abortion- what’re the causes?, complications, & management?

1) causes of abortion
- blighted ovum
- chromosomal abnormality
- maternal factors: uterine abnormalities- malformation, fibroids, Ashermann's, incompetent cervix
  - medical disease: vascular disease, metabolic disturbance
  - endocrine disturbance: OCP, corpus luteum insufficiency
  - infection: rubella, toxoplasmosis, syphilis
  - toxins: cigs, EtOH
  - antiphospholipid antibody syndrome: recurrent thrombosis in uterine a.'s
- procedures: CVS, amniocentesis

2) clinical features of BLEEDING THEN PAIN (pain due to cervical dilatation as uterus expel POC)
- threatened abortion: bleeding, pain- amount of bleeding proportional to risk of progression to true miscarriage
- inevitable miscarriage: escalating bleeding & pain
- complete miscarriage: lots bleeding, pain, passage of POC, then cease completely
- incomplete miscarriage: bleeding, pain, passage of POC- bleeding continue 'til uterus evac'd
- missed miscarriage: bleeding just dark brw bleeding, or none at all. pain

3) complications:
- haemorrhage: esp. with incomplete abortions, retained products of conception
- infection: esp. criminal abortions, if products of conception retained
- trauma to genital tract
- DIC
- amniocentesis fluid embolsim: death
- D&C: cervical trauma: risk latr cervical incompetence if dil'ed too qckly
  - uterine perforation
  - haemorrhage
  - ovrzeous curettage: Ashrmann's syndrome
  - infection

4) ddx: ectopic (but PAIN B4 BLEEDING)
- hydatiform mole
- cervical incompetence
- gynecological conditions: Lower genital tract bleeding: infection, neoplasia, trauma, benign conditions eg. polyps
  - ruptured ovarian cyst
  - endometriosis

5) plan of action:
- assess & rescuscitate if necessary- A, B, C. large-bore cannulas. IV fluids
- take blood 4 urgnt FBC, G&H, coags, hCG, Kleihauer
- ask Hx: when did bleeding start? how much (how many pads)? clots? POC?
  - bleeding still continuing?
  - triggers of bleeding?
  - pain? where? (shoulder tip pain?)
  - N&V, dizziness, faintness?
  - antenatal Hx: how many wks pregnant?
    - problems?: bleeding b4, pain, morning sickness
    - brief past O&G Hx- past miscarriages, past Genital tract dx/Surgery/procedures
      - med Hx, Surgery Hx
  - meds
    - drugs & EtOH
  - PE: re-assess general condition & start IV fluids if necessary
    - abdominal xamn: tenderness, guarding, uterus large-4-dates?
    - speculum xamn: bleed, POC, other tissue (cysts of mole), lesions of Genital tract, cervical incompetence
    - VE: tender adnexal masses?
  - Ix: bleed tests if not done b4
    - U/S- NB. is fetus still alive? possible if only threatened miscarriage
  - Mx: admit Pt: stabilize, reassurance
    - if fetus still alive- bed rest, stabilization, monitor vitals
    - otherwise arrange 4 OT 4 hysteroscopy D&C, or induce labor
6) follow up: threatened miscarriage- Pt go home- avoid coitus, excessive physical activity otherwise- follow up visit 4 advice 4 future pregnancies

**Antepartum haemorrhage- one of Prof Bennett’s favourites!

CIN III
CIN III. endocervical cls prsnt.
1) what's the 2 most important pieces of info on this report?
2) Mx?
3) 2 methods of Rx?
4) follow up?

1) technically unsatisfactory- redo!
2) explanation to Pt. refer to obgyn 4 colposcopy & Bx- dx & furthr Mx
3) LLETZ- large loop excision of transformation zn.
   more extensive lesions (>2cm) will need conization, or hysterectomy 4 older Pt's
4) follow up: obgyn should follow up in to-6mths with another colposcopy
   GP should repeat Pap in 6-12mths

CIN III- explain to Pt, Mx
spiel to Pt:
"The results of your Pap smear has come back, and I would like to talk to u about it. (show Pt report). Basically what the report is saying is that they found abnormal cells on your Pap smear, what is called CIN. It is a description of the amount of change in the cervical cells, and it's NOT CA. CIN III means that there's quite a bit of change and we should do something about it, before these cells change even more and becomes cancer in a number of years time.

Now a Pap smear is not a diagnostic test. It just picks up cells which look different and alert us to look at things a bit more carefully. So I'd like to refer u to a gynecologist who specializes in the area.
What the gynecologist will do is put insert a speculumulum, like I do during a Pap smear. He/she will then put some stains on your cervix- one is a weak vinegar, and the 2nd 1 is iodine. These stains color up the abnormal cells, which the speculumialist will look at thru a microscope (which stays outside ur body). He/she will then take a small pc, and send it off to the lab where they'll look at it under a strongr microscope, and decide definitely what's wrong with those cells.

The gynecologist will notify you of the results & tell u about the treatment options, which will basically involve taking out the abnormal areas on ur cervix. They can do this by using a small wire loop, or, if the abnorm area is biggr, use a smll scalpl to cut it out. All this is done under local anesthetic & u won't feel any pain.

Do you have any questions?"

COCP- advantages, disadvantages, side effects, explain to Pt- how to start, missed pills
1) advantages: very effective if compliance good. don't need action pre-coitlly. easy to use. rdily avail. low $C
can regulate menses. reduce amt of bleeding. reduce mittlzschrn. reduce PMS. reduce dysmnrhea
can reduce: f(x)al ovarian cysts. reduce fibroids. reduce benign brst cysts. reduce incidence of ovarian &
endometrial CA.
good 4 endometriosis.
some protection against ectopics
non-O&G benefits: ?reduce incidence of RA, thyroid disease?

2) disadvantages: need good compliance/continued motivation.
   need med supervision in use.
   useless unlss startd on 1st day of menses

3) side effects:
estrognc: brst dscomf. break-thru bleeding
   N&V, headaches. flushing.
anxty. drssrn
   DVT & HYPOTENSION- increase risk of CVA/MI but gtr risk only signif in smokrs
   CA- ?increase risk of brst CA- but brst CAs dx'd in Pt's on COCP less advcd & have bettr prognosis??
some increase risk of heptoCA?
cholelithasis & cholestatic jaundice?
migrm
ocl r toxty
glucose intolrnce
teratognsis

progstrone: bloatd feeling. PMS. fluid retention & weight gain. andrognc side effects- acne, hirstusm
effect on lipid profile

4) how to start pill- wait 4 next period to come & take 1st actv colord pill on 1st day of ur period, matching the day of the week
to that on the pack, then continue around pack following the arwss ‘til whole pack empty, then start next pack, again matching
the day of the week to that on the pack, at the point where u finishd last pack.

5) missed pills- if less than 12hrs, ur still safe. take missed pill as soon as u remember it, n’ take next pill at regular time, even
if it means to pills in 1 day.
do the same thing if u missed a pill 4 >12hrs, but make sure u also use another form of contraception eg. condoms until u
finish that pack of pills.

contraception
45y.o. lady with heavy periods wants contraception. worried about hormones. husbnd don't like condoms. BP 135/85.
previous PID
what would u recommnd?
side effects? risks?

previous PID & mennorrhagia would make IUCD less attractive 4 her.
she's 45. kids? if she has kids then tubal ligation may be an option. or hysterectomy (VH) if she has concurrnt problems (esp.
with the Hx of mennorrhagia)
hormonal preparations not absolutely contraindicated but need 2b used with cautn in older F's (gtr risk of CVS disease etc).
but generally 4 healthy, non-smoking older F, COCPs R all rite & should be offrerd as an optn to Pt, with reassurance about
safety & advantages.
otherwise depots eg. DepoProvera, or subdrml implnts lk Implnon R good also, esp. 4 mennorrhagia. but expensive

side effects:
1) tubal ligation: anesthetic risks- hypoxia. aspiration & pneumonia. anaphylctc shock.
surgical risks- damage vessel- bleeding
   pneumoperitoneum & surgical emphysma
damage bowel, bladder
   infection
   failure of procedure (1/300)

2) progstrone preparations- bloatdnss, PMS. fluid retention & weight gain.
   will reduce amount of bleeding but menses may become irregular
effect on lipid profile not so good 4 older F
   hirsutsm. acne.

cord prolapse
1) causes of cord prolapse
   multiple pregnancy
   malpresentation- breech, transverse, unstable
   APH- esp. placenta previa
   polyhydramnios
   PROM
   uterine malformations, fibroids
   procedures- version, ARM

2) features- produce variable decels

3) Mx: is cord outside introitus?- re-insert it
   place mom on knee-chst position
   insert 2 fngrs in2 vagina to prevent cord being compressed
   push presnting part upwrds
insert catheter & fill bladder to push presenting part up.
delivery- is cervix fully dil'd? N: do Caesae
               Y: deliver as appropriate

IUCD- (contra)/indications, risks, advantages & disadvantages
1) advantages- don't need continued motivation or action at time of coitus
   very effective
   reversible
2) disadvantages- need insertion by professional
   risks of insertion- vagal refux, bleeding/uterine perforation, infection in 1st 48hrs due to introduced bugs
   menorrhagia
   increase risk of infection in 1st 6wks.
   prod risk of PID if genital tract infection occr if IUCD prsnt- so risk ectopics
   can become dislodged, expelled
   male dyspareunia
   become neglctd- chronc inflammation, fibrosis, embedding
3) indications: 4 Pt's in stable relationship who wish to space out kids
   4 Pt's with difficulty/side effects in tking OCPs, or who don't like barrier method's
   Pt's who wish l/t method of contraception without continued motivation
4) contraindications:
   absolute: pregnancy!
   uterine malformations, large fibroids
   chronic pelvic infmm'n
   Wilson's disease, copper allergy
   relative: menorrhagia
   Pt's not in stable relationship & have multiple partners
   those at hi risk of infection eg. immunosuppression
   uterine retroversion
   previous PID, ectopic

Mx of preterm infant
- transfer to nursery!
- temperature control- place infnt in humidicrib set at 35C ± 0.5C 4 birthweight <1kg
  34C " 4 birthweight 1-1.5kg
  33C " 4 birthweight 1.5-2kg
- SO2 monitoring & gv O2 if needed- by nasal prongs, or CPAP
- feeding- very prematr infnts can't suck- need orogastric tube 4 feeds. mom can xprs brst milk 4 infnt (preferble- protecton
  against NEC, infections).need Dxtroxtx monitring of BSL & give glucose infusion if necessary
- multivitamine supplementaries, Fe supplementaries
- infection control!
- Mx of special problems:
  1) RDS- O2, surfctnt, monitoring 4 development of chronc lung disease
  2) apnea of premat'ry- apnea monitring
  3) hypoglycemia- Dxtroxtx monitring & 10% glucose infusn 60mL/kg/day
  4) jaundice- phototherapy- ensure hydratn, & protct i's
  5) renal problems- monitor urn output, ensure hydratn

**postmenopausal bleeding- One of Prof Wong’s favourites!
1) causes of postmenopausal bleeding:
   0 cause found in 25%
   HRT
   atrophc vgnitis 16%
   endometrial hyperplasia
   endometrial CA
   cervical CA
   benign cervical conditions eg. polyps
   other eg. infection, other neoplasia, trauma
   URINARY TRACT bleeding

2) workup: Hx- when did bleeding start? continuous/intermittent? bleeding postcoitlly?
   color of bld?- any discharge mxd in?
r u on HRT?
assoc'd symptms- pain, dyspareunia, mass, abdominal/pelvic discomfort, LUTS, bowel symptms?
when's ur last Pap?
past O&G Hx- # kids, problems?
  - past genital tract infection
  - past episodes of abnormal bleeding?
  - past dx/Surgery?
med/Surgery Hx
meds
PE: general apprmce- pallor, features of anemia?
abdominal- tenderness, mass- describe
speculum exam- bleeding, discharge, protruding tissue, cervical lesions- CA, polyps
  lower genital tract- features of atrophy
VE- mass, tenderness
Ix: FBC, LFT, TFT, coags
U/S
hysteroscopy D&C
tumor markers- hCG, aFP
laparoscopy
hormone profile

***PPH- you R alone- what would u do?- a Prof Bennett favourite

***PV bleeding/bleeding in early pregnancy- a prof Bennett favourite
young woman comes in PV bleeding. workup. Mx?

ASSESS- general condition: consciousness, pallor?
  BP, HR?

RESCUCITATE- Airwy- clear & maintn
  Breathing- gv 15L/min O2 via msk or intubate if necessary
  Circ'n- CPR if necessary
  or put in 2 large bore (16G) cannulas, start IV fluids or O- bld if Pt in xtrmis
take bld 4 (urgnt) FBC, G&H, coags, hCG

ensure Pt stable- re-assess vitals

TREAT- look 4 cause:
Hx: when did bleeding start?
  how much? how many pads? clots? color of bld?
  pass anything else except bld? tissue etc.
  when was LMP? is that normal 4 u? cycle (# bleeding & non-bleeding days)
  r u pregnant? can u be pregnant?
assoc'd symptms- pain- where? shoulder tip?
  - features of hypovolmia, shock? N&V?
  - bowel/bladder symptms?
triggers- trauma?
past obstetric Hx- past pregnancies? any problems? past mscarrgs?
past gynecological Hx- past dx: infection, fibroids, endo., Surgery, D&C's
med & surgical Hx: bleeding problems?
medications?
  drugs & EtOH

PE: re-assess general condition
  abdominal xamn- tenderness, guarding, uterine size, consistncy (NB. boggy)
  speculum xamn- blood, other tissue, cervix open/closed?
  VE- adnexal masses etc.

Ix: FBC, G&H, coags, hCG, Kleihauer
  UEC 4 baseline
  U/S
  arrange OT 4 hysteroscopy D&C
Sterilization & request- explain procedure, risks. what to do if it's a 25y.o.?
1st ask- does she have any kids? how old? what gender?
is she in a stable relationship?
then ask if she's tried any other forms of contraception.
1) if Y- which ones?
   what's the problem?- failure- revise method of use.
   - side effects- which 1's? offr alternative preparations
2) if N- consdr- COCP, depots, implnts, IUCD
if have kids, of both gender, in stable relationship, refuse to use any other method's of contraception & very sure of choice:
tubal ligation is an op'n done under general anesthetic. have u have GA b4? any problems?
explain risks- GA involv some risks. 1st of all the drugs may give u a potentially serious allrgc rxn. also, sometimes u may not recv enough O2 while ur under n' that may be dngrous. u may also get an infection, pneumonia if u brth in the contntns of ur stmch while ur under.
now the procedure is done by what is calld laparoscopy. that is, pinhole surgery, what the surgeon will do is make to cuts. 1 of them is at ur belly butt'n, and another lower down. now these cuts r md by pushing a sharp instrument through ur abdominal wall, so there may a risk that blood vessels may be boken & u may bleed. or if the shrp instrument goes in too fast there may a risk that there'll be damage to ur bowel or bladder.
aft'r the cuts r made the surgeon will put a tube thru the top cut & blow ur belly up with some gas so the front of ur abdominal is liftd awy n' he/she can see the orgns bettr. there is a smll risk that sometimes this gas can get in2 ur bloodstream & this can also be dangerous, such a causing a stroke/heart attack.
when the surgeon exposd the uterus & tubes he/she will put a smll clip on each tube, so to blick it & prvtnt any sprm or eggs from meeting each other & causing a pregnancy. now this procedure is effctvly permanent, because revrsal, even tho' it is possible, is very hard to do & u can't be guaranteed that u'll fall pregnant.
And lastly, lk any other surgical procedure, there's also a risk that u may get a wound infection. but because the cuts r smll that shouldn't be a maj problem.
any q's?
40y.o. 1st pregnancy. advantages & diadvs. advice?
1) advantages- stable rel'nshp
   stable life, career, financlly
   psychologically & emotnlly matr
   life experience- incl. raising kids
2) disadvantages- lower fertility- harder to fall pregnant
   greater risk of loss of pregnancy/miscarriage
   greater risk of chromosomal abnorm incl. trisomy
   greater risk of malformations
   greater risk of complic'ns of pregnancy incl. PIH, GDM
   greater risk of med conditions interfering with pregnancy eg. CVS disease
3) advice about risks of miscarriage, malformations, chromosome abnorms, potntl complications
stress need 4 antenatal visits so complications can be pickd up quickly
offer options 4 prenatal dx- early t1 U/S 4 Down's, CVS & amnio
general advice 4 all pregnant F's- folate & Fe supplementaries, good diet, gentle excrcise
reassurance about minr problems of pregnancy

43y.o. past 2yrs menorrhagia. to teen kids. ddx? Ix? Mx?
1) causes of menorrhagia (most R due to dysfunctional uterine bleeding ie. non-structural causes):
- uterine lesions: endometrial hyperplasia, fibroids, CA, abnormal vessels
- cigs
- anxty & dprssn
- ndocrn disturbnce: disturbnce in steroid hrmns- ovarian: PCO, ovarian tumors, f(x)al cysts, endometriosis
  - admls
  - exognous
  - weight changes
- thyroid disease
- DM
- med disease- coag’pthy, CCF

2) workup: Hx: what do u mean by heavy? how many pads? clots?
   cycle- # bleeding & non-bleeding days? regular?
   how long have the problem been there 4?
   assoc’d problems- features of anemia- wknss, lethrgy
   pelvic pain, dysmnorrhea
   endocrine problems- weight chnges, hirsutsm, acne
   infertility
   easy bruissibility & excessive bleeding?
   possibility of pregnancy & pregnancy-related bleeding?
   past obstetric Hx- # kids, pregnancies, problems?
   past gynecological Hx- past dx (fibroids, polyps)
   age at menarche
   meds- OCP, aspirin, anticoagulants

PE: features of anemia
   abdominal- masses, tenderness
   speculum exam- polyps, ectropion
   VE- masses

Ix: FBC, coags, Fe studies, LFT, TFT
   hormonal profile- estrogn, progstrone, LH, FSH
   U/S
   hysteroscopy D &C
   laparoscopy if suspct pelvic mass

3) Mx: hysteroscopy D&C
   hormonal- COCP, progesterone depots
   anti-PGs eg. ibuprofen, naproxen, mefenamic acd
   clomiphn- low dose 25mg/day. antiestrogn.
   danocrn- but not 4 l/t use due to risk of hirsutsm, acne...
   hysterectomy
   endometrial ablatn

Forcep delivery- indications, problems
1) indicats 4 forceps delvry:
   - prolonged labour- esp. prolonged 2nd stage, esp. 4 Pt's where prolongd labor may be detrimtl eg. PIH, hypotension
   - fell dstrss if Caesar can't be done qckly enough
   - matrnl dstrss- general apprmce, ketonuria, dehydratn, temp increase
   - other- breech xtrctn to protct hd, arrstd rotatn

2) conditions necessary 4 4ceps delvry
   - experience operator!
   - full dilatation of cervix
   - ruptured membs
   - engagemt of fetal head
   - empty rectum & bladder

3) problems:
   matrnl: genital tract trauma
       uterine inversion
       trauma to bladder (bruising can lead to urine retention), bowel, nerves
       2x risk of PPH & need 4 manual removal of placenta
       puerperl infctn
       risk of uterine prolapse latr
fetus/infnt: asphyxia due to comprssn of cord
cephloematoma, skull #s, intracranial haemorrhage
damage to vertebral a.’s & hypoxc brn damage
CN VII palsy

5 associations with/causes 4 transverse lie
multiple pregnancy
placenta previa
polyhydramnios
uterine malformation eg. septum
fetal malformation

6-hrs post hysterectomy BP60/40, Hb 4g/L
post-op emrgncy.

ASSESS
RESCUSCITATE
- ABC- CPR if necessary
- set up 2 large bore cannulas & start IV fluids
- take blood 4 G&H
- if Pt appear 2b in extrmis- call 4 O neg blood while G&H is being done

TREAT
- causes of shock:
  1) hypovolemia- haemorrhage
  2) cardiogenic- MI, CCF
  3) neurogenic
  4) septic- unlikely aftr only 6hrs
  5) anaphylctc- unlkly aftr 6hrs (would be earlier)

- most likely cause- hypovolmia- arrange 4 OT
- as soon as Pt stable- do laparotomy
- ligate bleeding vessels

acne, hirsutism- grades, etiology, Rx
HIRSUTSM
- causes:
  1) genetics- esp. Mediterranean, Jewish
  2) excessive androgn prod’n- ovry: polycystic ovary syndrome, androgn-secreting tumor
     - adrenal: Cushing’s, congntl adrnl hyperplasia, androgn-secreting tumor
  3) exognous hrmns- anabolic steroids

workup:
- family Hx of excessive hair?
- associated features of endocrnopthy?- amnorrhea
  - infertility
  - breast atrophy
  - acne
  - virilzation: voice chnges, clitoromgly
  - hypotension, salt wasting in childhood- congntl adrnl hyperplasia
- obsty (PCO)
- features of neoplasia- pelvic dscomfort, mass, pain
- meds

PE:- body habitus, voice
- grade hirsusm- score outta four for each area of hair grwth- sides of face, upper lip, chin, presternal area, periareolr, back, periumbilical, thighs
- breasts,
- abdominal- masses?
- gynecological: ext gentla- intersx state?
- genital tract, enlarged ovaries, pelvic masses
  - BP erect & supine
- Ix: hormone profile: FSH, LH, estrogen, progesterone, prolactin, androgens-if indicated: GC/ACTH, aldosterone
  - U/S- p'cyst ovaries, pelvic tumors
  - dexamethasone suppression test (Cushing's), ACTH stim'n (congenital adrenal hyperplasia)
  - abdominal CT as indicated

Mx:
1) treat cause!
2) cosmetic electrolysis, waxing, bleaching
3) drugs: stop androgen production by ovary: estrogen, GnRH agonists
   by adms: GCs
   stop androgen effect- cyproterone acetate (Androcur)
   - spironolactone (Aldactone)

acute mastitis (pic given)- dx, Mx

aFP- causes of increase, other Ix's
1) causes of increased aFP:
false +ve- dates r wrong.
   blood mixed up in sample
multi pregnancy
true pathology- placental leak
   neural tube defect
   sacral teratoma
   omphalocele
   atresias
   renal agenesis
threatened abortion

U/S may help determine neural tube defect
amnio & CVS 4 karyotype analysis due to assoc'n of many malformations with chromosome defects

amniocentesis- indications, complications, accuracy rates
1) indications 4 amnio:
hi risk Pt- advanced maternal age
   - family Hx of chromosome/gnmt disorder
   - family Hx of X-linked disorder- dtrmn gender of fetus
   - previous Hx of infant with NTD
suspected abnormality detected by less invasive tests- seen on U/S, raised aFP etc.
4 dx of Rh isoimmnzn'- measr bili levels
4 determination of fetal maturity- L:S ratio

2) complications of amnio:
miscarriage- risk 0.5-1%
bleeding- esp. from anteriorly-attached placenta
damage amniotic sac- amniotic fluid leakage & oligohydramnios
damage fetus
introduce infection- chorioamnionitis
induce prematurity labor

is >99% accurate in detecting 3somy 21

amenorrhea workup
causes of amenorrhea:
1) secondary
   - PREGNANCY!
   - hypothalamic: psych disturbance
excessive/low weight, rapid weight change
OCP
org lesions: tumors, post-infection

- pituitary: OCP
tumors esp. prolactinoma
post-infection
Sheehan's syndrome

- ovary: premature ovarian failure (premature menopause)- due to:
a) antibodies msling gonadotrophin-R's (gonadotrophin insensitivity)- resistance ovary syndrome
b) accelerated loss of follicles b4 40y.o.
polycystic ovary syndrome- assoc'd with excessive free androgens levels
autoimmune oophoritis
ovarian lesions- tumors, destructed by endometriosis
ovarian destruction after surgery, chemo, rad'n

- genital tract factors: Ashermann's syndrome- due to overzealous D&C, post-endoamnritis, endometrial TB
- other: endocrm: hyper/hypothyroidism- assoc'd with hyperprolactinemia
  Cushing's, Addison's
  congenital adrenal hyperplasia
  severe systemic disease eg. renal failure

2) primary- early onset of any of abv can prod primary amnorrhea- but also:
- pituitary: Kallmann's syndrome- inadequacy pit'y secretn of gonadotrophins led to hypogonadism
- ovarian: Turnt's syndrome: with gonadal agnus/premature gonadal failure- accel'd loss of follicles (starting in 2nd half of intratmn life)
  leaving only a fibrous streak
  pure gonadal agnus
  testicular feminization: 0 ovaries formed as karyotype XY (method: lack of an-red'ase/tstosterone-R's means failure of form'n of M
  ext
  gentile- F ext gentile well-formed, good breast development but vagina blind-ended)
- genital tract factors: Mullerian duct malformations eg. agnus
  imperforate hymen- cryptomenorrhea

workup:
- secondary:
  1) Hx: LNMP?
  possibility of pregnancy?
  med conditions occurring near/at same time as beginnng of amnorrhea?
  associated features- psych, weight changes
    - features of PCOS- infertility, hirsutism?
    - meds esp. OCP, drugs causing hyperprolactinemia, exogenous androgens?
    - pelvic disease: endometriosis- dysmenorrhea?
      PID?
      CA, chemo & rad'n Rx?
    - features of other endocrm conditions: thyroid: temperature intolerance, lethargy etc.
      Cushing's: striae, weight changes
    - less common causes: Hx of intracranial infection?
      pituitary- headaches, visual disturbance, galactorrhea?
  past gynecological & obs Hx- PPH (Sheehan's), D&C (Ashermann's)
  med & surgical Hx- esp. Hx of autoimmune conditions
  2) PE: general appearance- weight, body habitus, hr distrib'n/acne, voice, features of thyroid disease
  breasts- atrophy, galactorrhea?
  abdominal- enlarged ovaries, masses
  genital tract- uterine mobility (adhesions may indicate endometriosis/CA), adnexal masses
  3) Ix: U/S: PCO, ovarian lesions
  hormonal profile- FSH, LH, estrogen, progesterone, prolactin, TFT, androgens
  hysteroscopy D&C
  laparoscopy
  CT hd, abdominal if indicated
cytogncts- sometimes 45, X may prsnt with secondary amnorrhea esp. if mosaic

- primary
  1) Hx: prenatal dx?
    childhood development- norm growth?
    anosmia may sggst Kallmann's
  2) PE: height- short stature suggest hypothalamic-pituitary problem where other hrmns eg. GH also affectd
Secondary sexual characteristic development? sxlly infntile sggst HPO axs problem

- norm development suggest genital tract problem

features of Turn's

genital tract- abnorms

3) Tx: hormonal profile

karyotype analysis

pituitary CT

U/S

hysteroscopy D&C, laparscopy if suspcet genital tract abnorms

analgesia in labor- which, advantages & disadvantages, problems

- non-pharmacological methods:
  1) massng
  2) warm packs
  3) warm bath/showr
  4) relaxation/deep brthng xrcises
  5) less conventional method's- acupunctr, TENS

* pethidine i.m. injctn

- advantages:
  1) quite effective pain relief
  2) relatively qck onset of action
  3) as substute 4 epidural eg. when it's contraindicated eg. risk of infection, haemorrhage, or if Pt reluctant to undergo procedure
  4) don'tintrfr with pushing in 2nd stg

- disadvantages:
  1) may cause resp'y dprssn in neonate
  2) can prod unpredctble serious reaction in mom- ardiorespiratory collapse
  3) side effects- drowsnss, disorient'n, N&V

* inhaled nitrous oxide

- advantages:
  1) simple to use, non-invsv
  2) qck onset of action
  3) good 4 Pt's nearing end of labour who just need mild analgesia
  4) don't interfering with contractns/pushing in 2nd stg
  5) don't cause neonatal respiratory depression

- disadvantages:
  1) not very effective as analgesia
  2) may cause nausea
  3) Pt's don't lk mask, "smell" of gas

* epidural

- advantages:
  1) very effective pain relief
  2) esp. good 4 Pt's with HYPOTENSION- relxnt, reduce BP
  3) long-lasting, can be toppd up, allwd 4 Pt-controlled analgsa
  4) effective if procedures need 2b done eg. ECV, amnioscopy/fetl sclp bld smplng
  5) also useful 4 Caesars- epidural admin'd early in labor allws an emrgncy C-Caesar 2b done if it bcomes necessary

- disadvantages:
  1) invsv- risks: can cause bleeding & prod epi/suubdurl hmtoma- cmpss nrvs- possible lysis
  can punctr dura, + CSF lk- sevr low-P hdache
  can injct in2 bld vessel & cause systmc colps
  can go in too far & prod totl spnl anesthes'a- crdioresp'y colps
  can prod nrv/sc damage- esp. if Pt mv suddnly during procedure
  may prod infection
  2) can intrfr with contractns/ab'ty to push in 2nd stg
  3) side effects- numbss of legs, shvring
  - latr- sore bk
  4) may be against Pt prefernce- afraid of procedure, ndls etc.

* local blck eg. LA in2 perinm

- advantages:
1) simple to admin
2) first acting- good 4 "emrgncy procedures" eg. episi, repr of perinl tear
3) effects [']d locally- 0 systmc side effects

- disadvantages:
1) mayn't be as effective as some other method's eg. epidurl
2) effective short-lasting
3) can still prod bleeding & infection

Antenatal Ix- which & why?
antenatal visits R conductd /4wks up to wk28
then /2wks 'til wk36
then /1wk 'til confinemt

1st visit
1) FBC- detct anmia
2) bld typing, Ab scrning (incl. Coomb's & irreg Ab's)- detct risk dev'ing Rh isoimmnz'n
3) infection scrning- VDRL rxtvty, HBV serology, rublla serology

wk 18- U/S

latr:
- wk 28 OGCT 50mg, OGTT 75mg if OGCT abnorm
- wk 30 repeat FBC, Ab scrning
- wk 32 grp B strep swab
- wk 36, 40 repeat Ab scrning

& if indicatd:
- wk 11 CVS & wk 15 amnio
- HIV serology

Anti-D immunoglobulin- what’re the indications for its use?
anti-D expensive! so only usd if at risk of fetomatrnl haemorrhage eg.: 
- antenatlly in Rh- F who's undergone: complt/incomplt abortn
  APH
  invsv procedure- amnio, CVS, ECV
- in Rh- F withn 72hrs of delvring Rh+ infnt

* some cntrs routnly gv anti-D to all pregnant Rh- F's in t3 unlss dad known 2b Rh-

breech- types, delivery
- types of breech:
  1) frnk breech- breech with xtnded legs
  2) complt breech- UL & LL all flxd
  3) footling- ft prsnting, legs half-xtnded

- optns 4 delvry:
  1) Caesar- problem'ly safst, esp. if matrnl pelvic dimnsns Q'ble
  2) ECV- try turn baby around in 4wrd somersault- NB. risks
  3) vaginal breech delvry- frnk breech easiest

- method's of vaginal breech delvry:
  1) assistd breech delvry: most comm method, accoucher aids in pos'ning baby but delvry mainly via matrnl xpulsv force
    - as fetus dscnd, 1 hip (uslly R) rotate so it become ant. 2trochnterc diam entr plvs in AP pos'n. breech dscnd. lat flxn of trnk
    - rest of trnk delvrd up to lev of umbics
    - accoucher gntly drw 1 loop of cord dwn- chck pulstns
    - warm moist cloth wrapped round baby's legs
    - shoulder delvry- if ant arm become xtnded (eg. too much trctn on fetl trnk), Lovset's maneuvr may be necessary: post
      shoulder & arm- uslly flxd- rotatd so it become ant & is delvrd 1st. then baby brought dwn more, & rotatd bk so that remning
      shoulder is ant. the remning shoulder, now at lwr lev, is then delvrd.
      - then hd delvry:
        a) 4ceps- blades gntly plcd round baby's hd & protct it from cmprssn-suddn decmprssn
b) Burns-Marshall- baby allwd to hang by own weight, so hd ngagement occr. when nape of nk appr, accoucher grab ankles (with 1 fngr 'twn ankles) & swng baby ant'ly

c) Mauriceau-Smellie-Veit- hnd plcd in2 vagina. mdl fngr insrtd in2 baby's mouth, rng & indx fngrs on mxlla. other hnd put prssr on occiput to maintn flxn of hd. assistnt apply suprapubic prssr to prod xpulsiv force.

2) breech xtrctn: main force delvring baby is trctn by accoucher- eithr groin trctn (frnk breech) or leg trctn (flxd breech)

pts to note in breech delvry:
- need careful monitring- sclp e'trode on buttcks, regular VE's to xcl. cord prolapse
- anesth'a imp: epidural- prvnt prematr bearing dwn when cervix not fully dil'd (may trap hd)
- perinl LA as episi oft needed
- don't intrfr unlss necessary eg. fetl dstrss
- 0 ARM- risk of cord prolapse hi
- avoid Synto unlss contrctns inadqt
- have snr staff prsnt. inform neonatologists.

brst fding- advantages, problems with, physiology, what drug can prevent lactation?
ADVANTAGES OF BRSTFDING
- 4 infnt:
  1) physio'ly most suitble form of feed 4 infnts- xactly the rite amt of CHO, protein, fat. vits.
  2) less NaCl than brst-milk subs- so infnt at less risk of hypernatrmia even if dehydratd
  3) contn lots matrl Ab's, immnocomptnt cls- passv protection from infection, even latr in childhood
     - may reduce childhood eczmia, allrgies
  4) may reduce risk of DM I
  5) superior 4 nrodevelopment- contn long-chn FAs
     - stim'y xpnce 4 infnt
  6) allw mom-infnt bonding
  7) 4 premmies- protct infnt from infection, NEC

- 4 mom:
  1) stim oxytocn release- prvnt PPH
  2) contracpty- tho' not 100% effective
  3) prolongd low-estrogn period- some protection against brst CA in latr life
  4) cheap, no need 4 sterilz'n of bottles

- problems:
  1) inadqt milk prod'n- need quiet place, free from strss & anxty
     - stim'n of npls by infnt's mouth may hlp
  2) ngorgmt- demmd fding
     - feed from 1 brst during each fding sessn
     - milk xprssn when can't feed dir'ly from brst eg. at nite
     - symptmtc relief- warm/cold pcks, massg, //cetamol
  3) tender/crckd npls- chk fdng tchnq
     - emphsz brst hygn
     - allw some milk to dry on npls
     - emollients

 drugs prvnting lctatn:
- dopmn agnsist eg. cabergoline (Dostinex), bromocrptn

brst tenderness on feeding- Mx
brsts may become sore in brstfdng due to:
- incorrcrt pos'n of infnt- chck fdng tchnq
- crckd npls- chck fdng tchnq, brst hygn & advice about symptmtc Rx eg. allwing some milk 4 dry on npls, emoillnts etc
- infection- mastitis, brst abscess- dx, drn if necessary, orl aB's (fluclox)
  - chck fdng tchnqs & hygn

basal temp chart & ovulation
bsl temp chrt may be usd as method 4 "natrl" contraception or as means to achv pregnancy. it's bsd on bsl body temp chnges that occr thru-out the mnstrl cycl:
bsl body temp low during prolif'v phs, & dip on ovul'n day
then start to increase past bsln on day aft ovul'n (progstrone effect)
plateau off aft to-4 days, with totl increase of 0.5C
dip agn 1-3 days b4 menses, bk to levs seen in prolif'v phs
"safe zn"- on 3rd morning aft temp start to increase

candida- pic, risk factors

candida- very comm. up to 75% F's will have it ≥1x during lifetime

cause
- incl.'d amongst norm vaginal flora- but o'grwth can occr & so prod symptms
- o'grwth risk in any condition whch altr vaginal microenvmt
  - OCP- altr vaginal glucose contnt
  - DM-
  - immunosuppression
  - broad spctrm aB's- remv commn sls whch control candida grwth
- typcally occr premenstrlly when vaginal pH decrease

clncl features
- wht cheesy non-offnsv discharge
- intns vulvl & vaginal pruritis, pain
- dyspareunia
- may've LUTS if involv urethra- freq, dysuria
O/E- vulva & vagina very inflmm'd (brick red). thck wht cheesy discharge seen.

Ix
- wet mount- suspnd swab of discharge in KOH & c hyphae
- swab m/c/s- cultr in Saboroud's agar

Mx
- thorough clnsing- douche with 1-3% acetc acd
- topcl- nystatn (Nilstat Vaginal)
- systmc- esp. if recrrnt (may sprd from bowel)- ketoconazole (Nizoral)

CN VII palsy- baby pic
due to fcl cmprssn during birth proc, esp. with 4ceps, fc prsnt'ns, CPD, breech prsnt'n
Id to fcl droop on 1 side, most obsv when crying- fail to lift up corrn of mouth. more sevrly affctd infnts will have impr'd ab'ty to
close i'lid- need instill'n of artfcl tears (mthylcelluloose) to prvnt cornl ulcr'n
90-95% will recovr witho residl problems. 5-10% have perm palsy

COCP- contraindications
absolute:
1) hormone-dpndnt tumors
2) Pt's with- thrbophlas
   - hi risk of DVT eg. aft maj Surgery/trauma, previous DVT
   - mech hrt vlvs, vlvlr hrt disease, IE
3) lctating Pt's who wish to brstfd
4) clsscl migrns, migrns assoc'd with estrogn
5) hep'c/renal impr'mt
6) conditions worsnd by estrogn- herpes gstatnis, otosclerosis, porphyria, HUS, chorea

relative (use with cautn):
1) older F's >35y.o.
2) Pt's with CVS risk fctrs: hypotension, cigs, DM, hypercholstrolmia, obsty, family Hx
3) sickle cell anemia disease
4) some conditions that may be worsnd by estrogn eg. IBD
NB. Pt's with a/olgomnorrhea should be Ix'd b4 COCP gvn

CTG- Mx of abnormality FHR
- turn mom to L lat side- improv uterine a. flow & avoid supn hypotensive syndrm
- chck mom's BP
- do VE to xcl. cord prolapse esp. if variable decels seen

- chck strngth & freq of uterine contrctns- stop Synto if that's causing the problem
- gv mom O2

if abnorm pattn:
1) improv- continue close monitring. consdr fetl sclp e'trode
2) persist- do fetl sclp bld smpling- <7.to- urgnt Caesar, >7.to- continue close monitring
3) worsn to become prolongd tchy/brady- urgnt Caesar

Cystocele- procedure

definition of labor

Down's- risk factors, Ix, dx
1) risk fctrs:
- advcd matrnl age: 1/200 at 37y.o., 1/70 at 40y.o., 1/20 at 45y.o.
- strong family Hx of Dwn's (in evry general'n)- possible trnsloc'n carrier

2) Ix
- wk 12 U/S nuchl trnslucncy- detct increase'd nuchl fold thcknss- pick up r% 80-85%
- bld tests: PAP-A (plcnta-assoc'd protn A) & hCG- when combnd with abv will detct 93% Dwn's
- wk 11 CVS- >98% accur't
- wk 15 amnio- >99% accur't
- triple test wk 15-17 no longr done alone as it's only 67% snstv- but when combnd with U/S & bld tests have 94.5% snstvty & only 1% flse -'ve

drmoid cyst- constituents, malignt potntl %, bilateral prsentation %
drmoid cyst- benign/matr ovarian teratoma

oft b'lat (15-20%)
dervd from totipotnt grm cl's capable of diff'ng in2 all cl lns, but in drmoid cyst tnd to prod ectodrml tsus eg. skin, sebaceous glnds, hr, teeth, thyroid tissue, nro tissue

rarely tumor constituents may become malignt

complications of ECV
complic'ns of attmptd ECV:
- PROM, prematr labor
- uterine ruptr if excessive force usd- esp. if Pt under GA & is insnsate with relxd abdominal muscs
- fetomatrnl haemorrhage
- cord entanglemt & fetl hypoxia
- failure of procedure with fetus revrting bk to orig prsnt'n

epis- name procedures, advantages & disadvantages
mdln epis
1) advantages
- less bleeding
- easier to repr
- hl qckr
- less dscomfort on sitting
- less dyspareunia

2) disadvantages
- hrdr to perform as care needed- need snr obstetrcn
- can xtn to anus & damage sphnctr
- gtr risk of fecl incontnnce & even fstula
med-lat episiotomy

1) advantages
   - more easily performed
   - less risk of anal extension & fecal incontinence
2) disadvantages
   - more bleeding
   - more discomfort, more dyspareunia

Fetal scalp electrode - when to use/not use, complications

Fetal scalp electrode involves placing a small electrode in the skin of the fetus's scalp to allow continuous monitoring of FHR.

1) main indications for use:
   - when external monitoring is not satisfactory, e.g., mother/fetus's position keep changing
   - in twin pregnancies to allow individual monitoring of each twin (difficult for external monitoring)

2) contraindications:
   - membranes not ruptured
   - cervix not dilated enough
   - poorly fitting presenting part
   - high risk of infection for the fetus, e.g., mother HBV/HIV+, group B+
   - fetal bleeding diathesis

3) risks
   - infection - HBV/HIV, chorioamnionitis, cellulitis of fetal scalp, ophthalmitis
   - bleeding
   - damage to fetus - brain (if in the anterior fontanelle), i.e., (face presentation), gentle (breech)

Fibroids - symptoms, Mx

Symptoms common to all types:
1) menorrhagia
2) dysmenorrhea
3) pelvic pain
4) abdominal discomfort - feeling of heaviness/mass in abdomen
5) pressure symptoms - frequency, dysuria, etc.

And:
1) submucosal - can become infected - prod discharge
   - prod problems with fertility - recurrent miscarriages
   - prod problems during pregnancy - fetal malpresentation, prematurity labor, uterine hypotonia/atonia,
     PPH, uterine inversion, puerperal infection
2) subserosal - can produce hemo/periton & peritonism if bleeding occur
   - uncommonly ascites

Ddx - other uterine lesions - polyps, endometrial hyperplasia causing menorrhagia, endometrial CA (but unusual in reproductive age)

Ix: U/S
hysteroscopy D&C

Mx: myomectomy
   hysterectomy - esp. 4 older Pt's not wishing to have any more kids
   hysteroscopy D&C may be therapeutic in reducing menorrhagia
   non-Surgery: progesterone, anti-PG to reduce bleeding, GnRH agonists

Genital ulceration. Ddx, Mx

Infective - HSV - common in younger Pt's
Treponemal infection - syphilis, yaws 9 CNS, CVS pathology - esp. if from developing country
Chlamydial infection causing lymphogranuloma venerum - oft involves perirectal nodes & can prod rectal stricture
TB
HIV
nplstc- CA
idiopthc- apthous
  - IBD (CD)
  - Behcet's disease

Mx:
1) Hx: when did ulcr appr?
   - was it preceded by anything? - vscl (HSV), nodl (treponml)
   - assoc'd features - bleeding (CA)
     - systmc features - myalgia, lethrgy (HSV)
     - fevrs, nite swts (TB, HIV)
     - cough (TB)
   med Hx - Hx of IBD?
2) PE: characs of ulcr - weeping, gry-yiw bs - HSV
   - granomtous, beefy - TB
   - evrtd edgs, ncrotc - CA
lymphadnopthy - soft tender - HSV
   - firm nontender - TB
   - hrd/fxd, nontender - CA
   PR - look 4 involvmt of perircntl nodes - lymphgranloma venerum
   - PR bleeding, ulcr'n of rctm, fstulas - CD
3) Ix: swab ulcr - if suspc HSV - serology
   TB - Ziel-Nielsen stning, auramn stning
   syphls - drk-grnd microscopy
   serum VDRL
   Bx of ulcr

Greek pregnant lady - hypochromic microcytc anmia - dx, Ix
causes of hypochromc microcytc anmia:
- most comm - Fe-defcncy anmia
- anmia of chronc disease
- Hbopthies eg. thalassmia
- sideroblstosis

Dx:
1) Hx: symptms of anmia? wknss, lethrgy, pallor
   - sevr - cold xtrmities, lowr xrcise tolrcnce (SOB, angna), hdache
   when did abv start?
   R u on Fe supplementaries?
   previous med Hx
   family Hx of anmia, thalassmia?
2) PE - features of anmia - pallor, tchycrda
   - features of chronic med conditions eg. renal disease, chronic inflmm'y disease eg. RA, CT disease
   - features of thalassmia - chipmunk-lk facies due to ds tortn of fcl bns, pigmt'n (Cu-color), hptosplnomgly due to increased
     hnmolysis
3) Ix - FBC
   - bld film - aniscytosis (variatns in RBC sz), targt cls, stippling & increase'd retclocytes may indcate thalassmia
     - dimorphc cls may indcate sideroblstc anmia
   - Hb e'phoresis if suspc thal
     (- hd XR may show "crw-cut" apprnce)

hydadtiform mole (pot)
hydadtiform mole is 1 form of gstatnl trophoblstc disease where there's cystc degen'n of placental chorionc villi to form fluid-filld cysts.

causes/clss'n:
1) complt mole - karyotype usly 46XX/46XY with all gntc materl orig'ing form dad ie. to sprm frtilzing empty egg - 0 matrnl gntc materl means 0 fetus formd. only abnorm plcnta dev
2) partl mole- karyotype uslly triploid 68XXX/68XXY, due to to sprm fritilzing 1 egg. matnrl gntc materl prsnt so abnorm fetus forms

incidence 0.5% all pregnancies, more comm in SE Asia

clncl features
early features nonspcfc- some bleeding that's oft mstknd 4 thrtnd miscarriage
latr- more spcfc features: hyperemesis grvdarm
hypotension & PET
passg of grp-lk cysts PV

O/E: uterus boggy/doughy rathr than cystc. oft large 4 dates esp. if there's complt mole
0 fetl HS heard
see grape-like cysts being passd PV

Ix: U/S- show "snow-storm" lk echognc mass with 0 gstatnl sac/fetus seen
hCG- hi 4 dates
hysteroscopy D&C

Mx: admit & evac uterus via D&C
monitor Pt vitals- i.v. fluids as necessary
advice on discharge- avoid pregnancy 4 ≥12mths as increase in hCG will obscr that due to persistnt mole/malignt D in2 chorioCA
monitor hCG /1-2wks 'til levs undetctd twice consec'ly, then measr /mth 4 6mths & /3mths 4 another 6mths

hydrops fetalis- clinical features etc.
- hydrops fetalis: is abnormall accumulation of excessive amts of serous fluid in fetl tsus
- can manifest as- s.c. edema
  - pleural effusn
  - ascites
  - oft assoc'd with polyhydramnios

- comm causes:
  1) anmia- hmolysis
     - TTT
  2) cardiac failure due to fetal arrhythmia
  3) infection eg. TORCH
  4) fetl malformations

- workup:
  1) cord bld smplng- FBC
  2) serology 4 infection with TORCH orgs
  3) antibody screening 4 Rh disease- also bili levs etc
  4) chromosome analysis

Indications 4 amniocentesis
hi risk Pt- advcd matrnl age
- previous infnt with chromosome abnorm/NTD
- family Hx of gntc abnorm
- (family) Hx of X-lnkd condition- amnio to detrmn gndr of fetus
abnorm suspctd due to results of less-invsv tests
dx of Rh isoimmnz'n
dtmm'n of fetl matr'ty- L:S ratio

Infection during pregnancy with presence of rash
rash ddx:
- rublla
- toxo
- scarlet fevr- strep infection
othrs not as of concrn:
  - enterovrs
  - parvovrs B19 (uslly asymptmtc in adults)
  - modified measles
Mx:
- Hx: xposr to rublla?
  antenatal Hx- immnty against rublla?
  other possible causes- pet cats?
    - strep infection- phryngitis?
    - diarrhea, N&V?
    - xposr to: measles, parovrs B19 (slappd cheek in kids)
- lx: chck rublla serology- antibody levs <10IU/mL not enough 4 protection
do serial antibody titrs regdls of immn status (1x, then to-3wks latr)
then dpndng on gstatnl age- ~wk14: advice about risks to fetus. offr TOP as optn
> wk14: reassr

infertility
1) routn tests done on couple prsnting with primary infertility?
2) how long should they wait b4 sking med Rx?
3) main risks of laparoscopy?
4) main features of IVF- advantages, risks
5) what age does F’s fertility start to decln more shrply?

1) routn tests:
- M: semen analysis- vol, sprm count, morphology, motility, bioc (pH, frc)
  - hormonal profile
- F: - bsl temp chrt
  - hormonal profile: estrogn, progstrone, FSH, LH, prolactin, TFT, androgns
    if indicatd (clues from Hx):
    - tests of tubal patncy- hystrosalpgogram, hysteroscopy D&C
      - laparoscopy
    - U/S

IUGR- causes, dx, Mx
- causes:
  1) intrmsc prob:
    - norm genetics- smll mom
    - chromosome/genetic defct
    - early congntl infctn (affcting cell div’n)
    - early xposr 2 toxns- cigs, EtOH, rec drgs
  2) IUGR:
    - matrnl fctrs: hypoxmia- resp’y dcs
      - anemia
      - CCF
      malnutrtn- inadqt diet
      - malabsorptn
      - ndocrn dcs, hypoglycmia
      - latr use of cigs/EtOH/rec drgs
    uterine fctrs- uterine malform’n- poor placental dev’mt
      - uterine a.’s abnorms- HT, DM
    - placental fctrs- PET
      - abruptn
      - placental abnorms eg. circmvallate, p. mmbrancea
    - fetl factors- multi fetuses
      - hemolytc dcs
  - dx:
    1) PE: utrus smll 4 dates- lack of incr in sz
        slow matrnl weigt gain
        smll amniotc fluid vol on palptn
    2) ask about- diet, nutritn
      - cigs/EtOH/drugs
      - poss infections
    3) lx- assess fetl well-being- ask mom if fetus mving. consdr fetl kick chart
- U/S- measr amniotic fluid vol
  morphology & grwth scan (serially)
- Dopplr U/S 2 assess umbcl a. flow
- CTG- assess fetl heart actvty
- fnd cause- may be evdnt from Hx but consdr:
  - U/S: detct placental abnorms
  fetl abnorms
  TTT
- OGCT, OGTT- GDM
- BP, UA- prreeclampsia
- infection screening
- antibody screening (Rh dcs)

4) Mx: trt cause- matrl nutritn, stop cigs/EtOH/drugs, trt PET...
   bed rest 2 improv uterine bld flow
   is fetus mature? (L:S ratio)- consdr delvry
   if fetus immature- try 2 eliminate aggrvators, gv GCs 2 enhnc fetl lung maturity

- problems w/ IUGR
  1) infnt at risk of birth asphyxia (placental insuffcncy- aggravate hypoxia)
  2) risk hypoglycmia- little/0 glc stores as all avail glc usd 2 maintn grwth
  3) risk hypothemia- little/0 fat
  4) risk polycythmia (& hnce jaundc)- effct of chronc hypoxia

Jewish couple. 37y.o. 6wks preg. 1st chld. prenatal tests?
- U/S morphology scn- earlier the bettr- wk 12
- bld tests 4 PAP-A, hCG, consdr adding triple test
- CVS
- amnio

NB. Tay-Sachs disease


tichen sclerosus

is general'd dystrophic skin charac'd by chronc chnges in epthm. vulva may become affctd in sim way

* cause? possible- autoimmn cause?
  - defctv tstosotretn metab'm in skin?
    assoc'ns with: achlorhydria ofstmch. ingstn of carotene foods

* histopath
  1) epthm- thnnd epthm
    - loss of rete rdgs
  2) drms- hylnz'n
    - loss of elas'c fibrs
    - loss of skin appndgs eg. hr, sbaceous glnds
  3) subdrms- chronc inflmm'y cls mostly l'cytes, plhma cls
    minr'ty have concurrnt VIN

clncl features
  - early- typcl wht trsmlcnt patches on vulva. oft affct perinm (as opp to hypertrophic dystrophy). patches may coalsc
    - may cause pruritis vulvae. Pt become anxs & dprssd if if dyspreunia also occr
  - latr patches flattn out, become creasd
  - adhsns form 'twn labia, strctrs also possible

ddx:
  - hypertrophic dystrophy
  - VIN
  - invsv vulvl CA
  - other skin conditions eg. psoriasis, sb drmatitis

Mx
  - Bx to xcl. invsv CA
- tstostrone crm
- mdx dystrophies- steroids then tstostrone crm

macrosomia- causes, complications
causes of big baby:

- gntcs- previous baby >4.5kg, large mom, hi matrn birth weight
- GDM
- congntl cyanotc hrt disease, hmolytc disease of newborn- hydrops
- Beckwith Wiedemann syndrm- xophthlimos, macroglossia, gigntsm, neonatl hyperglycemia
- postmatrty

complic'ns
- mom- dscomfort during pregnancy
  - in labor- labor prolongd so risk- xhaustn
  - trauma to GnT, adj structs
  - PPH more comm
  - infection more comm due to trauma
- increase risk of op'v delvry- risks in Caesar itslf (anesthetic risk, haemorrhage, infection)
- fetus- asphyxia during labor- prolongd hypoxc state, risk cord cmprssn
  - difficult delvry risk birth trauma
  - prolongd/excessive cmprssn may impr cerebr bld flow, damage vert a.'s- hypoxc brn damage
  - risk jaundice if there's signif bruising, hmtoma
  - infnts of GDM moms- hyperglycemia, asphyxia

menopause- features & Mx, HRT
menopause = last menses
clmcterc = 1-2yrs lding up to mnopause

clncl features:
1) mnstrl cycls become irreg- may be lite & scnty 1 mth (low estrogn)- stim FSH prod'n- estrogn levs rise some- hvier menses next mth...
2) hot flushes- sprd from trnk, up nk & ovr fc. worse with anxty, in hot weathr, aftr hot drnk, spciy foods. can occr at nite &
  disturb slp. cause much anxty, insomnia- tiredness, psych disturbnce
3) psych chnges- mood swngs, anxty, dprssn, red'd libido
4) poor mem, poor []
5) as surgery steroid levs drop, GnUT may become atrophc:
  - drynss of vagina- increase risk of Genital tract infection, may cause dscomfort, dyspareunia
  - sim chnges in URINARY TRACT- freq, dysuria, incontnnce as sphnctrs become less comptnt
  - prolapse may occr
6) skin chnges- thn out, drynss, lose elastcty
latr chnges:
7) CVS- effects of estrogn defcncy on lipd profile- LDL increase, HDL decrease
  - lose estrogn's protctv effect against atherognsis
8) o'porosis- estrogn maintn bone dnsty by inhib'ing osteoclstc activity- loss of this lead to postmenopausal o'porosis esp. in
  at-risk ppl eg. early mnopause
    family Hx of o'porosis
    poor nutritn/ anorxia (low pk bn dnsty)
    little xrcise
    cigs/EtOH/caffn
    GCs
    conditions assoc'd with secdnary o'porosis (CT disease, ndocrn diseases, hyperthyrdsm, hypoparathyroidsm)

approach to Pt:
- age & clncl features (irreg menses, hot flushes etc) general'y dx'c. no need 4 hormonal profile. unlss age wrong
- general assessmt- weight
  - BP
  - brst xam
  - gynecological xam 4 look 4 atrophc chnges. CAs/lesions
  - lx: BSL & lipds
    Pap } mmogrnm } if not done recntly
bone density esp. if hi risk, or had previous patho #
- comm'n! what symptoms is Pt hving, explanation & reassurance
- consid HRT, esp. if symptoms disturbing life, or Pt's with risk of o'porosis & CVS disease- but be awr of Pt's with past Hx of hormone-dpndnt tumors esp. brst CA
- general advice 4 all postmenopausal F's:
  1) quit smoking
  2) moderate EtOH, caffn intake
  3) good low fat diet
  4) xercise!
  5) Ca & vit D supplementaries may hlp
  6) screening: regular Pap smrs 'til age 70 with 3 consec'v norm smrs
    mmogrms /5yrs
  7) report any unusl symptms eg. postmenopausal bleeding, postcoitl bleeding, pelvic dscomfort
- 4 Pt's who don't want HRT/can't tolrate side effects/have Hx of brst CA:
  1) symptmtc relief 4 hot flushes- relax'n
    - avoid triggers lk hot drnks, hot spicy foods
    - progstrone only eg. Provera may hlp
    - tissue-spfc HRT tibolone (Livial)
  2) good diet, weight control to minmz CVS risks
  3) o'porosis: xrise, quit smoking, minmz caffn
    Rx: Ca/vit D supplementaries (Caltrate-Rocaltrol)
    bisphosphonates if sevr
    SERM: tamoxifn/raloxifn
    tissue-spfc HRT tibolone (Livial)
    calcitonin?

endometriosis
- is prolif'n of ectopic endometrial tissue outsdt uterine cav
- incidence 10%, hi'er amongst infrtile F's

- cause:
  1) Sampson's regurg'n theory
  2) metaplstc theory- celomc epthm diff in2 ndomtrm in peritnl cav
  3) dissemm'n by bld/lymphypocs

- comm'ly affect:
  1) ovries 70%
  2) utrosacrl ligs 30%
  3) Pouch of Douglas 20%
  4) pelvic peritnm
  5) lap Surgery scars
  6) other- vagina, vulva, umbilcs, appndx- rare

- comm clncl features:
  1) dysmnorrhea- start b4 menses & continue 4 few days afr
  2) pelvic pain
  3) dyspareunia- deep. can persist 4 few hrs afr coitus
  4) abnorm bleeding: intrmnstrl spotting, postcoitl bleeding if cervix involvd
  5) problems with fertility- may be due to mech dstortn of tubes, immnologcl causes (embryotoxns?), ndocrn disturbnce, disturbnce with ovul'n
  6) comm'ly assoc'd features: PMS, chronic thrsh, dprrsn, lethrgy

- less comm features:
  1) bladder symptms- freq, dysuria, hmturia at menses}
  2) bowel- tenesmus, diarrhea/constip'n b4/during menses)
  3) vaginal ulcr'n
  4) sacrl nrv cmprssn
  5) dphgmtc irrit'n

- ddx:
  1) primary dysmnorrhea
  2) PID
  3) fibroids
4) ectopic pregnancy
5) pelvic neoplasia
6) non-gynecological: appendicitis, IBS, IBD, bowel obstruction of other causes

workup:
1) Hx- present with dysmenorrhea- ask about abv symptoms
   - bowel/bladder problems- const or temporarily related to menstrual cycle?
   - psych
2) PE- infection, neoplasia
3) Ix- U/S may detect szble cysts
   - laparoscopic exploration
   - disease marker CA125

neonatal jaundice

neonate, HR 90, moderate tone, blue, no response. APGAR? cause?

- color blue- score 0
- HR 90- <100- score 1
- tone mod- some fluctuation- score 1
- 0 resopnse- score 0
- reflexes? - 0/poor- score 0 or 1

total 0 + 1 + 1 + 0 + 0/1 = to or 3

Low Apgar may be due to:
- intrinsic causes (in fetus/infant):
  1) congenital malformations- congenital cyanotic heart disease
     - lung hypoplasia- oligohydramnios, diaphragmatic hernia
     - NTDs
  2) congenital infection- chorioamnionitis from prolonged ROM
     - prematurity
     - fetal trauma/fetal maternal haemorrhage during birth
     - late- temp disturbance- hypothermia
     - hyperglycemia (esp. infants of DM moms)
     - metabolic disturbance (inborn error of metabolism)
     - infection
     - seizures

NTD- how detected?, previous pregnancy- antenatal dx etc

- types of NTDs:
  1) cranial- anencephaly
     - cranium bifidum: encephalocele
       - craniomyelocele/craniomeningomyelocele
  2) spina bifida occulta
  3) spina bifida cystica
  4) sacral agensis

- incidence of NTDs 0.5% in Aust. F predominance

- cause: combo of genetic & envtmntl fctrs. risk increase with:
  1) Hx of previous pregnancy affected by NTD- previous child: increase to 4-8%, to previous kids: 10%
  2) some ethnc origin eg. Celts
  3) low SES, poor diet (esp. if folate deficient)
  4) IDDM- esp. sacral agensis
  5) some drugs: anticonvulsants

antenatal dx:
- aFP: raised in amniotic fluid in NTDs- but NB. fse +ve from:
   - wrong dates
   - trauma during procedure- bleeding
   - multi pregnancy
   - threatened/inevitable abortion
other malformations: renal agnisis, ahrsias, sacrl teratoma, omphalocele
- U/S: can c gross structs at wk18 morphology scan
- amnio & CVS- some NTDs assoc'd with chromosome anomalies esp. 3somy 13 (Patau's), 18 (Edwrd's)

Pt with Hx of previous pregnancy affctd by NTD should have:
- preconcpntl counseling if pregnancy plnd- need 4 folate supplementaries, control of DM, avoidnce of certn drugs
- prenatl counseling- stress abv
  - advice 4 early prenatl dx eg. aFP levs, U/S (t’ early 1’s mayn't pack up lumbrosacrl conditions), amnio & CVS
  - offr gntc counseling
  - advice about TOP

Ovarian tumor- causes, symptoms, dx, to features suggesting malignancy, to surgical procedures

Oligohyramnios
- o'hydrmnios = amniotc fluid vol <200mL
- occr in 0.5-5% all pregnancies
- causes of:
  1) excessive loss- PROM with lkg of amniotc fluid- most oft
     - accel'd loss of fluid 2wrd end of pregnancy
  2) inadqt prod'n- placental insuffcncy- placental hypoplsa
     - any condition assoc'd with IUGR
     - inadqt prod'n by fetus- renal agnisis
     - renal failure- due to drugs eg. matrnl ACEI ingstn
  3) idiophthc- 40-50% cases
    - clncl signif:
      1) deform'ns- talipes, wry nk, spnl crvtr
         - amniotc bnds may cause limb amputatns
      2) impr'mt of amniotc-fluid-dpndnt development- pulm'y hypoplsa
      3) cmprssn of cord & fetl dstrss
    - workup:
      1) Hx: PROM?- Hx of gush of fluid?
         - undergone manipulatv procedures that may risk PROM eg. ECV, amnio
         - Hx of trauma to abdominal?
         antenatal Hx- wk 18 scan- fluid vol norm then?
         matrnl meds?
      2) PE: matrnl weight < dates
         fetl parts easily felt & promnt, but ballotability red'cd
      3) U/S: amniotc fluid vol measrmts
         look at URINARY TRACT- bladder- empty bladder sggst inadqt prod'n/obstrctn of URINARY TRACT abv bladder
         - kdns- hrd to vslz
         - stmch- fetus swllw fluid- empty stmch sggst inadqt prod'n
         - lungs- hypoplstc?
    Mx
    - trt cause if possible eg. stop meds, any cause of IUGR
    - renal agnisis- offr TOP
    - late pregnancy with lv fetus- monitor fetus by CTG, U/S- assess possible'ty of delvry by Caesar if there's features of fetl dstrss

Polycystic Ovary Syndrome- hormonal profile
PCOS is syndrm charac’d by disturbance in ndocrn f(x) of hypothal-pit'y-ovrn axs, with apprmce of multi follicl cysts in ovry.
cllsc triad: obsty, amnorrhea & infertility, hirsutsm
cause?
1) primary ovrn defct
- E defcncy eg. ring A aromatase (androstenedione buildup), 3b-OH DH (dehydroepiandrosterone buildup)- these R
androgs whch can- dirly intrfr with ovrn f(x)
  - indirly intrfr by being convrtd to estrone periph'ly in fat
  - nhnce pit'y response to GnRH- stim thecl f(x)- increase steroids
- FSH-R defct on thecl/grnlosa cls?
  - xs inhibin prod'n

2) pit'y dysf(x): f(x) lk in M, prod'ing const lev of LH instd of cyclicly fluctuating.
so increase LH:FSH ratio- so can stim prod'n of tstostrone, dehydroT, DHEAS- these androgns can be convrtd 1 estrone
periph'ly & reduce levs of SHBG
so free tstostrone increase- prod andrognc effects eg. hirsutsm
  - assoc'd ndocrn abnorms- insulin resistnce, increase adml secretn of DHEAS

3) non-repro'v ndocrn disturbnce
- excessive androgns from adml/other source- affct follcir matr'n/atrsia, affct hypothal f(x)
- increase'd activity of 5a-red'ase- increase'd metab'm of T to DHT in skin
  - prod +ve fdbk to ACTH- may furthr stim thecl f(x)

clinical features
- infertility
- hirsutsm
- amnorrhea/irreg mnstr'n (may be hvy/scnty)
- obsty
- glucose intolrnce
- ovr l/t risk endometrial CA & DM (assoc'd CVS disease)
- O/E- nlrgd ovries

workup- dx bsd on clncl features but may be spprtd by:
- U/S- multi cysts in periph'ly of ovry
  - increase'd ovrn stroma
- hormonal profile- hi LH (increase'd LH:FSH to ~3:1), hi free tstostrone, low SHBG

Mx
- weight loss
- reduce strss!
- infertility- clomiphn hlpful. 25mg/day
  - if fail- FSH, GnRH agnists (gosrelin, nefarelin)
- amnorrhea- COCP
  - progstrones (if contraception not necessary)
- hirsutsm- cosmtc- waxing, e'trolysis
  - drugs- stop androgn prod'n- by ovry- estrogen, GnRH agnists
    - by admls- GCs
    - stop androgn effect- cyproterone acetate (progstrone antiandrogn)- Androcur
    - spirolctone

Preeclampsia- causes, risk factors 4, complications
- PET: hypotension beginnng aftr wk20 gstatn (BP >140/90 or increase of 30/15) + edema & proturria
  - cause: abnorm development of placental vasc'r sys: abnorm invsn of matrnl uterine vessels by cytotrophoblst cls ie. don't
break dwn t. media layr of uterine vessels- so vessels don't convrt in2 low-resistnce bld lakes but instd retn norm vasc'r struct
with smth musc in wall, so can respond to matrnl vasc'r reg'y sgnls (can vsoconstrct)- increase BP & restrct bld supply to
plcnda & fetus
  - risk fctrs 4:
  1) immnologcl (have gntc bs's): previous pregnancy affctd by PET
dngrous dad- fathr who'd fathrd previous pregnancy affctd by PET
new partnr
primip
family Hx in 1st-deg rel'vs
  2) conditions assoc'd with large plcnda: multi pregnancy
hydadtiform mole
  3) prexisting vasc'r disease: HYPOTENSION, DM, renal disease, CT disease
4) obsty

- pthognsis
1) vasoconstrctn ld to placental hypoxia
2) lead to endothelial actvtn- red'd prod'n of vsodil'y substs N2O, PGI2
   - increase'd prod'n of procoaglns
   - increase'd cplly perm'ty
   - increase'd snstvty to RAS
   - role of other mdiatrs- brdyknn, ndothln
3) more vsconstrctn...

- Pt may compln of:
1) generalized swlling (edema)
2) headache
3) visual disturbnce- spots & stars- serious: szrs (eclmpsia)
4) RUQ pain
5) bruising

- complic'ns
1) renal impr'mt- urc acd, Cr lev's increase
   - olgouria, renal insuffcncy
2) bleeding diathsis/DIC
3) CVA (haemorrhagic), seizures
4) retrnl haemorrhages
5) impaired hepatic f(x)
6) placental abruptn
7) fell IUGR, hypoxia, death

so... BP hi, urn dipstck protn ++++, edema:
- admit Pt 4 bed rest
- look 4 complic'ns: FBC, UEC, urc acd, LFT, coags (APTT, PT)
- then:
  1) mild: bed rest uslly adqt
     monitring: mom- BP, HR, urn output, UA
     fetus- CTG, U/S
     if hypotension worsn consdr szr prophylxs & antiHTvs
     pln 4 delvry
  2) mod't: bed rest
     antihypertensive- hydralazn, labetalol, oxprenalol, mthyldopa, prazosn, nifdpn
     consdr seizure prophylxs
  3) severe: admit urgntly
     seizure prophylxs- MgSO4 4g bolus then 1-2g/hr infusn
     antihypertensive
     treat other complic'ns- fluid therapy (NB. overload!!!) platelet Tx
     fetus- monitor: regular U/S, CTG, Dopplr
     delvr (if >36wks, BP outta control, protnuria sevr, orgn failure)
     - inform neonatologist!
     - Caesar problem'y safst (epidurl contraindicated in coag'pthy)
     - vaginal delvry possible- epidurl if not contraindicated
       - 4ceps/vacuum to avoid prolongd pushing
     - avoid ergo but antcpt PPH
     delay delvry (if <36wks & mom's condition being ctrld)
     - continue monitring

PID- causes, Mx
PID- pelvic inflammatory disease- is sprding infection of gntl orgns, uslly involving ndomtrm, tubes & evntlly to pelvic peritnm

- cause of- uslly due to upwrd sprd of lower genital tract infection
  - minority (5%) due to sprd from adjacent orgns eg. ruptured appendix

- implicated bugs:
1) chlmydia: acc 4 40-60% (6-10% F Pt's with chlmydia will get PID)
gonorrhea: 15-18% (10-20%)
Mycoplasma hominis 10-15%
aerobes
unknown

Clinical features:
- features of LnGT: offns discharge, pain, dyspareunia
- LUTS: dysuria, freq, hmturia
- pelvic pain: shrp, localzd & sevr if involv pelvic peritnm
- systmc: fevr, N&V, malaise
- sprd: gonorrhea may sprd to prod arthritis, sometimes perihep'ts (Fitz-Hugh-Curtis syn)
  chlmydia may prod FHC syn with RUG pain, N&V, Murphy's sgn, + R shoulder tip pain
- O/E: ac't abdominal, tenderness, guarding, rebound
cervical motn tenderness

ddx
1) ruptd ectopic
2) endometriosis
3) ruptd ovn cyst
4) torsn (cyst, fibroid) about pedicle
5) ruptd appndx, msnterc adnitis
6) IBD

- Hx: PV discharge?
  abv symptms should be dx'd
- lx: swab (hi vaginal, cervical, + urethrl, rctl) m/c/s
  blds- FBC, cultr
  laparoscopy
- Mx: remv IUCD if prsnt
  i.v. aB's (amoxclln + tetracycln + metronidazole)
anlgsa
  antipyretcs

Pelvic mass workup
causes of pelvic mass:
- ovry- physio cyst- follcl cyst
  - c. lutl cyst
    - patho cysts- nlrgd ovries from PCOS
      - tumors
      - ndmtriomas (choc cysts)
    - tuboovrn abscess
- tubes- hydrosalpnx
  - pyosalpnx
  - ectopic pregnancy
- uterus- fibroids
  - leimyosarcoma
  - ndmtrioma on uterus
- non-gynecological structs- bladder- dstnsn due to urm'y retention
  - bowel- impc'td feces forming mass
    - drvtcl/aervclitis
    - tumors
  - pelvic kdny- congntl, Tx
  - peritnl abscess
  - nodes
  - vessels- iliac vessel anrysm

Workup of incdntl finding/prsnt'n of pelvic mass:
1) if Pt prsntd with mass- how long has mass been there?
  - have it nlrgd?
2) otherwise- describe mass: sz
  shp
  consistncy- solid, cystc
tenderness
where is it attchd to?
fx'n/xtnsn to adj tsus

3) symptms r/v- pain? where?
- bowel symptms
- bladder symptms
- dyspareunia
- hormonal chnges eg. mnstrl chnges (menorrhagia, intermnsnl bleeding, cycl irregulatey)
  andrognc chnges/virilz'n
  brst atrophy
  precocious sxl development in kids
- systmc features of inflmm'n- fevr, malaise

3) lx: suspctd ovrn/gynecological-rel'd mass: U/S
tumor markers- CA125, aFP, hCG, hrms, a1-antitrypsn
CT may hlp delineate where mass is arising from if U/S
inconclusv
laparoscopy/laparotmy to remv mass 4 histo dx

Polyhydramnios
- polyhydramnios defnd as >1.5L amniotc fluid in t3 but uslly not clnclly detctd 'til >to.5L
- causes:
  1) multi pregnancy- ac't polyhydramnios can occr in TTT
  2) DM
  3) PET
  4) inadqt fetl swllwing- GI atrsia
     - crnl malformation
     - hyperxtnded attitude
  5) lkg from opnd malformations- spna 2nda, anecphly, xtrophy of bladder
  6) fetl hydrops- Rh isoimmnz'n, hrt disease (CCF, supraVr tchy)
- clncl signif
  1) may indcate fetl malformation- furthr dx
  2) may indcate serious condition in mom (DM, PET) or fetus (TTT, hydrops) needing urgnt action
  3) can prod complic'ns- risk fetl malpresentation
     - risk cord prolapse
     - risk PROM & prematr labor
     - risk PPH
  4) prod dscomfort to mom- resp'y/swllwing difficulty, pain

workup:
Pt may compln of rapd abdominal nlrgmt, excessive dscomfort
O/E: uterus large 4 dates, very tnse, very cystc
fetus xsvlly ballotble but parts hrd to feel
fetl HS hrd to hr

- Hx: DM?
  antenatal Hx: GDM?
  BP- PET?
  bld typing/Ab scrning- possible Rh disease?
  previous U/S- fetl malformation?

- lx: U/S- measr amniotc fluid vol
  - fetl sz- hydrops?
  - fetl malformations- NTds, GI atrsias
  - fetl hrt activity- CCF
OGTT
  bld Ab scrning agn
  amnio- esp. Rh disease (bili levs), fetl abnorm (karyotype analysis)

polyp- hysterscopy pic. what is it?
polyp- due to epthl hyperplasia- of ndocrvcl epthm or ndomtrm
Mx: Bx to xcl. CA
remv by cutting off at bs of stalk

POP- sample shown
POP- progesterone-only pill/minipill
eg.'s Microlut (Ivnorgestrol), Micronor (norethistrone)

usd in:
1) Pt's where estrogen contraindicated eg. lctatn, estrogen-dpndnt tumors, thrmbophlas/CVS disease, migms due to estrogen
2) Pt's with hvy periods- can prod amnorrhea
3) Pt's who can't tolerate side effects of estrogen eg. brst tenderness

disadvantages:
1) less effective, shortr safety zn
2) progstrone side effects: irreg bleeding/amnorrhea
   bloatdness, PMS
   fluid retention, weight gain
   advrs effect on lipd profile- reduce HDL
   andrognc effects- hirsutsm, acne

postmenopausal F with Hx of brst CA with hot flushes. don't want patches. advice? keen on tamoxifen,
advantages?
0 clear evdnc in currnt resrch/lit on whethr it's safe 4 F with Hx of brst CA to take HRT:

argumts against HRT- estrogns may stim any residl CA cls or development of CA cls
argumts 4 HRT- there's been cases where Pt's with advcd brst CA R sucessfully trtd with hi-dose estrogen therapy
   - most Pt's with brst CA who're premnopausl continue to prod own estrogen, at levs > HRT
but... sggst speculumialist consult & problem'ly should avoid estrogen HRT unlss other optns xhaustd

non-pharm method's 4 trting hot flushes:
1) stress red’n
2) avoid hot/spicy foods, EtOH, hot drnks
3) progstrone alone may hlp hot flushes but need hi'er doses eg. Primolut N 5-10mg nocte, Provera 20-100mg

4 other effects of mnopause:
1) emphasz on good diet to reduce CVS disease, xrcise to reduce o'porosis
2) trt other effects of mnopause eg. bn loss w. Ca-vit Dischargealcitriol (Rocaltrol), bisphosphonates Didrocal (etidronate), Fosamax (alendronate)
tamoxifen (Novaldex)- selctv estrogen- R modulator
have estrogenic effects on bn, but anti-estrogenic effects on brst & ndomtrm
so good 4 prvntn of o'porosis
but 0 evdnce that it hlp's hot flushes- & may even worsn 'em!

PROM/prolongd ruptr of membs
is SROM >24hrs b4 onset of labor, 'twn wks 20-37

incidence: >25% have ROM b4 2nd stg. 5-10% b4 labor

* causes of
- increase'd P- polyhydramnios, multi pregnancy, APH
- coitus
- trauma to abdominal
- cervical incompetence with prolapse of membs
- felt malpresentation
- membs abnorm'ly thn
- procedures- ECV, amnio
* clncl signif:
- induce prematr labor
- if very early & labor don't begn- oligohydramnios- fetl dstrss, hypoplstc lung development, cmpssn of cord
- risk infection of fetus & secundines- chorioamnionitis
- increase risk of abruptn
- increase incidence of cord prolapse

Mx:
gstatnl age- wk37- admit Pt & induce labor if there's 0 contraindications eg. previa
  - <wk37- admit Pt to labor ward & monitor vitals- U/S, FHR via CTG, mom BP/HR/temp
  - infection control- take vaginal swab m/c/s, consdr aB covr if labor don't occr in 24hrs
  - inform neonatologists in case prematr labor occr
  - try prnt prematr labor- tocolytics
  - is fetus matr- do L:S & induce fetl lung matr'ty with GCs if there's 0 contraindications eg. infections, DM
  *if labor don't start- Pt may go home/be admtd to antenatal unit 4 bed rest. careful monitoring 4 sgns of labr,
  infection. aB covr

Rh disease- grph of amniocentestic fluid analysis given

rubella infection in pregnancy
1) primary infection
  - most dngrous during 1st 8wks, when 90-100% fetuses will become infctd, & most/all will dev maj defcts.
  - matrnl infection afr wk14 of gstatn may prod fetl infection, but congntl defcts unusl
  - matrnl infection afr wk15 gstatn isn't indcatn 4 TOP

2) re-infection
  - r% of fetl infection vary (0-30%)- but uslly <5%
  - << than abv will dev congntl abnorms

congntl rublla infection
  - clssc rublla syndrm: dfnss
    - i's- microphthlmia, cataracts
    - mntl retard'n
    - crdc defcts
  - xpnded rublla syndrm: IUGR
    - marrw damage- thrombocytopenia, anmia
    - hep'ts
    - myocarditis
    - pnmonitis
    - encphlitis

  - ddx of matrnal rash in pregnancy:
    1) toxo- only this 1 signif
    2) scarlet fevr
    3) modfd measles
    4) enterovrs's
    5) parvovrs B19

  - Mx 4 pregnant F with possible xposr to rublla:
    1) seek med atttn immed'ly
    2) look at antenatal record (1st visit/booking)- what's her rublla immnty status? if have previous vacc'n, problem'ly safe-
      reassr Pt but still need to lx
    3) lx: do serial measrmts of rublla Ab's- 2nd smpple tkn to-3wks afr 1st
      - can do IgM measrmts (indcate actv infection)
    4) rising Ab titrs/+ve IgM indcate infection- Mx dpndn on gstatnl age:
      if <wk14: advice about possible risks to fetus. offr TOP as an optn
      if >wk14: reassr that risks of fetl abnorm low.
      NB. passv vacc'n by Ig not provn 2b of any bnfit
    5) advice infctd Pt to stay away from other pregnant F's
set of results with high prolactin, low FSH & LHS- cause? 2 likely symptms? Ix? what drug will help?
hyperprolactinemia may be due to:
1) physio- lactatn!
2) patho
- pituitary tumor- prolactinoma, mxd GH-prolactinoma
- disconnection hyperprolactinemia- prolactin secreted ususly toncily inhib'ed by dopmn from hypothal, but disconn of pit'y stalk eg.
  - head trauma can cause uninhib'ed secretn, lactotroph hyperplasia- but hyperprolactinemia ususly mild
- hypothyrdsm- as prolactin secreten is stim'd by TRH
- uncomm- hypothal disease, renal failure
- rare- patho refixs, post-VZV
3) drugs- anti-DR's eg. phnothiazns, butyrophiiones, antidprssnts, antiemetics (metocolompramd)
  - drugs deplting dopmn eg. mthyldopa
  - hi dose estrogn
symptms: - gynecomstia
  - galctorrhea
  - amnorrhea
  - anovul'n & infertility
  - red'd libido
  - other symptms dpnd on cause eg,
    - pit'y tumor prod mass effect with vsl disturbnces, headaches
    - hypothyrdsm- lethrgy, cold intolrnce, hyperdefec'n, weight gain, skin & hr chnges...
workup- furthr Ix:
  1) meds Hx? antipsychotcs? hi-dose estrogn?
  2) hd CT/MRI- will detct tumors, damage to pit'y stalk, hypothal lesions...
  3) TFT
Mx- any dopmrnc subst!
4 Pt's wshing to spprss lactatn- most comm'ly usd is cabergoline (Dostinex)
4 other causes- bromocrptn

shoulder dystocia
shoulder dystocia is obstrctn to delvry of the fetl shoulders aftr head's been delvrd

occrr in 1-to% all delvries. more comm in DM (14% DM infnts <4.5kg, 50% DM infnts >4.5kg)- why? DM infnts r large with poor tone

risk fctrs 4:
1) smll matrnl plvs- smll statr of mom
2) big baby- genetics- previous infnt with shoulder dystocia, previous infnt >4500g, big mom, hi matnrl birth weight
  - advanced matnrl age & parity
  - GDM
  - congntl cyanotc hrt disease
  - hmyolitc disease of newborn, hydrops
  - BW syndrm- xophthlmos, macroglo ssia, gigntsm, oft neonatl hyperglycemia
  - postmatr'ty
clinical significance:
1) 4 baby- # clavicle/humerus
  - brachial palsy
  - hypoxc brain damage
  - death/residl morbdty
2) 4 mom- trauma- genital tract, bladder/bowel if forceps usd
  - PPH
  - psycho disturbnce

antcpting shoulder dystocia:
1) antenatal- be awr of abv risk fctrs
- antenatal assessment: palpably large baby
  - large baby detected on U/S
  - late engagement of head in primip
2) intrapartum: 1st stage: prolonged 1st stage (esp. active phase), slow descent, arrested rotation
  - significant caput & molding
  - 2nd stage (during delivery): Turtle sign: baby's head buried in maternal pelvis

plan of action:
1) get help, organize roles & support staff
2) DON'T PULL ON BABY'S HEAD or apply fundal pressure
3) do episiotomy
4) exaggerated flexion of mom (MacRobert's maneuver)
5) apply suprapubic P to push shldrs tog to reduce acroml diam
   if abv fail...
6) Wood's screw maneuver: hook less-impact post shoulder down, & rotate so it becomes ant-delvr now-ant arm
7) Rubin's maneuver: suprapubic P + Wood's screw
   if still fail...
8) delvr post arm 1st: press on antecubital fossa to flex arm, then delvr it ant'ly (by flexing shoulder) or post'ly (extending shoulder above head) - will break baby's clavicle/humerus!
   xtrm measures...
9) Zanavelli's maneuver: fix baby's head & re-insrt in vagina (uterine contractions will stop) - do Cesarean
10) symphysiotomy
11) dstrctn

then...

debrief evry1!

**triple test: what is it? what tested for? purpose?**
is bioc analysis done at wks15-17, in ordr to aid calc'n of risk of Dwn's syndrom of fetus. results added to other risk factors like advcd matral age to gv totl risk

measrs: aFP (lwr), estriol (lwr) & hGC (hi'er)

only 67% snstvty. 6% false -'ves

**Tubal ectopic pregnancy: causes, Mx**
ectopic pregnancies may be due to:
tubal block eg. post-PID, adhsns from previous surgery, faild re-anast after tubal ligation
defctv tubal transp f(x) eg. POP, congntl cilia defect
abnorm ovm mvmt
clncl features
- early- amnorrhea
  - vague abdominal discomfort
  - PV bleeding
  - typcl symptms of pregnancy mayn't be prsnt
- latr-
  1) tubal abortn: occr if POC expelled from frmbnl end of oviduct
     - colcky abdominal pain
     - PVB
     - pain become more const, shrp & localzd as bld expelled in2 peritnm
     - condition may settle spont'ly, but uslly need lap surgery to remv POC
  2) tubalrupt: occr if tube split & POC expelled outta defect
     - initlly have colcky abdominal pain, but then prsnt with peritnsm as bld expelled in2 peritnm. may occur slwly or abruptly
     - abdominal ac'tly pnful. shoulder tip pain if there's dphgmtn irrit'n
     - PV bleeding may be profuse. & Pt may be shockd/hypovolmc w. N&V, dizziness
     - O/E- tender, firm & guarded with rebound. may've localzd area of max intnsty
       - speculum xamn show PVB ± passg of POC
     - VE- adnexal masses felt. tender uterus on mvmt
Plan of action:
1) Admit Pt immediately & resuscitate as necessary
2) Urgent O&G r/v & arrange for OT
3) Need lap surgery for removal of POC from peritoneal cav, & salpingctomy/removal of conceptus from tube if 2nd tube patent.  Otherwise do salpingotomy + hysteroscopy D&C to remove any residual decidual tissue
4) Counsel Pt about future pregnancies - increase'd risk of ectopics after previous ectopic - sk med atttn early if amenorrheic with possibility of pregnancy

Turner's - Genetics, Mx
Turner's syndrome: 45, X (strictly speaking "45XO" is an incorrect representation ref: genetics textbook)
incidence 1/10T - 1/5T liv F births
75% due to loss of patnl X/Y chromosome in partnl meiosis
clin features: short stature
  - xs skin at bk of nk
  - wd-spced npls
  - failure of development of secondary sxl characs
  - primary amnorrhea
  - infertility
  - 15% have coarctation of aorta
Mx: GH to prvent short stature
  - estron HRT to prvent o'porosis in latr life
  - donor eggs & IVF may allw pregnancy in latr life

twin pregnancy - incidence, risk, complications
Incidence of twins 1/90 - 1/80.  Lwr in Asns (1/150) hi'er in blks (1/50).  Incidence of MZ twins sim worldwd (1/300) but incidence of DZ twins diff
Risk fctrs 4 multi pregnancy:
  0 4 MZ twins - ?role of noxious influences at time of early cleavage
4 DZ twins - advcd matrnl age
  - advcd parity
  - family Hx of twins
  - previous multi pregnancy in mom
  - assistd repro'v techniques (1/25 4 clomiphn, 1/7 4 gonadotrophns)
Complications of twin pregnancies:
1) 4 fetuses - most serious is twin-twin Tx
  - increase risk of malformations
  - increase risk of IUGR
  - increase risk of malpresentation
  - increase risk of prematurity/premature labor
2) Placental/amniotic fluid problems - increase risk of placenta previa
  - increase risk of abruptn
  - increase risk of ac't & chronic polyhydramnios
  - increase risk of PROM
  - increase risk of cord prolapse
3) Mom - gtr dscomf, worsnd minr problems of pregnancy eg. hyperemesis, bk pain, abdominal dscomf, resp'y difficulty etc
  - increase risk of PET, GDM
  - increase risk of difficult labor, opv delvry
  - increase risk of PPH

Urinary incontnnce
urine dipstick +++ glucose- dx & Mx, +++ protn- PDx, dx etc
* glycosuria
- comm in pregnancy due to red’d renal thrshld 4 glucose reabsorptn in renal tubls. also, increase’d GFR means more glucose is lost. since less is being absorb’d, then more is being lost
- dpndng on amt of glucose in urn (uslly >1% glucose found on to consect visits), an orl glucose chllng test or fstng BSL may be indicat’d.
 1) fstng BSL should be <5.5mM
 2) OGCT- gvn 50g glucose. BSL at 2hrs should be <7mM
 3) if OGCT abnorm, do OGTT- gvn 75g glucose. BSL at 2hrs should be <8mM
* protnuria
- may be due to:
  1) contam’n from vaginal discharge
  2) UTI
  3) PET
  4) renal stns
  5) pre-xisting renal disease eg. GAIN
  6) any other sevr systmc disease eg. end-stg CCF
- workup:
  1) if Pt have Hx of pre-xisting renal disease, that’s problem’ly the dx. but should still measr BP & xcl. PET
  2) MSU
  3) URINARY TRACT/renal U/S
  4) other Ix’s as indicat’d by clncl suspcn

vaginal discharge- causes, Mx
vaginal discharge may be:

  1) physio: combo of endometrial secretns, cervical mucus, vaginal xud’t & secretns
can increase & cause leukorrhea- wht-clear discharge that may be offnsv to Pt & cause pruritis
leukorrhea may occr:
- round time of ovul’n, jst prior to menses
- with sxl xcitemt
- irrit’n from for’n body eg. IUCD, douches, crms
- emotnl dstrss
- increase’d estrognc stim’n- increase amt of secreting epithm eg. mnrrche, pregnancy, some forms of OCP
- granloma
- pelvic congstn

  2) patho- infection: STDs, thrush, PID
    - neoplasia
    - trauma
    - endometriosis of cervical cnl

workup:
  1) Hx - the discharge- amt
    - color
    - consistncy
    - odor
    - timing- when start?
      - rel’nshp to coitus, OCP, mnstr’n, mid-cycl
    - assoc’d features- pruritis
      - pain
      - dyspareunia
      - abnorm bleeding- abnorm mnstr’n
      - intermnstrl bleeding
      - postcoitl bleeding
      - systmc features- fevr etc.
  2) PE- look at ext gntla- inflmm’n, lesions
    - look at discharge
    - speculum xam- discharge, bleeding, inflmm’n, lesions/masses
    - VE- cervical motn tenderness, adnexal masses
  3) Ix- swab of discharge- suspct candida- KOH mount
- trichomonas- wet mount
- m/c/s
- Pap
- may need referrl to obgyn 4 furthr Ix of any susplicous lesions

Mx:
1) trt cause!
2) physio- explanation & reassurance
   - chnge OCP
   - hygn- cottn underwear, reduce douches

vertex- what is it?

vulval warts- subtype of virus, 3 Ix's, 3 Rx's, complications
vulvl warts most oft assoc'd with types 4, 6, 11.
hi risk types 6, 11, 16, 18, 31, 33

prod cauliflowr-lk condylma accuminata on vulva, vagina. soft, friable.
may prod pruritis, blrd
may prod superf dyspareunia
may ulcer't & become secondarily infectd by bcteria- pain, discharge
hi risk types can prod CIN whch may progress to cervical CA

Ix- Pap
- STD scrn
- Bx if necessary

Rx
- chem- podophylln- not 4 pregnancy as it affct cl div'n
  - 2chloroacetate
  - topcl 5-FU
- surgical- diathrmy
  - cryothpy
  - lasr
  - excision 4 large lesions

wk18 U/S- show what?
wk 18 U/S shows:
# fetuses
estmt of gstatnl age (out by 10 days) by calc'ing growth parametrs eg. abdominal circm, 2parietl diam, crwn-rump lngth, femr lngth
morphology scan- fetus well-dev'd by now, can assess abnorms eg. NTD, limb malformations, abdominal wall defcts...
pos'n of plcnta
vol of amniotic fluid
estmtng EDC

thalassmia- lab results, symptms, Ix