-30% women at 1-2 yrs
- Infrequent bleeding 50% women first 3 months
- 30% women at 6 months and decrease with time
- Bleeding patterns at beginning not predictive for later
- Pregnancy rate same even with BTB
- Comparison with Implanon:

  More variable bleeding pattern with Implanon initially but eventually higher amenorrhea

Norplant-Post Marketing Surveillance Study

- Observational /cohort –so problem with differential reporting (n=16,000)
- Norplant, IUD, sterilization
- Most commonly reported side effects
- Headache, weight gain and mood

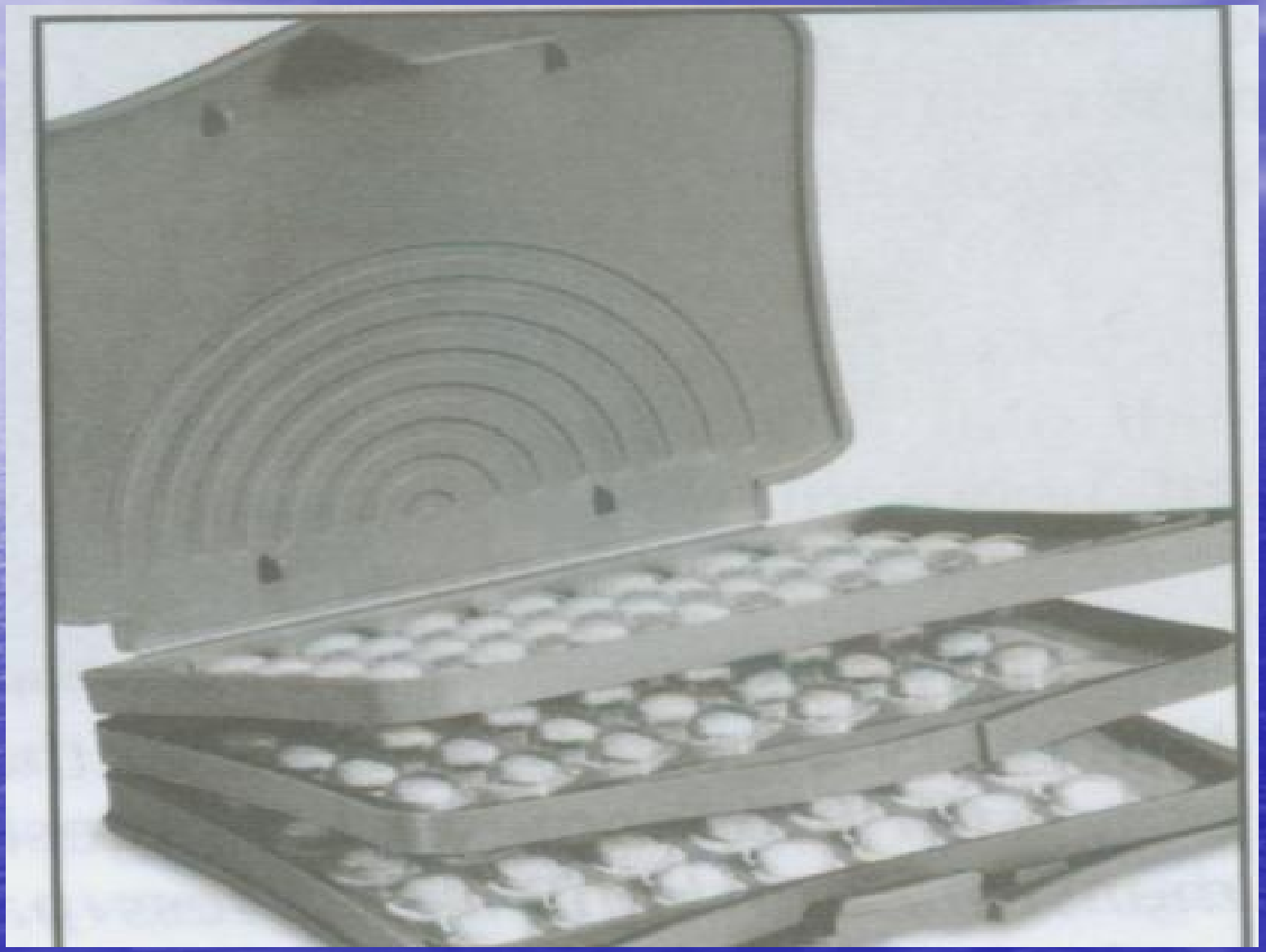
Contraception 2001

Availability of Jadelle in NZ

- Registered-slow introduction in 2006
- Initially small group of trained doctors
- ? Why - litigation with other implants
- **Cost** $305 + insertion fee

Remarketing of old methods

- Combined pill
- Female condom



Remarketing of an old method

- Seasonale –Same pill as Monofeme, Levlen, Microgynon 30
- Take active pill for 84 days
- Inactive pill for 7 days-withdrawal bleed
- Reduces side effects of hormone withdrawal
- 10 months after it became available in the US -260,000 scripts had been written

Other ways to take pills

- Tricycle v continuous use
- Similar episodes of BTB
- If BTB take 3 day break
- Suggest continuous use if women still getting pill withdrawal SE in the break

Lybrel-FDA approved May 2007

- 20µg EE+90µg LNG
  At the end of 1 year
- 59% amennorrhea
- 20% spotting only
- 21% BTB requiring sanitary protection

IUDs - misconceptions

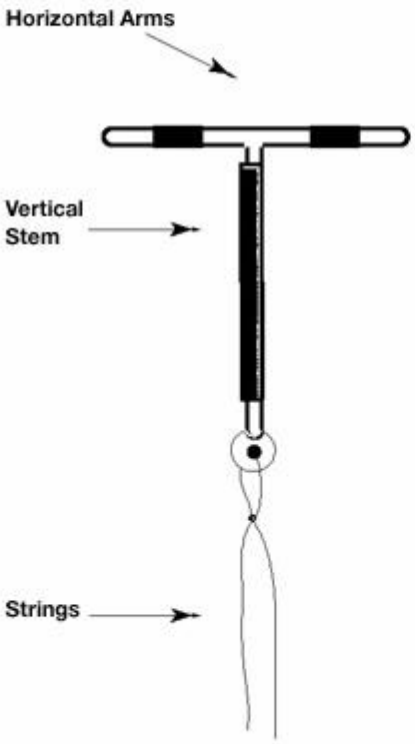
- Are abortifacient
- Can travel
- Cause infection
- Should never be used by nulliparous women

IUD

Basic Attributes and Advantages of the IUD:

1. What is it?

What is it?



The Copper T-380A IUD looks like the letter "T." It is placed in the uterus and has been proven to be highly effective and safe. Small copper bands are on each arm, and the stem of the T is wound with copper wire.

Two factors provide greater effectiveness of the 380A:

- Large surface area of copper (380 mm2)
- Copper release high in the fundus (top) of the uterine cavity from the copper bands mounted on the IUD's arms.

Copper T 380A-Benefits

- Lower failure rate than ML Cu IUD
- Smaller insertion diameter (3.7mm)
- FDA approved lifespan 10 yrs
- Evidence based 12 yrs
- Family Planning importing from Australia
- **Cost** per device $75

Cochrane reviews of IUD trials

- CuT 380 A-most effective but small absolute difference in pregnancy rates from MLCu 375
- First year user failure /100 women
- Cu T 380A = 0.3-0.8
- Mirena = 0.0-0.6
- MLCu 375 = 0.2-1.5
- Mirena comparable in efficacy to Cu IUDs with more than 250mm^2 of copper
- Mirena more amenorrhea and spontaneous expulsion than Cu IUDs>250

Grimes Contraception 2007;75;S55-S59

Cochrane reviews of IUD trials

- Mirena more amenorrhea but less prolonged bleeding than Jadelle
- Continuation rates similar
- All NSAIDs reduce pain and bleeding with IUD use-tranexamic acid 2nd line Rx
- But no benefit on pain after insertion with prophylactic NSAIDs

Grimes Contraception 2007;75;S55-S59

Cochrane reviews of IUD trials

Insertion after TOP

- Only one trial has compared immediate V delayed insertion (3-5 weeks)
- Immediate insertion associated with a non SS increased risk of spontaneous expulsion RR 5.7 (0.8-53.5)
- 42% of women randomised to delayed insertion failed to return

Grimes Contraception 2007;75;S55-S59

Some more IUD info

- Cu IUDs are associated with 50-60% reduction in endometrial cancer
- Cause reduction in endometrial mitotic activity and estrogen receptor concentration

Mansour Contraception 2007;75:S144-S151

- Now recommended that only one follow up visit after first period to confirm no expulsion

Neuteboom Contraception 2003

IUDs - misconceptions

- Are abortifacient
- Can travel
- Cause infection
- Should never be used by nulliparous women

The Copper IUD Has Broad Eligibility

Condition	Category
Menarche to < 20 years	2
Nulliparous	2
Vaginitis	2
≥ 20 years	1
Parous	1
Smoking	1
High blood pressure	1
Vascular disease	1
Stroke	1
Breast cancer	1
Diabetes	1

Source: WHO Medical Eligibility for Contraceptive Use 2004

Many women are eligible to use the copper IUD. It can be a safe and effective alternative for women who are not eligible for hormonal contraception.

WHO medical eligibility criteria-1st edition 1996

INTRAUTERINE DEVICES (IUDs)			
CONDITION	CATEGORY I = Initiation, C = Continuation		RATIONALE/ COMMENTS
	Cu	LNG	
POST-ABORTION			
a) First trimester	1	1	IUDs can be inserted immediately after first trimester spontaneous or induced abortion.[4]
b) Second trimester	2	2	There is some concern about the risk of expulsion after second trimester abortion. There is a lack of data on the local effects of LNG-IUD on uterine involution.
c) Post-septic abortion	4	4	There is a significant risk of infection after septic abortion.
AGE			
a) Menarche to 20 years	2	2	There is concern about the risk of expulsion in younger age-groups due to nulliparity.[5]
b) ≥ 20 years	1	1	
SMOKING			
a) Age < 35 years	1	1	This is not relevant for eligibility for IUD use. There is no risk of thrombosis with IUD use.

IUD is WHO 2 for adolescents

IUD use in adolescents

- Still WHO 2 in 2000-2nd edition of Medical Eligibility Criteria

NICE Guidelines (UK) 2005
National Institute for Health and Clinical Excellence

- IUD may be used by adolescents but STI risk should be considered where relevant
- IUD use is not contraindicated in nulliparous women of any age

IUDs and Infection

- "It has become quite clear that the IUD does not facilitate STIs or increase the risk of infertility. Bacteria are the culprits in the development of PID and infertility, while an IUD (if present) is an innocent bystander"

Rivera Contraception 2002;65:385-388

Family Health International

Underused Research Findings 2007

http://www.fhi.org/en/Topics/IUD.htm

IUD Use and PID: Less Concern than Previously

Recent evidence indicates that risk of PID related to IUD use is far lower than many have thought.

- An excellent study, among young and nulliparous women from Mexico, found no subsequent increased infertility risk among previous IUD users.
- A modeling analysis of IUDs and PID found that even where gonorrhea/chlamydia prevalence is high (10%), only about one case would occur with over 600 insertions.

Sources: Hubacher et al. 2001; Shelton 2001.

HIGHLIGHTS

As a result of these studies, WHO changed its guidance to be less restrictive about providing IUDs to women at risk of STIs.

Risk of PID if insertion with STI

- No RCTs insertion with STI v without STI
- But 6 prospective studies
- Included women who had inadvertently had IUD inserted with lab documented STI
- Risk of PID 0-3% v 0-2% without STI

Mohllagee. Contraception 2006;73:145-53

Cu IUD Review of Use in Nulliparous women

- No increased risk of tubal infertility--if not at risk of STI
- Failure rate is the same <1%
- Expulsion rates slightly higher

  1st yr 2% nullip v 2.6% parous

  5th yr 3.9% nulllip v 2.5% parous

Thiery Adv Contraception 1985

- Removal for pain and bleeding higher, continuation rate lower

Six weeks following insertion

-10.6% nullip v 2.5% parous removal of IUD

- 80% nullip v 95.7% p continuation rate

Zhou Contraception 2001

- These event rates lower with smaller devices

Method	Percentage of unintended pregnancies within first year of use	
	Typical Use	Perfect Use
Chance	85%	85%
Oral Contraceptives : Combined	5%	0.1%
Depot progestagen	0.3%	0.3%
Subdermal implants: Norplant Implanon	 0.05% 0	 0.05% 0
Intrauterine Devices: Copper T380A	0.8%	0.6%
Male condom	14.0%	3.0%

Failure rate for adolescents using the pill more "technical"problems

Although the practical failure rate of the combined pill is 5% –the adolescent failure rate is as high as 32%

Alan Guttemacher Institute 1994

Information lags behind the evidence

- British Survey (2006) reported that women lacked objective information about IUDs, not well informed by health professionals Asker 2006
- Textbooks (both UK and US) lag behind the evidence
- Advantages under-reported and disadvantages exaggerated
- Several texts listed qualities of women considered by the authors, but unsupported by the evidence, to be contraindications to IUD use eg nulliparity

Espey 2002

Do you want to update from the comfort of your own home

- Dept O+G runs 2 web based courses as part of Dip O+G
- Totally distance learning courses
- 13-15 weeks
- Can do each courses as one off for CME
- Each course is 150 hours and can get 150 MOPS points over 3 years
- Email j.joubert@auckland.ac.nz

WEB 712-contraception,pre and early pregnancy care

- Contraception (4 weeks)
- Preconceptual counselling
- Early normal pregnancy management
- First antenatal visit
- Early pregnancy screening
- Diagnosis of abnormal fetal development
- Early abnormal pregnancy

WEB 715-medical gynaecology 1

- Cervical and breast screening
- Menstrual disorders-bleeding problems
- Menstrual disorders-pelvic pain,dyspareunia,PMS
- Sexually transmitted infections
- Vaginal discharges
- Vulval problems
- Climacteric and menopause(2 weeks)