Contraceptive Choice Issues

- Side effects i.e., uterine bleeding
- Efficacy
- Convenience
- Reversibility
- Affordability
- STD protection

Failure Rate First Year of Use

<table>
<thead>
<tr>
<th>Method</th>
<th>Theoretical</th>
<th>Typical</th>
</tr>
</thead>
<tbody>
<tr>
<td>No method</td>
<td>85%</td>
<td>85%</td>
</tr>
<tr>
<td>Combination Pill</td>
<td>0.1%</td>
<td>7.6%</td>
</tr>
<tr>
<td>Progestin only Pill</td>
<td>0.5%</td>
<td>3.0%</td>
</tr>
<tr>
<td>IUD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Progestin IUD</td>
<td>0.1%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Cu IUD</td>
<td>0.6%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Implanon</td>
<td>0.05%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Depo Provera</td>
<td>0.3%</td>
<td>0.3%</td>
</tr>
</tbody>
</table>
### Failure Rate First Year

<table>
<thead>
<tr>
<th>Method</th>
<th>Theoretical</th>
<th>Typical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tubal ligation</td>
<td>0.05%</td>
<td>0.05%</td>
</tr>
<tr>
<td>Vasectomy</td>
<td>0.1%</td>
<td>0.15%</td>
</tr>
<tr>
<td>Spermicide's</td>
<td>6.0%</td>
<td>25.7%</td>
</tr>
<tr>
<td>Cervical Cap</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parous</td>
<td>20.0%</td>
<td>40.0%</td>
</tr>
<tr>
<td>Nonparous</td>
<td>9.0%</td>
<td>20.0%</td>
</tr>
<tr>
<td>Diaphragm with spermicide</td>
<td>6.0%</td>
<td>12.1%</td>
</tr>
<tr>
<td>Condom</td>
<td>3.0%</td>
<td>13.9%</td>
</tr>
</tbody>
</table>

### Contraceptive Prevalence Age 15-44 in 2002

- Female Sterilization: 27%
- Pill: 31%
- Male Sterilization: 9.2%
- Condom: 18%
- IUD: 2%

### Prevalence Age 15-24

<table>
<thead>
<tr>
<th>Method</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pill</td>
<td>50-55%</td>
</tr>
<tr>
<td>Condom</td>
<td>25%</td>
</tr>
<tr>
<td>Diaphragm</td>
<td>1%</td>
</tr>
<tr>
<td>IUD</td>
<td>1%</td>
</tr>
<tr>
<td>Sterilization</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>4-15% (4% &lt;20)</td>
</tr>
<tr>
<td>Male</td>
<td>1%</td>
</tr>
</tbody>
</table>
Tubal Obstruction

- Laparoscopic (LS) tubal removal
- Hysteroscopic-Essure
- Postpartum Salpingectomy

LS Tubal

- Bipolar cautery – highest ectopic risk
- Silicone band or Filshie clip – most successful to reverse
- If pregnancy occurs think ectopic
- Reduced ovarian cancer particularly with complete salpingectomy

Hysteroscopic Tubal Obstruction

- Essure (metal coil device) Removed from the market 12-31-2018 voluntarily by the company
- No other HS devices available
Vasectomy

• Very high efficacy
• Outpatient
• Vasectomy and IUD most cost efficient contraceptive methods
• Reversible

Combined Oral Contraceptives (OC)

• 20-35mcg ethinyl estradiol
• Progestin variable i.e., 1mg norethindrone
• Failure rate 0.1%. Theoretic 7% real world
• Suppresses FSH, LH blocking egg development and ovulation, thickens cervical mucus. Not an abortifacient

Absolute Contradictions

• Previous thrombotic event, CVA, coronary artery disease, migraines with aura, valvar heart disease.
• Estrogen dependent tumor i.e., breast cancer.
• Liver disease.
• Pregnancy.
• Undiagnosed uterine bleeding.
• Diabetes >20 yrs. or microvascular disease i.e. retino, neuro or nephropathy
• Hypertension Diast >90, Syst. >140
Relative Contradictions

- Age over 45
- Sickle cell disease
- Seizure disorders primarily with antiepileptic liver enzyme inducing meds.
  IUD or Depo Provera better options then OC’s.
- Smoking
- Hepatic disease gallbladder disease

Emergency Contraception

- Selective P Receptor Modulators (SPRM ) Ulipristal acetate (Ella)
- Levonorgestrel 1.5mg used within 72 hours  Plan B
- Copper 7 IUD – the most effective

Progesterone Pill

- Good in patients needing to avoid estrogen.
- More breakthrough bleeding.
- Important to take same time each day. If missed one pill then use backup contraception.
Depot medroxyprogesterone acetate (DMPA)
- 150mg IM q 3 months or 104mg SQ q 3 months.
- 99.7% effective.
- Amenorrhea some BTB
- Delayed return to fertility after discontinuing (70-80% conceive in 12 months).
- Good choice to avoid estrogen i.e., migraine, SS, fibroid patients, epileptics

Other Hormonal Contraception
- Implanon – single rod insertion 30-70mcg/day over 3 years.
- Ortho Evra – transdermal contraceptive patch 20ug ethinyl estradiol (EE), 150mcg norelgestromin. Some increased E related side effects. Improved compliance.
- NuvaRing – 15mcg EE and 120mcg etonogestrel daily. Non-latex vaginal ring. Vaginal irritation and discharge can occur.

Barrier Methods
- Diaphragm and cervical cap only effective with spermicide. Leave in place 6-8 hours after coitus.
- Sponge with spermicide. High failure rate. Leave in place up to 24 hours.
- Condoms with spermicide highly effective when used. Protection against HIV.
IUD

- Copper and progesterone IUDs are one of the most cost effective contraceptives.
- No increase in PID, or adverse effect of fertility.
- Decreases all pregnancy possibilities including ectopic, however if a pregnancy does occur think ectopic.

Conclusion

- Important to take the time to find a contraceptive that the patient will use.
- Always couple with condoms. Educate about HIV, hepatitis, syphilis chlamydia and GC.
- Women, particularly young women, need to be empowered to insist on protection.