Ms Alison Stewart-Piere

Nurse Practitioner/Shared Clinical Lead

Sexual Health Service

Southern DHB

Saturday, August 10, 2019

(Room 8)

8:30 - 9:25 WS #70: Sexual Health - What's New for GPs?

9:35 - 10:30 WS #80: Sexual Health - What's New for GPs? (Repeated)

SEXUAL HEALTH WHAT'S NEW?

Alison Stewart-Piere NP
Southern Sexual Health Service
Shared Clinical Lead

W.H.O. DEFINITION

Sexual health is a state of physical, mental and social well-being in relation to sexuality. It requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence.

WHO TO TEST?

You will pick up the majority of infections if you test patients with one or more of:

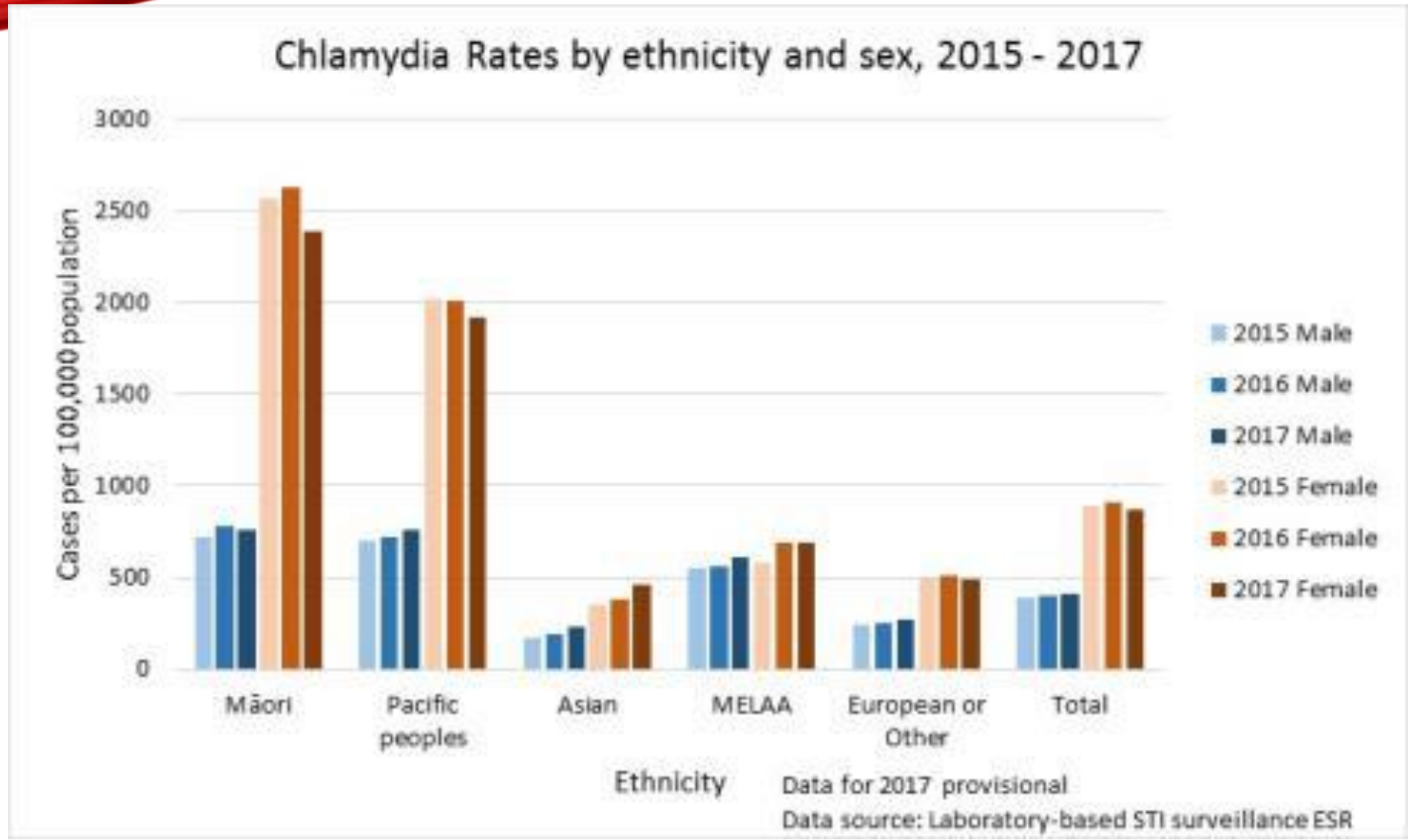
- Age 15 – 29
- > 1 partner
- Not using condoms
- Symptoms
- Pregnancy.
- MSM

All persons having an STI screen - offer HIV and syphilis serology (and targeted hepatitis C)

(Verhoeven V et al. Chlamydia infections: an accurate model for opportunist screening in general practice. **Sex Transm Infect**. 2003 Aug; 79(4):31307.)

WHERE TO TEST

- Self obtained vaginal swabs are better than clinician obtained
- Vaginal swabs are a better test than first pass urine for people with a vagina
- First pass urine for people with a penis – after no PU for 30 minutes.
- Anal and throat swabs for MSM and transgender people, and women at high risk eg sex workers – Patients can do their own anal and throat swabs.
- Examination recommended if symptoms,
  - eg. abdo pain, post coital bleeding, breakthrough bleeding, urethral discharge, testicular pain.
- Bloods for Syphilis and HIV, (and Hep C if identified risk)


Chlamydia Rates by ethnicity and sex, 2015 - 2017
Cases per 100,000 population
3000
2500
2000
1500
1000
500
0
Māori
Pacific peoples
Asian
MELAA
European or Other
Total
Ethnicity
2015 Male
2016 Male
2017 Male
2015 Female
2016 Female
2017 Female
Data for 2017 provisional
Data source: Laboratory-based STI surveillance ESR

GENDER AND ETHNIC DISPARITIES

- Female Chlamydia and Gonorrhoea infections are highest in Maori and Pacific Island Women ages 15 – 29.
- Annual Chlamydia and gonorrhoea testing rates for the 15 – 29 year age group were:

  <10% of Males, 21-34% of females

- Heterosexual Syphilis infections highest in Maori women of reproductive age, (highest incidence in ages 25 – 29).

IS THIS A PRIMARY CARE ISSUE?

72% of Chlamydia infections

and

63% of Gonorrhoea Infections

Were diagnosed in Primary care

Take the opportunity of any other presentation to offer an STI check,

especially think of testing males!

CHLAMYDIA

- In NZ
  - **1 in 3 females**

  and
  - **1 in 5 males**

  will contract Chlamydia at least once by the age of 38

- **82%** of Chlamydia cases are in the 15 – 29 yr age group

- Almost **1 in 5** Chlamydia positive people will be reinfected within the following 6 months after treatment.

CHLAMYDIA TREATMENT

- **FIRST LINE TREATMENT – Doxycycline 100mg PO BD x 7 days**

- Azithromycin NO LONGER first choice.

- Azithromycin 1g PO STAT is less effective at clearing all potential sites of infection

And

- Single dose Azithromycin is driving treatment resistance in Mycoplasma Genitalium

CHLAMYDIA COMPLEXITY

- Chlamydia can infect the throat, rectum, vagina, urethra, eyes, (and lungs in neonates)
- Approx 68% of positive vaginal chlamydia infections also had rectal chlamydia - regardless of sexual practices
  - ie DOESN"T mean they have anal sex
- Azithromycin STAT dose is only 83% effective in curing rectal infection
- Routine rectal swabs NOT required, as Doxy is 97% effective at clearing rectal infection

GONORRHOEA

- Men – (Heterosexual) most likely to have symptoms eg dysuria, penile discharge.
- Rectal and pharyngeal infection likely to be asymptomatic
- Women – 80% asymptomatic infection
- Rx: check National Guidelines–

  Currently Ceftriaxone 500mg IMI and Azithromycin 1g PO STAT

An antibiotic-resistant strain of 'super gonorrhoea' is spreading around the globe

Jeremy Berke , Business Insider US
May 18, 2018

Two Australian men and one British man contracted the sexually transmitted infection in Southeast Asia, likely after engaging in unprotected sex, according to the European Centre for Disease Control (ECDC). The "super gonorrhoea" strain, a bug called *Neisseria* gonorrhoeae, is highly difficult to treat given its resistance to the antibiotics that are often used to treat the infection.

GONORRHOEA RESISTANCE

- Cannot test for antibiotic sensitivity on a NAAT
- Need bacterial swab for culture from site of infection AS WELL.
- Gather urethral swab from a penis with discharge
- Collect an endocervical bacterial swab if cervicitis present.
- Swab throat or rectum before Tx when positive gono result.
- These can be used to monitor bacterial resistance patterns to inform ongoing treatment plans

CONTACT TRACING & NOTIFICATION

+ve Gonorrhoea or Chlamydia

All sexual partners for the previous 3 months need to be contacted and treated empirically and be offered STI testing.

Chlamydia is laboratory notifiable

Gonorrhoea and Syphilis need to be notified by diagnosing clinician via ESR

INFECTIONS IN INFANTS <1 YEAR OF AGE

Chlamydia

- 83 cases in 2014
- 79 cases in 2015
- 61 cases in 2016

Gonorrhoea

- 1 case in 2014
- 4 cases in 2015
- 4 cases in 2016

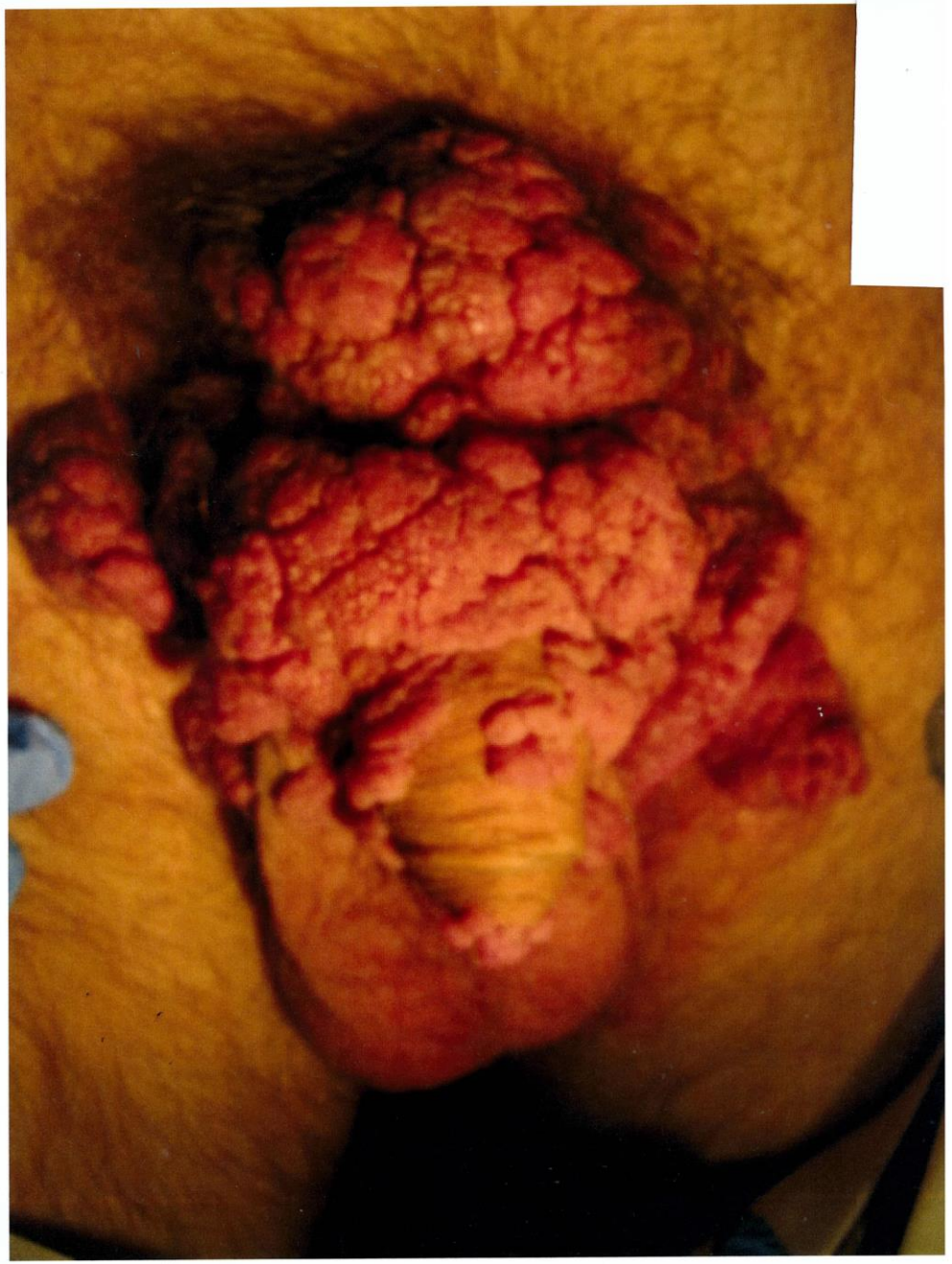
www.surv.esr.cri.cr

HUMAN PAPILLOMA VIRUS

- Very common skin infection
- **Is often a persistent infection – can cause Sx at any age <u>without</u> reinfection**
- Risk of acquisition is life long
- Visible warts usually resolve with treatment
- Harder to clear visible warts in smokers
- Treatment **<u>does not</u>** clear the virus

TREATMENT OF WARTS.

- Liquid nitrogen - cheap, effective, safe, can be used if pregnant. Best if treated weekly until gone
- Imiquimod– topical interferon cream – apply 3 alternate nights weekly, not painful to apply, expect inflammatory response to develop
- Condylline – Difficult to apply only to wart on genital area, teratogenic for all genders
- Refer or Biopsy areas not responding in expected ways
- Biopsy in post menopausal women
- Laser tx, surgery – Only used for very large areas or those interfering with function – often recur post surgery



GARDASIL 9

- Gardasil 9 targets HPV viruses responsible for:
  - -- 90% cervical cancer
  - -- 69% vaginal and vulval cancers
  - -- 63% penile cancers
  - -- 83% anal cancers
  - -- 94% oropharyngeal cancers
  - -- 90% genital warts

- Women still need cervical screening
- No screening process available for anal SIL
- If any genital SIL detected, ensure to examine all other areas closely as there is increased risk of lesions in other areas

HPV VACCINES.

- HPV infection does not cause an inflammatory response so body doesn't develop immunity to it,
- Therefore – worthwhile vaccinating regardless of infection Hx
- Studies now demonstrating excellent outcomes when people are vaccinated after treatment of HPV related lesions (eg SIL)
- So continue to offer vaccination to all people up to age 45, especially those with Hx CIN, VIN, VAIN or AIN
- Best immune response in under 14 yrs old

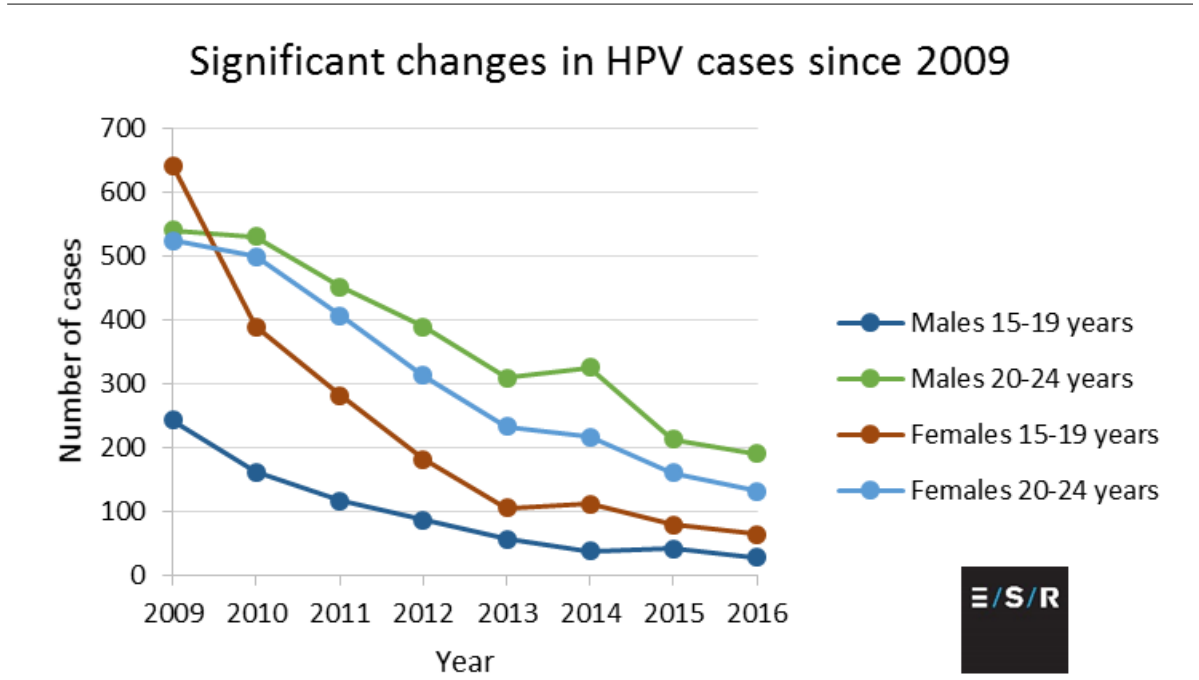
Buchwald U. *IPVC* 2017. Abstract HPV17-0376
Castellsague X, et al. *Br J Cancer* 2011;105:28-37
Swedish KA, et al. *Clin Infect Dis*. 2012;54:891-898

GENITAL WARTS–SENTINEL SURVEILLANCE

Genital warts (first presentation) case numbers for sexual health clinics

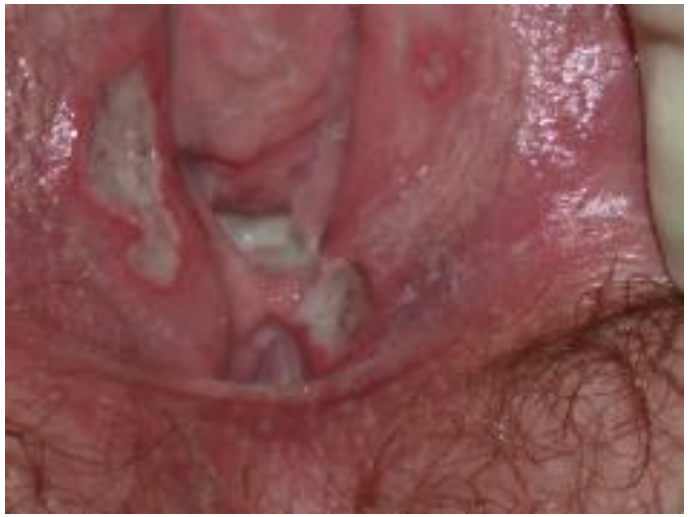
2009	3749
2017	1009

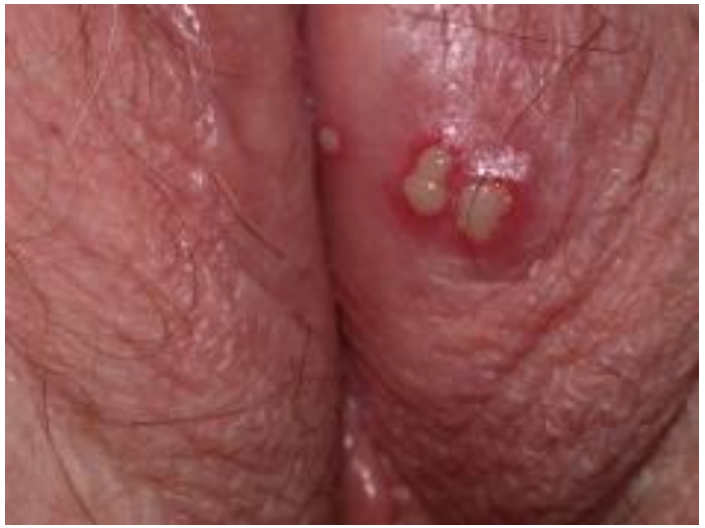
73.1% reduction



HERPES

- Painful blisters and sores
- Type 1 – worse initial outbreak fewer recurrences
- Type 2 – not so bad the first time , comes back more often
- Both can cause oral and genital Sx.
- Most infectious when symptoms present – and week either side
- Asymptomatic shedding of virus 5-10% of time
- **Therefore can have a new infection in a long term relationship WITHOUT infidelity**





TREATMENT OF HERPES.

- Acute infection/first attack:

Valaciclovir 500mg BD x 7 days or Aciclovir 400mg TDS x 7days;

+ paracetemol, time off work, fluids, comfort measures. Treat at any stage.

- For repeat outbreaks:

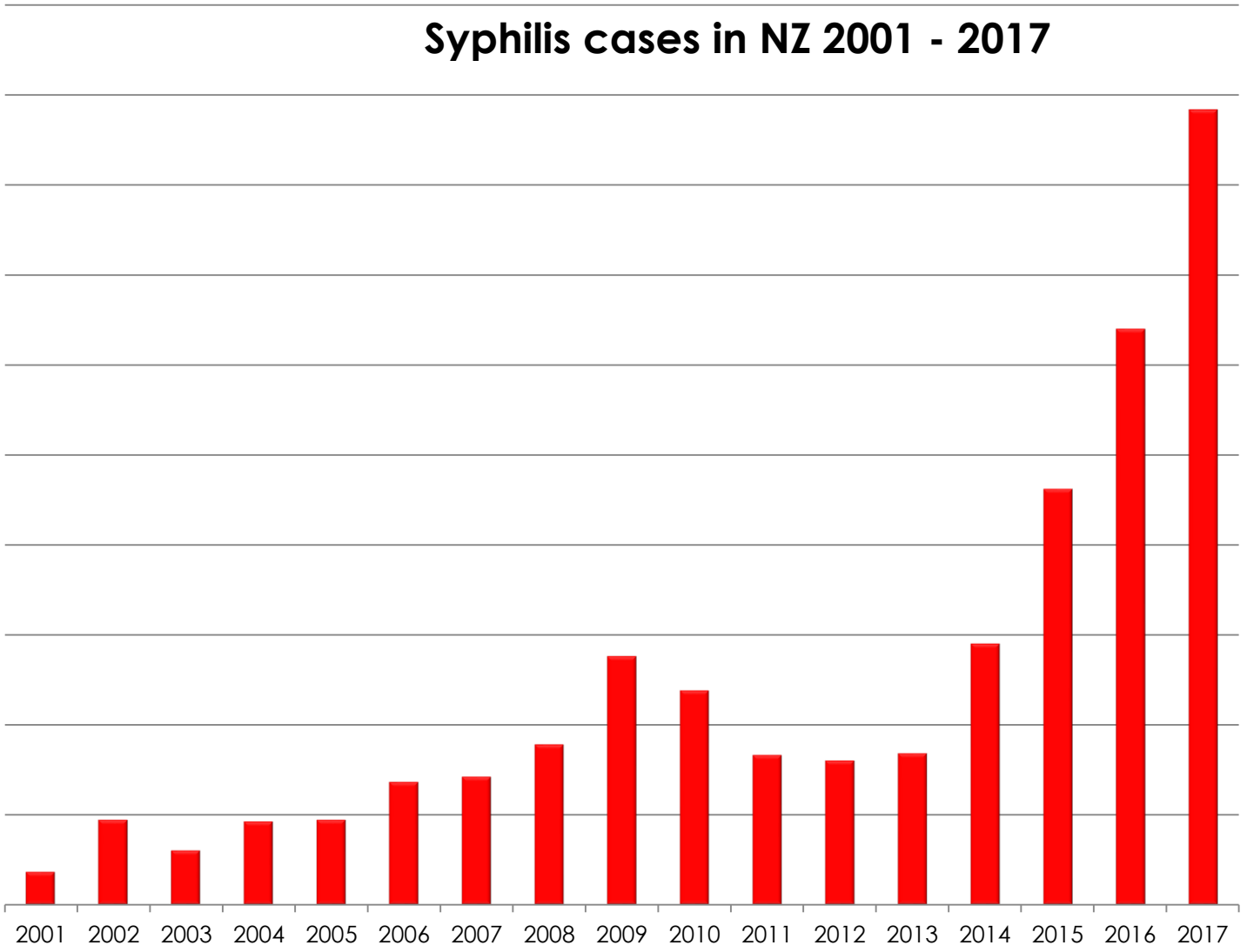
Valaciclovir 500mg BD x 3 days or Aciclovir 800mg TDS x 2 days

Start within 48 hours of first Sx – people need Tx on hand to start when Sx occur

- Recurrent or severe attacks e.g. 4-5 a year, missing work, ++psychological impact:

Valaciclovir 500mg once a day or Aciclovir 400mg bd,

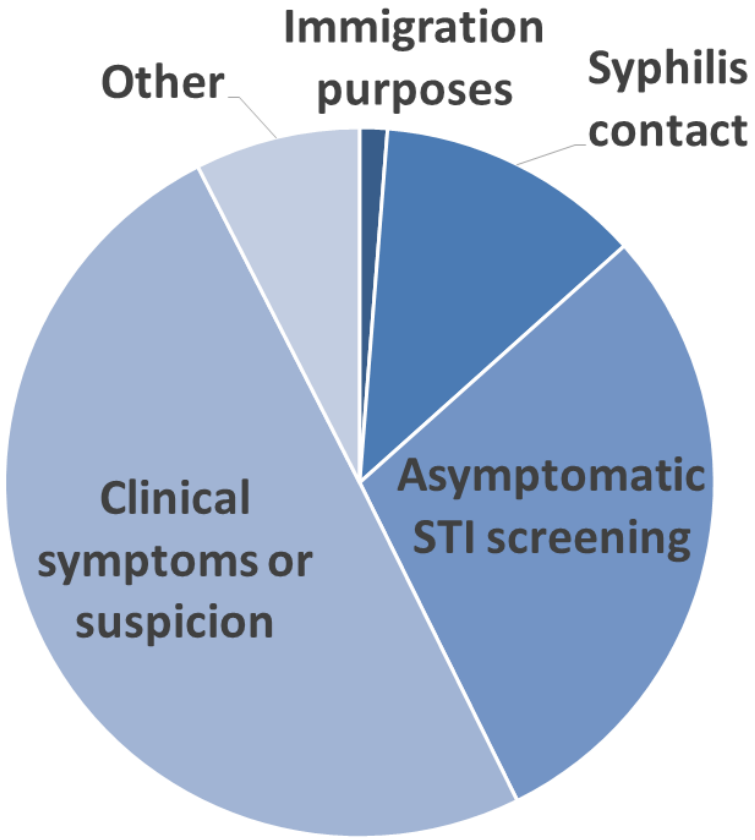
Minimum 1 year for suppression.


Syphilis cases in NZ 2001 - 2017
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017

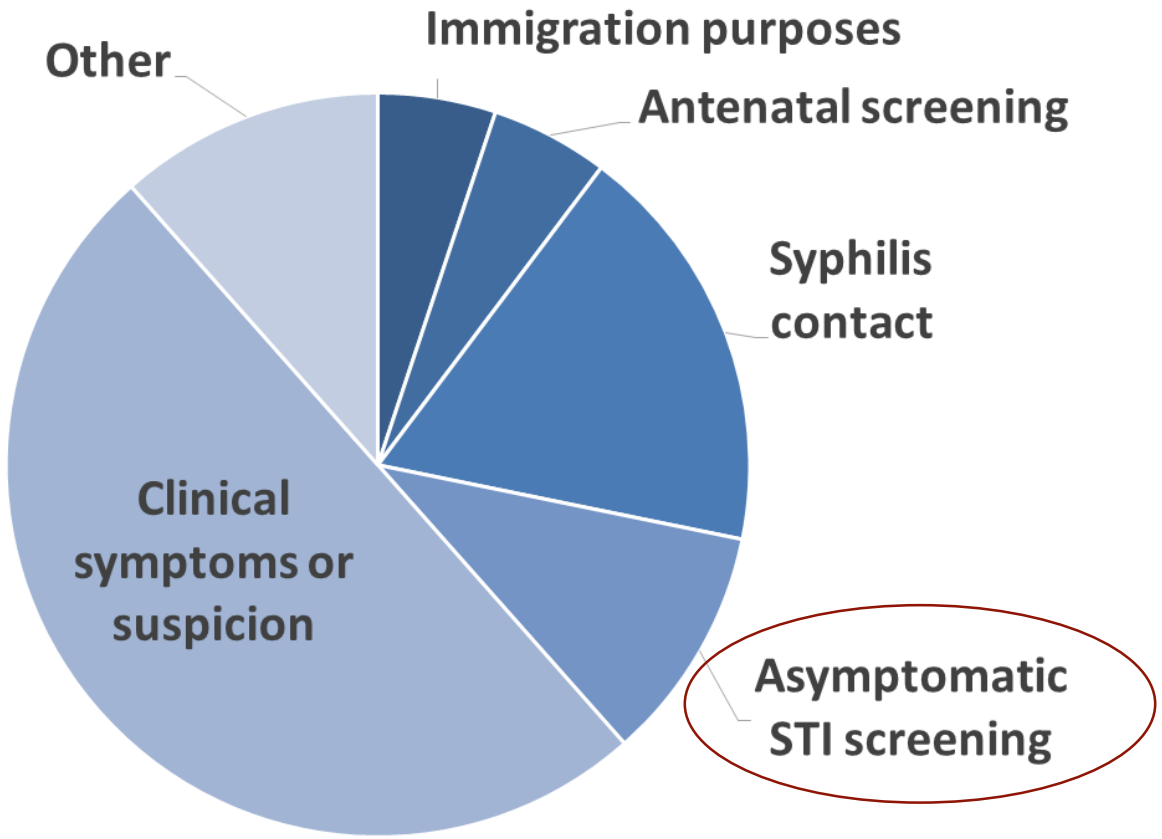
SYPHILIS:

- Increasing rapidly world wide since 1990s.
  - Now an epidemic in NZ
- Previously a disease of MSM
- Steady increase in infectious syphilis in heterosexuals in past 4 years
- Males – biggest increases seen in Māori, Asian and NZ Europeans
- Females – greatest increase in Māori of reproductive age
- Data suggests under-screening of populations at risk

PRIMARY REASON FOR TESTING, 2016



MSM



Heterosexual Males and Females

SYPHILIS

- Increase in cases of congenital syphilis reported past 2 years
  - **1 case 2011- 2012**
  - **1 case 2016**
  - **1 case 2017**
  - **4 cases 2017**
  - **5 cases 2018**

- **Congenital syphilis cases reported to ESR 2008 –2018* (updated 30/10/2018)**

Year	Outcome	Case classsification	Gestation	Mother's age (yrs)
2011-2012	Stillbirth	Confirmed		
2016	Stillbirth	Confirmed	22/40	23
2017	Stillbirth	Confirmed	29/40	22
2017	Stillbirth	Confirmed	27/40	16
2017	Live birth	Confirmed	37/40	35
2017	Live birth	Probable	28/40	34
2018	Live birth	Confirmed	37/40	19
2018	Stillbirth	Suspected	24+2/40	23
2018	Stillbirth	Confirmed	32/40	27
2018	Live birth	Confirmed	34+4/40	32

SYPHILIS TRANSMISSION.

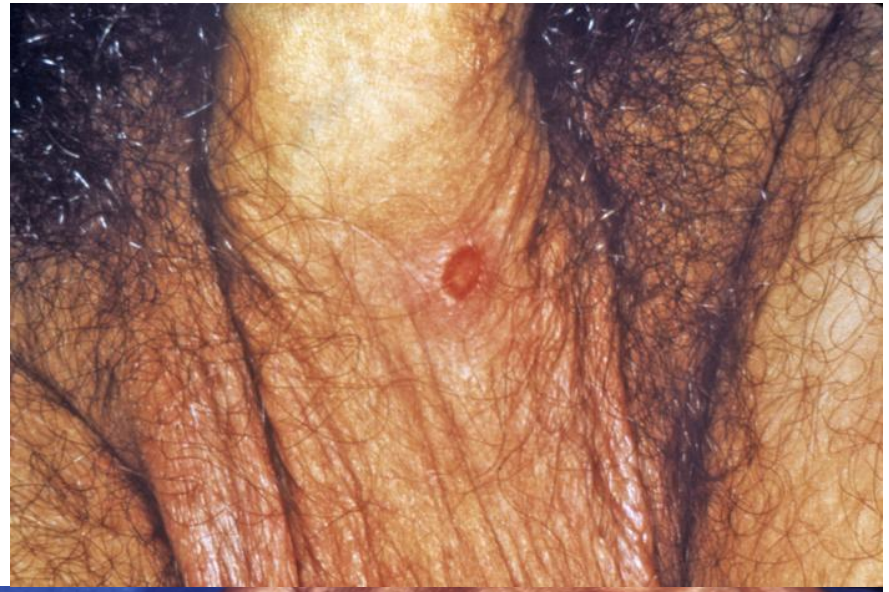
- Both skin to skin (moist mucosa and microtrauma) And blood/body fluids.
- Rate of acquisition = 30%
- Up to 80% acquisition when cutaneous symptoms present
- Infectious for first 1-2 years
- Vertical transmission for up to 5 yrs causing stillbirths and congenital syphilis.

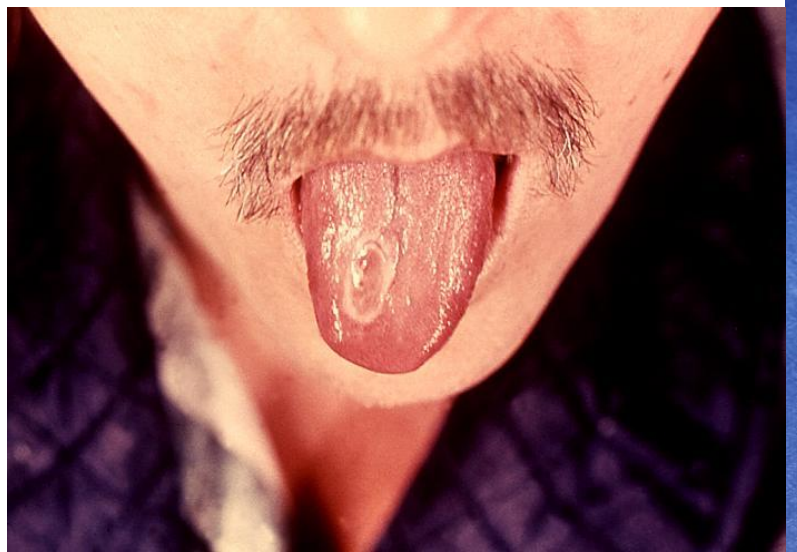
STAGES OF SYPHILIS.

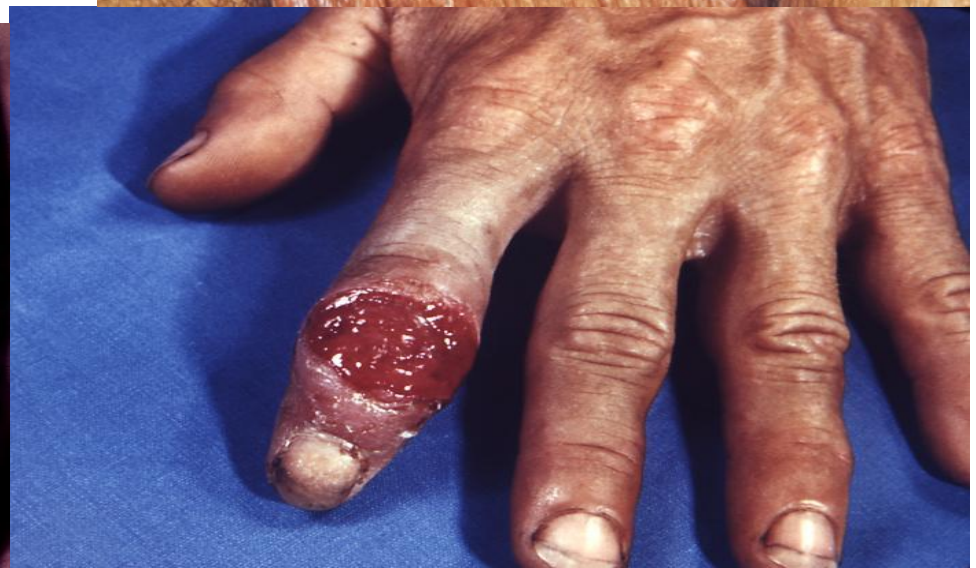
- **Early = Infectious – first 2 years:**
  - primary: 9 – 90 days – painless chancre
  - secondary: 6w – 6 months – rash, lymphadenopathy
  - latent – no symptoms
- **Late = non-infectious (except in pregnancy) after 2 yrs:**
  - late latent – 2-4 years
  - tertiary – 5-20 years – CVS, CNS, bones, skin . . .
- **Neurological symptoms can occur at any stage**

PRIMARY SYPHILIS

- Chancre = Painless ulcer
- May go unnoticed because painless
- Oval or round punched out with clear cut edges
- Rubbery, thickened base and indurated
- Produces serous fluid, does not bleed easily







SECONDARY SYPHILIS:

- Generalised lymphadenopathy (50-80%),
- Flu-like Sx: sore throat, fever, headache, malaise, general aches and pains, weight loss, night sweats
- Rash (75 – 100%):
  - oval rose pink/brown rash
  - non-irritant
  - over trunk, flexor surfaces, soles and palms
- Chancre can overlap with secondary syphilis Sx

SECONDARY SYPHILIS – COVERS PRETTY MUCH EVERYTHING

- Mouth ulcers
- Alopecia and hair thinning
- Pustules and folliculitis
- Hepatitis
- Bursitis, osteitis, arthritis
- Uveitis, choroiditis
- Nephrotic syndrome
- Meningitis
- Cranial nerve palsies
- Strokes – particularly in young people
- Syphilitic deafness

NEURO-SYPHILIS

- Can occur at any stage of infection
- Must be screened for with Neuro exam if RPR≥32
- Possible symptoms: uveitis, deafness, vasculitis, altered gait, headaches, vertigo, altered personality, early onset dementia
- Stroke in young person – always consider syphilis!

KEY TO DIAGNOSIS:

- High index of suspicion – need to think of it to dx it.
- Patients are highly infectious when their serology is still negative.
- Ask lab for "syphilis serology" – give clinical details – lab will do screening and then specific treponemal tests.
  - May need help interpreting results (phone sexual health).

TREATMENT

- Benzathine penicillin G 1.8g IMI (900mg IM x 2)
  - Single dose for infectious syphilis
  - Weekly injections for 3 weeks if cannot confirm is in infectious stage
- If penicillin allergic:
  - Doxycycline 100mg bd x 14 days for infectious syphilis
  - Doxycycline 100mg PO BD x 30 days if cannot confirm is in infectious stage.
- Penicillin is the only effective treatment in pregnancy
- Neurosyphilis – need Benzyl penicillin IV 4 hourly x 10-14 days.

MYCOPLASMA GENITALIUM

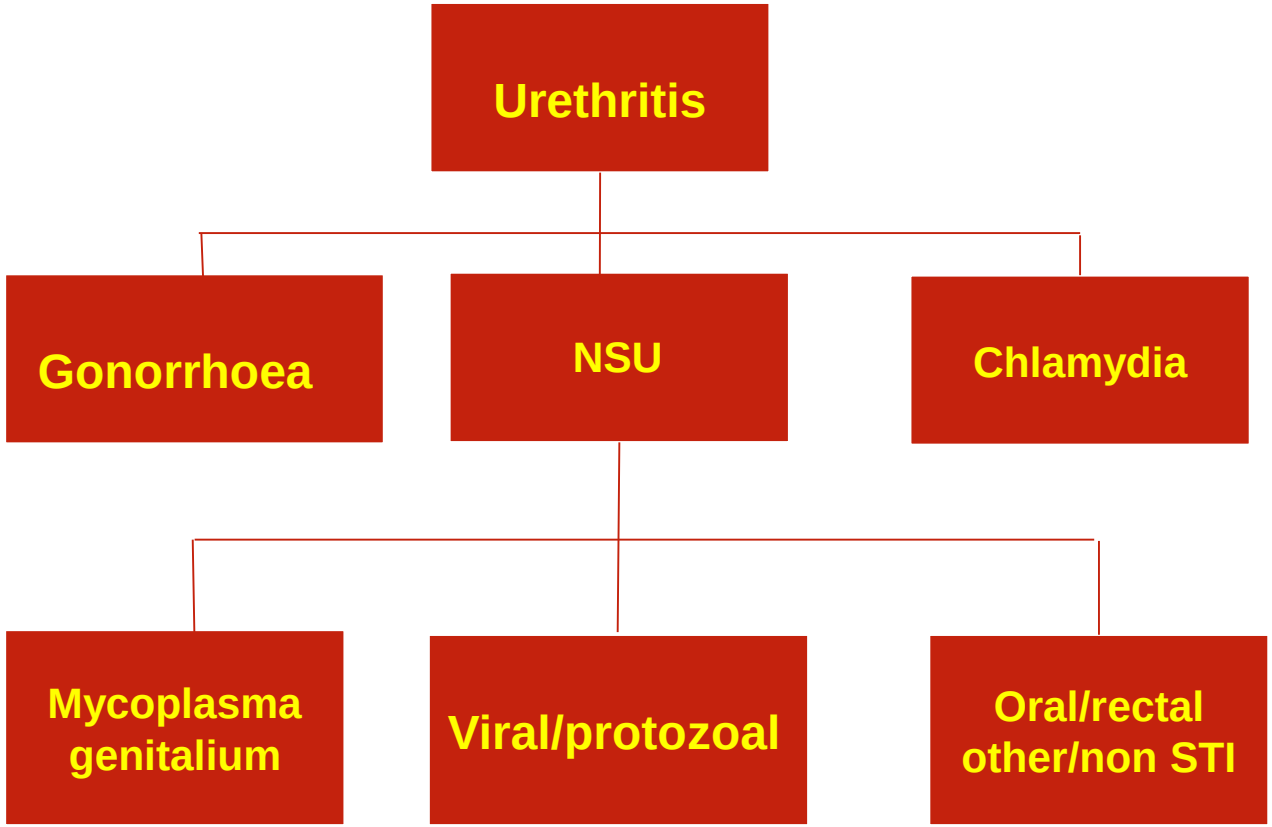
- Emerging Pathogen
- MG population prevalence 1-3%
- In high risk populations 10-40%, (more than *gonorrhoea)*.
- NGU: caused by Chlamydia in 15-40% cases; MG in 15-25%
- Macrolide resistance mutations found in 30-100% of MG in countries that use STAT dose azithromycin as first line treatment for chlamydia
- Many unknowns regarding potential harm and natural history

MYCOPLASMA GENITALIUM

Disease	Level of disease association*
Urethritis	++++
Cervicitis	+++
Bacterial vaginosis	-
Endometritis and/or Pelvic Inflammatory Disease (PID)	+++
Preterm birth	+/-
Infertility (women)	+

* ++++ strong association, +++ association in most studies, + association from a few studies, +/- conflicting results (adapted from WHO 2013)

Table 1. Disease associations of *Mycoplasma genitalium*.[5]


Urethritis
Gonorrhoea
NSU
Chlamydia
Mycoplasma genitalium
Viral/protozoal
Oral/rectal other/non STI

M.G. RESULT POSSIBILITY

Specimen: High Vaginal Swab

Mycoplasma genitalium DNA DETECTED

23S rRNA Mutation DETECTED

The detection of a mutation in the 23S rRNA gene is associated with macrolide resistance.

Treatment:

Doxycycline 100mg BD x 7 days

then

Moxifloxacin 400mg daily x 7 days (Needs special authority)

M.G. RESULT ALTERNATIVE

Specimen: Urine

Mycoplasma genitalium DNA DETECTED

23S rRNA Mutation NOT DETECTED

Treatment:

- **Doxycycline 100mg BD x 7 days**

then

- **Azithromycin 1g Stat day 1**

then

- **Azithromycin 500mg daily x 3 days**

MYCOPLASMA GENITALIUM

- All MG infections require a test of cure at 3-4 weeks
- Advise patients with MG to have no sex until their continuing sexual contacts are treated and have had negative tests of cure. – this may be months!
- Test all sexual contacts of past 3 months
- International guidelines recommend testing for MG in NSU in males, PID in females, and sexual contacts of confirmed MG.
- Evidence does not currently justify asymptomatic screening for MG

PORNOGRAPHY:

- NZ is the 5th biggest user of pornography per capita worldwide
- Pornography is the **Primary** source of sex education for NZ teens!
- "Teen" is the most used search term for pornography.
- Considered Normal among young people to watch porn
- **All** levels of pornography are freely available online

- **Australia:** (Young Minds, Young Minds vs tackling sexual pressure, 2014)
  - Initial exposure 70% unintentional; 1/3 10yr olds stumbled on hard-core pornography online (The New Norms, IPPR Survey, 2014)
  - Considered normal to watch porn with friends
  - 100% of boys and 67% girls; 85% of boys and 24% girls watched either weekly or daily (Lim et Al, 2017)
- **Sweden:** (Donevan and Mattebo, 2017)
  - 96% of 16 yr old boys had viewed porn.
  - Average age boys start actively searching online porn sites - **12**

PORNOGRAPHY IMAGES FOR PREVIOUS GENERATIONS

Proliferation hard core sites ONE CLICK:

Zootube, Omegele, violent-porn.com, brutalteenmovies.com, Pornhub: 'Extreme-violent-brutal-rough' myrapeporn.com, rapeinporn.com, brutalrapeporn.com, teenrape.com, forcedporn.com. brutalviolentsexporn.com, suckmebitch.com

Pornography images now

PROBLEMS?

- Difficulty transitioning to a real partner.
- Erectile dysfunction and inability to reach orgasm in young men when reality doesn't meet expectations.
- +++ Body image problems – ↑ requests for labioplasty
- **Male learning:**
  - Aggression is normal and desirable
  - Coercion is expected
- **Female learning:**
  - Violence is normal
  - Consent is irrelevant
  - No expectation of pleasure

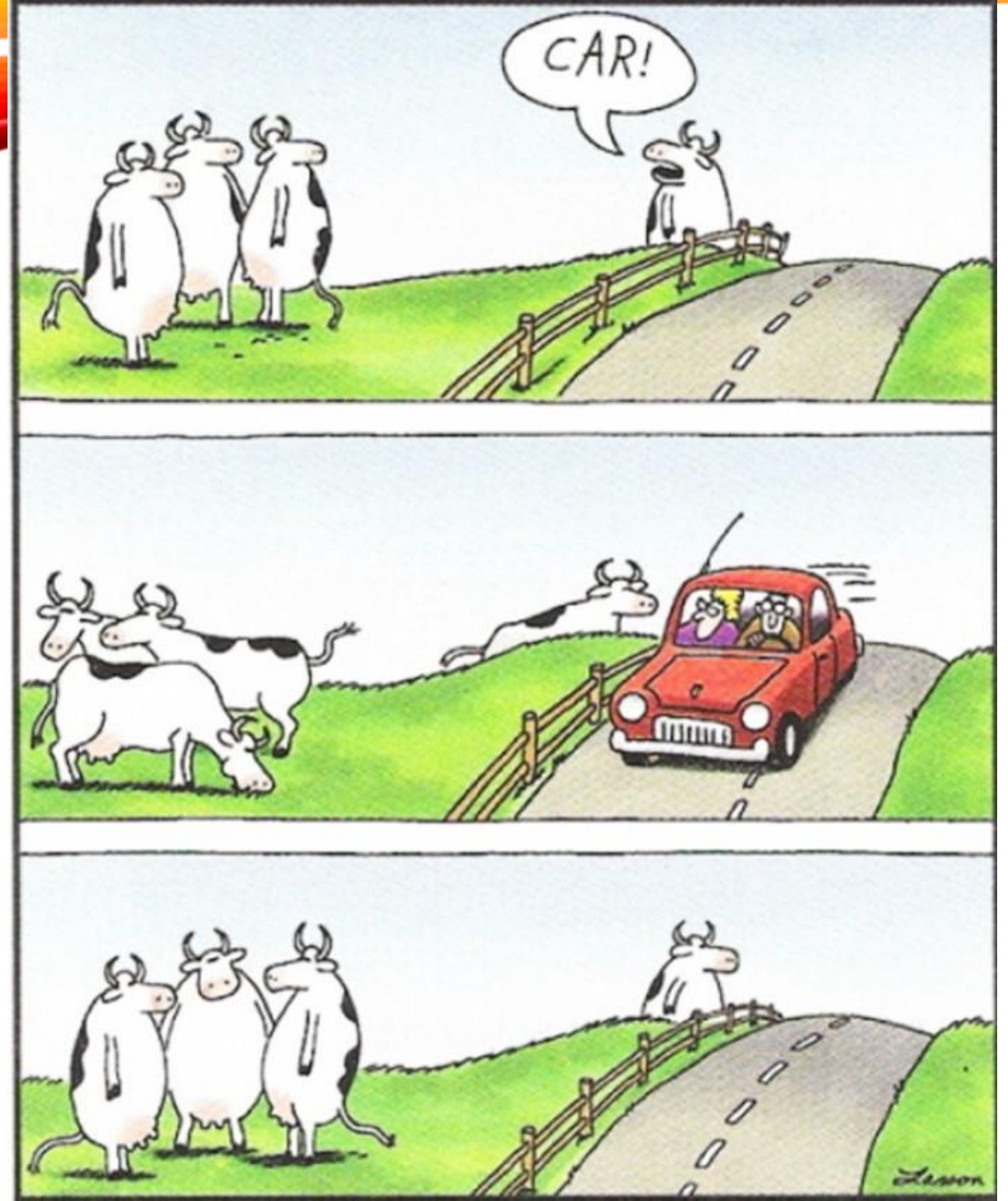
WHAT CAN WE DO?

- **Demand Healthy Sex Education from Primary School onwards!**
- Educate ourselves
- Realise that our discomfort with the conversation is allowing the problem to continue.
- If we do nothing, our children will find their own information about sex.
- We have to discuss the separation of fantasy and reality to provide the tools to deal with what our children will see.

Sexual health is a state of physical, mental and social well-being in relation to sexuality. It requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence.

Make the opportunity to discuss sexual activity with patients,

Especially teenagers


CAR!

USEFUL RESOURCE WEBSITES

- The Light Project aims to equip youth, their whanau, and professionals to positively navigate the new porn landscape.
- www.thelightproject.co.nz
- www.justthefacts.co.nz
- www.labialibrary.org.au
- www.herpes.org.nz
- www.nzshs.org