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**PLEASE DO NOT USE A FAX COVER PAGE**

DATE: \_\_\_\_\_ NUMBER OF PAGES: \_\_\_\_\_

**ATTENDANCE VERIFICATION**  
**Implementing Evidence-Based Practices: Quick Start**  
**June 16, 2010**

**Instructions:** To receive a CME or Nursing certificate complete this form, the demographic form, the evaluation form and the post activity questionnaire. **Submit them together by fax to Alma Krcic at 212-629-3321 by Friday, July 2, 2010. All forms must be received together in order to receive a certificate.** Respondent's information will be held confidential.

TITLE/DEGREE: MD  DO  RN  NP  PA  LPN

OTHER \_\_\_\_\_

**Please choose only one:**

I WOULD LIKE A  CME or  NURSING CERTIFICATE

THE ADDRESS PROVIDED BELOW IS MY  WORK  HOME ADDRESS:

\_\_\_\_\_  
 First Name Last Name

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 Street

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 City, State, Zip Code

\_\_\_\_\_  
 Email Address ( ) Telephone Number

**Program ID: 13968**

**Cicatelli Associates Inc.**  
*Anonymous Participant Demographic Form*



To target our services better, we are asking all of our participants to complete the following information.

**Gender**     Female     Transgender  
                   Male         Intersex

**Age**   

**Are you of Hispanic, Latino, or Spanish origin?**  
 Yes         No

**Race (select all that apply)**  
 American Indian/Alaskan Native  
 Asian  
 Black or African American  
 Native Hawaiian/Other Pacific Islander  
 White  
 Other: \_\_\_\_\_

**Highest level of formal education**  
 Less than High School Diploma     Bachelor's Degree  
 High School Diploma/GED         Master's Degree  
 Some College                             Doctoral Degree  
 Associate's Degree

**Advanced degrees and certifications (select all that apply)**  
 MD/DO     CNA         RD         MPH  
 PA         LPN/LVN     CHES     MSc  
 DDS        RN         CASAC    MA  
 OD         NP         LCSW    MS  
 PhD        CNM        LPC      Other (fill in below)  
 JD         CNS        LMHC         
 CPA        ACRN      MSW

**Primary functional role(s) (select all that apply)**

<input type="radio"/> Accounting	<input type="radio"/> Medical Director
<input type="radio"/> Administrator/Supervisor	<input type="radio"/> Nutritionist
<input type="radio"/> Board Member	<input type="radio"/> Outreach Worker
<input type="radio"/> Care Provider/Clinician	<input type="radio"/> Patient Advocate/Navigator
<input type="radio"/> Case Mgmt. Technician	<input type="radio"/> Peer Educator/Advocate
<input type="radio"/> Case Manager	<input type="radio"/> Program Director
<input type="radio"/> Childcare Worker	<input type="radio"/> Program Manager/Coord.
<input type="radio"/> Clergy/Spiritual Leader	<input type="radio"/> Psychiatrist
<input type="radio"/> Community Follow-Up Worker	<input type="radio"/> Psychologist
<input type="radio"/> Counselor/Therapist	<input type="radio"/> Social Worker
<input type="radio"/> Data Manager	<input type="radio"/> Student/Graduate Student
<input type="radio"/> Epidemiologist	<input type="radio"/> Trainer/Teacher/Faculty
<input type="radio"/> Financial Manager	<input type="radio"/> Volunteer
<input type="radio"/> Health Educator	<input type="radio"/> Not Working/Not Employed
<input type="radio"/> Medical Assistant	<input type="radio"/> Other

**How long have you been in your primary functional role?**      years

**Area(s) of specialization (select all that apply)**

<input type="radio"/> Adolescent Health	<input type="radio"/> Pediatrics
<input type="radio"/> CAM	<input type="radio"/> Prenatal Care/OB/Gyn
<input type="radio"/> Criminal Justice	<input type="radio"/> Primary Care
<input type="radio"/> Early Childhood	<input type="radio"/> Reproductive Health
<input type="radio"/> Education	<input type="radio"/> Research
<input type="radio"/> HIV/AIDS	<input type="radio"/> STIs/STDs
<input type="radio"/> Information Systems	<input type="radio"/> Substance Abuse
<input type="radio"/> International Health	<input type="radio"/> Tobacco Control
<input type="radio"/> Mental Health	<input type="radio"/> Violence Prevention
<input type="radio"/> Nutrition/Obesity	<input type="radio"/> Other
<input type="radio"/> Oncology/Cancer	

**How long have you been in your primary area of specialization?**      years

**Principal employment setting (select all that apply)**

<input type="radio"/> Adolescent Health Center	<input type="radio"/> EMS/Police/Fire	<input type="radio"/> Homeless Shelter	<input type="radio"/> School/Educational Institution
<input type="radio"/> CBO/Community Agency	<input type="radio"/> Faith-Based Org.	<input type="radio"/> Hospice/Palliative Care	<input type="radio"/> State/Local Health Dept.
<input type="radio"/> Child Welfare Services/Foster Care	<input type="radio"/> Family Planning Agency	<input type="radio"/> Hospital or Hospital-Based Clinic	<input type="radio"/> STD Clinic
<input type="radio"/> Community/Migrant Health Ctr.	<input type="radio"/> HIV/AIDS Service Org.	<input type="radio"/> Long-Term Care Facility	<input type="radio"/> Substance Abuse Treatment Prg
<input type="radio"/> Correctional Facility	<input type="radio"/> HMO/Managed Care Org.	<input type="radio"/> Mental Health Facility	<input type="radio"/> Tribal/Indian Health Center
<input type="radio"/> Domestic Violence/Rape Crisis Ctr.	<input type="radio"/> Home Care	<input type="radio"/> Private Practice	<input type="radio"/> Other
<input type="radio"/> Early Childhood Facility			

**Zip-code of your principal employment setting**   

**Location of your principal employment setting**  
 Urban     Suburban     Rural     Indian Reservation

Thank you for completing this questionnaire!



## PROGRAM EVALUATION

**Program Title:** Implementing Evidenced-Based Practices: Quick Start

**Date:** June 16, 2010

**Program ID:** 13968

*Circle your answers*

1. To what extent did the presentation meets its stated objectives: <b>Following this training, participants will be able to:</b>	<b>Poor</b>	<b>Fair</b>	<b>Good</b>	<b>Very Good</b>	<b>Excellent</b>
a. Explain to patients why Quick Start methods of initiating contraception are safe	1	2	3	4	5
b. Discuss with patients and colleagues how Quick Start methods of initiating contraception are associated with lower contraceptive failure rates than traditional start methods	1	2	3	4	5
c. Apply Quick Start methodology over a variety of contraceptive methods and clinical situations	1	2	3	4	5
2. To what extent did the objectives relate to the overall purpose?	1	2	3	4	5
3. Your satisfaction with your level of participation during the presentation.	1	2	3	4	5
4. Usefulness of the instructional materials.	1	2	3	4	5
5. Degree to which this was a good learning experience.	1	2	3	4	5
6. Overall satisfaction with the presentation.	1	2	3	4	5

**PLEASE RESPOND TO THE FOLLOWING** (print your answers):

7. The most useful part of the presentation was:

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8. The least useful part of the presentation was:

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9. As a result of attending this presentation, I plan to:

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10. The mix of theory and skill practice at this presentation was:

too much theory

too much practice

a good mix of both

PLEASE RATE THE FACILITATOR(S) ON A SCALE OF 1 (LOWEST) TO 5 (HIGHEST):

Circle your answer for each facilitator on the line indicated.

11. I felt the facilitator(s):	Name	Disagree					Agree
a. Knew the subject matter thoroughly.	<u>Elizabeth Lorde-Rollins, MD</u>	1	2	3	4	5	
b. Presented the information clearly.	<u>Elizabeth Lorde-Rollins, MD</u>	1	2	3	4	5	
c. Provided opportunities for participation.	<u>Elizabeth Lorde-Rollins, MD</u>	1	2	3	4	5	
d. Provided opportunities for questions.	<u>Elizabeth Lorde-Rollins, MD</u>	1	2	3	4	5	
e. Was able to hold my attention.	<u>Elizabeth Lorde-Rollins, MD</u>	1	2	3	4	5	
f. Extent to which the teaching methods were effective.	<u>Elizabeth Lorde-Rollins, MD</u>	1	2	3	4	5	

12. What changes would you recommend for improving this presentation?

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13. What additional presentations would you like to attend in the future?

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14. Please rate your experience using this web-based training forum by visiting [www.cicatelli.org/evals](http://www.cicatelli.org/evals). Thank you.

15. Additional comments:

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**IF YOU ARE REQUESTING A NURSING OR CME CERTIFICATE, PLEASE RESPOND TO THE FOLLOWING:**

1. What is your medical profession?

- MD                       DO                       APN/NP                       PA  
 RN                         PhD                       Other (please specify) \_\_\_\_\_

2. Continuing Education presentations "must be free of commercial bias for or against any product." In your opinion, was this program fair, balanced and free of commercial bias?       Yes                       No

3. What percentage of the material presented is new to you?

- 0%                       20%                       40%                       60%                       80%                       100%

4. After attending this presentation, will you make any changes to your practice?       Yes                       No

5. If yes, explain how:

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6. If no, list the barriers that affect change in your practice:

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*Thank you for completing the Program Evaluation.*



## Implementing Evidence-Based Practices: Quick Start

### June 16, 2010

### Post-Activity Survey

Please complete this brief post-activity survey. This information will greatly assist us in planning future continuing education activities. All responses will be kept confidential.

1. Quick Start has the following components (choose all correct statements):
  - a. Pap test occurs at first encounter
  - b. Initiated when patient decides to use method
  - c. Defers initiation of contraceptive method until commencement of next menstrual period
  - d. Includes assessment of recent unprotected sex
  
2. After participating in this program, my knowledge of the risks and benefits of intrauterine, hormonal, intradermal and intramuscular contraceptive approaches has:
  - a. Increased
  - b. Increased substantially
  - c. Not changed at all
  
3. How confident are you with prescribing birth control to young women who have never had a Pap test?
  - a. Not confident at all
  - b. Some confidence
  - c. Very confidence
  
4. How likely are you to implement the Quick Start method as a result of participating in this training?
  - a. Very likely to start implementing Quick Start
  - b. Likely to start implementing Quick Start
  - c. Not likely to start implementing Quick Start
  - d. Not applicable
  
5. The Continuing Medical Education(CME) mission is to provide relevant, culturally sensitive and accessible educational opportunities to physicians who serve low-income communities and/or special populations. Do you believe this training reflected our mission?
  - a. The training reflected this mission
  - b. The training did not reflect this mission

## Implementing Evidence-Based Practices: Quick Start

Elizabeth Lorde-Rollins, M.D., M.Sc.  
 Assistant Professor of Obstetrics and Gynecology  
 Assistant Professor of Pediatrics  
 Mount Sinai Adolescent Health Center  
 Consultant, Cicatelli Associates

## Course Objectives

*Following this training, participants will be able to:*

- Explain to patients why Quick Start methods of initiating contraception are safe
- Discuss with patients and colleagues how Quick Start methods of initiating contraception are associated with lower contraceptive failure rates than traditional start methods
- Apply Quick Start methodology over a variety of contraceptive methods and clinical situations

## Disclosure

The following people have no relevant financial relationships to disclose:

**Faculty:**

Dr. Elizabeth Lorde-Rollins, MD

**Program Planners:**

Robert Cohen, MD  
 Melanie Steilen, RN, BSN, ACRN  
 Marsha Marecki, EdD, WHNP-C

**Program Reviewers:**

Robert Cohen, MD  
 Marsha Marecki, EdD, WHNP-C

There are no commercial supporters of this activity.

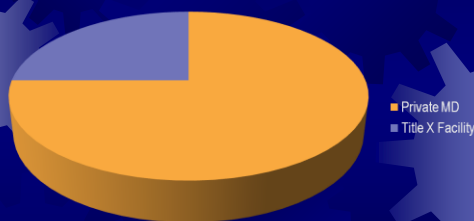
## Why Are We Here?

- Almost half of all pregnancies in the United States are unintended
- Of these, 54% result in termination
- 46% of unintended pregnancies in the United States result in live births
- 47% of pregnancies occur in women who report actively using contraception

Finer LB, Henshaw SK. Disparities in rates of unintended pregnancy in the US, 1994 and 2001. *Perspect Sex Reproduct Health* 2006; 38: 90-96

## Where do US Women Obtain Contraception?

Receive any Contraceptive Service From:



Landy DJ, Wei J, Frost JJ. Public and private providers' involvement in improving their patients' contraceptive use. *Contraception* 2008; 78: 42-51

## How Important is Contraceptive Counseling?

- National data suggest that public sector facilities provide a wider range of sexual and reproductive health services
- We have little information about actual contraceptive counseling practices
- Contraceptive counseling has been identified as a key element in effective contraceptive provision



Landy DJ, Wei J, Frost JJ. Public and private providers' involvement in improving their patients' contraceptive use. *Contraception* 2008; 78: 42-51

## What Are the Elements of Effective Contraceptive Counseling?

- Based on information from a careful sexual history
- Individualized to patient's
  - Preferences
  - Abilities
  - Risks
  - *Past experience of side effects*
- Provided at initiation and follow-up
- Responds to patient needs
  - Sexuality
  - Prevention of sexually transmitted infections

USPSTF. Counseling to prevent unintended pregnancy. *Guide to Clinical Preventive Services*, 2<sup>nd</sup> ed. Washington, DC: US Dept of Health and Human Services, 1996

World Health Organization. Dept. of Reprod Health and Research. *Medical eligibility for contraceptive use*, 3<sup>rd</sup> ed. Geneva, Switzerland: WHO, 2004

## What Else Can We Do to Increase Likelihood of Contraception?

### *Remove Barriers to Initiation:*

- Delaying pelvic exams at first prescription for method of contraception
- “Quick-Start” initiation protocols for a variety of contraceptive methods

Landry DJ, Wei J, Frost JJ. Public and private providers' involvement in improving their patients' contraceptive use. *Contraception* 2008; 78: 42-51

## What is Quick Start?

- Directly observed administration of contraceptive method
- Initiated when patient decides to use method
- Does *not* defer initiation of contraceptive method until commencement of next menstrual period (conventional start)
- Requires an assessment of current pregnancy status
- Includes assessment of recent unprotected sex

## A Brief History of Facilitated Access to Contraception

- 1993: The FDA revises package inserts for oral contraceptives, allowing women to delay a pelvic exam when seeking hormonal contraception
- 1995: 45% of publicly funded family planning agencies allow contraceptive initiation without a pelvic exam
- 2001: Federal regulators approve similar guidelines for Title X facilities
- 2002: Westhoff et al's paper in *Contraception* published
- 2003: 70% of publicly funded family planning agencies allow contraceptive initiation without a pelvic exam
- 2005: 78% of Planned Parenthood Clinics have adopted Quick Start protocols (Landry et al)

## Contraceptive Education and Counseling: Melanie

- Melanie is a 16 y.o. gravida 0 who recently became sexually active. She is terrified of getting pregnant, but has only been using condoms “about 80% of the time” because “my boyfriend hates them.”
- Melanie's medical, surgical and family histories are unremarkable. She is a junior in high school, and hasn't disclosed to her parents that she's having sex. She smokes about three cigarettes a week and denies other toxic habits.
- After the medical interview and a discussion to introduce the pelvic exam (this is the first time she's seen a gynecologist), Melanie states she is interested in birth control.

## Question

- The most important thing to discuss with Melanie at this time is:
  - Hormonal contraceptive options
  - Abstinence support
  - Smoking cessation
  - Condom use

## Answer

- The most important thing to discuss with Melanie at this time is:
  - Hormonal contraceptive options
  - Abstinence support
  - Smoking cessation
  - **Condom use**

## Factors that Make Sexual Activity (Especially) Risky

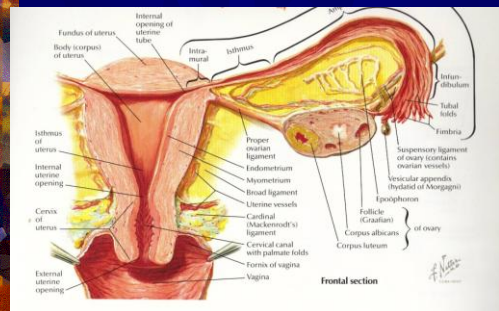
- Lack of adequate contraception and STI prophylaxis
- High frequency: daily or weekly intercourse
- Multiple partners, **even if serially monogamous**
- Casual sex (“friends with benefits”)
- Intoxication
- Depression; poor self-esteem
- Anal intercourse
- Power discrepancy between partners (age, social prestige, economic status)

Comer LK, Nemeroff CJ. J Applied Soc Psychol 2000; 30: 2467-2490

## Contraceptive Options

- Barrier methods (emphasize ECP availability)
- Combined hormonal contraceptives
  - Oral contraceptives (including extended regimen formulations)
  - Contraceptive patch (Ortho-Evra)
  - Contraceptive ring (Nuvaring)
- Oral progestin (Micronor, and others)
- Depot medroxyprogesterone (Provera)
- Intrauterine devices
  - Copper-containing IUD (Paragard)
  - Levonorgestrel-containing IUS (Mirena)
- Long-acting progestin implant (Implanon)

## Mechanisms of Action



## Mechanism of Combined Hormonal Contraception

- Suppression of ovarian function
  - Exogenous supply of estrogen and progestin
  - FSH and LH effectively inhibited
- Ovulation inhibited
- Withdrawal bleed is mostly effected by removing progestin (removal of estrogen contributes)
  - Oral: placebo pills
  - Transdermal: week without patch
  - Intravaginal: week without ring



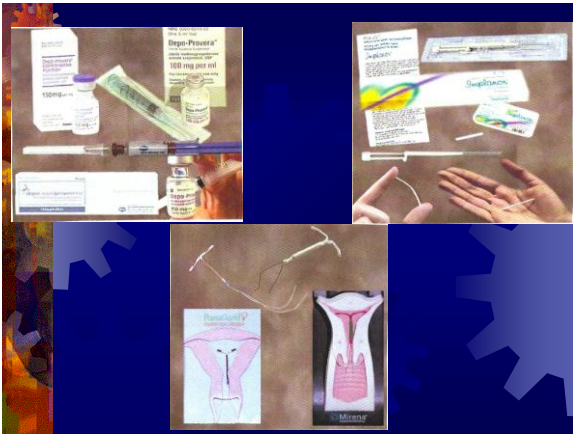
## Contraindications to Estrogen Use

- Absolute
  - History of vascular disease (thromboembolism, CAD)
  - Uncontrolled hypertension
  - Migraine with aura
- Relative
  - Heavy smoker less than 30 years old (consider low dose)
  - Hypertriglyceridemia (consider norgestimate if mild)

## Mechanism of Long-Acting Progestin Contraception

- Decidual changes that result in endometrial suppression and increased vascular fragility
  - Dilated superficial vessels
  - Minimal effects on spiral arterioles
  - Suppressed epithelial repair
- Cervical mucous thickening
- Ovulation may be inhibited, but typically at higher doses
- Abnormal uterine bleeding will result with all delivery types
- Timing of AUB unpredictable

Hickey M, Salamonsen LA.  
Trends Endocrinol Metab 2006; 19(5):  
167-174



## Differences in Subdermal and Intrauterine Progestins

### Intrauterine

- High local concentrations of progestin
- Highly decidualized endometrium
- Suppression of progesterone receptors

### Subdermal

- Low uterine progestin concentrations
- Tissue appearance can be atrophic, shedding, or decidualized
- Tissue appearance doesn't correlate with bleeding pattern
- Progesterone receptor expression increased

## Depot Medroxyprogesterone : Subcutaneous or Intramuscular?

	Intramuscular	Subcutaneous
Dose	150 mg	104 mg
Delivery	Intramuscular (IM)	Subcutaneous (sq)
Generic Available?	yes	no
Self-Administration?	no	yes
Efficacy	Onset within 24 hours Ideal use: 99.7% effective	Onset within 24 hours Ideal use: 99.7% effective
Duration	14 weeks (12 re-dose)	14 weeks (12 re-dose)

Haider S, Darney PD.  
Clin Obstet & Gynecol 2007; 50(4): 898-906

## Contraceptive Mechanism of Depot Medroxyprogesterone

- Mainly affects cervical mucous in short term
- Blocks LH surge to prevent ovulation
- Detectable in serum within 1 hour of injection
- Cervical mucous is sufficiently hostile to effect contraceptive action within 3 days in 90% of patients
- Clinicians told to counsel patients to expect full contraceptive action after 7 days
- Due to long-term changes in the decidua, abnormal uterine bleeding and a delay to full fertility following extended use may be expected

Petta CA et al.  
Fertility & Sterility 1996; 69(2): 252-257

## Mechanism of Copper-Containing Intrauterine Contraception

- Marked local foreign body reaction
  - Increased neutrophils, mononuclear cells, and plasma cells
  - Sperm motility and viability are adversely affected by copper ions
- No obvious extrauterine effects (does *not* inhibit ovulation)
- Copper ions alter metabolism of endometrial cells

Ortiz ME, Croxatto HB.  
Contraception 2007; 75: S16-S30

## Back to Melanie...

- Melanie is actually a little bored with your discussion about mechanisms of contraceptive action for each method. She's much more interested in side effects.
- This is what she's heard so far from friends:
  - The shot and the pill make you gain weight; there's no avoiding it
  - The patch is out because you'll get blood clots if you smoke and use the patch
  - The ring is nasty and boys hate it

## Question



- We can tell Melanie that:
  - Neither oral contraceptives nor injectable DMPA are associated with weight gain
  - Although her risk of blood clot is significantly increased with transdermal combined contraception, protection against pregnancy is well worth it
  - Many male partners do hate the ring, but that if she removes it for sex, it's OK as long as she puts it back in the vagina in the morning
  - None of the above

## Answer



- We can tell Melanie that:
  - Neither oral contraceptives nor injectable DMPA are associated with weight gain
  - Although her risk of blood clot is significantly increased with transdermal combined contraception, protection against pregnancy is well worth it
  - Many male partners do hate the ring, but that if she removes it for sex, it's OK as long as she puts it back in the vagina in the morning
  - None of the above**

## Contraception-Associated Weight Gain

No	Yes	Maybe
Combined hormonal methods	Intramuscular DMPA	Subdermal progestin implants
Intrauterine methods	Subcutaneous DMPA	Oral progestins
Barrier methods		

Arias RD et al. Contraception 2006; 74:  
234-238 Westhoff C et al.  
Contraception 2007; 75: 261-267

## Evidence for Weight Gain in DMPA Users

- 2.1% of DMPA user discontinue method secondary to weight gain
- Westhoff, 2007: users averaged 2-3 kg weight gain over first 12 months of use in American cohort; weight gain less in European cohort
- Some studies have shown an average of 12-15 pound weight gain in first year of use
- Certain subgroups may be more at risk
  - Obese adolescents
  - Navajo women
  - Women predisposed to insulin insensitivity?

Halder S. Clin Obstet & Gynecol 2007;  
59: 898-906 Westhoff et al.  
Contraception 2007; 75: 261-267

## Understanding Combined Hormonal Contraception and Venous Thromboembolism Risk

- VTE is a rare event in reproductive-age women
- VTE is not at all associated with progestin-only methods
- Risks of VTE are elevated in certain subgroups
- Inform patient: risks multiply (not add)
- Make sure you and your patient understand the difference between relative risk and absolute risk (how common is the event in general population?)

Kaunitz AM, Westhoff CL.  
OBG Management 2008; suppl S1-S11

## Counseling Patients: Venous Thromboembolism Risk

TABLE 1

Reference	VTE incidence and pregnancy				
	Rate of VTE per 10,000 Woman-Years				
	Not Pregnant		Pregnant	Pregnant + Any Thrombophilia	Pregnant + Factor V Leiden
No COC	COC				
Farmer 1995 <sup>28</sup>	1.1	3.0	5.9	—	—
Simpson 2001 <sup>29</sup>	—	—	8.5	—	—
EMEA 2001 <sup>1</sup>	0.5-1.0	3.0	6.0	—	—
James 2006 <sup>32</sup>	—	—	17.2 <sup>a</sup>	51.8	—
Helt 2005 <sup>33</sup>	—	—	19.97	—	—
Martinelli 2002 <sup>29</sup>	—	—	—	9.1	10.6
Dinger 2007 <sup>34</sup>	2.3 <sup>b</sup>	9.1 <sup>b</sup>	19.4	—	—

COC, combination oral contraceptive; EMEA, European Agency for the Evaluation of Medicinal Products; VTE, venous thromboembolism.  
<sup>a</sup>Rate per 10,000 deliveries; half of events occurred postpartum.  
<sup>b</sup>Rate may not be representative for patients who have never used COCs.  
<sup>c</sup>Includes users of hormonal nonoral contraception.

## VTE Risk and Oral Contraceptives

- Overall risk of VTE in oral contraceptive (OCP) users is elevated three times over that of non-users
- 2-fold greater risk of VTE found in users of OCPs that contain desogestrel and gestodene compared with users of OCPs that contain levonorgestrel
- OCPS containing norgestimate have similar risk to users of OCPs that contain levonorgestrel

Kaunitz AM and Westhoff CL.  
OBG Management 2008; Suppl: S1-S11

## VTE Risk and Transdermal CCs

TABLE 4

Study	VTE Cases	Comparative risk of VTE with the patch vs NGM/EE COC: Women 15 to 44 years of age <sup>41-43</sup>			Odds Ratio <sup>b</sup> (95% CI)
		Overall Incidence Rate per 10,000 Woman-Years		Incidence Rate Ratio <sup>a</sup> (95% CI)	
		Patch	NGM/EE		
Jick 2006 <sup>41</sup>	68	5.28	4.18	1.1 (0.7-1.8)	0.9 (0.5-1.6)
Jick 2007 <sup>42</sup>	56 <sup>c</sup>	NR	NR	NR	1.1 (0.6-2.1)
Jick 2006 & 2007: all cases <sup>41,42</sup>	124	NR	NR	NR	1.0 (0.7-1.5)
Cole 2007 <sup>43</sup>	57	4.08	1.83	2.2 (1.3-3.8)	2.0 (1.0-4.1)

CI, confidence interval; COC, combination oral contraceptive; EE, ethinyl estradiol; NGM, norgestimate; NR, not reported; VTE, venous thromboembolism.  
<sup>a</sup>Age-adjusted, patch vs NGM/EE, mg/EE.  
<sup>b</sup>Patch vs NGM/EE, mg/EE.  
<sup>c</sup>Data accrued since 2006; only new cases included.

## So Is Melanie a Candidate for Quick Start or Not?

- Her urine pregnancy test today is negative
- Her most recent sexual activity was 2 days ago, protected with a male condom throughout encounter, without breakage
- **YES!**
- Now, what if condom had broken 2 days ago?

## Emergency Contraception

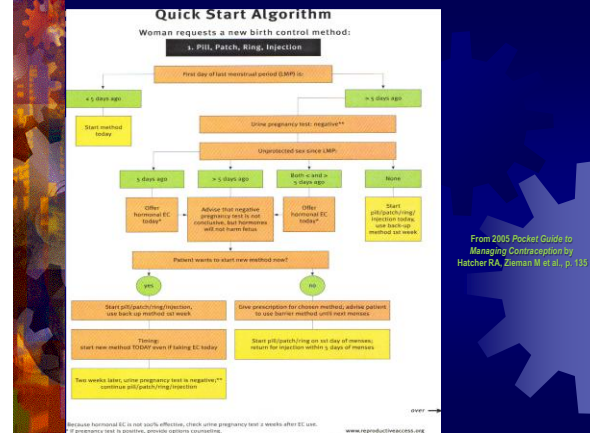
- Currently available in one pre-packaged formulation, Plan B
- Plan B: 1.5 mg levonorgestrel
  - Single or divided doses (each tablet 0.75 mg)
  - Some efficacy up to 120 hours after exposure
- Yuzpe method: 100 ug ethinyl estradiol and 0.5 mg levonorgestrel, repeated 12 hours later (75% pregnancies prevented)
- Still a role for traditional OCPs; norethindrone doesn't diminish efficacy

Cheng L et al.  
Cochrane Database Syst Rev 2004; (3): CD001324

## ECP: Comparison of Regimens

Parameter	Yuzpe regimen	Levonorgestrel	Mifepristone
Dose	100 ug ethinyl estradiol 0.5 mg levonorgestrel, 2 divided doses	Single dose: 1.5 mg levonorgestrel Split dose: 0.75 mg, 12 to 24 hours apart	Low dose: <10mg Mid dose: 25-50 mg
Efficacy	49-75% effective	74-88% effective	74-92% effective
Cost	Less	Less	More
Nausea	More	Less	More
Delayed menses	Not noted	Not noted	Yes, dose-related

Cheng et al. *Coch D Syst Rev* 2004;(3):  
CD001324  
Ngai SW et al. *Hum Reprod* 2005;  
20(1): 307-311



From 2005 Pocket Guide to Managing Contraception by Hatcher RA, Zaman M et al., p. 135

## Implementing Quick Start

- Sensitive urine pregnancy test
- Emergency contraception if indicated
  - Several authors advocate advance prescription of ECP to cover first week of new method
- Immediate initiation of hormonal contraceptive (takes first pill, applies patch, inserts ring, or receives injection in clinic on same day she elects method)
- Condoms or abstinence for seven days
- Return to clinic four weeks later if no menses

Edwards SM et al.  
*Jnl Adol Health* 2008; 43: 432-436

## Why Did We Wait for Menses Before?

- WHO recommendations: Start OCs within 5 days after the start of menses (no additional protection needed) OR start OCs at any other time, if it is reasonably certain patient is not pregnant. Abstain from sex or use additional contraception for 7 days
- In 2005,
  - High sensitivity pregnancy tests
  - No longer concerned about teratogenesis
  - Emergency contraception available
  - Bleeding changes unaffected by start day

Westhoff *ObstetGynecol* 2007; 109(6): 1270-1276  
Nelson AL, Katz T. *Contraception* 2007; 75: 84-87

## What is Reasonably Certain?

- No intercourse since LMP
- Correctly using a reliable method
- Is within first 7 days of menses
- Is within four weeks post-partum
- Is within 7 days post-abortion

Westhoff et al. *Obstet Gynecol* 2007; 109(6): 1270-1276

## Intrauterine Contraception: Jasmine

- Jasmine is a 21 yo G6 P0 who presents for her annual exam, and new to you. She reports using no contraception at the current time, stating "nothing ever worked for me."
- Her past medical, surgical and family histories are unremarkable; her gynecological history is remarkable for menses that are usually 8 days long. The physical exam, including pelvic, is within normal limits.

## Jasmine, continued

During your exit counseling, Jasmine admits to severe dysmenorrhea, but when you tell her that oral contraceptives would likely help alleviate these symptoms, she just rolls her eyes. "Have you even read my chart?!", she asks. You have to admit you have not even glanced at her chart, which is 2 inches thick. "Well, they never helped me, and I've tried every one you got. If anything, my pain was worse on those things."

## Don't Be Discouraged



## Why Bother with Long-Acting Reversible Contraception?

- 45 years after introduction of OCPs, 49% of all US pregnancies are unintended
- Over 75% of pregnancies in women aged 21 and under are unintended
- Most popular form of birth control in the US: sterilization
  - 60% regret rate in those younger than 30 at sterilization
  - 75% regret rate in those younger than 25 at sterilization

## Intrauterine Contraception in Adolescents

- Highly effective and safe
- Under-utilized
- Younger women may be especially unaware of intrauterine devices as contraceptive options

Gold MA, Johnson LM.  
Curr Opin Obstat Gynaecol  
2008; 20: 464-469

## Levonorgestrel IUS in Adolescents

- Advantages in this population:
  - Lower rates of discontinuation
  - May lower the risk of unintended pregnancy
- Does not increase risk of PID and STIs
- Does not affect future fertility
- May lower the risk of PID by thickening cervical mucous and thinning the endometrium

ACOG Committee Opinion Number 392 December 2007.  
Intrauterine Device and Adolescents

Parameter	Copper T 380	LNG-releasing device
Composition	380 sq mm of exposed copper on arms and stem; polyethylene frame impregnated with barium	reservoir of 52 mg of levonorgestrel
Year approved by FDA	1998	2001
Duration of use	Up to 10 years	Up to 5 years
Supply to endometrium	Copper ions	15-20 ug of levonorgestrel per day
Mechanism of action	Reduced sperm motility; may disrupt normal division of oocytes and ova formation	Thickens cervical mucous; inhibits sperm function; thins Endo-metrium
Use in adolescents	Safe for women over 16yo	"First-line choice for parous and nulliparous adolescents"
Continuation at 1 year	78% (adults)	81% (adults)

## Effects on Menstrual Flow

### Copper T380

- Increases flow
- May increase duration
- May increase cramping
- No change in amenorrhea
- Very little unpredictable bleeding, usually confined to first 3 months of use

### LNG-Releasing IUS

- Decreases flow
- Decreased duration of menses
- Typically decreases cramping
- Amenorrhea common after 6 months of use
- Unpredictable bleeding common in first 6 months of use

Gold MA, Johnson LM.  
Curr Opin Obstet Gynecol  
2008; 20: 464-469

## Subdermal Implant: Mary

- Mary is a 19 yo G2 P1, and she comes in to see you specifically requesting “that new thing that goes in your arm. I saw it on TV.”
- After taking a full history (unremarkable) and performing a comprehensive physical exam (within normal limits), what do you need to tell Mary about the subdermal implant?

## Counseling Topics for the Subdermal Implant

- Description of implant
- Efficacy
- Return to fertility
- Bleeding patterns --- **KEY**
- Managing potential side effects
- Overview of insertion and removal
- Recommended follow-up

Darney PD, Clark BC.  
The Female Patient 2008; 33: 48-52

## Potential Side Effects of Subdermal Implant

- Bleeding irregularities
  - Infrequent bleeding (26.9%)
  - Amenorrhea (18.6%)
  - Prolonged bleeding (15.1%)
  - Frequent bleeding (7.4%)
- Bleeding pattern may be unpredictable and variable for duration of use
- Weight gain (2.3%)
- Emotional lability (2.3%)
- Headache (1.6%)
- Acne (1.3%)
- Depression (1%)

Darney PD, Clark B. The Female Patient 2008; 33: 48-52

## Conclusion: Strategies for Enhancing Contraceptive Success

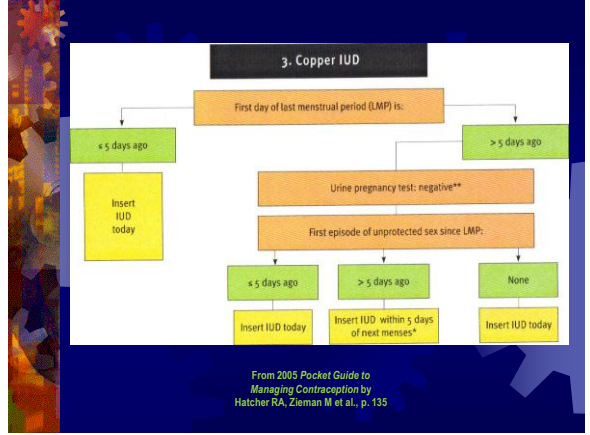
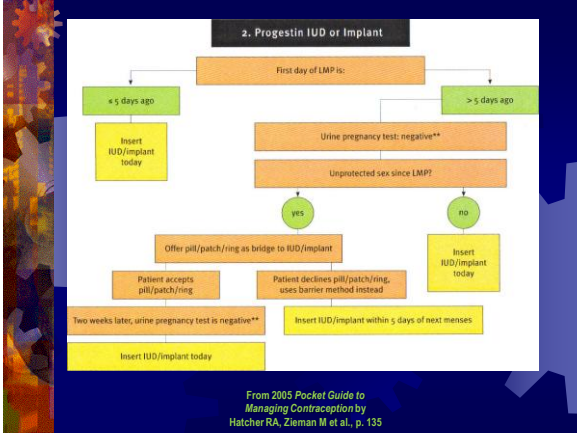
- Provide long-acting reversible contraception
  - Typical use rates close to perfect use rates
- In some instances, LARC is more effective than sterilization
- Must be accessible
  - Affordable
  - Obtainable
- Decrease likelihood that patient will discontinue method:

**COUNSELING**

## Quick Start is Not Just for OCPs

Study	Method	N	Follow-Up	Findings
Westhoff et al. 2002	OCPs	250	One month	QS patients almost 3 times as likely to begin second pill pack
Schafer et al. 2006	Vaginal ring vs. OCPs	174	3 months	61% of ring users, 34% of pill users very satisfied with method 79% of ring users, 59% of pill users chose to continue method
Nelson and Katz 2007	Injected DMPA	1056	2 years	Continuation rates comparable (approximately 30% for both groups)
Edwards et al. 2008	OCPs	539	One year	Continuation rates comparable (26%); QS users twice as likely to continue OCPs at 3 months

Schafer JE et al. Acceptability and satisfaction using QS with contraceptive vaginal ring vs. an OC. Contraception 2006; 73: 488-492  
Nelson AL, Katz T. Initiation and continuation rates seen in 2 yr experience with same day injections of DMPA. Contraception 2007; 75: 84-87



“Millions of women are asserting their right to voluntary motherhood. This is the fundamental revolt. It is for women the key to the temple of liberty.”

--Margaret Sanger, 1920

“Perseverance is failing nineteen times and succeeding the twentieth.”

-- Julie Andrews, 1976

**Thank You!**

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