HERPES SIMPLEX VIRUS:

GENITAL HSV:
- DNA virus
  - Type 1 – mostly oral-labial
  - Type 2 – mostly genital
- Infects mucous membranes via direct contact
- Manifestations vary from person to person

HSV TESTING:
- Diagnosed by culture or PCR of lesion
- Also able to determine presence or absence of HSV antibodies
- Type specific antibodies offer some information in the clinical setting, especially serodiscordant couples with new outbreak
- Remains primarily a clinical diagnosis
- Future of HSV testing and HSV treatment in rapid development and evolution
- Type specific testing for HSV-2 is available through PHSA Labs for cases such as antenatal care or HIV discordant couples to guide treatment

HSV-2 & HIV - STRONG BIOLOGICAL INTERACTIONS:
- HIV and HSV-2 within the same cell
- HSV-2 induces changes in HIV cellular tropism
- HSV-2 proteins could up-regulate HIV replication in vitro

INCREASED HSV-2:	INCREASED HIV:
• Frequency • Duration • Severity • Reactivation • Shredding	• Susceptibility • Infectivity • Expression & replication • Genital HIV shedding • Plasma HIV RNA • Risk vertical transmission

HSV IMMUNOLOGY:
- Primary infxn – first contact with virus, results in development of antibody which is type specific
  - HSV 1 or HSV 2 IgM, then IgG
- Presence of antibody to one type does not confer protection to infection from second type

PRIMARY EPISODE:

HSV PRESENTATION:
- Incubation period of 4 to 7 days
- Multiple lesions
- Leads to erythema, papules, vesicles, ulcers
- Also systemic symptoms occur
- Lasts up to 2 to 3 weeks
- Most patients asymptomatic
- Primary vs. non-primary infection

TREATMENT:
- Acyclovir 400 mg PO TID x 5-7 days
- Valacyclovir 1000 mg BID x 10 days
- Famciclovir 250 mg TID x 5-7 days

NO consistent evidence for topical antivirals

RECURRENT HSV:

PRESENTATION:
- Clinical episode in individual with pre-existing homologous antibody
- Can be confused with primary infection
- 10% of individuals with first episode have remotely acquired

TREATMENT:
- Acyclovir 200 mg PO 5x/d x 5 days
- Valacyclovir 500 mg PO BID x 3 days
- Famciclovir 125 mg PO BID x 5 days

SUPPRESSIVE THERAPY:

PRESENTATION:
- Clinical judgment of use
- Recurring genital HSV
  - Every 2 months
  - 6 times per year
- Consider a case by case basis

TREATMENT:
- Acyclovir 200 mg PO 3-5x/day
- Acyclovir 400 mg PO BID
- Famciclovir 250 mg PO BID
- Valacyclovir 500 mg PO daily
  - ≤ 9 recurrences per year
- Valacyclovir 1000 mg PO daily
  - > 9 recurrences per year

EFFICACY OF HPV VACCINATION:

Efficacy against CIN2+/GW (from clinical trials)	Cervarix (2-valent)	• HPV 16/18: 94.9% (87.7 – 98.4%)
	Gardasil (4-valent)	• HPV 6/11: 100% (85 – 100%) HPV 16/18: 98.2% (93.5 – 99.8%)
	Gardasil9	• HPV 6/11 and HPV 16/18 same as above HPV 31/33/45/52/58: 97.1% (83.5 – 99.9%)
Efficacy in boys and men	qHPV	• Efficacy against lesions: 90.4% (69.2 – 98.1%) • Efficacy against anal intraepithelial neoplasia: 77.5% (39.6 – 93.3%)
Antibody response	qHPV	• Long-term (after 10 years) anti-HPV cLIA GMTs among male and female subjects show strong response
Ecological analysis of impact on CIN2+ in BC		• Rate of CIN2+ in females lower than predicted due to HPV vaccines
Relative risk of CIN2+ *Rate of CIN2+ is approx. 50% lower in vaccinated group relative to unvaccinated group, and 2.5 times higher in 15+ yrs old compared to 9-14 years old*		• Any vaccine vs. no vaccine: RR 0.51 (0.35 – 0.75) • Incomplete vs. no vaccine: RR 0.62 (0.22 – 1.38) • Complete vs. no vaccine: RR 0.50 (0.34 – 0.74) • Complete 15+ yrs old vs. complete 9-14 yrs old: RR 2.50 (1.25 – 4.68)
Safety profile	9-valent HPV vaccine	• Discontinuation & serious adverse effects were rare (0.1 % and < 0.1%) ○ 7 deaths during the studies were found to be unrelated to vaccination • Common AEs: headache, pyrexia, injection-site related = pain, swelling, erythema (≥ 5%) • HPV9 similar to HPV4 in safety
	qHPV vaccine (13 years of data)	• No evidence between HPV4 and autoimmune disorders, neurologic conditions, MS or CNS demyelinating diseases • Initial reporting (2 years) disproportionate VTE reporting BUT no association in subsequent evaluation

TRICHOMONIASIS:

PRESENTATION:
- Vaginal discharge
- Itch
- Dysuria

DDX:
- Bacterial vaginosis
- Candidiasis

CLINICAL DIAGNOSIS:
- Off-white/yellow frothy discharge
- Redness of vulva/cervic
- Cervix pH > 4.5
- Wet mount: motile protozoa

TREATMENT:
- Metronidazole 2 g PO x 1 OR 500 mg PO BID x 7 days
- Efficacy 82 – 88% for both regimens, increases to 95% if partner also treated
- Intravaginal metronidazole gel is NOT effective
- No consumption of alcohol

PREGNANCY: treat symptomatic pregnant women as normal (metronidazole not contraindicated in pregnancy or breastfeeding)
- Trichomoniasis may be associated with premature rupture of membranes, preterm birth & low birth weight
  - Not known whether treatment will improve pregnancy outcomes
- Not recommended that asymptomatic pregnant women be treated