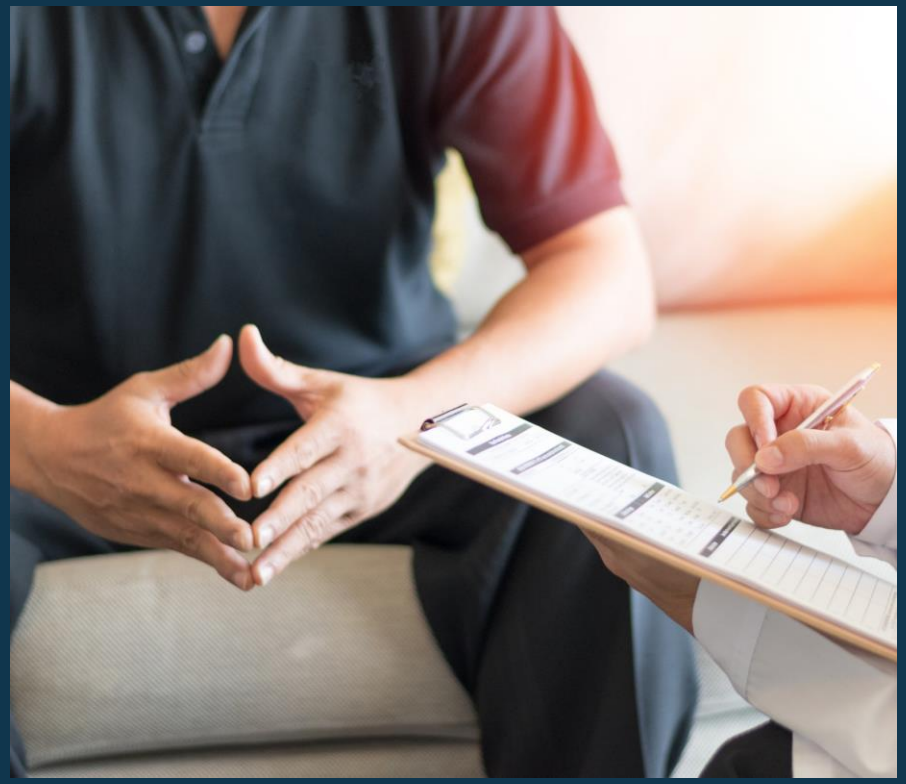
STIs and BBVs

Dr Nadia Clifton

Head of Prevocational Education

NSW and ACT



RACGP

RACGP Acknowledgment of Country

We acknowledge the traditional custodians of the many lands on which we all meet today, I reside on Gadigal land of the Eora nation. We acknowledge this is Aboriginal land.

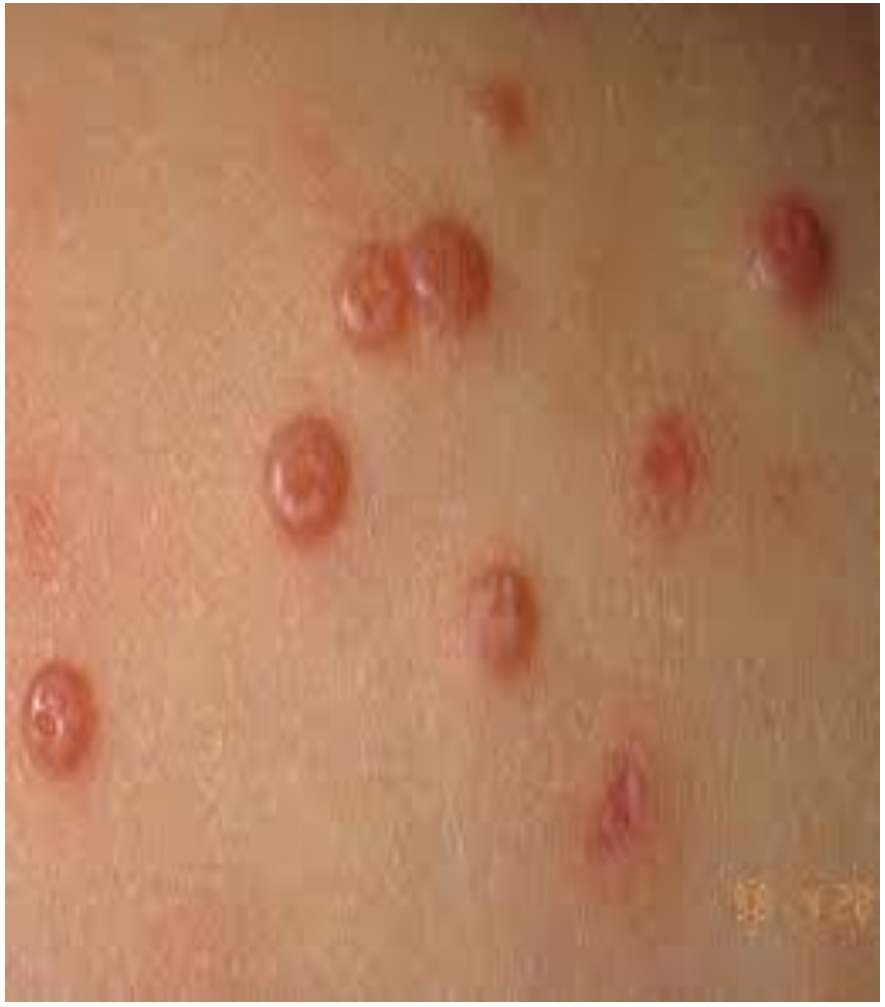
We pay our respect to Elders, past, present and emerging, extending that respect to Aboriginal and Torres Strait Islander people here today.

We respectfully recognise the continuing relationship Aboriginal and Torres Strait Islander peoples have with this land.

Learning objectives

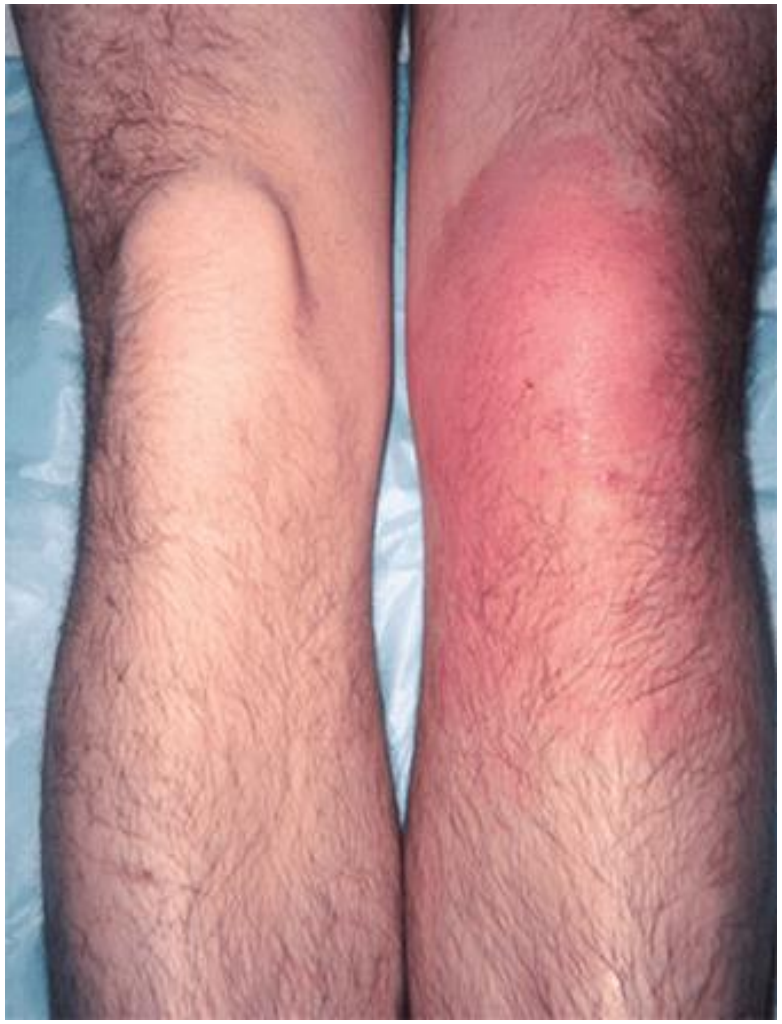
- By the end of this session, you will be able to

1. Dispel myths about certain STIs presentations
2. Consider common STD presentations
3. Order and interpret serological testing appropriately for viral hepatitis and HIV.
4. Consider the role of PreP in HIV



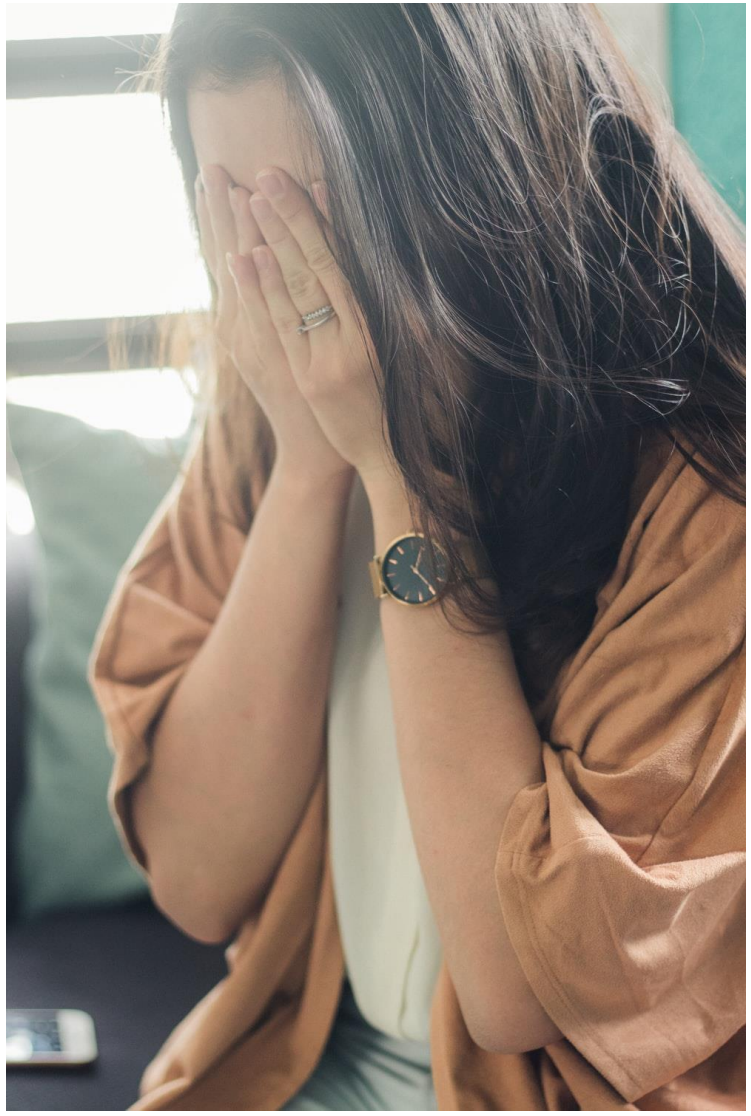
Quick case 1

- What STD is this?



Quick case 2

- 29 year old presents with atraumatic unilateral left knee swelling of 3 days duration.
- What could cause this?



Case 1

- Julie is a 20 year old lady who presents to you on a Tuesday morning.
- She told the nurse that she has “a painful groin”

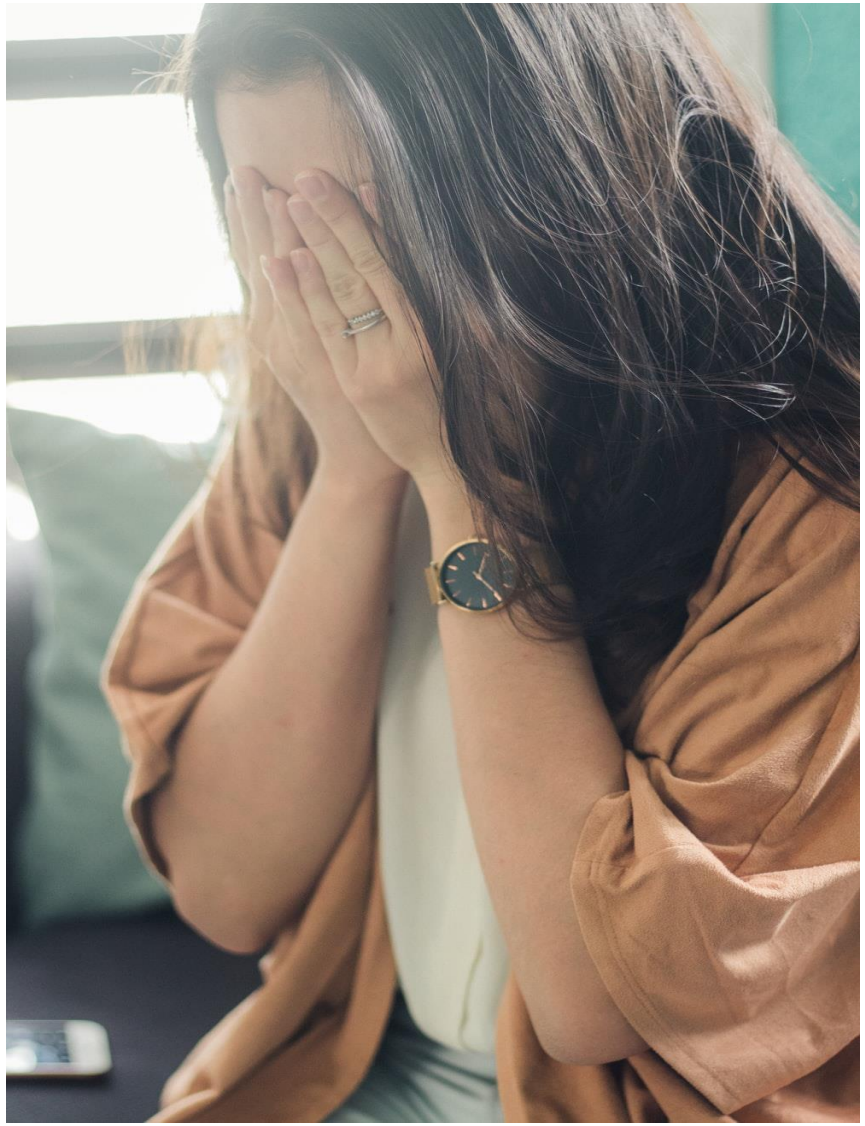
Ddx?

VITAMIN C DEF

V-VASCULAR
I-INFECTIVE/INFLAMMATORY
T-TRAUMA
A-AUTOIMMUNE
M-METABOLIC
I-IATROGRENIC
N-NEOPLASTIC
C-CONGENITAL
D-DEGENERATIVE
E-ENDOCRINE/ENVIRONMENT
F-FUNCTIONAL

Case 1

- Julie is a 20 year old lady who presents to you on a Tuesday morning.
- She told the nurse that she has “a painful groin”
- You call her in from the waiting room and she shuffles into your room and finds it hard to sit down
- She feels unwell with body aches and is worried she has a UTI, as her friend had one the other week



Case 1

- You take a sexual history and in summary Julie has had a new male partner 4 weeks ago, had insertive vaginal sex and receptive oral sex. She didn’t see any bumps or lumps on her partners face or penis.

DIALOGUE WITH PATIENT

> *I am going to ask you a few questions about your sexual health and sexual practices. I understand that these questions are very personal, but they are important for your overall health.*

> *Just so you know, I ask these questions to all of my adult patients, regardless of age, gender, or marital status. These questions are as important as the questions about other areas of your physical and mental health. Like the rest of our visits, this information is kept in strict confidence. Do you have any questions before we get started?*

S OF SEXUAL HEALTH

The five "P"s stand for:

- **Partners**
- **Practices**
- **Protection from STDs**
- **Past history of STDs**
- **Prevention of pregnancy**

These are the areas that you should openly discuss with your patients.

You probably will need to ask additional questions that are appropriate to each patient's special situation or circumstances.

DIALOGUE WITH PATIENT

> *Are you currently sexually active? (Are you having sex?)*

If no, have you ever been sexually active?

> *In recent months, how many sex partners have you had?*

> *In the past 12 months, how many sex partners have you had?*

> *Are your sex partners men, women, or both?*

If a patient answers "both" repeat first two questions for each specific gender.

DIALOGUE WITH PATIENT

> *I am going to be more explicit here about the kind of sex you've had over the last 12 months to better understand if you are at risk for STDs.*

> *What kind of sexual contact do you have or have you had? Genital (penis in the vagina)? Anal (penis in the anus)? Oral (mouth on penis, vagina, or anus)?*

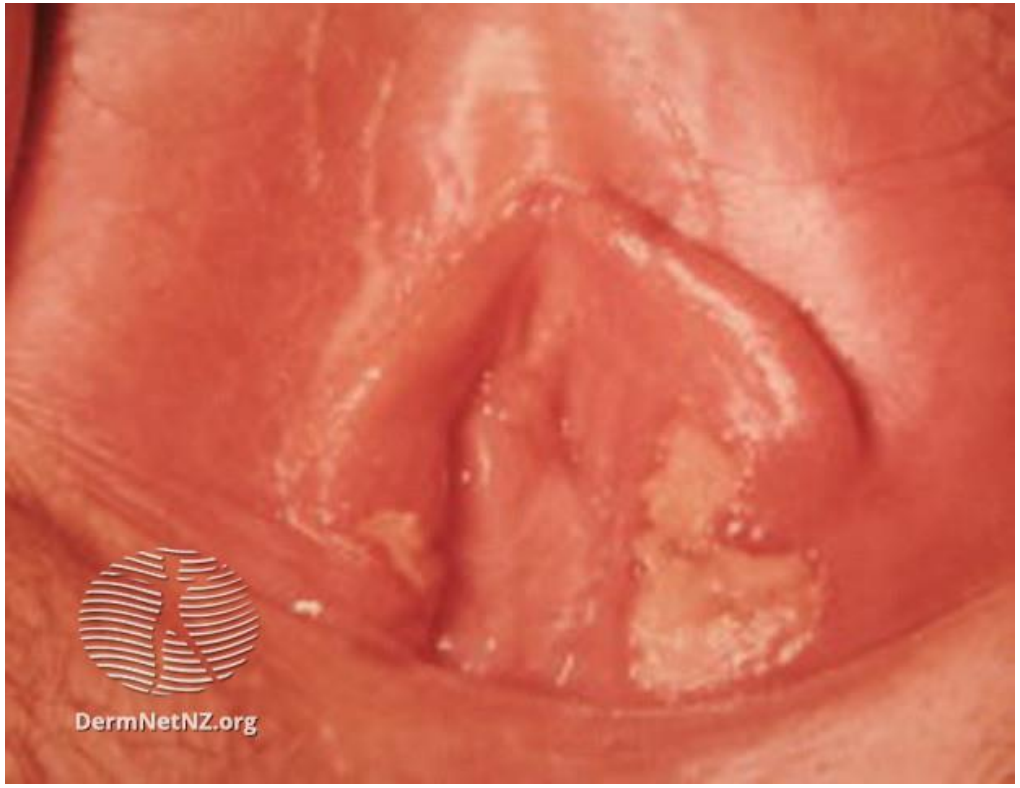
Examination

- Explanation
- Consent
- Chaperone
- Modesty

Examination

- Explanation
- Consent
- Chaperone
- Modesty
- Have all the swabs ready just in case
- Speculum if tolerated (cervicitis)

What you see:



HSV

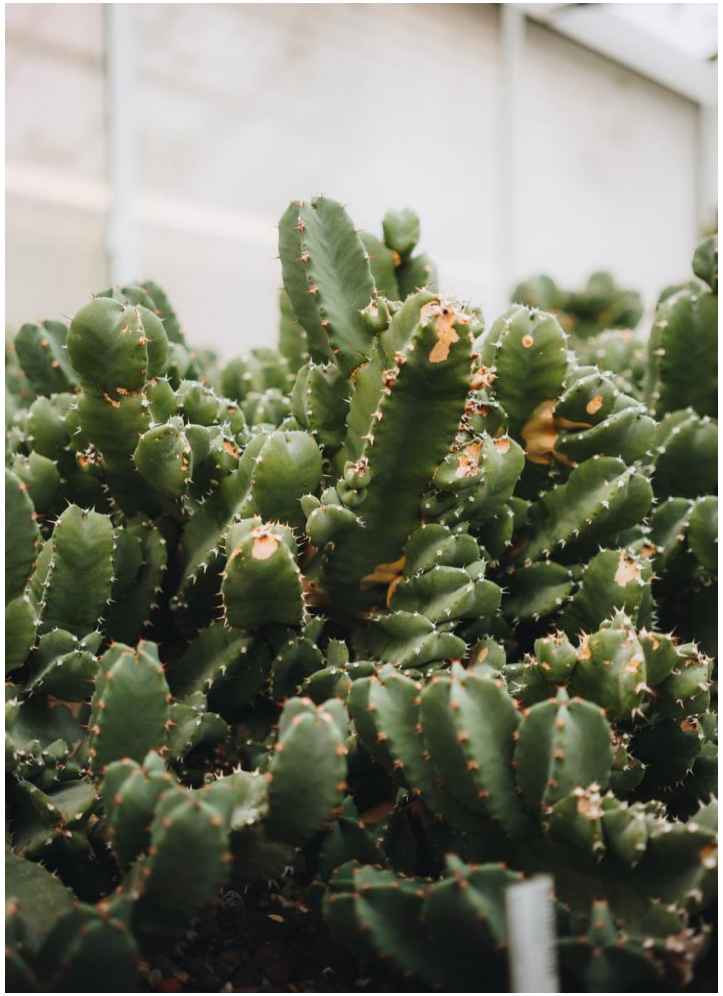
Genital herpes

- It is common!
  - Studies have found that up to 1 in 5 adults have evidence of HSV-2 infection. Most of these people have either no or only very mild symptoms, such that they are unaware of having been infected.

- HSV causes lifelong infection with the potential for reactivation or recurrence. Often people refer only to HSV-2 when discussing genital herpes, but both types can cause infection in the genital area. Clinically, about 60–70% of primary genital infections are due to HSV-2 with the rest due to HSV-1.

First episode

- Often very painful.
- The severity is generally greater than in recurrences.
- Men: Painful penile ulceration lasting 2-3 weeks. LNs tender.
- External genitalia, mucosae of the vulva, vagina and cervix. Pain and difficulty passing urine are common.
- Some people also have flu-like symptoms with fever, headache and muscular aches and pains



What investigations would you order?

Be specific – what do you write on the pathology request form?

Diagnosis

- NAAT - Swab of base of ulcer
  - Requires visible lesions to be present
  - I would write “HSV PCR/NAAT of labia minora lesion” Clinical notes “Painful ulcer, likely HSV”
- Serology as screening?
  - No!
  - ASHM: “Serological tests do not represent definitive microbiological diagnosis, and lack positive predictive value in low prevalence populations. There are no evidence-based interventions for asymptomatic individuals who have reactive serology and antibody results are not specific to anatomical sites of infection.”
  - Also consider other STI screening

Treatment?

Treatment?

Initial therapy (first clinical episode)

If genital herpes is suspected, take a swab of the lesion for testing, then immediately start treatment; microbiological confirmation is not required to start therapy.

For initial genital herpes infection, use:

1. aciclovir 400 mg orally, 8-hourly for 10 days. If clinical response is rapid, stop therapy after 5 days

OR

1. famciclovir 250 mg orally, 8-hourly for 10 days. If clinical response is rapid, stop therapy after 5 days

OR

1. valaciclovir 500 mg orally, 12-hourly for 10 days. If clinical response is rapid, stop therapy after 5 days.

Recurrent episodes

Recurrences may be triggered by:

- Minor trauma.
- Stress; either emotional or concurrent infection
- Ultraviolet radiation (sun).
- Menstrual cycle (flare-ups may occur before the monthly period).

In most cases, however, no reason for the recurrence is evident.

- Recurrent infections: Smaller, tightly grouped, shorter duration, less systemic symptoms.

Prodrome

- Itching or burning can precede a lesion by an hour or two
- Recurrences can cause distressingly painful symptoms, or the lesions can be unnoticed.
- Lesions normally heal in 7–10 days without scarring.
- Recurrences tend to be in the same region, but not always at the identical site.

Suppressive vs. episodic therapy?

Suppressive

- It reduces viral shedding, decreases recurrences by 70 to 80% and halves the rate of transmission.
- Indication? Pts experiencing several recurrences per year, or during a period of time when a recurrence would be particularly inconvenient.
- Valaciclovir 500mg daily

Episodic

- Start at the promdromic phase
- Short courses of therapy are effective because viral replication in recurrent infection is short-lived
- Pick an antiviral:

- aciclovir 800 mg orally, 8-hourly for 2 days
- famciclovir 1 g orally, 12-hourly for 1 day
- valaciclovir 500 mg orally, 12-hourly for 3 days.

Busting the myths

- Myth:

"Herpes "cold sores" on the mouth are not the same as genital herpes."

- Fact:

Cold sores on the mouth are caused by HSV-1 and are commonly transmitted to the genitals (causing genital herpes) through oral-to-genital sex.

Busting the myths

- Myth:

"Herpes "cold sores" on the mouth are not the same as genital herpes."

"If you have genital herpes you can't have (receive) oral sex"

- Fact:

Cold sores on the mouth are caused by HSV-1 and are commonly transmitted to the genitals (causing genital herpes) through oral-to-genital sex.

Up to 50% of genital herpes is caused by HSV-1.

Herpes transmission to the mouth is uncommon.

Busting the myths

- Myth:

“Only certain sorts of people get herpes.”

- Fact:

No, it is very common and anyone who has ever had sex can get genital herpes.

Busting the myths

- Myth:

"Only certain sorts of people get herpes."

"Herpes isn't that common and I am unlikely to get it."

- Fact:

No, it is very common and anyone who has ever had sex can get genital herpes.

Up to 80% of the population has been exposed to HSV1.

Up to 22% of sexually active adults have genital herpes caused by HSV-2.

Most people with herpes will not have symptoms and therefore will not be aware they have it.

75% of people who acquire herpes get it from partners who are unaware they have it.

Other facts:

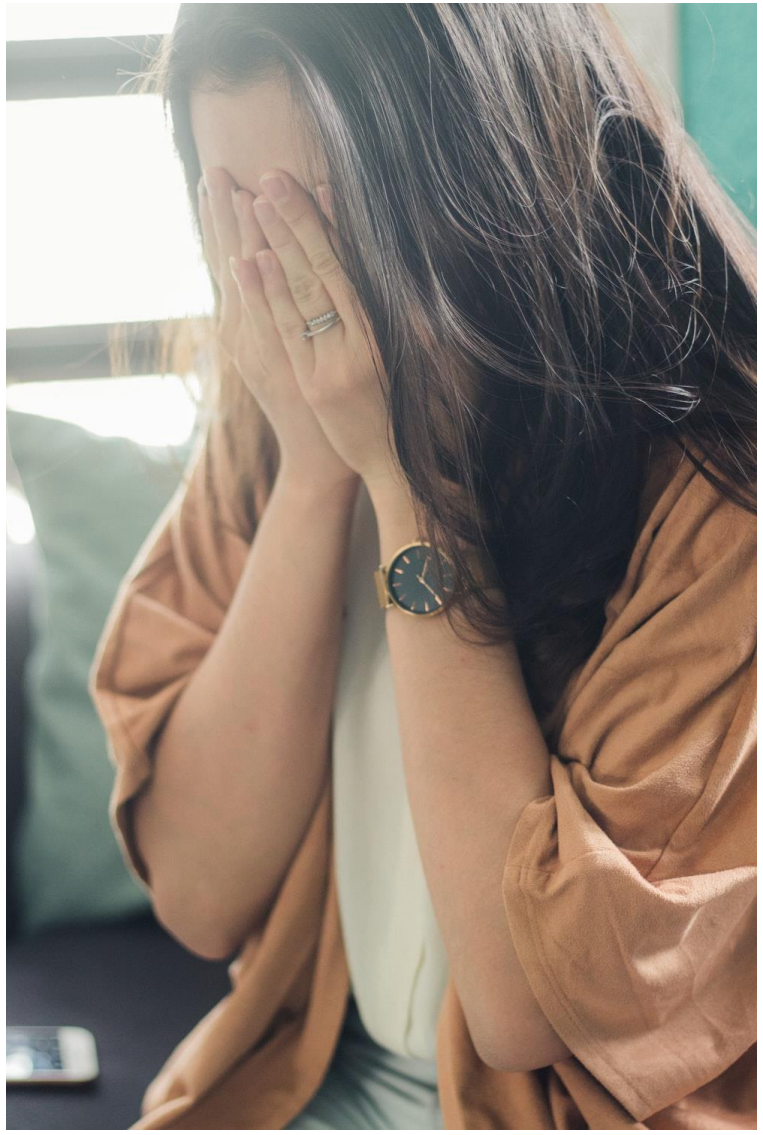
- Herpes does not affect fertility
- Herpes is not spread via toilets or towels
- Herpes is not passed via blood
- It is not routinely checked for on STD/STI checks

Wonderful resource:

- https://www.herpes.org.nz/

Questions?

Same same but different



Case 2

- Julie is a 20 year old lady who presents to you on a Tuesday morning.
- She told the nurse that she has “lower abdominal pain”
- Her obs are normal apart from a fever of 38.1 degrees

Case 2

- Low abdominal pain
- Fever

What are you differential diagnoses? Red Flags?

Case 2 - Jenny

- Low abdominal pain
- Fever

What are you differential diagnoses? Red Flags?

- Ectopic Pregnancy, Ovarian Torsion, Ovarian Cyst
- Appendicitis, Urinary Tract Infection (UTI), Pyelonephritis
- Pelvic Inflammatory Disease (PID)

Case 2 – Jenny Further history

She has had vaginal discharge and dysuria for the last two days

Sexual History:

- In a relationship with a male partner
- Unprotected sexual intercourse (vaginal) with new partner of one month
  - No history of anal/oral sex

- Menstrual History:
  - Menarche aged 13yrs, regular 28 day cycle
  - No previous intermenstrual bleeding / post-coital bleeding

Further examination

Examination:

- Well looking, normal BMI
- BP = 110/70 HR = 95 reg T = **38.1** RR = 14

- CVS, Resp, ENT normal
- Abdomen: No distention, soft, mild lower abdominal tenderness
  - No organomegaly
- PV Exam: tender spec insertion, cervix inflamed & some cervical motion tenderness, some white/yellow discharge noted
- Urine HCG negative.

Further Investigations?

Case 2 - Jenny

MICROBIOLOGY SPECIMEN: Genital swab

MICROSCOPY
Leucocytes not detected.
Scanty epithelial cells.
No bacteria seen.
No trichomonas or yeasts detected.

CULTURE
No growth.
Gardnerella vaginalis not isolated.

MOLECULAR BIOLOGY

NEISSERIA GONORRHOEAE BY NAAT

Collection site	**N.gonorrhoeae**
Not stated swab	Not Detected

Please note this assay is validated for endocervical, urethral and patient collected vaginal swabs, first void urines and liquid-based cytology solutions (PreservCyt Solution - Thinprep). For all other sample types, results should be evaluated in conjunction with the clinical presentation.

MGP-w NG1-C CH1-C $MG-B TCH-W GSC-R

MOLECULAR MICROBIOLOGY

TRICHOMONAS VAGINALIS BY NAAT

Collection Site	Trichomonas PCR
Not stated swab	Not Detected

MOLECULAR BIOLOGY

CHLAMYDIA TRACHOMATIS BY NAAT

Collection Site	**C.trachomatis**
** Urine	**DETECTED**

Results received from testing institution

Site	Vaginal
Mycoplasma genitaliu	NOT detected

Test Method: Allplex MG & AziR Assay

Please note this assay is validated for endocervical, urethral and patient collected vaginal swabs, first void urines and liquid-based cytology solutions (PreservCyt Solution - Thinprep). For all other sample types, results should be evaluated in conjunction with the clinical presentation.

In accordance with the NSW Public Health Act, this Laboratory-notifiable condition has been reported to our local Public Health unit.

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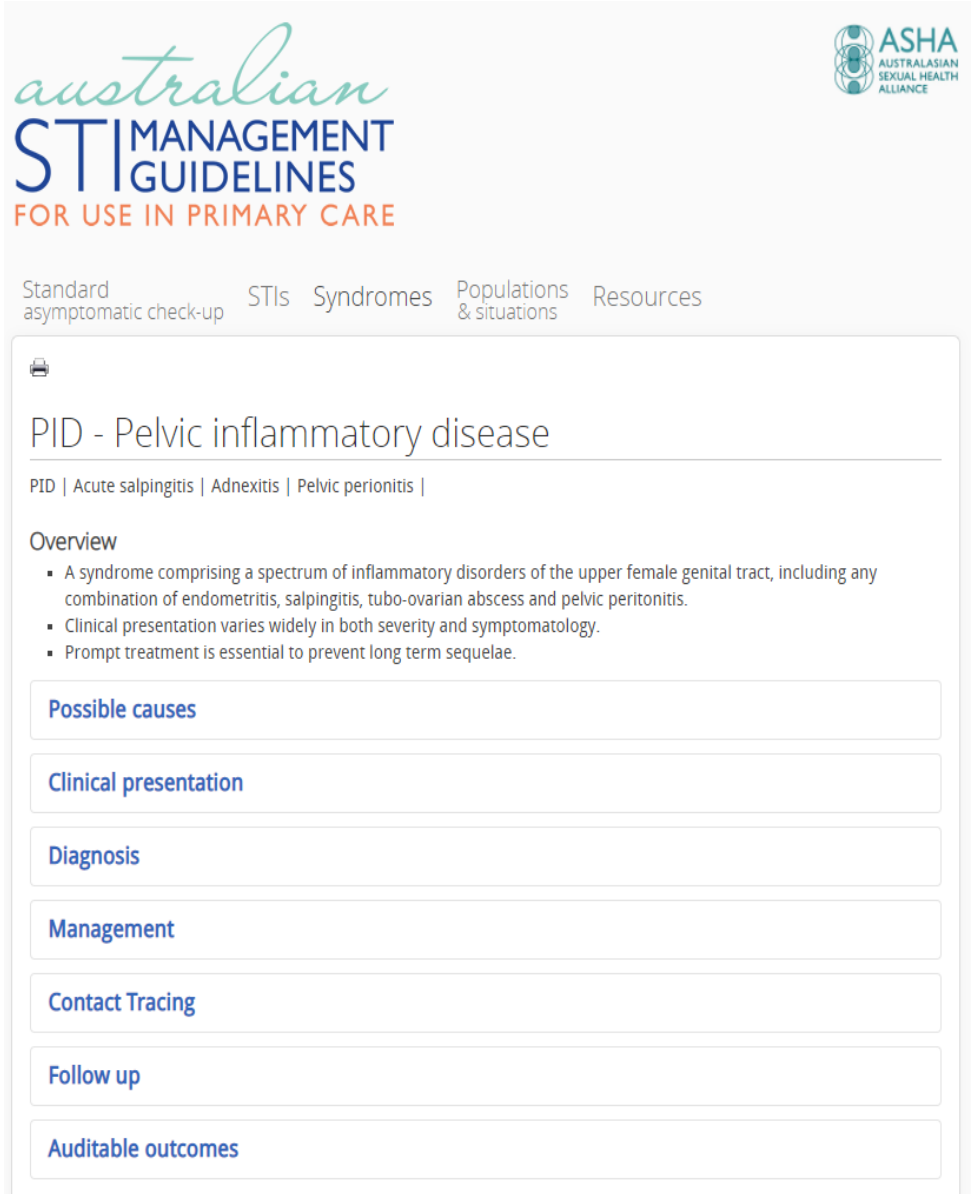
Case study – Meet Jenny…

What's the Diagnosis?

- Pelvic Inflammatory Disease (PID) due to Chlamydia
  - PID encompasses Endometritis, Salpingitis, Tubo-ovarian abscess, Pelvic peritonitis
  - Other causes: Gonorrhoea, Mycoplasma Genitalium
  - Up to 70% have an unidentified cause!

How do you Treat it? What else do you need to do?



sti.guidelines.org.au

Mild to Moderate

- Ceftriaxone 500mg IM/IV STAT
  PLUS… Metronidazole 400mg PO BD 14 Days
  PLUS… Doxycycline 100mg PO BD 14 Days

Severe

- Ceftriaxone 2g IV Daily OR Cefotaxime 2g IV TDS
  PLUS… Azithromycin 500mg IV Daily
  PLUS… Metronidazole 500mg IV BD

Complicated Infection

➔Seek Specialist Advice

Contact Tracing

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Contact Tracing

- Let Them Know (letthemknow.org.au)
- The Drama Downunder (thedramadownunder.info)
- Better to Know (bettertoknow.org.au)

How far back to contact trace:

INFECTION	HOW FAR BACK TO TRACE
CHLAMYDIA	6 months
GONORRHOEA	2 months
SYPHILIS	Primary syphilis – 3 months plus duration of symptoms Secondary syphilis – 6 months plus duration of symptoms Early latent syphilis – 12 months
HIV	Start with recent sexual or injecting drug use needle-sharing partners Outer limit is onset of risk behaviour or last known HIV-negative test result
HEPATITIS B	6 months prior to onset of acute symptoms If asymptomatic, according to risk history For newly acquired cases contact your local Public Health Unit (PHU) and/or specialist
HEPATITIS C	6 months prior to onset of acute symptoms If asymptomatic, according to risk history For newly acquired cases contact your local PHU and/or specialist *Note: rarely sexually transmitted except in HIV co-infection*
TRICHOMONIASIS	Unknown; important to treat current partner

https://stipu.nsw.gov.au/wp-content/uploads/STI-HIV-Testing-Tool-online-version-2.pdf

DISEASE REPORTING

REVISED - January 2020 **LABORATORIES**

Under the *Public Health Act 2010* and Regulation, laboratories are required to notify the following diseases

URGENT: BY PHONE, AND IN WRITING (electronic or paper)

- Avian Influenza
- Botulism
- Cholera
- variant Creutzfeldt-Jakob disease (vCJD)
- Diphtheria
- *Haemophilius influenzae* type b invasive infections
- Hendra virus
- Hepatitis A
- Hepatitis E
- Legionella infection
- Listeriosis
- Lyssavirus
- Measles
- Meningococcal disease
- Middle East Respiratory Syndrome Coronavirus (MERS-CoV)
- Novel Coronavirus 2019
- Paratyphoid
- Plague
- Poliomyelitis
- Rabies
- Severe Acute Respiratory Syndrome (SARS)
- Smallpox
- Tularaemia
- Typhoid
- Typhus (epidemic)
- Shiga toxin/verotoxin producing *Escherichia coli* infections (STEC/VTEC)
- Viral haemorrhagic fever
- Yellow fever

ROUTINE: IN WRITING (electronic or paper)

- Anthrax
- Arboviral infection
- Brucellosis
- Campylobacter
- Chancroid
- Carbapenemase-producing *Enterobacterales* infection or colonisation (CPE)
- Chlamydia
- Creutzfeldt-Jakob disease (CJD)
- Cryptosporidiosis
- Giardiasis
- Gonorrhoea
- Granuloma inguinale (Donovanosis)
- Hepatitis B
- Hepatitis C
- Hepatitis D (Delta)
- HIV (by HIV Reference Laboratory direct to NSW Health)
- Influenza
- Invasive pneumococcal infection
- Lead levels in blood ≥5µg/dl (≥0.24µmol/L)
- Leptospirosis
- Lymphogranuloma venereum (LGV)
- Malaria
- Mumps
- Pertussis
- Psittacosis
- Q fever
- Rotavirus
- Rubella
- Salmonellosis
- Shigellosis
- Syphilis
- Tuberculosis

BBV serology

Brett

- You are the JMO on an orthopaedic term
- Brett, a 47 y.o male is fasting on the ward, awaiting tendon repair
- His father has diabetes

Brett

- You are the JMO on an orthopaedic term
- Brett, a 47 y.o male is fasting on the ward, awaiting tendon repair
- His father has diabetes

- He has no other medical history, no allergies and is on no medications
- He is obese (BMI 31.2, waist circumference 107cm)

Feeling a bit tired- could I have diabetes doc?

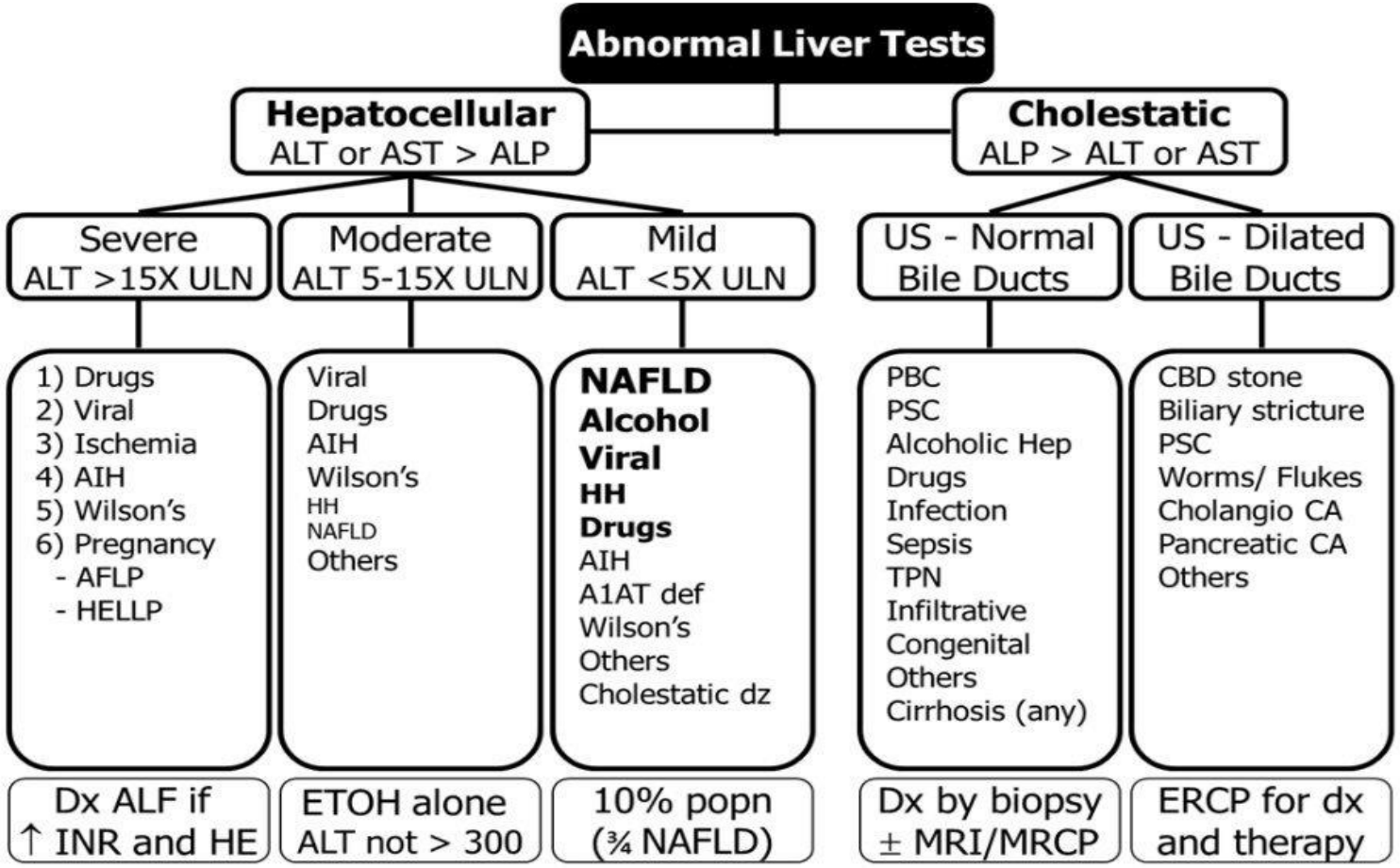
LFTs

- **ALT 255 (35)**
- **AST 189 (41)**
- GGT 40
- ALP 62
- Bili 18
- Alb 41

- Normal FBE, EUC, fasting G, A1c

Broadly speaking what can cause LFT derangement?

- **ALT 255 (35)**
- **AST 189 (41)**
- GGT 40
- ALP 62
- Bili 18
- Alb 41



Developed by Kelly W. Burak (modified 2014), Reference: AGA, Gastroenterology 2002; 123(4): 1367-84.

Common causes of raised LFTs

- NASH/ NAFLD (most common 25-51%)
- Alcohol

- Less common
  - Medications
  - Haemochromatosis
  - Viral hepatitis

- Rare
  - AI hepatitis, Wilsons and alpha 1 anti trypsin

https://www.aafp.org/afp/2017/1201/p709.html

What tests do you add now we have those differentials?

Add on tests

Viral hepatitis screen

- HBV sAb neg
- HBV sAg pos
- HBV cAb pos

- HCV Ab - neg

- Iron Studies- NAD (ferritin 87, Hb 154)

- (HIV test), HAV test- neg

- Liver specific markers (AI/ Copper/anti-trypsin etc)- not done

- US or ?fibroscan available

- Cholesterol profile normal!

HBV sAb neg
HBV sAg pos
HBV cAb pos

Interpret the HBV results

Interpreting Lab results

Test	Result	Interpretation
HBsAg HBc -Ab HBs -Ab	Negative Negative Negative	Susceptible to infection (if at risk, vaccination should be recommended)
HBsAg HBc -Ab HBs -Ab	Negative Positive Positive	Immune due to resolved infection
HBsAg HBc -Ab HBs -Ab	Negative Negative Positive	Immune due to hepatitis B vaccination
HBsAg HBc -Ab IgM HBc* -Ab HBs -Ab	Positive Positive Positive Negative	Acute HBV infection *(high titre)
HBsAg HBc -Ab HBs -Ab	Positive Positive Negative	Chronic HBV infection

Do I have hepatitis B immunity?

Surface antibody

Do I have hepatitis B infection?

Surface antigen

Have I been exposed to Hepatitis B?

Core antibody

HBV sAb neg
HBV sAg pos
HBV cAb pos

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https://www.hepatitisb.org.au/hepatitis-b-virus-testing-and-interpreting-test-results/

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Chronic HBV

- 227,000 Australians,
  - 450 die of HCC assoc w HBV each year
    - 73% of ppl w HBV in NSW not in care
- Transmission
  - sexual (mucosal)
  - IV
  - maternal

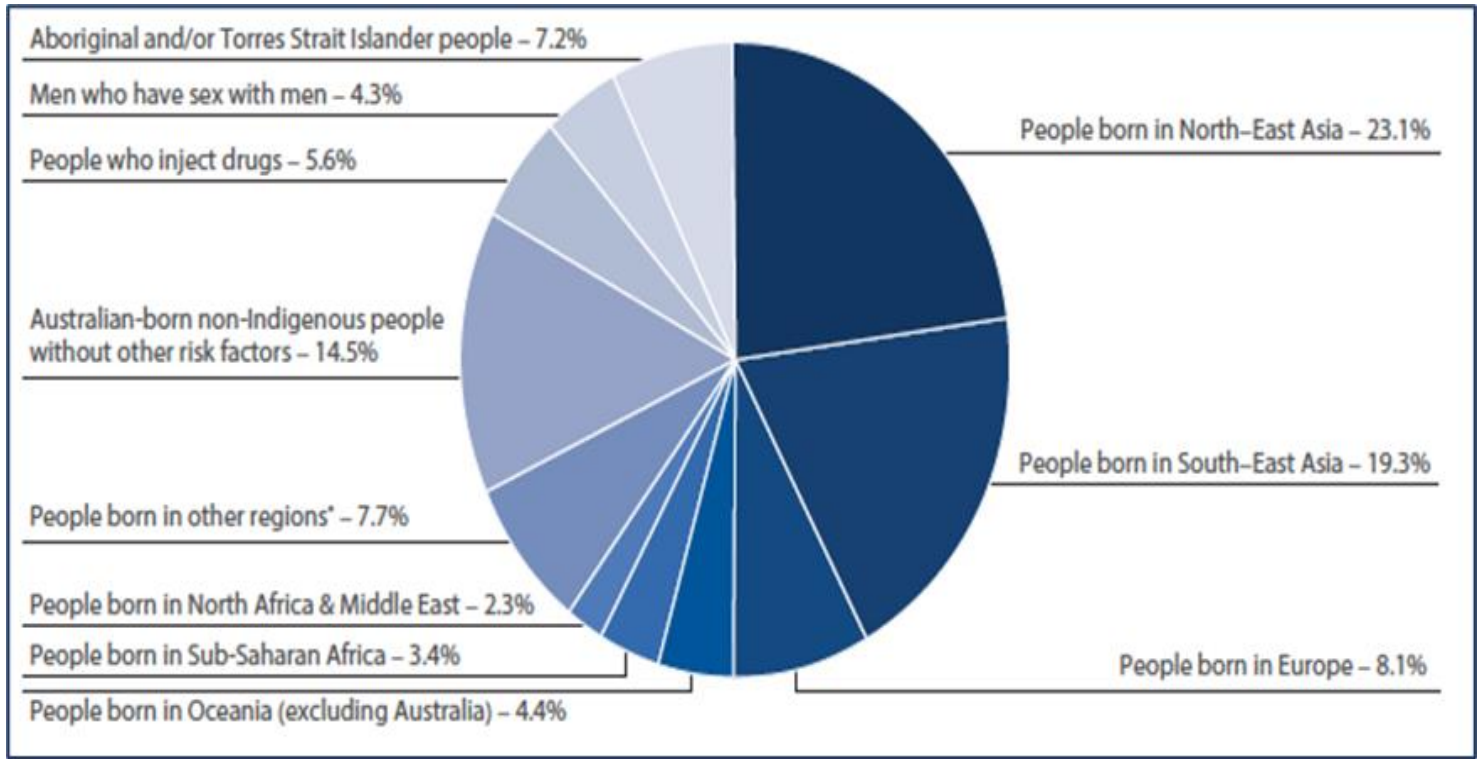

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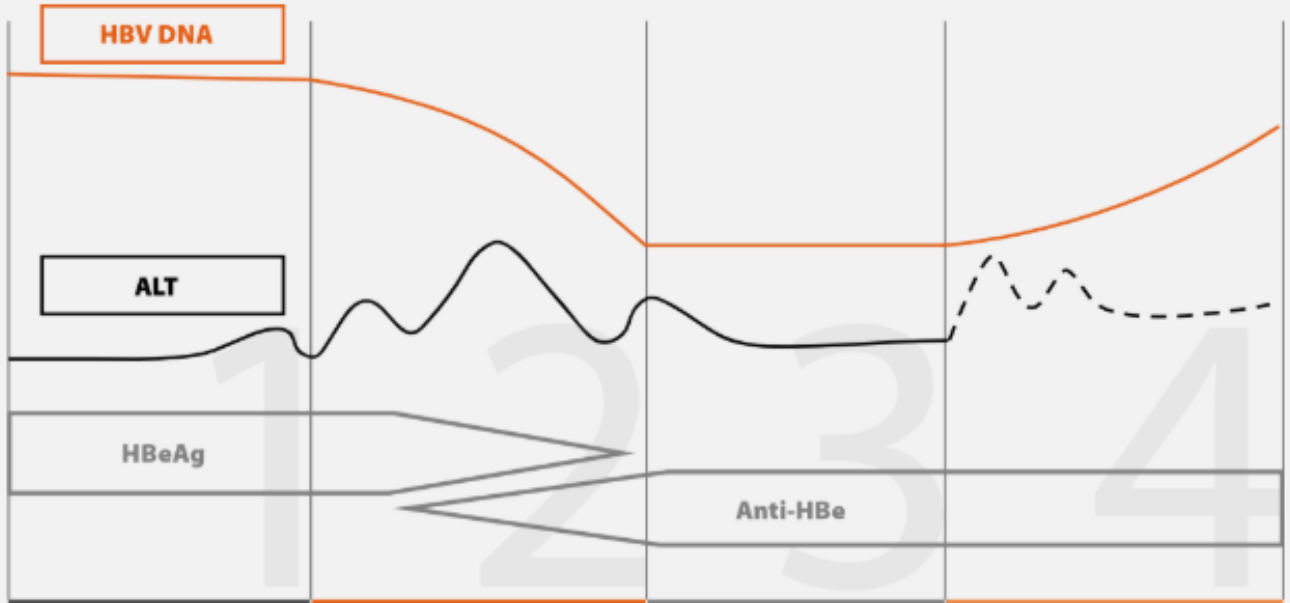
Figure 3.1 The four phases of chronic hepatitis B

Natural history of chronic HBV: the 4 phases and relevance to treatment decisions



IMMUNE TOLERANCE	IMMUNE CLEARANCE	IMMUNE CONTROL	IMMUNE ESCAPE
High HBV DNA, normal LFTs, HBeAg positive Monitor every 6-12 months	High HBV DNA, abnormal LFTs, HBeAg positive At risk of progression to cirrhosis and HCC **therefore should be referred for consideration of treatment**	Low HBV DNA, normal LFTs, HBeAg neg; anti-HBe pos Monitor every 6-12 months	High HBV DNA, abnormal LFTs, HBeAg neg; anti-HBe pos At risk of progression to cirrhosis and HCC **therefore should be referred for consideration of treatment**

ALT: alanine aminotransferase; anti-HBe: antibody to e antigen; HBeAg: hepatitis B e antigen; HBV: hepatitis B virus; HCC: hepatocellular carcinoma; LFT: liver function test

Further History

- Brett had a new sexual partner 5 months ago
- Previous STI screen negative

Initial Viral hepatitis screen

HBV sAb neg

HBV sAg pos

HBV cAb pos

- **Retest in 4 months**
  - **HBV sAb – pos(586)**
  - **HBV sAg - neg**
  - **HBV cAb - pos**

- **Resolved HBV infection**

HCV

HCV Prevalence

2019

- 140000 people living w HCV
  (230,000 in 2014)
- Only 80% are diagnosed

- Since March 2016
- 80,000 people have accessed prescriptions to cure their HCV!

- Liver cancer
- Cirrhosis
  - Most common sx among ppl living w HCV is depression
- STIGMA

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The Kirby Institute. HIV, viral hepatitis and sexually transmissible infections in Australia, Annual Surveillance Report 2018

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HCV risk factors

- Injecting drug use (current/ever)
- Sharing of snorting equipment
- Birth in high prevalence country
- Blood transfusions and blood products before 1990 in Australia
- Unsterile tattooing/body piercing
- Unsterile medical/dental procedures/blood transfusions in high prevalence countries
- Time in prison
- Needlestick injury
- Mother to child transmission
- Sexual transmission in men who have sex with men (MSM)

Does this person have chronic HCV?

Microbiology
QEII Medical Centre(site 2385)
Dr D Speers (08)63834553

Collected: 03/10/18 11:00
Received : 03/10/18 12:25

Hepatitis/HIV Serology

Specimen	Plasma
Hepatitis C Antibody	**Detected**
Hepatitis C Antibody (Supplementary)	**Detected**

COMMENTS

Genuine hepatitis C antibody has been detected indicating current or past infection. ATTENTION: Hepatitis C is a notifiable disease.

If this person has donated blood or other body fluids or tissues please contact the institution where the donation was collected as soon as possible.

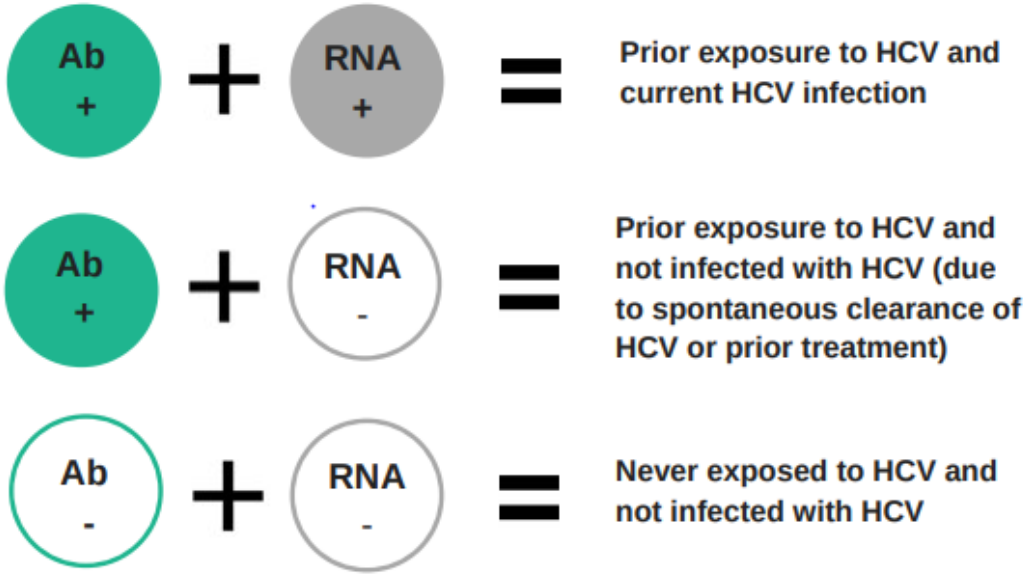
Hepatitis C test result interpretation[7]

Legend:

Ab
Anti-HCV Antibody test
Indicates if patient has been exposed to HCV

RNA
RNA/PCR test
Indicates if patient is infected with HCV

Hepatitis C Test Results Interpretation



From EC partnership toolkit, adapted from ASHM

HCV?

Microbiology
Collected: 03/10/18 11:00 | QEII Medical Centre(site 2385)
Received : 03/10/18 12:25 | Dr D Speers (08)63834553

Hepatitis/HIV Serology

Specimen . . Plasma
Hepatitis C Antibody . . . . . **Detected**
Hepatitis C Antibody (Supplementary) . . **Detected**

Date	Lab no.	Specimen	[-------- Viral load --------] IU/mL	Log10(IU/mL)	Genotype
03/10/18	[redacted]	PLASMA	Not detected		

********** COMMENT **********

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DAA's

- Newer Directly Acting Antivirals
- Combination
- Oral
- Short course
- 95% effective
- Minimal side effects
- Retreatment possible

- GPs/ NPs can prescribe to non cirrhotic patients
- Medical officers can prescribe under guidance of ID/ gastro specialists

- **Epclusa (sofosbuvir/velpatasvir)**
  - **1 one daily 12 weeks**

- **Maviret (glecaprevir/pibrentasvir)**
  - **3 daily, 8 weeks**

This person has completed treatment

Date	Lab No.	Specimen	[-----Viral load-----] IU/mL	Log10(IU/mL)	Genotype
25/02/19	[redacted]	SERUM	Not detected (see ** below)		
12/11/18		Plasma	Not detected		
19/06/18		Serum	9.06x10^4	4.957	1a

RACGP

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PREP

Case

- You are the resident on immunology and receive a phone call from a colleague who has just had a needlestick injury with needle while drawing blood from HIV positive patient.
- Do you give PEP or PrEP or TASP?

HIV in NSW

- In 2019
  - 215 new HIV diagnoses in MSM
    - Over half overseas born
  - 55 in heterosexual people
    - 19 female

- Number of PLHIV 28,000 in Aus

https://www.health.nsw.gov.au/endinghiv/Publications/q4-2019-and-annual-hiv-data-report.pdf
https://ashm.org.au/resources/hiv-resources-list/general-practitioners-and-hiv/

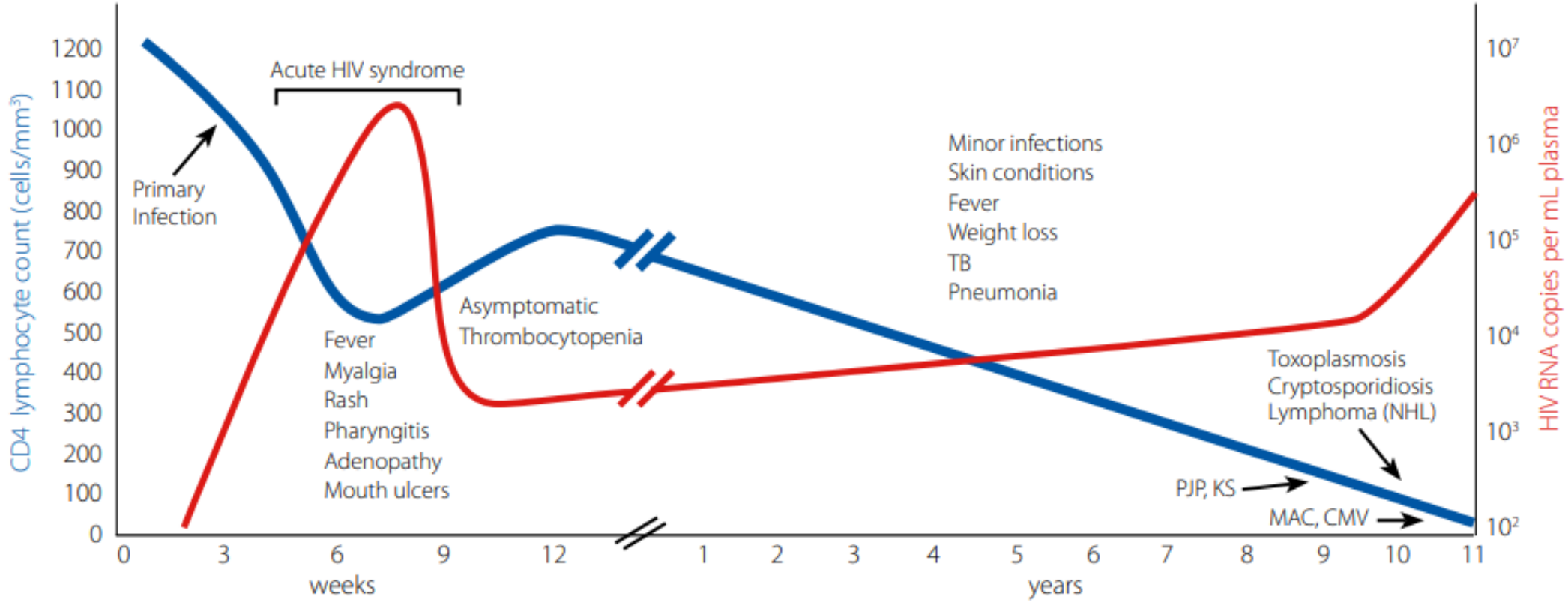
HIV

- Ss RNA virus
- Replication after attaching to CD4 receptors on lymphocytes
- 90% people symptomatic seroconversion
- ART slows loss of CD4 by suppressing VL
- AIDS after 2-10 years in ppl untreated

- Transmission Aus – MSM 63%, (Africa mostly heterosexual)
  - Concurrent STI, IDU, perinatal

Figure 1: HIV Natural History

The various stages of untreated HIV infection depicting the development of different opportunistic infections with advanced immunodeficiency.



mac: mycobacterium avium complex, **cmv:** cytomegalovirus, **ks:** kaposi sarcoma, **pjp:** pneumocystis jirovecii pneumonia, **tb:** tuberculosis

Table 1: Exposure and transmission risk/exposure with knownHIV positive source	
Type of exposure with known HIV positive source	**Estimated risk of HIV transmission/**
Receptive anal intercourse - ejaculation - withdrawal	 1/70 1/155
Contaminated injecting equipment	1/125
Insertive anal intercourse (IAI) uncircumcised	1/160
Insertive anal intercourse (IAI) circumcised	1/900
Receptive vaginal intercourse (RVI)	1/1250
Insertive vaginal intercourse (IVI)	1/2500
Receptive or insertive oral intercourse	Unable to estimate risk - extremely low
Needlestick injury (NSI) or other sharps exposure	1/440
Mucous membrane and non-intact skin exposure	<1/1000

Source: ASHM PEP guidelines

PEP/ TasP

- Post exposure prophylaxis (PEP)
- 72 hours
- 28 days of 2 meds(tenofovir/emtricitabine) or 3 meds
  - PEP guidelines

  Window = most seroconvert in 6 weeks, some are late, so 3 months is the official policy
- Treatment as prevention (TasP)
  - All people with HIV should start treatment ASAP
  - ART

Postexposure prophylaxis (PEP) for adults with suspected or confirmed exposure to HIV (Table 2.42) [NB1] [NB2]

Type of exposure	HIV status of source		
	HIV positive and not taking antiretroviral treatment, or taking treatment but viral load detectable or unknown	HIV positive but viral load undetectable	Unknown HIV status
Anal intercourse	use three-drug regimen	not recommended [NB3]	not recommended unless the source is MSM or from a high-prevalence country [NB4]; if so, use two-drug regimen
Vaginal intercourse	use three-drug regimen	not recommended [NB3]	not recommended unless the source is MSM or from a high-prevalence country [NB4]; if so, use two-drug regimen
Oral intercourse	not recommended [NB5]	not recommended	not recommended
Nonoccupational mucous membrane or nonintact skin exposure to source bodily fluid	use three-drug regimen (but depends on type of bodily fluid [NB6])	not recommended	not recommended
Occupational mucous membrane or nonintact skin exposure to source bodily fluid	use three-drug regimen	not recommended [NB7]	if the source is at high risk of being HIV positive, consider two-drug regimen while awaiting test results
Occupational needlestick injury or sharps exposure	use three-drug regimen	consider two-drug regimen [NB7]	if the source is at high risk of being HIV positive, consider two-drug regimen while awaiting test results

‘Undetectable equals untransmissible’, or U=U, refers to the fact that people who take antiretroviral therapy for HIV daily as prescribed, and who achieve and maintain an undetectable viral load, cannot sexually transmit the virus to an HIV-negative partner

What is PrEP?

Pre Exposure prophylaxis

- Daily medication on PBS, prescribed by any doctor
- Online (e.g. pan.org.au)
- Taken by HIV negative people
- Prevent HIV infection- aim to eliminate HIV transmission
    - Tenofovir disoproxil 300mg/200mg emtricitabine (streamlined PBS)

Who should be offered PrEP?

TABLE 1: HIV RISK

Men who have sex with men (MSM)	Trans & gender diverse people	Heterosexual people	People who inject drugs
• Receptive CLI with any casual male partner. • Rectal gonorrhoea, rectal chlamydia or infectious syphilis. • Methamphetamine use. • CLI with a regular HIV+ partner who is not on treatment and/or has a detectable viral load.	• Receptive CLI with any casual male partner. • Rectal or vaginal gonorrhoea, chlamydia or infectious syphilis. • Methamphetamine use. • CLI with a regular HIV+ partner who is not on treatment and/or has a detectable viral load.	• Receptive CLI with any casual MSM partner. • A woman in a serodiscordant heterosexual relationship, who is planning natural conception in the next 3 months. • CLI with a regular HIV+ partner who is not on treatment and/or has a detectable viral load.	Shared injecting equipment with an HIV+ individual or with MSM of unknown HIV status.

- If a partner is known to be living with HIV, on antiretroviral treatment and has an undetectable viral load, then there is no risk of HIV transmission from this partner.
- The risks listed above confer a **high risk of HIV**, and hence should prompt a clinician to recommend that a patient start PrEP. However, this list is not exhaustive, and patients who do not report these circumstances may still benefit from PrEP.
- A person is considered to be at "high risk" if they had these risks in the previous 3 months, or if they foresee these risks in the upcoming 3 months.

CLI= Condom Less Intercourse

https://ashm.org.au/resources/hiv-resources-list/decision-making-in-prep

TABLE 2: LABORATORY EVALUATION AND CLINICAL FOL

Test	Baseline (Week 0)
HIV testing and assessment for signs or symptoms of acute infection	Y
Assess side effects	N
Hepatitis A serology, Vaccinate if non-immune	Y
Hepatitis B serology Vaccinate if non-immune	Y
Hepatitis C serology	Y
STI (i.e. syphilis, gonorrhoea, chlamydia) as per Australian STI Management Guidelines *	Y
eGFR at 3 months and then every 6 months	Y
Urine protein creatinine ratio (PCR) baseline	Y
Pregnancy test (for women of child-bearing age)	Y

https://ashm.org.au/resources/hiv-resources-list/decision-making-in-prep/

Questions?