Contraception Troubleshooting

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Health Ed Brisbane
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Tricky Contraceptive Questions: Where do I find the Answers?

- WHO Medical Eligibility Criteria[1]
- Faculty of Sexual and Reproductive Health Care In UK
- Australian Family Planning Organisations
  - Contraceptive Handbook-$60
  - Talk Line- 1300 658 886

1.http://www.who.int/reproductivehealth/publications/family_planning/9789241563888/en/index.html

Faculty of Sexual and Reproductive Health Care

- http://www.fsrh.org/pdfs/UKMEC2009.pdf

Faculty of Sexual and Reproductive Health Care

- http://www.fsrh.org/pages/Clinical_Guidance_4.asp

Barbara asked about the significance of the VTE risk in the just-published BMJ Study

"Worst- case Scenario"	Annual Risk per 10,000 women aged 15-44
VTE -No hormonal contraception and not pregnant	3-5
VTE- On COCP containing levonorgestrel or norethisterone[1,2]	5-8
Transdermal patches and Vaginal rings[3]	8-10
VTE- On COCP containing desorgestrel, gestodene, drospirenone[2,6]	9-14
VTE-antenatal[1,4,5]	29
VTE-Immediate postpartum period[4,5]	45-65 (at least)

- Stratification not apparent in prospective studies[7,8]
- Most women who have a VTE on the COCP would be at significantly higher risk in their first pregnancy

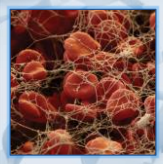
1. Reid R et al. Int J Gynaecol Obstet 2011;112(3):252-6. 2. Lidegaard O et al. BMJ 2011;343:d6423. 3. Lidegaard O et al BMJ 2012;344:e2990 4. Simpson EL et al. BJOG 2001. 108(1): 56-60. 5. Reid RL et al. J Fam Plann Reprod Health Care 2010;36:117-122 6. Vinogradova Y et al. BMJ 2015;350:h2135. 7.Dinger JC et al. Contraception. 2007;75:344-54. 8.Dinger J et al. Contraception. 2014; 89:253-263

VTE/PE and Combined Contraception

- Most epidemiologists regard ORs hovering around 2.0 as below the threshold for public health concern unless high absolute risk
- At most a 'doubling' of the VTE risk for the newer progestogens translates into an additional 4–6 attributable cases per 10,000 users per year[1] (and I hope this answers Chris's question)
- Risk of death from VTE is approximately one hundredth of that, and could be counterbalanced by choosing to drive for 2 hours less each year[2]
- BUT: remember to ask about Family History before COCP use
  - VTE in first degree relative under 45- FSRHC 3
  - Over 45- FSRHC 2
- Remind women to list COCP on their medication history!
- Consider starting new patients on one of the older Pills

1. Bitzer J et al. J Fam Plann Reprod Health Care doi: 10. 1136/ jfprhc-2013-100624
2. Guillebaud J et al.Contraception: Your Questions Answered (6th Edition, 2012); Churchill Livingstone, London, GBR. Page 186 3. FSRHC MEC Guidelines- 2010

Chris asked about Aspirin and VTE Prevention



- Aspirin is useful for prevention of arterial thrombosis but not venous.
- It does not reduce VTE risk in high risk patients[1,2]
- American, UK and Australian authorities do not recommend it for prophylaxis on long haul flights [3,4,5]
- VTE can occur even on anticoagulant therapy
  - An overall rate of 5.5% of recurrent VTE during the initial 3 months of treatment[6]
  - 7.0% in another large registry study[7]

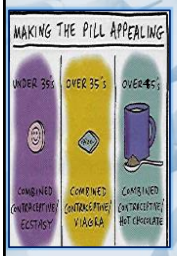
1. Kahn SR et al. Chest 2012;141(Suppl 2):195–226
2. Cesarone MR et al. Angiology. 2002; 53(1):1-6
3. American College of Chest Physicians Evidence-Based Clinical Practice Guidelines. Chest. 2012; 141(2_suppl):7S
4. Watson HG et al. Br J Haematol 2011 Jan;152(1):31-4
5. https://www.surgeons.org/media/19372/VTE_Guidelines.pdf
6. Douketis JD et al. Am Journal Med2001; 110(7):515–519
7. Lobo JL et al. Br J Haematol 2007; 138(3): 400–403

Fiona had some questions on Perimenopausal Contraception

- Safe to stop contraception after 2 years amenorrhoea in those under 50 and 1 year in those over 50[1]
- FSH is not a reliable indicator of menopause in women on combined contraception even if measured in pill-free interval[1]
- FSH useful in those using POC but only if over 50 and amenorrhoeic- need 2 FSH >30IU/ml 6 weeks apart[1]
- HRT is not contraceptive
- Natural conception rate at 50 around 1 in 1000- so discussion around acceptable risks worth having
- In 1997 Dawn Brooke delivered a naturally conceived son in the UK at age 59[2]

1. FSRHC - http://www.fsrh.org/pdfs/ContraceptionOver40July10.pdf
2. Guinness Book of Records

Suong had some questions on the COCP at perimenopause



- Can safely continue Combined contraception until age 50 provided no identified risk factors[1]
- Combined contraception helps maintain bone density, regulates and reduces bleeding, combats vasomotor symptoms
- BUT higher background risk of MI, CVA and VTE in older women
- Considerations
  - Low oestrogen dose preferable 20mcgm EE, Ring
  - ? First or second generation COCPs preferable
  - Increasing role of estradiol pills
  - If vasomotor symptoms in placebo week- consider shortening the pill-free interval, extended regimen, oestradiol patch
- LARCs have definite advantages in this group

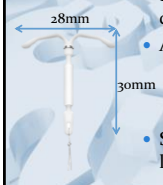
1. FSRH Guidelines- 2010 http://www.fsrh.org/pages/clinical_guidance.asp

The LARCS at Perimenopause

- Mirena® is an excellent choice in appropriate patients since it provides excellent (and very convenient) contraceptive cover, reduces bleeding and can very safely be used as the progestogen component of HRT for control of vasomotor symptoms
  - Risks of VTE/CVA etc those of HRT rather than COCP
  - Woman must still require contraception to access PBS benefit
  - A LNG IUD inserted after 45 can be left in situ for 7 years (off licence)[1]
- Contraceptive Implants are safe to use but more irregular bleeding pattern (though usually light)- and no effect on vasomotor symptoms
- DMPA- trend to no bleeding over time but concerns re bone density- does help with flushes!
- Copper IUDs- bleeding may be an issue
  - A copper IUD inserted after 40 can be left in until the menopause (off licence)[1]

1. FSRHC - http://www.fsrh.org/pdfs/ContraceptionOver40July10.pdf

Heather asked about Jaydess®



- Not yet marketed in Australia-presently being evaluated by the TGA for PBS listing-
- Effective for up to 3 years-delivers 14µgm/day compared with Mirena®'s 20
- Amenorrhoea less common than with Mirena®
  - ? Disadvantage
  - Some women prefer a more regular bleeding pattern for cultural or personal reasons
- Slightly smaller than Mirena® both in width and length- silver band distinguishes on X-ray
  - May hold advantage in use in nulliparous women
  - May better suit those with smaller uterine cavity
  - Real advantages for menstrual management in very young adolescents living with a disability

IUD use in Young Adolescents

- Be aware of legal and child protection issues which vary from State to State
- FSRHC 2 under 20 years
- Both copper and hormonal IUDs highly effective and convenient
  - CHOICE-Women under 21 using non-LARCs **were twice as likely to have an unintended pregnancy** as their older sisters[1]
  - CHOICE-High continuation rates of IUDs/Implants – 67% at 2 years in 14-19 year olds[2]- almost twice that of non-LARCs
  - So when Diana asked whether LARCs are a better choice for adolescents than an OCP- a resounding YES!
- Higher risk of expulsion due to nulliparity and smaller uterine size- ? Jaydess®
- May be technically more difficult to insert- ? Option of IV sedation
- User must be accepting of change in bleeding pattern
- Access may be problematic- limited number of inserters, costs etc.
- Timing can be difficult- consider bridging contraception with DMPA

1. Winner B N Engl J Med 2012: 366: 1998-2007
2. O'Neil-Callahan, M., et al. (2013). Obstet Gynecol 122(5): 1083-91

Deborah asked about managing BTB

- 20-40% of women will experience BTB in first 3 months on COCP (even higher on 20mcrgm LNG Pills)- reassure and persist, check pill-taking
- If new symptom:
  - Check use of preparations which interfere with Pill(including Hypericum)
  - Consider chlamydia/pregnancy/other pathology
- Try different progestogen- norethisterone, nomegestrol acetate and dienogest have reputation for better endometrial suppression
- ? Triphasics- no evidence of better cycle control[1]
- Change delivery system- NuvaRing® has better cycle control than 30mcrgm LNG COCP
- As last resort increase oestrogen

1. Van Vliet HAAM et al. Cochrane Database Sys Rev 2006; 3: CD003283

Deborah also asked about Bleeding on Progestogen-only LARCs

- Due to thin, fragile, relatively under-oestrogenised endometrium-usually light but occasionally heavy
- Don't forget alternative diagnoses
- Minimal evidence for managing irregular bleeding[1]
  - COCP for women with no contraindication to its use
    - Generally 1-3 mth trial
    - Some women use concurrently/as required
  - 5 day course of an NSAID
    - Mefenamic acid 500mgs BD
    - Ibuprofen 800mgs tds
  - 5 day course of tranexamic acid 500mgs BD
  - Some gynaes suggest progestogens- ?NE might work
- If bleeding persists consider change of method
- Consider early initiation if occurs in year 3 of Implanon NXT®, last few weeks of DMPA

1.Read C, Harvey C, Bateson B et al. Joint Statement – Bleeding pattern changes with progestogen-only long-acting reversible contraceptives. ZEST Healthcare Communications 2010. Sydney, Australia

Ingrid asked about the Safety of Extended Use COCP

- Used since 1960s for treatment of endometriosis, dysmenorrhoea and heavy menstrual bleeding
- Safety of continuous COCP use established to 12 months[1]
- Extended use of EE/DRSP regimen over 2 years found no significant differences in lipid parameters, haemostatic variables or carbohydrate metabolism[2]
- Benefits
  - Less dysmenorrhoea, less anaemia
  - Side effects more common during hormone-free days than during active treatment in standard OC regimen[3]
  - Missed pills less likely to contribute to failure
- Higher incidence of BTB

1. Edelman A. Human Reproduction 2006; 21:573-578
2. Klipping C et al. J Fam Plann Reprod Health Care 2012; 38:84-93
3. Sulak PJ et al. Obstet Gynecol 2000; 95: 261–266

Deborah and K.P. asked about bleeding with extended use COCP

- Can tricycle/quadricycle most monophasic COCPs without significant BTB
- No evidence-but if possible I always get them to use one or two conventional cycles before attempting extended use- 10% BTB at 12 months in trials of conventionally-cycled low dose OCPs[1]
- But best potential for longer extended use, with most suppressive progestogens- norethisterone, nomegestrol acetate, dienogest and gestodene probably the best
- Yaz Flex® is the only licenced extended use preparation in Australia (20% in trials took it to max 126 days)[2]
- If more than 3 days of BTB take 4-day break and resume, rather than persist with active pills[3,4]

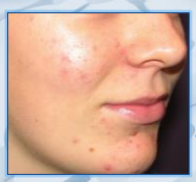
1. Mansour D et al. Eur J Contraception Reprod Health Care. 2011, 16(6):430-43
2. Klipping C et al. J Fam Plann reprod Health Care 2012; 38: 73-83
3. Sulak PJ et al. Am J Obs&Gyn 2006 195, 935-41
4. Jensen JT et al.Contraception 2012; 86(2): 110-118

P.L asked what to do when heavy bleeding continues on the COCP

- Consider possibility of underlying pathology- endometriosis, fibroids, bleeding diathesis
- Expect about 40-50% reduction in bleeding on most COCPs-consider extended cycling
- Norethisterone Pills most suppressive of PBS Pills
- Estradiol/estradiol valerate Pills
  - Qlaira®
    - 88% reduction in bleeding[1]
    - 15-20% of women in trials experienced no bleeding at 12 months
  - Zoely®
    - 30% of women experienced no withdrawal bleeding at 12 mths[2]
- Consider LNG IUD- up to 90% reduction in bleeding even when fibroids, adenomyosis, endometriosis[3]

1. Fraser IS et al. Eur J Contracept Reprod Health Care. 2011;16(4):258-269
2. Mansour D et al. Eur J Contracept Reprod Health Care 2011;16: 430-443
3. Andersson JK et al Br J Obstet Gynaecol. Aug 1990;97(8):690-694

K.P also asked about acne and various Combined Contraceptives



- All COCPs help control acne (50-75% reduction in lesions) by:
  - Providing constant oestrogen dose
  - Suppressing ovarian androgen production
  - Suppressing sebum production
  - Increasing liver production of SHBG which binds circulating androgens
  - May take up to 6 months for maximal effect
- Anti-androgenic progestogens also occupy androgen receptors-further preventing the action of circulating androgens- may work faster.....
- BUT minimal evidence that one OCP is better than another for acne[1]

1. Arowojolu AO et al. Combined oral contraceptive pills for treatment of acne. Cochrane Database of Systematic Reviews 2009; (3): CD004425.

Contraception and Weight Gain

- So what is the evidence?
  - Anecdotally weight gain idiosyncratic and may vary with COCP preparation
  - In the first year on a 20 mcgm COCP[1]
    - 12% of women gained more than 2kg
    - 73% of women experience no change (+/-2kg)
    - 13.6% of women lost more than 2kg weight
  - Drospirenone preparations may be helpful when fluid retention the issue[2]
  - Vaginal Ring weight gain comparable to 30mcgEE/DRSP OCP over 12 mths[3]

1. Endrikat et al. Contraception 1995; 52:229-235
2. Foidart JM. Climacteric 2005; 8 Suppl 3: 28-34
3. Milsom I et al. Hum Reprod 2006;21:2304–11

Contraception and Weight Gain

- Cochrane (COCPs and Patches)- 'Available evidence was insufficient to determine the effect of combination contraceptives on weight, but no large effect was evident.'[1]
- Cochrane (Progestogen-only methods) 'We found little evidence of weight gain when using PO contraception ....overall quality of evidence moderate to low....mean gain <2kgs in first 12 months'[2]
  - **POP- one study only**[3] LNG=Norethisterone=minimal weight gain
  - **Etonogestrel Implant**[4] **/LNG IUD**[5]
    - Mean weight gain comparable to copper IUD users
  - **DMPA**
    - Some evidence that DMPA may be associated with weight gain in some women[6,7]

1. Gallo MF et al. 2011, CDBSR Issue 9. Art. No.: CD003987 2. Lopez LM et al.CDBSR 2013, Issue 7. Art. No.: CD006815
3. Ball MJ et al. Contraception 1991;44(3):223-33 4. Urbancsek J. Contraception, 1998; 58: 1055-105S. 5. Andersson K et al. Contraception 1994;49:56-72 6.Trussell J. In Contraceptive Technology 19th ed. New York NY: Ardent Media Inc; 2007:4 7. Bonny AE et al. Journal of Adolescent Health 2009;45(4):421-5.

Some Practical Suggestions for the Overweight Patient

- Long-acting reversible methods (IUDs, Implant) provide high efficacy in this group while avoiding the increased risk of VTE
- Monitor for weight gain on DMPA
- Some evidence that COCPs may be less forgiving in the overweight patient[1,2]
- If combined contraception is the choice (and no other contraindications)
  - Consider avoiding very low dose preparations
  - Consider reducing Pill free interval or encourage extended use
  - Consider Vaginal ring as an option

1. Holt VL et al. Obstet Gynecol 2002;99(5 Pt 1):820–827
2. Holt VL et al. Obstet Gynecol 2005;105(1):46–52

Bruce asked when contraceptive cover is achieved after starting various methods[1,2]

- When **no** previous contraception immediate cover achieved when method initiated:
  - Most Pills (COCP and POP)-day 1-5 of cycle with active start
  - Qlaira®/Ring/Zoely® -day 1 of cycle
  - Contraceptive Implant-day 1 to 5 of cycle
  - DMPA-day 1-5 of cycle
  - LNG IUD-day 1-7 of cycle
  - Copper IUD- until 5 days after expected ovulation

- Product information states method can be initiated later in cycle provided pregnancy can be confidently excluded. Contraceptive cover then achieved at:
  - LNG IUD/ Copper IUD- 7 days
  - COCP(including Zoely®)/Ring/Implant/injectable-7 days
  - Qlaira®- 9 days
  - POP-2 days

1. FSRHC -http://www.fsrh.org/pdfs/CEUGuidanceQuickStartingContraception.pdf
2. Zoely® product information

Which brings us to 'Quick Start'

- Outside strict licenced use but aims at reducing barriers to initiation
- Possibility of pre-existing pregnancy should not preclude initiation of COCP/ POP/DMPA/Implant/Ring **on the day of visit**, regardless of time in cycle
- **Not** applicable to IUDs
- Determine current pregnancy risk
  - Remember a negative pregnancy test cannot exclude an early pregnancy if unprotected sex has occurred in the previous 3 weeks
- Advise additional cover for 7 days of active hormone (or 2 days for POP)
- A follow-up pregnancy test required
- No evidence of teratogenesis (cyproterone acetate is OK until day 45 of pregnancy)
- No significant difference in bleeding patterns over conventional start[1]

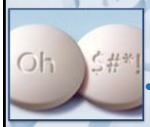
1. Westhoff C et al.Fertil Steril 2003; 79:322-329

Changing from one Method to Another

- From one COCP to another commence new Pill after usual placebo/pill-free period- either 4 or 7 days
- Exception is Zoely®/ Qlaira® when it is advisable to commence new Pill instead of placebo pills or on day of Ring removal
- Rapid reversal of Implants/LNG IUDs and Copper IUDs
  - So preferably start the other method a week before removing them or advise additional cover for one week
- DMPA cover extends at least 2 weeks past date of scheduled next injection
- If a woman's preferred contraceptive method is not available (usually with regard to IUD insertion) a 'bridging' contraceptive should be offered- COCP, POP, DMPA

1. FSRHC-http://www.fsrh.org/pdfs/CEUGuidanceQuickStartingContraception.pdf

Heather asked 'What's new?



- **Our present 1.5 mgs LNG ECP**
  - Not abortifacient- does not interfere with embryo attachment and **no** effect on implanted pregnancy[1]
  - Primary action is to delay ovulation[2] making window of efficacy relatively short
  - Less effective when taken just prior to ovulation
  - ? Less effective in heavier women
- **Before TGA-30 mgs Ulipristal acetate ECP**
  - Selective progesterone receptor modulator
  - Directly inhibits follicle rupture
  - More effective than LNG if taken right on ovulation
  - More effective than LNG if taken 3-5 days after USI
  - Secondary effects on endometrium may augment effect[3]

1. *Meng CX et al.Fertil Steril 2009; 91: 256-64*
2. *Davidoff F et al.JAMA 2006; 296:1775- 1778*
3. *Gemzell-Danielsson K. Contraception 2010;82:404–9.*

Heather asked 'What's new?

- Diaphragms no longer marketed in Australia
- Can still obtain from overseas websites if size known
- But 'one-size-fits-most' CAYA® device now available over web[1] and from some Family Planning Clinics
  - Clinical trials indicate failure rate of 14-18% with consistent use
  - Manufacturer suggests use with lactic acid gel (CAYA® gel)
  - Australian FPOs suggest that clinician check for correct fit before use
  - Device containing antivirals in the rim in development

1. Caya® Website http://www.caya.eu/en/

Thanks for all the great questions!