Sexual and reproductive health

Contraception

Contraception options

Recommend

- **Only condoms protect against STIs** - encourage use and easy access
- If a woman presents requesting contraception urgently, clarify if she needs emergency contraception after unprotected sex

Key resources

- **True Relationships and Reproductive Health** https://www.true.org.au/
  - contraceptive choices
  - fact-sheets, handouts
  - education and training for health professionals
- **Family Planning Alliance Australia** https://www.familyplanningallianceaustralia.org.au/
  - contraceptive choices, fact sheets, handouts
  - *How effective is my contraceptive method*
- **The UK Facility of Sexual & Reproductive Healthcare (FSRH)** https://www.fsrh.org/home/
  - UK Medical Eligibility Criteria for Contraceptive Use (UK MEC) - guidance on safe prescribing of contraceptives based on medical contraindications[1] https://www.fsrh.org/ukmec/
  - Quick Starting - starting contraception immediately regardless of timing[1]
  - specific population advice eg women > 40 years, young people
  - switching methods of contraception safely

Contraception options in order of effectiveness (%)[2]			
> 99% **Set and forget**	**Contraceptive implant** eg Implanon®	• Lasts 3 years	• Can be removed at any time; immediately reversible • Insertion and removal by trained clinician
	Hormonal IUD eg Mirena®	• Lasts 5 years	
	Copper IUD	• Lasts 5–10 years	
	Vasectomy, tubal ligation	• Permanent	
93–99% **Works well if used 'perfectly' every time**	**Contraceptive injection** eg Depo-provera, p. 439		• 12 weekly injections
	Vaginal ring eg NuvaRing® (not on PBS)		• 3–4 weekly insertion/ removal by woman
	The pill - COCP, p. 440		• Daily pill
	The mini pill - POP, p. 442		
76–99% **Less effective methods**	**Condoms** **Female condom**	**Fertility awareness** **Pulling out**	**Diaphragm**

- **Lactational amenorrhoea** is a contraception option for breastfeeding women. It is 98% effective if ALL of the following are met: **1.** Fully breastfeeding (no other food/milk supplements) **2.** < 6 months since birth **3.** Periods have not returned since birth[3]

HMP Medroxyprogesterone acetate
Depo-provera®, Depo-ralovera®

MEDROXYPROGESTERONE ACETATE

1. May present with

- Request for 'Depo injection' for contraception

2. Immediate management

Not applicable

3. Clinical assessment[1]

- Initial assessment and annual review(s) must be done by MO/NP
- **If returned for 12 weekly injection** ask about:
  - bleeding pattern, side effects eg weight gain, mood changes, headache
  - changes in health - angina, heart attack, stroke/TIA, breast cancer, liver disease

4. Management[1]

- If › 12 months since MO/NP review **OR** changes in health as above **OR** › 14 weeks since last injection, advise MO/NP review needed
- **If 1st dose,** MO/NP order needed**:**
  - do pregnancy test first
  - administer during days 1–5 of period (to be immediately effective)
  - if preference is to give today, but woman is at another stage of her period, MO/NP may consider 'Quick Start' method (**note:** off label use): See https://www.fsrh.org/standards-and-guidance/fsrh-guidelines-and-statements/quick-starting-contraception/. Effective after 7 days
- **If 12 weekly injection due:**
  - can be given 14 days early or late and still be effective
  - if woman has unwanted side effects, refer to MO/NP clinic:
    - if she chooses to not have the injection, advise to use condoms until reviewed
  - if having frequent and prolonged bleeding:
    - do pregnancy test + STI/BBV tests, p. 448 and advise to see MO/NP at next clinic
- **If › 14 weeks since last injection** - advise it is **no longer effective**
  - if unprotected sex in the last 5 days offer Emergency contraception, p. 443 + STI/BBV tests, p. 448
  - do pregnancy test. **Note:** an early pregnancy might not show up
    - if pregnancy test –ve (or inconclusive) **consult MO/NP for new order:**
      - if given - advise it will start working in 7 days. Use condoms or do not have sex during this time + advise follow up pregnancy test in 4 weeks - use recall system

S4	**Medroxyprogesterone acetate** eg Depo-Provera®, Depo-Ralovera®			**Extended authority** ATSIHP/IHW/RIPRN/SRH
ATSIHP, IHW and RN must consult MO/NP or give on current (‹ 12 months) written order				
RIPRN and SRH may proceed if ‹ 12 months since MO/NP initial prescription				
Form	**Strength**	**Route**	**Dose**	**Duration**
Injection	150 mg/mL	**IM** (shake first)	150 mg	Once every 12 weeks ± 14 days
Offer CMI: May cause periods to become irregular and spotting may occur initially. After continued use periods may stop completely. **Note:** give via deep IM injection, do not rub				
Contraindication: Breast cancer, ischaemic heart disease, stroke, advanced liver disease, multiple risk factors for cardiovascular disease eg smoking, diabetes, hypertension, obesity, dyslipidaemia				
Management of associated emergency: Consult MO/NP. See Anaphylaxis, p. 82 [1,2]				

- Offer fact sheet on depo medroxyprogesterone acetate (DMPA) injections eg https://www.true.org.au/fact-sheets

5. Follow up

- Advise/recall for 12 weeks or for next MO/NP clinic if annual review due

6. Referral/consultation

- As above

HMP Combined oral contraceptive pill (COCP)

1. May present with

- Request for supply of the pill (COCP)

2. Immediate management

Not applicable

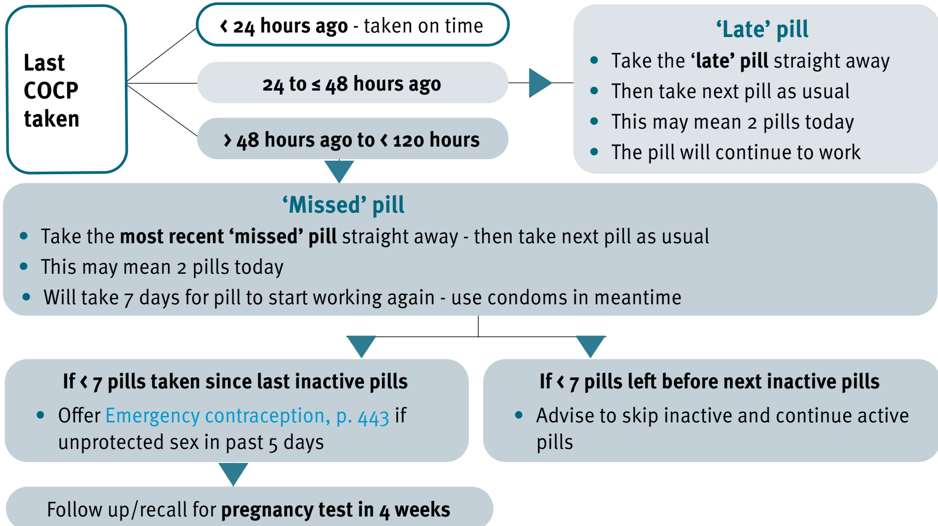
3. Clinical assessment

- Initial assessment and annual review(s) must be done by MO/NP
- **If requesting repeat supply** ask about:[1]
  - side effects, changes in bleeding patterns
  - changes in health - angina, heart attack, stroke/TIA, breast cancer, liver disease, DVT/PE, migraine with aura, new headaches[1]
  - new medications
  - check BP ± weight

4. Management[1]

- If › 12 months since MO/NP review **OR** changes in health as above **OR** has not been taking continuously, advise MO/NP review needed:
  - if this is likely to delay supply, consider phone consult MO/NP as an interim so contraception can continue
- **If starting COCP** ie on MO/NP prescription**:**
  - start on days 1–5 of period - immediately effective[1]
  - if quicker contraception needed, MO/NP may consider 'Quick Start' method ie starting at any time in cycle (**note:** off label use):
    - exclude pregnancy first. Effective after 7 days
    - see https://www.fsrh.org/standards-and-guidance/fsrh-guidelines-and-statements/quick-starting-contraception/
- Offer fact sheet on COCP eg https://www.true.org.au/fact-sheets

Late or missed pill - COCP[1]



- **Combined oral contraceptive pills:**
  - the drug box below contains only one of the many COCP available
  - **it is not intended to infer that this is the only or preferred COCP**, but rather just a reflection of what is usually available in Qld Health rural and remote facilities

S4	**Levonorgestrel + ethinylestradiol** eg Levlen ED®, Evelyn 150/30 ED®, Eleanor 150/30 ED®			**Extended authority** ATSIHP/IHW/SRH
ATSIHP, IHW, RIPRN, RN and SRH may supply as per written order if < 12 months since prescribed by MO/NP. Also see RN supplying, p. 11				
Form	**Strength**	**Route**	**Dose**	**Duration**
Tablet	150/30 microg	Oral	1 tablet daily	Max. supply not to exceed 4 months **OR** current prescription, whichever is sooner
Offer CMI: May cause breakthrough bleeding, amenorrhoea, nausea, vomiting, breast enlargement and tenderness, headache, mood changes, changes in libido, ↑ BP, fluid retention, chloasma, acne or thrush. Effectiveness may decrease by some medicines and over-the-counter products eg St John's Wort, vomiting and diarrhoea. **Report immediately if** severe and sudden pain in chest, severe headache, sudden blurred vision or loss of sight, unexplained tenderness, pain or swelling in one leg				
Contraindication: Past or current history or risk factors for DVT, stroke/TIA, migraine with aura, ischaemic heart disease, breast cancer, severe liver disease. See UK MEC for contraceptive use https://www.fsrh.org/home/				
Management of associated emergency: Consult MO/NP [1,2]				

5. Follow up

- Check if STI/BBV tests, p. 448 + annual check by MO/NP due, and offer/advise accordingly

6. Referral/consultation

- As above

HMP Progestogen only pill (POP)

1. May present with

- Request for pill postnatally ± supply of POP

2. Immediate management

Not applicable

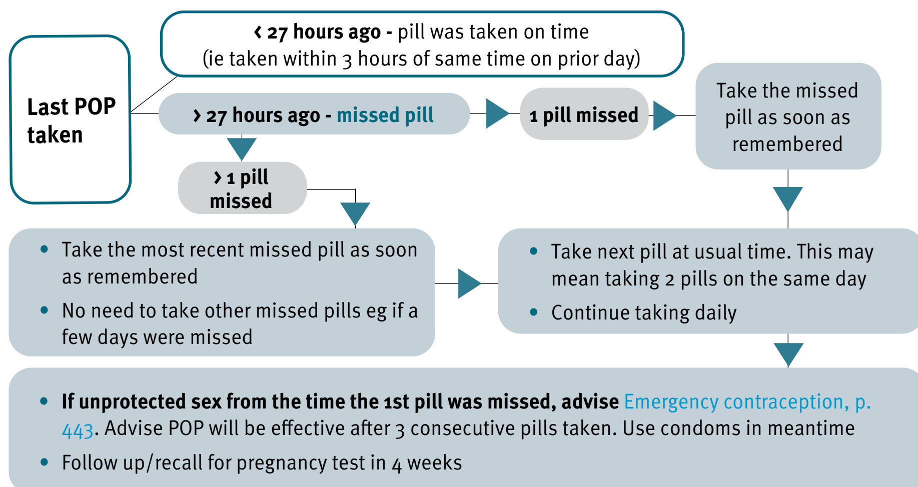
3. Clinical assessment

- Midwives may initiate 8 weeks supply postnatally, otherwise initial assessment and annual review(s) required by MO/NP
- **If requesting repeat supply** ask about:[1]
  - side effects (eg headaches, mood changes, weight gain), concerns with bleeding patterns
  - changes in health; new medications

4. Management[1]

- **Repeat supply:**
  - if changes in health **OR** has not been taking continuously, advise MO/NP review needed:
    - if this is likely to delay supply, consider phone consult MO/NP as an interim so contraception can continue
- **Starting the POP in postpartum woman. If:**
  - < 21 days postpartum, start at any time - immediately effective
  - > 21 days and has no period yet - do pregnancy test first. Effective in 48 hours
  - > 21 days and period returned, start on day 1–5 of period
- **Starting the POP in other women:**[1]
  - start on days 1–5 of period. Is immediately effective
  - if quicker contraception needed, MO/NP may consider 'Quick Start' method ie starting at any time in cycle (**note:** off label use):
    - exclude pregnancy first. Effective after 3 days
    - see https://www.fsrh.org/standards-and-guidance/fsrh-guidelines-and-statements/quick-starting-contraception/

Missed pill POP[1]



S4	Progestogen only pills			**Extended authority** ATSIHP/IHW/MID/SRH
ATSIHP, IHW, MID, RIPRN, RN and SRH may supply as per written order if < 12 months since prescribed by MO/NP. Also see RN supplying, p. 11				
MID may initiate supply of levonorgestrel (max. 8 weeks)				
Form	**Strength**	**Route**	**Dose**	**Duration**
Tablet	Levonorgestrel 30 microg	Oral	1 tablet daily Taken at the same time each day	Max. supply not to exceed 4 months **OR** current prescription, whichever is sooner
	Norethisterone 350 microg			
Offer CMI: Must be taken ± 3 hours at the same time each day or effect may be reduced. If you vomit within 2 hours of taking, take another pill as soon as possible. May cause amenorrhoea, spotting, irregular period, breast tenderness or acne. All the pills are active ie no sugar pills. Effectiveness may be decreased by some medicines, including over-the-counter products eg St John's Wort				
Contraindication: Breast cancer, ischaemic heart disease, stroke, advanced liver disease				
Management of associated emergency: Consult MO/NP [1,3,4]				

- Offer fact sheet on POP eg https://www.true.org.au/fact-sheets

5. Follow up

- Check if STI/BBV tests, p. 448 + annual check by MO/NP due, and offer/advise accordingly

6. Referral/consultation

- As above

HMP Emergency contraception

1. May present with

- Recent unprotected sex ± request for 'morning after pill'

2. Immediate management

Not applicable

3. Clinical assessment[1]

- Ask about:
  - time since unprotected sex occurred, last period
  - allergies, medicines
- Do pregnancy test. **Note:** if unprotected sex was < 21 days ago test may be falsely –ve
- Offer STI/BBV tests, p. 448 as appropriate + give condoms
- If concerns around non-consensual sex, report of rape/sexual assault, see Sexual assault, p. 243

4. Management[1]

- Advise no emergency contraceptive options are 100% effective
- Give **levonorgestrel** if up to 72–96 hours (3–4 days) after unprotected sex (can buy over-the-counter):
  - offer advice about ongoing Contraception options, p. 438
  - consult MO/NP if woman requests ongoing contraception. MO/NP may consider starting today using Quick Start. See https://www.fsrh.org/standards-and-guidance/fsrh-guidelines-and-statements/quick-starting-contraception/ (**note**: off label use)

- Advise woman of other options as available:
  - **Ulipristal acetate (UPA)** - most effective oral method:
    - use ≤ 120 hours (5 days) after unprotected sex, can buy over-the-counter at some pharmacies
    - **note interaction:** effectiveness decreased with hormonal contraceptives
  - **Copper IUD** - most effective + provides ongoing contraception:
    - use ≤ 120 hours (5 days) after unprotected sex, need skilled clinician to insert

S3	**Levonorgestrel**			**Extended authority** ATSIHP/IHW/IPAP
ATSIHP, IHW and IPAP must consult MO/NP				
MID, RIPRN, RN and SRH may proceed				
Form	**Strength**	**Route**	**Dose**	**Duration**
Tablet	1.5 mg	Oral	1.5 mg	stat Give within 96 hours (4 days), but **preferably** 72 hours (3 days), of unprotected sex
Offer CMI: May cause nausea, vomiting, breast tenderness, vaginal bleeding or headache. If vomits within 2 hours of taking, needs repeat dose. Period usually occurs within 7 days of expected time. Does not provide ongoing contraception				
Note: Enzyme inducing medicines currently or within prior 4 weeks can reduce effect (eg rifampicin, St John's Wort) - consult MO/NP (copper IUD preferred alternative, or ⇡ dose to 3 mg - but evidence of efficacy lacking)				
Contraindication: Severe liver disease				
Management of associated emergency: Consult MO/NP. See Anaphylaxis, p. 82 [1,2]				

5. Follow up[2]

- Advise to return in 4 weeks for pregnancy test. Put in recall system

6. Referral/consultation

- Advise to see MO/NP/woman's health nurse/midwife for continuing contraception

Sexually transmitted infections (STIs)

STI and BBV assessment

Recommend

- Opportunistically offer STI/Blood Borne Viruses (BBVs) checks whenever a person comes to clinic[1]
- Ensure condoms and lubricant are readily available 24 hours a day
- Confidentiality must be maintained - important in rural and remote areas where clinic staff may be family members/friends of the patient/contacts

Background[1]

- STIs and BBVs often have no symptoms until complications occur. If untreated can cause - pelvic inflammatory disease, infertility, miscarriage, epididymo-orchitis, increased risk of HIV acquisition, liver damage or fatality (eg congenital syphilis)
- **In remote Aboriginal and Torres Strait Islander** communities, there is/are:[1,2]
  - an ongoing outbreak of syphilis
  - high rates of chlamydia, gonorrhoea, trichomonas and hep B
  - + untreated STIs make this group potentially vulnerable to HIV
- **Resources**:
  - Qld Health https://www.health.qld.gov.au/clinical-practice/guidelines-procedures/sex-health
  - ASHM https://www.ashm.org.au/resources/sexual-health-resources-list/ including *STI management guidelines for primary care*
  - Aboriginal and Torres Strait Islander - *Young, deadly, free* https://youngdeadlyfree.org.au
  - True relationships and reproductive health https://www.true.org.au/

Important principles of treating STI/BBVs[1]

- If follow up unlikely, treat symptomatic cases at first presentation (presumptive treatment), without waiting for pathology results
- If positive STI/BBV, do contact tracing + test sex partners (+ treat if needed). Consider treating ongoing partners at the same time to reduce risk of reinfection (eg if they present with patient)
- If someone tests positive for an STI/BBV, offer testing for other STIs/BBV if not already done
- Consider PID, p. 462 in sexually active women/person with a uterus with new onset abdominal pain (can be mild), particularly if < 25 years of age

1. May present with[1]

- Sexually active + for screening/opportunistic check
- Symptoms of an STI eg:
  - vaginal or penile discharge
  - pain or burning passing urine
  - genital sores, rash, itching in genital/perianal area
  - low abdominal pain (females/person with uterus), testicular pain, or pain with sex
  - abnormal vaginal/rectal bleeding
- Symptoms of a BBV eg jaundice/abnormal LFTs (hepatitis), or as per HIV, p. 476

2. Immediate management

Not applicable

3. Clinical assessment[1]

- If asymptomatic, check table below for recommended check-ups (use history as needed to guide):
  - may vary depending on prevalence of STIs - check local guidelines

Asymptomatic check-up[1,3-5]

Who[1]	When to offer[1]	What to offer[1]
• Requests an STI check • Is at ↑ risk of STIs eg new sexual partner • Has a known exposure to any STI or history of STI within past 12 months • Is a partner of person at increased risk of STIs	This presentation	– chlamydia, gonorrhoea – trichomonas (females) – syphilis, HIV* – hep B (if not vaccinated)# – hep C* only if at risk
• 16–29 years old‡ [1,4]	At least annually	
Aboriginal and Torres Strait Islander people[1,3]		
• 15–35 years old‡	6 monthly	– chlamydia, gonorrhoea – trichomonas (males + females) – syphilis, HIV* – hep B (if not vaccinated)# – hep C* only if at risk
• People at increased risk of STIs†	3–6 monthly	
• > 35 years old and a new partner	1–2 yearly + as needed	
• Pregnant • + refer to Qld Clinical Guideline *Syphilis in pregnancy* https://www.health.qld.gov.au/qcg/publications	20 weeks, 34–36 weeks, birth + 6 weeks after birth	– syphilis - in **addition** to routine antenatal syphilis (+ other antenatal STI) tests
Other populations & situations[1]		
• Men who have sex with men (MSM)[5] Also see *STIGMA Guidelines* https://stipu.nswgov.au/stigma/	3 monthly, or at least annually if in monogamous relationship	– chlamydia, gonorrhoea, syphilis, HIV* – hep A & B (if not vaccinated)# – hep C annually if at risk
• Refugees and migrants to Australia • People living with HIV • People in custodial settings • Sister-girls, brother-boys, trans + gender diverse • Sex workers • People who use drugs • Adult sexual assault	• Increased screening may be recommended depending on individual risk factors • Refer to Australian STI management guidelines: – http://sti.guidelines.org.au/ • Or contact your local sexual health team for advice	
• Pregnant	• See Antenatal care, p. 364	

‡Or from age of first sexual contact:
- **if < 16** see *Guide to offering STI testing for people aged less than 16 years attending clinical services* https://www.health.qld.gov.au/clinical-practice/guidelines-procedures/sex-health/guidelines or local policy if outside Qld

†At increased risk if - ≥ 1 new partners in last 12 months, > 1 prior STI(s), substance use

#Do not need testing if vaccinated or chronically infected. **Offer vaccination if not vaccinated**

*Repeat tests for HIV and syphilis if exposed within 12 weeks. Repeat test for hep C if exposed within 6 months (window periods)

Get history[1]

- May not need history if routine asymptomatic screening
- **As appropriate, get a sexual history and assess STI risk:**
  - gender identification and pronouns that the patient identifies with
  - last STI check (when), results
  - previous STI diagnosed, or thought may have had an STI
  - last time had sex
  - new sexual partner(s)
  - sex without condoms/condom broken
  - sex with men, women, both
  - nature of sex - oral, vaginal, anal
  - pregnant/could be pregnant, reproductive history, contraception
- **Assess hep C risk:**[1]
  - history of injecting drug use, current HIV pre-exposure prophylaxis (PrEP) use, anal sex with a partner with hep C virus (HCV) infection, incarceration, non-professional tattoos or body piercings, or receipt of organs or blood products before 1990
- **Ask about symptoms**:[1]
  - dysuria; penile/vaginal discharge - colour/odour/amount
  - itch
  - lumps, sores or skin splits on genitals - may have gone away
  - tender/swollen testes
  - pain with sex
  - low abdominal pain in female/person with a uterus
  - bleeding/spotting after sex or between periods
  - enlarged lymph nodes in groin
  - rash/sore on another part of body eg hands/feet
  - patchy hair loss eg part of eyebrow
  - anorectal symptoms - discharge, irritation, painful bowel motions, disturbed bowel function[1]

Do examination[1]

- **Not needed if asymptomatic screening**
- If has symptoms but does not want examination, still do STI/BBV tests (self collected swabs/urine)
- Do vital signs
- Use history to guide examination. As appropriate, check:
  - if dysuria, get first catch urine (FCU) + MSU. If nitrites or leucocytes on urinalysis get MSU for MCS (in addition to FCU for STIs)
  - rash, lymph nodes - swelling/tenderness
  - genitalia/perianal area - any rashes, lumps, ulcers, skin splits (take swab(s) if needed)
  - women/person with vagina/uterus:
    - abdomen for tenderness
    - consider pregnancy test
    - speculum examination if practitioner experienced and patient consents:
      - cervicitis (cervix easily bleeds ± yellow discharge at os), sores
      - bi-manual examination for tenderness and masses
      - take swabs at same time + Cervical Screening Test (CST) if due
- If anorectal symptoms - if possible, examine for ulcers and discharge (+ take swabs concurrently). If STI likely, treat today, but also refer to next MO/NP clinic - other causes need to be investigated

Do STI/BBV tests

- See STI/BBV pathology (below) to guide specimen collection/what to collect:
  - ensure consent ie type of test, reason for test, potential implications of not being tested
  - encourage patient to self collect swabs/urine
  - do tests appropriate to type of sexual contact ie oral, anal, vaginal (except if m. genitalium - do not do throat swabs as pharyngeal infection uncommon)[1]

STI/BBV pathology

If no symptoms eg asymptomatic check-up

First catch urine (FCU)

- Chlamydia & gonorrhoea PCR*
- Trichomonas PCR (all females; only Aboriginal and Torres Strait Islander males)

OR

Self collected vaginal swabs

- 1 x chlamydia & gonorrhoea PCR
- 1 x trichomonas PCR

+

Bloods - 2 x serum gel tubes

- **syphilis** serology
- **HIV** - HIV Ag/Ab
- **hep B** - HBsAg, Anti-HBs, Anti-HBc (if not vaccinated or chronically infected)
- **hep C** - HCV Ab (if risk + no prior history of hep C)$^{\Omega}$

*In MSM also get anal and pharyngeal swabs for chlamydia and gonorrhoea PCR + MCS#

If symptoms of an STI eg discharge, dysuria, pelvic pain

Self collected vaginal or penile swabs

- 1 x chlamydia & gonorrhoea PCR*
- 1 x trichomonas PCR (all females; only Aboriginal and Torres Strait Islander males)
- 1 x m. genitalium PCR (all males; females only if cervicitis or pelvic pain present)
- 1 x MCS charcoal swab plus slide#

OR

First catch urine (FCU)

If no penile discharge/prefers not to do swabs

- Chlamydia & gonorrhoea PCR*
- Trichomonas PCR (all females; only Aboriginal and Torres Strait Islander males)
- M. genitalium PCR (all males; females only if cervicitis or pelvic pain present)

+

Bloods

- As per 'if no symptoms' above

AND

If genital sore

- 1 x dry swab for:
  - herpes + syphilis PCR
- Also advise Qld Syphilis Surveillance Service ✆ 1800 032 238 or syphilis register if outside Qld

*In MSM also get anal and pharyngeal swabs for chlamydia and gonorrhoea PCR + MCS#

Note: female (or person with vagina); male (or person with penis)
Ω If hep C (HCV) positive, it can indicate current or past infection. If positive, test for HCV RNA to detect active infection or re-infection
MCS is for surveillance of antimicrobial resistance of gonorrhoea[1]
Note: PCR is a NAAT test (nucleic acid amplification). 'First catch urine' also called 'first pass urine'

How to collect swabs/urine[1] eg self collected by patient		
FCU (First catch urine)	PCR	• Any time of day. Start passing urine into the urine jar (catch the first part of the urine stream). Need about 20 mL or 1/3 standard urine jar. Then pass rest of urine into toilet
Throat swab		• Gently wipe swab over tonsils and uvula (punching bag)
Penile swab		• Only do if frank discharge. Milk penis to express discharge
Vaginal swab		• Insert the swab into the vagina like a tampon, twirl and then remove and place into the transport tube
Rectal swab		• Insert swab into the anal canal 2–4 cm, twirl and then remove and place into the transport tube
Genital sore swab		• Clean the lesion with water or sodium chloride 0.9%. Roll swab firmly around the edge and across the lesion, place into the transport tube. Ideally clinician should examine and take swab(s)
Charcoal swab + slide	MCS	• Take swab as described above, roll onto glass slide, then insert swab into charcoal transport tube. Send both to pathology
Handout on chlamydia and gonorrhoea '**self collection**' https://www.health.qld.gov.au/clinical-practice/guidelines-procedures/sex-health/guidelines **All specimens stored in fridge + transported cold**		

Gel blood tube

Urine jar/tube for FCU

Dry swab for PCR

Charcoal swab + slide for MCS

4. Management[1]

- If **symptoms of an STI**, **confirmed STI**, or **sexual contact** of someone with symptoms or positive pathology for an STI/BBV:
  - do STI/BBV tests, p. 448 if not already done
  - go to STI/BBV flowchart, p. 451 to guide further management
- Ask about sexual contacts and start Contact tracing, p. 450 **if**:
  - confirmed STI/BBV (on pathology) **OR** if person has symptoms of syphilis (pathology not back)
  - see STI/BBV flowchart, p. 451 and specific topic(s) for advice on how far back to trace

In all cases:

- Offer condoms and advice/fact sheet(s) about how to use + about STI/BBVs as relevant eg:
  - transmission, symptoms, complications of untreated STIs/BBVs
  - safe sex practices/risk minimisation, regular screening
  - reiterate that only condoms or abstaining from sex protect against STIs
- Offer advice about Contraception options, p. 438 + offer/refer for CST if due

Contact tracing/partner notification[1,6]

1. Advise reasons for contact tracing

- Essential to avoid reinfection (from untreated partner) and to interrupt ongoing transmission of STI/BBVs
- Partner may be unaware of infection and be at risk of serious complications if not tested + treated

2. Identify who needs to be notified + discuss that contact tracing can be done anonymously

- Refer to relevant STI topic to determine how far back to trace ie likely duration of infection
- Ask about sexual contacts during that time:
  - record in patient with STI/BBV (index) medical record that *contacts obtained* - do not record contacts name(s)
  - write in the contact(s) medical record(s) that they have been identified as a contact and need testing for STI/BBVs (do not record patient's name in contact(s) medical record)
  - if a clinic register/similar is used, ensure the index case is NOT connected to the contact(s) and vice versa

3. Contact sex partners + advise need testing ± treating for STI/BBVs

- Patient may choose to tell their contact(s) themselves, or may want the clinic staff to do this
- 3 attempts by telephone or home visits should be made and documented, UNLESS syphilis or HIV where further attempts at contact tracing needed - seek specialist advice as needed
- If a contact is outside your health centre's area, notify the appropriate contact tracing support officer so they can follow up

Resources

- *Australasian contact tracing guidelines* http://contacttracing.ashm.org.au/
- Qld support https://www.health.qld.gov.au/clinical-practice/guidelines-procedures/sex-health/contact-tracing
- If outside Qld, contact your local sexual health/contact tracing service

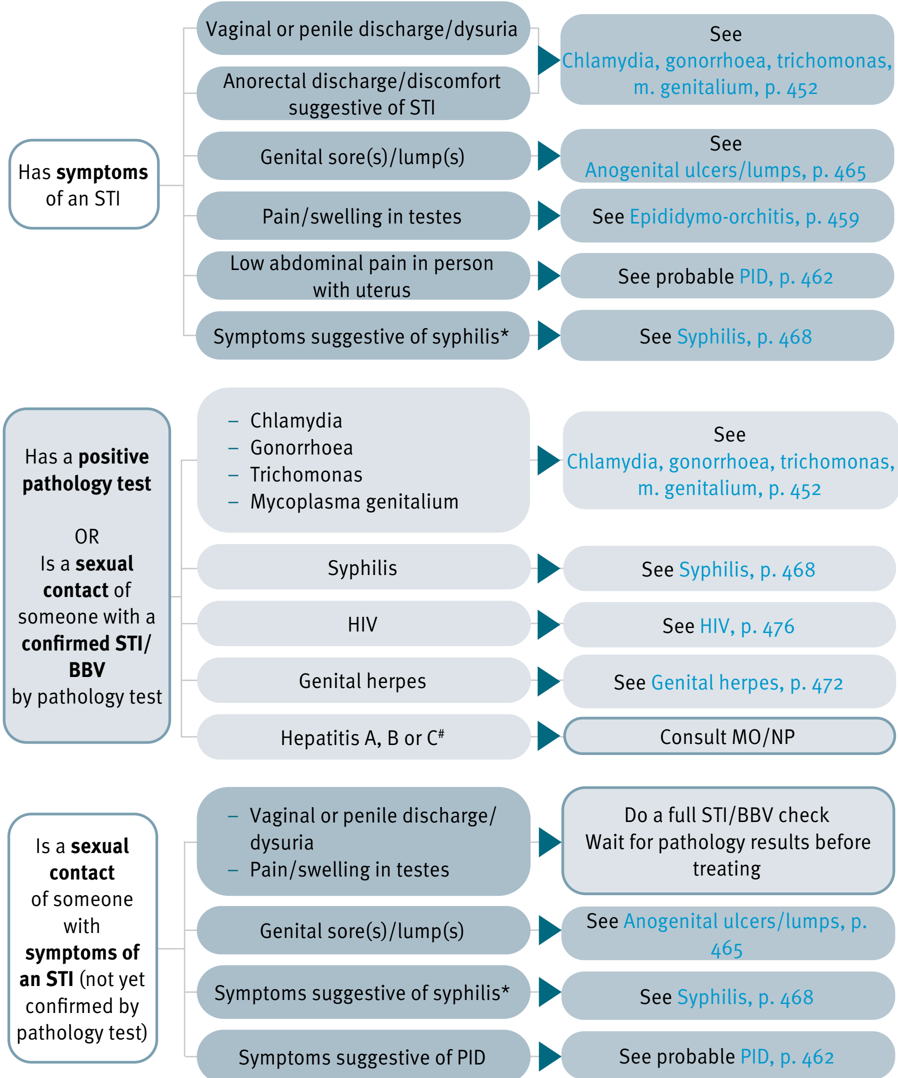
5. Follow up[1]

- If you have taken/ordered pathology:
  - advise when and how person will get their results
  - ensure you follow up results - advise patient, treat + start contact tracing as needed
- Repeat tests if negative + patient exposed in window period if:
  - hep C - exposure ≤ 6 months
  - HIV and syphilis - exposure ≤ 12 weeks
- If treated for an STI advise to be reviewed in:
  - **1 week** to confirm taking tablets (as needed), see if symptoms going, give pathology results + ensure contacts have been advised to get tested (as indicated)
  - **3 months** to retest for STIs to detect re-infection (common)
  - + as needed, as per each STI topic
- Activate reminders for testing as needed

6. Referral/consultation

- As appropriate eg for advice about contraception, CST, other men's or women's health

STI/BBV flowchart



***Syphilis symptoms** - genital ulcer or sore (can also be on anal skin, cervix or mouth) ± multiple warty growths in genital area (condylomata lata) ± rash on trunk or just hands and feet.[1] See Syphilis, p. 468

- **#Hepatitis**
  - **hep A** - uncommon in Australia. People at higher risk of infection include: MSM, travellers to countries where hep A prevalent[8]
  - **hep B** - see the *Chronic conditions manual* https://www.health.qld.gov.au/rrcsu/clinical-manuals/chronic-conditions-manual-ccm for interpretation of tests and management
  - **hep C** - see https://www.hepcguidelines.org.au/
- Also see *Decision making tools* for Hep B and Hep C https://www.ashm.org.au/resources/

HMP Chlamydia, gonorrhoea, trichomonas, m. genitalium - adult
Vaginal discharge, penile discharge

Background[1]

- Often there are no symptoms
- The most likely cause of penile discharge/dysuria is an STI
- Vaginal discharge - cause can be difficult to diagnose on clinical examination alone. Normal physiological discharge is white/clear, non offensive, varying with menstrual cycle
- Trichomonas may persist in women for years and in men for up to 4 months

1. May present with[1]

- Positive pathology result
- Sexual contact of someone with positive pathology result or symptoms suggesting an STI
- If symptoms, may include:
  - discharge - penile/vaginal
  - dysuria
  - abnormal bleeding (spotting) after sex or between periods (women)
  - vulval itch/soreness
  - anorectal symptoms - discharge, irritation, painful defecation, disturbed bowel function
- Occasionally gonorrhoea may present acutely ill with single or multiple painful/inflamed joints - (disseminated gonococcal infection)

2. Immediate management

Not applicable

3. Clinical assessment[1]

- Get history and offer relevant examination as per STI/BBV assessment, p. 445
- Consider differential diagnoses eg if:
  - low abdominal pain in female/person with uterus, PID, p. 462
  - sore/swollen testes, Epididymo-orchitis, p. 459
  - thick, white, non offensive vaginal discharge, Vaginal thrush, p. 458

4. Management[1]

- If current partner (of patient with symptoms/STI) presents at same time, consider treating concurrently
- **If has symptoms**:
  - do STI/BBV tests, p. 448 and treat if indicated on pathology results
  - if follow up unlikely eg in remote area, treat now (without waiting for pathology results)
- **If has a positive pathology result**:
  - treat now + do full STI/BBV tests, p. 448 if not completed already
  - start Contact tracing, p. 450

Contact tracing/partner notification - how far to trace back, test ± treat[1,2]	
Chlamydia	• 6 months
Gonorrhoea	• Minimum of 2 months (or 2 months prior to onset of symptoms if present)
Trichomonas M. Genitalium	• Current partner(s) only[2]

- **If a sexual contact of person with a positive pathology result**:
  - do STI/BBV tests, p. 448 and wait for results before treating
  - if follow up unlikely, treat now (see below) for the infection(s) they have been in contact with (without waiting for pathology results)
- **If a sexual contact of person with symptoms:**
  - do STI/BBV tests, p. 448
  - if has symptoms, treat now (see below)
  - if no symptoms, wait for pathology results before treating (or if they presented with patient, consider treating at the same time)

Treatment guide[1] if not allergic. Ideally, watch person take single dose medicines

<table>
<tr><th>Symptoms[1]</th><th>Treat for</th><th>Treat with</th></tr>
<tr><td>Vaginal discharge
Penile discharge/dysuria</td><td>• Gonorrhoea, Chlamydia and Trichomonas</td><td>• Ceftriaxone 500 mg (see note) AND
• Azithromycin 1 g* AND
• Metronidazole 2 g</td></tr>
<tr><td>Anorectal discharge/pain suggestive of STI</td><td>• Gonorrhoea and Chlamydia
• + if pain, herpes simplex virus</td><td>• Ceftriaxone 500 mg (see note) AND
• Doxycycline 100 mg bd for 21 days AND
• If pain, see Genital herpes, p. 472 for treatment (+ consider possible Syphilis, p. 468)</td></tr>
<tr><td colspan="3">• Note: if area has high penicillin susceptibility to gonorrhoea (as advised by local sexual health specialist or AMS program), replace ceftriaxone with amoxicillin 3 g + probenecid 1 g</td></tr>
<tr><th colspan="3">Pathology results</th></tr>
<tr><td colspan="2">Gonorrhoea</td><td>• Ceftriaxone 500 mg (see note) AND
• Azithromycin 1 g OR if pharyngeal infection 2g*</td></tr>
<tr><td colspan="3">• Note: if area has high penicillin susceptibility to gonorrhoea (as advised by local sexual health specialist or AMS program), replace ceftriaxone with amoxicillin 3 g + probenecid 1 g</td></tr>
<tr><td colspan="2" rowspan="2">Chlamydia</td><td>• Doxycycline 100 mg bd for 7 days (preferred) OR
• Azithromycin 1 g (if concerns about adherence or if pregnant)</td></tr>
<tr><td>• If anorectal infection:
– doxycycline 100 mg bd for 7 days (no symptoms) or 21 days (symptoms) OR
– azithromycin 1 g + repeat dose in 12–24 hours</td></tr>
<tr><td colspan="2">Trichomonas</td><td>• Metronidazole 2 g</td></tr>
<tr><td colspan="2">Mycoplasma genitalium#</td><td>• Doxycycline 100 mg bd for 7 days followed by
• Azithromycin 1 g on day 8, then 500 mg daily for 3 days</td></tr>
</table>

#Treatment for m. genitalium can be complex. Doxycycline is ineffective in 2/3 of infections, but will lower bacterial load in most cases. Cure is likely if azithromycin is also given from day 8. Get advice from local Sexual Health/Public Health Unit if treatment does not work[1]
***If treated for gonorrhoea presumptively, then pathology is positive for pharyngeal infection, no need to give extra gram of azithromycin[1] - test of cure should still be done

In all cases

- Advise no sexual activity:[1]
  - for 7 days after treatment, or if m. genitalium 'tested for cure' (14–21 days after treatment) +
  - until pathology results available +
  - with partners - current + from prior 6 months (chlamydia) or 2 months (gonorrhoea) until the partners have been tested ± treated if needed
- Use condoms
- Will need **Follow up** check(s) - advise when and why
- Offer advice/fact sheet(s) about STI/BBVs

S4	Ceftriaxone			Extended authority ATSIHP/IHW/IPAP/MID/RIPRN/SRH
ATSIHP, IHW, IPAP and RN must consult MO/NP				
MID, RIPRN and SRH may proceed				
Form	**Strength**	**Route**	**Dose**	**Duration**
Injection	1 g	**IM** Reconstitute with lidocaine (lignocaine) 1% 3.5 mL to make 1 g/4 mL	500 mg (2 mL)	stat Give by deep injection into gluteal muscle
Offer CMI: May cause nausea, diarrhoea, rash, headache or dizziness				
Note: If renal impairment seek MO/NP advice				
Contraindication: Severe or immediate allergic reaction to a cephalosporins or a penicillin. Be aware of cross-reactivity between penicillins, cephalosporins and carbapenems				
Management of associated emergency: Consult MO/NP. See Anaphylaxis, p. 82 [1,3]				

S4	Azithromycin			Extended authority ATSIHP/IHW/IPAP/MID/RIPRN/SRH
ATSIHP, IHW, IPAP and RN must consult MO/NP				
MID, RIPRN and SRH may proceed				
Form	**Strength**	**Route**	**Dose**	**Duration**
Tablet	500 mg	Oral	1 g (2 g if pharyngeal gonorrhoea)	stat
			M. genitalium	
			1 g	stat on day 8
			500 mg daily	For 3 days after day 8 stat dose
Offer CMI: May cause rash, diarrhoea, nausea, abdominal cramps or thrush				
Management of associated emergency: Consult MO/NP. See Anaphylaxis, p. 82 [1,4]				

S4	Metronidazole			Extended authority ATSIHP/IHW/IPAP/MID/RIPRN/SRH
ATSIHP, IHW, IPAP and RN must consult MO/NP				
MID, RIPRN and SRH may proceed				
Form	**Strength**	**Route**	**Dose**	**Duration**
Tablet	200 mg, 400 mg	Oral	2 g	stat
Offer CMI: Avoid alcohol for 24 hours after taking. Take with food to reduce stomach upset. May cause nausea, anorexia, abdominal pain, vomiting, diarrhoea, metallic taste, dizziness or headache				
Management of associated emergency: Consult MO/NP. See Anaphylaxis, p. 82 [1,5]				

S4	Doxycycline			Extended authority ATSIHP/IHW/IPAP/MID/RIPRN/SRH
ATSIHP, IHW, IPAP and RN must consult MO/NP				
MID, RIPRN and SRH may proceed				
Form	**Strength**	**Route**	**Dose**	**Duration**
Tablet	50 mg 100 mg	Oral	100 mg bd	**Chlamydia** OR **m. genitalium** 7 days
				Anorectal chlamydia no symptoms - 7 days symptoms - 21 days
Offer CMI: Take with food or milk to reduce stomach upset. May cause nausea, vomiting, diarrhoea, epigastric burning, tooth discolouration or photosensitivity. Take with a large glass of water. Do not lie down for an hour after taking. Do not take iron, calcium, zinc or antacids within 2 hours. Avoid sun exposure				
Pregnancy: Safe in the first 18 weeks				
Contraindication: Serious allergy to tetracyclines. Taking oral retinoids. After 18 weeks of pregnancy				
Management of associated emergency: Consult MO/NP. See Anaphylaxis, p. 82 [1,6]				

S4	Amoxicillin			Extended authority ATSIHP/IHW/IPAP/RIPRN
ATSIHP, IHW, IPAP and RN must consult MO/NP				
RIPRN may proceed				
Form	**Strength**	**Route**	**Dose**	**Duration**
Capsule	1 g, 500 mg	Oral	3 g	stat
Provide CMI: May cause rash, diarrhoea, nausea or thrush				
Note: Given for gonorrhoea **only if area has high penicillin susceptibility** (as advised by local sexual health specialist or AMS program)				
Contraindication: Severe or immediate allergic reaction to a penicillin. Be aware of cross-reactivity between penicillins, cephalosporins and carbapenems				
Management of associated emergency: Consult MO/NP. See Anaphylaxis, p. 82 [1,7]				

S4	Probenecid			Extended authority ATSIHP/IHW/IPAP/RIPRN
ATSIHP, IHW, IPAP and RN must consult MO/NP				
RIPRN may proceed				
Form	**Strength**	**Route**	**Dose**	**Duration**
Tablet	500 mg	Oral	1 g	stat
Provide CMI: May cause rash, nausea or vomiting. May be taken with food to reduce upset stomach				
Pregnancy: Seek MO/NP advice				
Contraindication: Blood dyscrasias, uric acid kidney stones				
Management of associated emergency: Consult MO/NP. See Anaphylaxis, p. 82 [1,8]				

5. Follow up[1]

- If pathology taken - follow up results and advise patient:
  - if tested for m. genitalium, check if pathology states resistant to macrolides. If resistant, consult MO/NP for order for moxifloxacin (400 mg for 7 days) to replace azithromycin
- If treatment given today, advise review in:
  - **1 week** - check taking tablets, see if symptoms subsiding ± sexual contact(s) names obtained
  - **2–4 weeks** - (if needed) for **Test of cure** (ie repeat STI tests), as per table below
  - **3 months** (all) - retest for STIs to detect re-infection (common):
    - re-treat as needed. If trichomonas infection persistent or recurrent, consult MO/NP for advice[1]
- If still positive for gonorrhoea on test of cure or 3 month retesting, get advice from MO/NP[1]

Test of cure[1]	
Chlamydia	• Only needed if pregnant or rectal infection: – no earlier than 4 weeks after treatment completed
Gonorrhoea	• Only needed if pharyngeal, anal or cervical infection: – 2 weeks after treatment is completed
Trichomonas	• Not needed
M. Genitalium	• 14–21 days after treatment is completed

6. Referral/consultation[2]

- Chlamydia and gonorrhoea are notifiable (laboratory will notify) ➂
- Trichomonas is notifiable in the NT

HMP Bacterial vaginosis - adult

Background[1]

- Bacterial vaginosis (BV) is caused by an overgrowth of vaginal bacteria. Is often asymptomatic
- BV is not considered an STI, however it can be acquired through sexual activity

1. May present with[1]

- Pathology has organisms consistent with BV (eg *Gardnerella*) or clue cells present
- If symptoms - thin grey white vaginal discharge (offensive 'fishy' smelling) ± mild vulval irritation

2. Immediate management

Not applicable

3. Clinical assessment[1]

- BV may be diagnosed clinically if 3 or 4 of the following criteria are present:
  - thin white/grey discharge
  - vaginal fluid pH › 4.5 - take a swab and test using pH paper
  - offensive smelling 'fishy' vaginal odour
  - vaginal swab results positive for clue cells
- If discharge, do STI/BBV tests, p. 448 + self collected vaginal charcoal swab for MCS (with slide)[1]

4. Management[1,2]

- If symptomatic, treat with oral metronidazole or PV clindamycin:
  - **note:** 7 day course is preferred to help prevent recurrence
- If no symptoms, treatment is not usually needed. Treat if:
  - woman requests treatment, OR
  - undergoing an invasive genital tract procedure eg insertion of an IUD
- Advise:
  - avoid douching (cleaning inside vagina) eg with soaps, bubble bath, female hygiene products
  - recurrence is common
  - treatment of partner(s) is not usually needed. If female partner, assessment recommended[1]

S4	Metronidazole			Extended authority ATSIHP/IHW/IPAP/RIPRN/SRH
ATSIHP, IHW, IPAP and RN must consult MO/NP				
RIPRN and SRH may proceed				
Form	**Strength**	**Route**	**Dose**	**Duration**
Tablet	200 mg 400 mg	Oral	400 mg bd	7 days
			OR	
			2 g	stat
Offer CMI: Avoid alcohol for 24 hours after taking. Take with food to reduce stomach upset. May cause nausea, anorexia, abdominal pain, vomiting, diarrhoea, metallic taste, dizziness or headache				
Pregnancy: Safe to use. Give in divided doses if possible				
Management of associated emergency: Consult MO/NP. See Anaphylaxis, p. 82 [1-3]				

S4	Clindamycin			Extended authority ATSIHP/IHW/IPAP/RIPRN/SRH
ATSIHP, IHW, IPAP and RN must consult MO/NP				
RIPRN and SRH may proceed				
Form	**Strength**	**Route**	**Dose**	**Duration**
Cream	2%	PV	1 applicator full nocte	7 nights
Offer CMI: Cream may damage latex contraceptive devices and for up to 72 hours after last dose. May cause local irritation or thrush				
Pregnancy: Safe to use				
Contraindication: Allergy to clindamycin or lincomycin				
Management of associated emergency: Consult MO/NP. See Anaphylaxis, p. 82 [1,2,4]				

5. Follow up

- Not required[1]

6. Referral/consultation

- Consult MO/NP if recurrent

HMP Vaginal thrush (candidiasis) - adult

Background[1]

- *Candida* species can be normal flora - do not need treatment if asymptomatic. Can occur spontaneously or as a result of disturbance to vaginal flora eg antibiotics. **Not an STI**

1. May present with[1]

- White 'curd' or 'cottage cheese' vaginal discharge
- Genital/vulval itch, discomfort
- ± painful sex, dysuria, excoriation, redness, fissures, swelling of vulval area

2. Immediate management

Not applicable

3. Clinical assessment[1]

- Get history and offer relevant examination. See STI/BBV assessment, p. 445
- Consider swab for culture (self collected LVS)[2]

4. Management[1]

- Consult MO/NP if symptoms are severe or recurrent (≥ 4 acute episodes/year)
- If no symptoms, treatment is not needed
- If symptomatic, treat with PV clotrimazole. Repeat course once if needed:[2]
  - if pregnant, use the 6 night course[1,3]
- Advise:
  - male sex partners only need treatment if symptomatic eg red rash on genitals ± itchy[1]
  - no evidence that specific diets or use of probiotics influence recurrence of thrush
  - avoid local irritants eg soaps, bubble baths, vaginal lubricants/hygiene products

S3	Clotrimazole			Extended authority ATSIHP/IHW/IPAP/SRH
ATSIHP, IHW, IPAP and RN must consult MO/NP				
MID, RIPRN and SRH may proceed				
Form	**Strength**	**Route**	**Dose**	**Duration**
Pessary	500 mg	PV	1 pessary nocte	single dose
	100 mg			6 nights
OR				
Vaginal cream	1%	PV	1 applicator full nocte	6 nights
Offer CMI: Complete course even if symptoms gone. Can damage latex contraceptive devices - do not use during treatment. If pregnant insert vaginal applicator with care				
Management of associated emergency: Consult MO/NP. See Anaphylaxis, p. 82 [1-3]				

5. Follow up

- If swabs taken, follow up results. Consult MO/NP if *Candida glabrata* for alternative treatment[1,3]
- Advise to return if symptoms persist after treatment
- Consider diabetes, HIV infection or other causes of immunosuppression if poorly controlled[1]

6. Referral/consultation

- As above

HMP Epididymo-orchitis - adult

Background[1]

- Inflammation of the epididymis and occasionally the testes
- Most common cause in men aged < 35 years is chlamydia or gonorrhoea. However, may be caused from a number of bacterial or viral infections eg enteric organisms (*E. coli*), mumps, syphilis, melioidosis[2]

1. May present with[1]

- Pain and swelling in the testes/scrotum - usually only one side

2. Immediate management[1]

- If sudden onset or severe pain treat as Testicular torsion, p. 209 until proven otherwise
- **Testicular torsion must be excluded in anyone with testicular pain - a medical emergency**

3. Clinical assessment[1-3]

- Get history, including:
  - onset - gradual/sudden
  - severity
  - location/radiation of pain eg to abdomen, suprapubic area
  - other symptoms - fever, penile discharge, dysuria, nausea, vomiting, viral illness
  - recent IDC/instrumentation to urinary tract
  - STI/BBV assessment, p. 445
  - recent trauma to testes

- Do vital signs +
  - urinalysis and MSU for MCS
  - STI/BBV tests, p. 448 as per someone with symptoms
- Examine testes:[1-3]
  - check for tender epididymis (tubular structure at back of testicle, running in sagittal plane)
  - swelling, redness, hot
  - position - normal or pulled up
  - check cremasteric reflex - pinch or stroke the skin of the upper thigh. The testicle on the same side should elevate via contraction of the muscle (should be intact. If not intact likely testicular torsion)
- **Assess against differential diagnosis table in** Testicular/scrotal pain, p. 209

4. Management

- Always consult MO/NP
- Offer analgesia. See Acute pain, p. 32
- If sexually active, treat now for chlamydia + gonorrhoea - **do not wait for pathology results**:[1,2]
  - IM ceftriaxone* stat **+ EITHER** azithromycin stat + repeat in 1 week **OR** doxycycline for 14 days
  - ***note:** if area has high penicillin susceptibility to gonorrhoea (as advised by local sexual health specialist or AMS program), MO/NP may advise to replace ceftriaxone with amoxicillin + probenecid. See Chlamydia, gonorrhoea, trichomonas, m. genitalium, p. 452 for drug boxes
- If not sexually active, is usually caused by an organism from the urinary tract:
  - MO/NP may order oral antibiotics eg trimethoprim 300 mg daily for 2 weeks[2]
- Advise:
  - bed rest, regular analgesia eg paracetamol, cool compresses and scrotal support as needed[1]
  - should see improvement in 4–5 days. Swelling can take several weeks to go away completely
- If STI likely, advise:
  - no sexual activity for **7 days** after treatment completed
  - ask for names of sexual partners from prior **6 months** and start Contact tracing, p. 450
  - no sex with partners from prior **6 months** until they have been tested + treated if needed
  - use condoms
  - offer advice/fact sheet(s) about STI/BBVs

S4	**Ceftriaxone**			**Extended authority** ATSIHP/IHW/IPAP/RIPRN/SRH
ATSIHP, IHW, IPAP and RN must consult MO/NP				
RIPRN and SRH may proceed				
Form	**Strength**	**Route**	**Dose**	**Duration**
Injection	1 g	**IM** Reconstitute with lidocaine (lignocaine) 1% 3.5 mL to make up 1 g/4 mL	500 mg (2 mL)	stat Give by deep injection into gluteal muscle
Offer CMI: May cause nausea, diarrhoea, rash, headache or dizziness				
Note: If renal impairment seek MO/NP advice				
Contraindication: Severe or immediate allergic reaction to a cephalosporins or a penicillin. Be aware of cross-reactivity between penicillins, cephalosporins and carbapenems				
Management of associated emergency: Consult MO/NP. See Anaphylaxis, p. 82 [1,2,4]				

S4	Azithromycin			Extended authority ATSIHP/IHW/IPAP/RIPRN/SRH
ATSIHP, IHW, IPAP and RN must consult MO/NP				
RIPRN and SRH may proceed				
Form	**Strength**	**Route**	**Dose**	**Duration**
Tablet	500 mg	Oral	1 g	stat and repeat in 1 week
Offer CMI: May cause rash, diarrhoea, nausea, abdominal cramps or thrush				
Management of associated emergency: Consult MO/NP. See Anaphylaxis, p. 82 [1,2,5]				

S4	Doxycycline			Extended authority ATSIHP/IHW/IPAP/RIPRN/SRH
ATSIHP, IHW, IPAP and RN must consult MO/NP				
RIPRN and SRH may proceed				
Form	**Strength**	**Route**	**Dose**	**Duration**
Tablet	50 mg, 100 mg	Oral	100 mg bd	14 days
Offer CMI: Take with food or milk to reduce stomach upset. May cause nausea, vomiting, diarrhoea, epigastric burning, tooth discolouration or photosensitivity. Take with a large glass of water. Do not lie down for an hour after taking. Do not take iron, calcium, zinc or antacids within 2 hours. Avoid sun exposure				
Contraindication: Serious allergy to tetracyclines. Taking oral retinoids				
Management of associated emergency: Consult MO/NP. See Anaphylaxis, p. 82 [1,2,6]				

5. Follow up

- Advise review:
  - **next day**, or sooner if concerned or increased pain/swelling. If not improving, consult MO/NP. May need referral for USS
  - **in 4–5 days:**
    - check response to treatment, review pathology results and reassess treatment as needed
    - if pain and swelling have not substantially reduced, consult MO/NP. Antibiotics may need continuing for up to 3 weeks[2]
    - **if STI related:**[1]
      - ensure contact tracing underway[1]
      - needs test for re-infection/proof of cure (for gonorrhoea) in **3 months**

6. Referral/consultation

- In severe cases, treatment may need to be continued for up to 3 weeks. Seek specialist advice[1]

HMP Low abdominal pain in female/person with uterus
Probable pelvic inflammatory disease (PID)

Recommend

- Consider ectopic pregnancy in all women who present with abdominal pain
- PID must be considered in all sexually active people with a uterus with low abdominal pain. Prompt treatment is essential to avoid long-term problems eg infertility[1]
- Diagnosis of PID is clinical. **Do not wait for pathology results** - response to treatment confirms the diagnosis

Background[1]

- PID is a syndrome comprising a spectrum of inflammatory disorders of the upper genital tract, including any combination of endometritis, salpingitis, tubo-ovarian abscess and pelvic peritonitis - varies in severity and symptoms
- Cause may be polymicrobial, STIs, vaginal bacteria, or unknown (up to 70% of cases)[1]

1. May present with[1]

- Low pelvic pain - like period pain:
  - typically bilateral - may worsen with movement and localise to one side
  - may refer to upper right quadrant
- May also have:
  - painful deep sex (dyspareunia), vaginal discharge or bleeding (spotting) eg between menstrual periods/after sex, or heavy/long periods
  - fever, nausea, vomiting - indicates severe infection

2. Immediate management

- Vital signs
- **Do pregnancy test** - if +ve assume Ectopic pregnancy, p. 371 until proven otherwise:
  - urgently consult MO/NP
- If severe pain:
  - offer analgesia. See Acute pain, p. 32
  - do rapid history and assessment. See Abdominal pain, p. 196
  - insert IVC
  - nil by mouth
  - urgently consult MO/NP, who will advise further management/arrange evacuation

3. Clinical assessment[1,2]

- Get history of pain. Also ask about:
  - dysuria/frequency of urine
  - fever, nausea, vomiting, any other symptoms
  - date of last menstrual period
  - sexual history. See STI/BBV assessment, p. 445
  - recent uterine instrumentation eg termination of pregnancy, IUD insertion, fertility/IVF
  - prior PID
- Do examination as per Abdominal pain, p. 196 +
  - urinalysis - any nitrites, leucocytes
  - STI/BBV tests, p. 448 as per someone with symptoms

- If clinician skilled, do speculum/bimanual examination:[1]
  - PID likely if cervical motion tenderness, uterine/adnexal tenderness ± cervical discharge
  - get HVS for chlamydia, gonorrhoea, trichomonas and m. genitalium + offer CST if due
  - **note:** ability to do speculum/bimanual examination is **not essential** for presumptive diagnosis and treatment of PID[1]
- Use the following table as a guide to differential diagnoses

Differential diagnosis - low abdominal pain in female/person with uterus[1,3]

Possible causes (may be multiple)	**Clues to diagnosis**
Pregnancy test +ve • Ectopic pregnancy	• Assume Ectopic pregnancy, p. 371 until proven other wise • **Medical emergency**
Pregnancy test –ve • Consider: – PID – UTI – ovarian cyst or tumour/abscess – appendicitis – pelvic adhesions – endometriosis – uterine fibroids – diverticulitis • Also see Abdominal pain, p. 196	• **PID is likely if any of:**[1] – low abdominal pain alone is present – new onset of pelvic pain in women < 25 years (highly predictive of PID) – sexually active and living in an area where gonorrhoea, chlamydia and m. genitalium are common – recent sexual partner change, partner with STI/symptoms, recent uterine instrumentation or pregnancy • Rapid response to treatment is highly predictive of PID
	• UTI - adult, p. 295 is likely if presence of nitrites or leucocytes PLUS prominent symptoms of dysuria and frequency
	• **Appendicitis** - typically pain moves from umbilicus to right iliac fossa; low grade fever, anorexia, nausea, vomiting
	• **Endometriosis** - cyclic pain (PID is not cyclic)[3]
	• **Uterine fibroids/diverticulitis** - uncommon in women < 40
	• **Ovarian tumour** - bloating, feeling full quickly, frequent or urgent urination. More common > 50 years

4. Management[1]

- Offer analgesia. See Acute pain, p. 32
- Consult MO/NP if:
  - pregnant
  - abnormal vaginal bleeding
  - diagnosis uncertain, PID unlikely, or surgical emergency cannot be excluded
  - **severe PID suspected** - severe pain or systemically unwell eg nausea, vomiting, fever
- **If severe PID** suspected:
  - consult MO/NP, who may advise IV antibiotics + evacuation/hospitalisation
- **If mild–moderate PID** suspected:
  - start antibiotics immediately - **do not wait for pathology results**
  - pain responds quickly to antibiotic treatment (this helps confirm the diagnosis)
  - **advise patient:**
    - the pain should resolve within 3 days
    - current sexual partner(s) need to be treated for chlamydia (and gonorrhoea if likely) as soon as possible, irrespective of pathology results[4]
    - no sex for 7 days after treatment **AND** symptoms gone[1] **AND** current partner(s) has been treated
    - when and how they will get pathology results

- about PID/complications if untreated. Offer fact sheet eg https://www.staystifree.org.au/get-the-facts/pelvic-inflammatory-disease

Antibiotics for suspected mild–moderate PID[1,2]

- IM ceftriaxone* stat **PLUS** oral doxycycline for 14 days **PLUS** oral metronidazole for 14 days:
  - ***note:** if area has high penicillin susceptibility to gonorrhoea (as advised by local sexual health specialist or AMS program), replace ceftriaxone with amoxicillin + probenecid. See Chlamydia, gonorrhoea, trichomonas, m. genitalium, p. 452 for drug boxes
- If pregnant/breastfeeding OR not likely to adhere to doxycycline, replace doxycycline with azithromycin single dose, repeated 1 week later[1,2]

S4	Ceftriaxone			Extended authority ATSIHP/IHW/IPAP/RIPRN/SRH
ATSIHP, IHW, IPAP and RN must consult MO/NP				
RIPRN and SRH may proceed				
Form	**Strength**	**Route**	**Dose**	**Duration**
Injection	1 g	**IM** Reconstitute with lidocaine (lignocaine) 1% 3.5 mL to make up 1 g/4 mL	500 mg (2 mL)	stat Give by deep injection into gluteal muscle
Offer CMI: May cause nausea, diarrhoea, rash, headache or dizziness				
Note: If renal impairment seek MO/NP advice				
Contraindication: Severe or immediate allergic reaction to a cephalosporins or a penicillin. Be aware of cross-reactivity between penicillins, cephalosporins and carbapenems				
Management of associated emergency: Consult MO/NP. See Anaphylaxis, p. 82 [1,2,5]				

S4	Doxycycline			Extended authority ATSIHP/IHW/IPAP/RIPRN/SRH
ATSIHP, IHW, IPAP and RN must consult MO/NP				
RIPRN and SRH may proceed				
Form	**Strength**	**Route**	**Dose**	**Duration**
Tablet	50 mg, 100 mg	Oral	100 mg bd	14 days
Offer CMI: Take with food or milk to reduce stomach upset. May cause nausea, vomiting, diarrhoea, epigastric burning, tooth discolouration or photosensitivity. Take with a large glass of water. Do not lie down for an hour after taking. Do not take iron, calcium, zinc, or antacids within 2 hours. Avoid sun exposure				
Pregnancy: Safe in the first 18 weeks				
Contraindication: Serious allergy to tetracyclines. Taking oral retinoids. After 18 weeks of pregnancy				
Management of associated emergency: Consult MO/NP. See Anaphylaxis, p. 82 [1,8]				

S4	Metronidazole			Extended authority ATSIHP/IHW/IPAP/RIPRN/SRH
ATSIHP, IHW, IPAP and RN must consult MO/NP				
RIPRN and SRH may proceed				
Form	**Strength**	**Route**	**Dose**	**Duration**
Tablet	200 mg, 400 mg	Oral	400 mg bd	14 days
Offer CMI: Avoid alcohol while taking and for 24 hours after finishing the course. Take with food to reduce stomach upset. May cause nausea, anorexia, abdominal pain, vomiting, diarrhoea, metallic taste, dizziness or headache				
Management of associated emergency: Consult MO/NP. See Anaphylaxis, p. 82 [1,6]				

S4	Azithromycin			Extended authority ATSIHP/IHW/IPAP/RIPRN/SRH
ATSIHP, IHW, IPAP and RN must consult MO/NP				
RIPRN and SRH may proceed				
Form	**Strength**	**Route**	**Dose**	**Duration**
Tablet	500 mg	Oral	1 g	stat and repeat in 1 week
Offer CMI: May cause rash, diarrhoea, nausea, abdominal cramps or thrush				
Management of associated emergency: Consult MO/NP. See Anaphylaxis, p. 82 [1,7]				

5. Follow up[1]

- Follow up pathology results. If positive for an STI(s):
  - if m. genitalium ADD moxifloxacin 400 mg for 14 days. Requires MO/NP order from pharmacy[1]
  - start contact tracing + advise **test of cure** and **retesting**. See Chlamydia, gonorrhoea, trichomonas, m. genitalium, p. 452 for guidance
- **Advise review on day 3** or sooner if pain or symptoms worsen or concerned:
  - check taking tablets, ask if symptoms subsiding + ensure current partner(s) treated for chlamydia ± gonorrhoea and had STI/BBV tests
  - if pain/symptoms not improved or worsened, consult MO/NP for further evaluation ± hospitalisation and IV antibiotics
- **Advise review again in 1 week:**
  - repeat pregnancy test if indicated
  - ensure pathology results given

6. Referral/consultation

- If pain recurs, reassess for PID and consult MO/NP for further evaluation

HMP Anogenital ulcers/lumps - adult

Recommend[1]

- Syphilis must be considered for any genital sore, particularly in Aboriginal and Torres Strait Islander people, men who have sex with men (MSM), female partners of MSM and people who use drugs

Background[2]

- There is currently an outbreak of syphilis in Aboriginal and Torres Strait Islander populations in Qld, NT, WA and SA. In these areas, all genital ulcers should be considered to be potential syphilis
- **Ulcers** can be caused from herpes (most common), syphilis, or rarely donovanosis or lymphogranuloma venereum (LGV)
- **Lumps** (papules/nodules/vesicles) can be caused from HPV (warts), herpes simplex virus or syphilis

1. May present with

- Lumps, sores or ulcers in the genital/anogenital area

2. Immediate management   Not applicable

3. Clinical assessment[1,2]

- Get history as per STI/BBV assessment, p. 445. Also ask about:
  - onset date (if known) of sore/symptoms
  - location/duration
  - characteristics of ulcers/lumps eg itching, painful, tingling
  - any fever, headache, muscle aches and pains, rashes
  - previous episodes of genital sores, when/how (if) treated
  - prior syphilis (check records) or herpes
  - does current partner have symptoms/signs of an STI
  - recent overseas travel; where, did they have sex while overseas
- Do vital signs
- Do physical examination, including:
  - skin for rash - also check palms of hands and soles of feet
  - genital and anal area - lump(s), sore(s)/ulcer(s), vesicle(s), discharge
  - mouth - ulcers/mucous patches
  - enlarged ± tender lymph nodes - groin, armpits and neck
  - any patchy hair/eyebrow loss
- Do:
  - STI/BBV tests, p. 448 as per someone with symptoms
  - + swab of ulcer/sore for syphilis and herpes PCR (from base of lesion or deroofed vesicle)
  - pregnancy test if female of reproductive age

Common causes of anogenital lumps and sores (infections can co-exist)[2]

	Genital herpes	Syphilis	Anogenital warts
Typical sores/ lumps	• Single or multiple skin splits or cluster of blisters • Break down to form small shallow ulcers • Surrounding skin may be inflamed • Initial episodes may be severe with extensive ulceration and systemic features	• **Primary** - (chancre) usually 1 ulcer or sore with well defined edges and hard/firm base, does not bleed - feels like a hard button on the skin[1] • Multiple lesions can occur • Can also occur on anal skin, cervix or in mouth/lips • **Secondary** - (condylomata lata) multiple warty (large, raised, whitish or grey, flat-topped) growths in anogenital/warm/moist areas.[1] May have rash on trunk or just palms and soles + patchy hair loss	• Warty growths in and around genital skin • Solid lump • May be seen on cervix in female • Less common since HPV vaccine started
Painful	• Itchy/tingling • May be painful	• Usually painless • Can be painful if infected	• Little discomfort, sometimes itchy • Can be painful, on moist areas, anus/labia
Enlarged lymph nodes	• Yes/no	• Usually enlarged, rubbery and non-tender	• No
Heals without treatment	• Yes, within 1–2 weeks • May recur	• Yes, primary sores heal within a few weeks. Secondary lesions may come and go over 12–24 months	• Yes/no • May resolve after 1–2 years[3]

Other causes of genital sores/ulcers to consider[2]

- Scabies/impetigo, folliculitis, normal anatomical variations, immunological conditions, trauma, cancer, Crohn's disease
- ***Molluscum contagiosum* virus** - multiple pearl like, smooth papules, with small depression, usually in groin and inner thigh in adults. Common in children[4]
- **Donovanosis** (rare) - shallow ulcers, bleed on contact or raised 'beefy' lesions or combination. Usually painless, no enlarged lymph nodes. Does not heal without treatment - gets larger over time
- **Lymphogranuloma venereum (LGV)** (rare) - small ulcer/nodule on penis/vulva/anus (may go unnoticed), proctitis. More likely in MSM

4. Management[1,2]

- There is currently an outbreak of syphilis in Aboriginal and Torres Strait Islander populations in Qld, NT, WA and SA. In these areas, all genital ulcers should be considered to be potential syphilis[1]
- Offer analgesia. See Acute pain, p. 32
- **If syphilis suspected or unsure:**
  - give benzathine benzylpenicillin (Bicillin LA®) (single dose) as per drug box in Syphilis, p. 468
  - **do not wait for pathology results**
  - notify Qld Syphilis Surveillance Service (QSSS) ✆ 1800 032 238 or North-Qld-Syphilis-Surveillance-Centre@health.qld.gov.au or QLD-Syphilis-Surveillance-Service@health.qld.gov.au. If outside Qld, your local Public Health Unit/syphilis register
- **If genital warts suspected** consider condylomata lata (syphilis) as differential diagnosis:
  - swab the lesion and presumptively treat as syphilis if in an outbreak area. If syphilis result is negative, then treat as Anogenital warts, p. 474
- **If lesions typical of genital herpes:**
  - treat as per Genital herpes, p. 472
  - do not wait for pathology results

5. Follow up

- Follow up pathology results:
  - if primary syphilis, there may be a false –ve result in early infection. Repeat syphilis serology after 2 weeks if clinically suspicious
- Advise to be reviewed in **1 week**, or sooner if concerned:
  - check lesion(s), advise patient of pathology results
- Consult MO/NP if sores/ulcers do not respond to treatment, who may consider differential diagnoses/biopsy for histology

6. Referral/consultation[1]

- Suspected and confirmed syphilis is notifiable ✆. Contact QSSS ✆ 1800 032 238. If outside Qld, contact your local Public Health Unit/syphilis register

HMP Syphilis - adult

Recommend[1,2]

- Regular screening and prompt treatment for syphilis in high risk people eg:
  - Aboriginal and Torres Strait Islander people in Qld, NT, WA and SA
  - men who have sex with men (MSM); female partners of MSM
  - pregnant women
  - people in correctional facilities
- Manage all syphilis in collaboration with the Qld Syphilis Surveillance Service (QSSS):
  - ☎ 1800 032 238 North Qld North-Qld-Syphilis-Surveillance-Centre@health.qld.gov.au; South Qld QLD-Syphilis-Surveillance-Service@health.qld.gov.au. If outside Qld, your local Public Health Unit/syphilis register

Background

- There is currently an outbreak of syphilis in Aboriginal and Torres Strait Islander populations in Qld, NT, WA and SA[1]
- There have been several deaths from congenital syphilis in Qld (baby acquires syphilis during pregnancy). This is completely preventable with adequate testing and management
- Resource - *Decision making in syphilis* https://www.ashm.org.au/resources

1. May present with[1,2]

- Symptoms suggesting syphilis (see table below)
- Positive pathology results
- Sexual contact of someone who has syphilis confirmed by pathology OR with symptoms of syphilis

Symptoms of syphilis (can vary). Often no symptoms[1]		
Infectious syphilis	**Primary syphilis** 10–90 days after infection	• Ulcer(s) or chancre(s) at site of infection - painful or painless: – single or multiple. Well-defined margin + hard/firm base – goes way within a few weeks; may go unnoticed • Inguinal lymph nodes enlarged, rubbery and non tender[1]
	Secondary syphilis 4–10 weeks after onset of primary lesion	• Rash - on trunk; may just affect palms and soles (can be dry/scaly) • Patchy hair loss eg part of eyebrow • Condylomata lata (warty growths in anogenital region) - large, raised, whitish or grey, flat-topped • Mucous patches - oral/genitals (painful or painless) • Fever, malaise, headache, ocular or CNS symptoms, enlarged lymph nodes • Symptoms slowly go away after 3–12 weeks, but may recur
	Early latent syphilis	• Infectious syphilis of < 2 years duration • Positive syphilis serology with no clinical signs or symptoms
Late latent syphilis		• Syphilis > 2 years duration. Can be asymptomatic for many years
Tertiary syphilis		• Occurs in about 1/3 of untreated people • Skin lesions (gummas), cardiovascular or neurological disease

2. Immediate management

Not applicable

3. Clinical assessment[1,2]

- Do STI/BBV assessment, p. 445 + ask about:
  - symptoms of syphilis - what, onset, duration + ask if any symptoms in last 2 years
  - sexual history + does current partner have symptoms of syphilis
  - prior diagnosis of syphilis - year of diagnosis, dates of treatment, where done
- Do physical examination, including:
  - vital signs
  - look for any signs of syphilis
  - pregnancy test if female of reproductive age
  - STI/BBV tests, p. 448 if not done already
- Get prior syphilis serology results - check medical record + contact QSSS ✆ 1800 032 238

4. Management[1-3]

- **Treat now** as **'infectious syphilis'** (do not wait for pathology results) **if**:
  - symptoms suggest syphilis
  - **OR** person is a sexual contact of someone with:
    - symptoms of syphilis **OR**
    - positive pathology results for syphilis
- Give benzathine benzylpenicillin (Bicillin LA®) (**single dose**) if not allergic:
  - advise QSSS that you are treating + why

Pathology results

- Syphilis serology can be hard to interpret. 'Reactive' does not always mean current infection or treatment needed
- If PCR swab of lesion done, diagnosis of syphilis can be confirmed by presence of *T. pallidum*[1]

Syphilis serology			
EIA, TPPA^ TPHA, FTA	RPR#	**Likely interpretation**	**Action**
Non reactive	**Non reactive**	• No syphilis, OR • Incubating syphilis	• No action • If you still suspect syphilis eg symptoms, contact QSSS ± treat today
If any of below contact QSSS ✆ **1800 032 238** Will help interpret results, work out stage of syphilis + advise treatment			
Reactive	**Reactive**	• Could be current OR prior infection	• Check RPR titre against prior RPR titre(s)# • Assume new infection if ≥ 2 titre (4 fold) ↑ compared to last titre (regardless of what the titre is) eg 1:4 is now 1:16 or more • Ask about history of symptoms of syphilis
Non reactive	**Reactive**	• May be false positive	• Retest after 2–4 weeks
Reactive *May be false positive if only 1 reactive*	**Non reactive**	• Primary or latent syphilis OR prior treated syphilis	• Ask about history of symptoms of syphilis • Retest after 2–4 weeks if suspected false positive

#A reactive RPR may be reported as a 'titre' eg: 1:1, 1:2, 1:4, 1:8, 1:16, 1:32, 1:64, 1:128 etc. The titre rises in early infection and falls over 2 years, regardless of treatment. It is measured by serial dilutions
^If prior treated syphilis, since the EIA and TPPA tests are usually positive for life, only an RPR test is needed to detect reinfection or treatment success[1]

Syphilis in pregnancy[3]

- If syphilis suspected or confirmed in a pregnant woman OR her partner:
  - treat both URGENTLY in consultation with specialist MO + QSSS
  - diagnosis and treatment is the same as for a non-pregnant woman, although more frequent follow up may be needed
- Refer to Qld Clinical Guideline *Syphilis in pregnancy* https://www.health.qld.gov.au/qcg/publications
- For testing in pregnancy, see Antenatal care, p. 364. Extra testing needed if Increased/high risk of syphilis, p. 368

Treatment

- Treat with benzathine benzylpenicillin (Bicillin LA®) as per stage of syphilis/QSSS advice
- Take syphilis serology on 1st day of treatment - assists with syphilis staging + to use as a baseline to monitor response to treatment (do serology again if recently done)

<table>
<tr><th>S4</th><th colspan="3">Benzathine benzylpenicillin
(Bicillin LA®)</th><th>Extended authority
ATSIHP/IHW/IPAP/MID/RIPRN/SRH</th></tr>
<tr><td colspan="5">ATSIHP, IHW, IPAP and RN must consult MO/NP</td></tr>
<tr><td colspan="5">MID, RIPRN and SRH may proceed</td></tr>
<tr><th>Form</th><th>Strength</th><th>Route</th><th>Dose</th><th>Duration</th></tr>
<tr><td rowspan="2">Prefilled syringe</td><td rowspan="2">1.2 million units/2.3 mL (900 mg)</td><td rowspan="2">IM</td><td rowspan="2">2.4 million units (1.8 g)
2 prefilled syringes</td><td>Infectious syphilis
Single dose stat</td></tr>
<tr><td>Late latent syphilis or of unknown duration
Once a week for 3 weeks</td></tr>
<tr><td colspan="5">Offer CMI: May cause diarrhoea, nausea and pain at injection site. Jarisch-Herxheimer reaction can happen with treatment of early syphilis causing - fever, chills, headache, hypotension, flare up of lesions, preterm labour (but this should not prevent or delay treatment as consequences of untreated syphilis are significantly worse). Lasts for 12–24 hours. Manage with paracetamol as needed</td></tr>
<tr><td colspan="5">Note: Give in 2 separate sites. Ventrogluteal, p. 564 or vastus lateralis preferred. Do not give in deltoid. See Managing injection pain, p. 563</td></tr>
<tr><td colspan="5">Pregnancy: Only penicillin is effective, seek urgent expert advice if allergic[1]</td></tr>
<tr><td colspan="5">Contraindication: Severe or immediate allergic reaction to a penicillin. Be aware of cross-reactivity between penicillins, cephalosporins and carbapenems. Contact QSSS/Public Health Unit</td></tr>
<tr><td colspan="5">Management of associated emergency: Consult MO/NP. See Anaphylaxis, p. 82 [1,3]</td></tr>
</table>

Contact tracing/partner notification[1]

- Do Contact tracing, p. 450 if symptoms of syphilis, or as per 'stage of infection' (QSSS will advise)
- Contacts must be followed up **promptly, URGENTLY if pregnant**. For each contact:
  - STI/BBV tests, p. 448 including syphilis serology
  - ask about/check for symptoms of syphilis - prior or current
  - treat immediately with benzathine benzylpenicillin (Bicillin LA®) single dose. Do not wait for pathology results
- Contact QSSS if having problems with contact tracing

Stage of infection	How far to trace back, test + treat
Primary syphilis	• 3 months + duration of symptoms or last negative test
Secondary syphilis	• 6 months + duration of symptoms or last negative test
Early latent syphilis or unknown origin	• 12 months or from most recent negative test
Late latent/tertiary syphilis	• Current partner(s). If any doubt as to whether the patient has early late or late latent syphilis, contact trace as for early latent syphilis

In all cases

- If treated for infectious syphilis - **no sex** for **7 days** after treatment of patient and partner(s)
- Offer fact sheet eg https://youngdeadlyfree.org.au/resources/factsheets/
- Continue having regular STI/BBV checks + use condoms

5. Follow up

- Follow up pathology results. **Note:** all reactive results automatically get sent to QSSS
- Advise to return in **1–2 weeks** to check:
  - response to treatment (if symptoms)
  - any other contacts they have thought of
  - give pathology results
- **If 3 dose treatment** - ensure patient is followed up for each dose:
  - notify QSSS when dose(s) given
  - if a weekly dose is missed consult QSSS for advice
- **Follow up at 3, 6 and 12 months for infectious syphilis** to monitor response to treatment:
  - do repeat syphilis serology + STI/BBV tests, p. 448 each time
  - a 2 titre or 4 fold fall in RPR by 6 months indicates adequate response eg 1:32 is now 1:8, or 1:128 is now 1:32
  - do in collaboration with QSSS

6. Referral/consultation

- Suspected and confirmed syphilis is notifiable ☎:
  - contact QSSS ☎ 1800 032 238 North-Qld-Syphilis-Surveillance-Centre@health.qld.gov.au (North Qld) or QLD-Syphilis-Surveillance-Service@health.qld.gov.au (South Qld)
  - if outside Qld, your local Public Health Unit/syphilis register

HMP Genital herpes simplex virus (HSV) - adult

Recommend[1]

- Syphilis must be considered for any genital sore, particularly in Aboriginal and Torres Strait Islander people, men who have sex with men (MSM), female partners of MSM and people who use drugs

Background

- HSV is the most common cause of genital ulcer disease in Australia[2] and is often acquired without symptoms.[1] More than 50% of initial genital episodes are now caused by HSV type 1[1]

1. May present with[1,2]

- Recurrent skin splits, ulcers or blisters in anogenital area
- Redness with itching/tingling, may be painful
- Initial episodes may be severe with extensive ulceration and systemic features eg fever, headache

2. Immediate management

Not applicable

3. Clinical assessment[1,2]

- Get history + do examination as per STI/BBV assessment, p. 445
- Ask if prior herpes/cold sores
- Do vital signs
- Do pregnancy test if female of reproductive age
- If no prior history of herpes, or not typical (for patient) of recurrent herpes infections, do:
  - STI/BBV tests, p. 448 as per someone with symptoms
  - swab of ulcer/sore for syphilis and herpes PCR (from base of lesion or deroofed vesicle)[2]

4. Management[1,2]

- Consider differential diagnoses as per Anogenital ulcers/lumps, p. 465
- If clinically suggestive of herpes:
  - treat with valaciclovir (do not wait for pathology results) - can shorten episode if started within 72 hours of symptom onset
  - **if pregnant** consult MO/NP for treatment
- If herpes likely, but uncertain:
  - also treat presumptively as Syphilis, p. 468 + notify Qld Syphilis Surveillance Service ✆ 1800 032 238. If outside Qld, your local Public Health Unit/syphilis register
- Advise:
  - antiviral treatment does not cure herpes, but can lesson severity/symptoms
  - **for relief of pain**/symptoms:
    - take paracetamol. See Acute pain, p. 32
    - lidocaine (lignocaine) gel or similar may be tried
    - saline/salt water bathing
    - urinate while in bath or shower to relieve dysuria
  - condom use with ongoing + new partners, as can be transmitted without symptoms
- Offer fact sheet eg http://conditions.health.qld.gov.au/HealthCondition/condition/14/188/62/genital-herpes
- Contact tracing not needed[1]

- **For recurrent episodes**:[1]
  - offer supply of valaciclovir or famciclovir for patient to keep with them for prompt initial treatment at the onset of symptoms eg itching/tingling
  - suppressive therapy (continuous or interrupted) may be prescribed by MO/NP if frequent episodes. Can reduce recurrences by 70%–80% and halve the rate of transmission[2]

S4	Valaciclovir			Extended authority ATSIHP/IHW/IPAP/RIPRN/SRH
ATSIHP, IHW, IPAP and RN must consult MO/NP				
RIPRN and SRH may proceed				
Form	**Strength**	**Route**	**Dose**	**Duration**
Tablet	500 mg	Oral	500 mg bd	**First episode** 10 days. If responds quickly, stop after 5 days **Recurrent episodes** 3 days
Offer CMI: Drink plenty of fluids - at least 1.5 L/day. May cause dizziness or confusion				
Note: If renal impairment seek MO/NP advice				
Pregnancy: Aciclovir preferred. Valaciclovir may be used from 36 weeks gestation				
Contraindication: Allergy to valaciclovir or aciclovir				
Management of associated emergency: Consult MO/NP. See Anaphylaxis, p. 82 [1,3]				

S4	Famciclovir			Extended authority ATSIHP/IHW/IPAP/RIPRN/SRH
ATSIHP, IHW, IPAP and RN must consult MO/NP				
RIPRN and SRH may proceed				
Form	**Strength**	**Route**	**Dose**	**Duration**
Tablet	250 mg	Oral	1 g bd	**Recurrent episodes** 1 day
Offer CMI: May cause headache, vomiting or diarrhoea				
Note: If renal impairment seek MO/NP advice				
Pregnancy: Aciclovir preferred				
Contraindication: Allergy to penciclovir				
Management of associated emergency: Consult MO/NP. See Anaphylaxis, p. 82 [1,4]				

5. Follow up[1]

- Follow up pathology results
- Advise to be reviewed in 1 week:
  - give pathology results
  - check response to treatment
  - do STI/BBV tests, p. 448 if unable to do at initial visit
  - provide support/information as required
- If symptoms not resolving, consult MO/NP - consider other causes
- Contact tracing not needed

6. Referral/consultation

- Genital herpes is not notifiable

HMP **Anogenital warts** - adult
Human papilloma virus (HPV)

Recommend[1,2]

- Syphilis must be considered for any genital sore, particularly in Aboriginal and Torres Strait Islander people, men who have sex with men (MSM), female partners of MSM and people who use drugs
- Encourage HPV vaccination

1. May present with[1]

- Warty growths in and around anogenital skin
- Little discomfort, sometimes itchy

2. Immediate management

Not applicable

3. Clinical assessment[1]

- Get history + do examination as per STI/BBV assessment, p. 445
- Do vital signs
- Do STI/BBV tests, p. 448 including syphilis serology
- There is no specific diagnostic test for HPV - usually diagnosed by visual appearance

4. Management[1]

- Consider differential diagnoses as per Anogenital ulcers/lumps, p. 465
- As warts are less common since HPV vaccination, **syphilis may be more likely** - condylomata lata, a symptom of syphilis, also presents as warty like growths. If condylomata lata possible:
  - treat presumptively as Syphilis, p. 468 + notify Qld Syphilis Surveillance Service (QSSS) ✆ 1800 032 238, or if outside Qld, your local Public Health Unit/syphilis register
  - if syphilis result is negative, then treat as genital warts
- **Advise to see MO/NP at next clinic if**:
  - pregnant
  - atypical lesion eg variable pigmentation, raised plaque like lesion(s) or cervical warts. Histology biopsy may be needed to exclude cancer[1]
  - in anus or in urethral opening (male) - may need cryotherapy or surgical management
  - HIV positive
- **Otherwise, for uncomplicated warts, treatment options include**:
  - podophyllotoxin cream or paint (patient can apply):
    - paint is suited for use on external skin
    - cream is best used for the perianal area, vaginal opening and under the foreskin
  - weekly cryotherapy (eg liquid nitrogen or nitrous oxide with cryogun) - by skilled clinician
- Advise:
  - treatment is cosmetic rather than curative. Warts may re-appear after treatment. In most people the virus clears by itself in 1–2 years
  - if warts are in the pubic region avoid shaving or waxing - may facilitate local spreading
  - condoms can help protect against HPV
- Offer fact sheet eg http://conditions.health.qld.gov.au/HealthCondition/home/topic/14/188/sexually-transmitted-diseases

S4	Podophyllotoxin			Extended authority ATSIHP/IHW/IPAP/RIPRN/SRH
ATSIHP, IHW, IPAP and RN must consult MO/NP				
RIPRN and SRH may proceed				
Form	**Strength**	**Route**	**Dose**	**Duration**
Cream	0.15%	Topical	Apply to wart(s) bd	3 days then no treatment for 4 days Repeat as above for up to 4–6 cycles
Paint	0.5%			
Offer CMI: If you have sex, apply the treatment afterwards or wash it off if already applied. May cause burning, inflammation, pain, erosion or itch. Do not use on broken skin. Avoid contact with eyes. Before applying, wash affected area with mild soap and water and allow to dry. Wash hands before and after use; avoid bathing or showering after application				
Note: If possible, clinician to apply the first treatment and instruct the patient in proper use				
Pregnancy: Contraindicated				
Management of associated emergency: Consult MO/NP [1,3,4]				

5. Follow up

- Contact tracing not needed
- Follow up pathology results and advise patient
- Do STI/BBV tests, p. 448 if unable to do at initial visit
- Advise patient to see MO/NP/sexual health RN if symptoms do not resolve or if feeling anxious

6. Referral/consultation

- HPV is not notifiable

Human immunodeficiency virus (HIV) - adult

Recommend

- Normalise HIV testing as much as possible[1]
- If HIV positive **start antiretroviral therapy (ART) as soon as possible** after diagnosis[2]
- If exposed to HIV, offer Post-Exposure Prophylaxis (PEP) within 72 hours[4]
- If HIV negative but at risk of getting HIV, offer Pre-Exposure Prophylaxis (PrEP) to prevent infection[3]

Background[1,2]

- HIV infection is treated with life long ART:
  - treatment is highly effective and people can expect to live a normal/near-normal life expectancy
  - ART reduces viral load of HIV. **Undetectable viral load = Untransmissible**
- Failure to diagnose HIV can result in serious illness and onward transmission to others[1]
- Self test kits are now approved for use in Australia[1] eg https://www.atomohivtest.com/home.php
- **Resources**
  - HIV information/fact sheets eg https://www.afao.org.au/
  - Aboriginal and Torres Strait Islander resources https://www.talktesttreat.com.au/
  - ASHM resources, including *Decision making in HIV* https://www.ashm.org.au/resources

1. May present with[1,2]

- Positive HIV test
- At risk of HIV eg men who have sex with men (MSM); sexual partners of HIV infected people (unless HIV positive person has undetectable viral load); from country with high rates of HIV, people who inject drugs
- Potential exposure to HIV
- Possible HIV infection:
  - acute infection - flu, fever, rash, lymphadenopathy, sore throat, muscle aches, diarrhoea[1]
  - unexplained immunosuppression eg oral thrush, herpes zoster, diarrhoea, weight loss, pneumonia, Kaposi sarcoma, skin infections[2]

2. Immediate management

Not applicable

3. Clinical assessment

- **Testing for HIV**[1]
  - get informed consent as with any other pathology test, including type of test, reasons for testing and potential implications of not being tested
  - a detailed history is not necessary
  - ensure confidentiality and anonymous testing if possible
  - advise when and how patient will get results

HIV blood tests[2]

Test	Consideration
HIV Ag/Ab	**Reactive** - may be positive for HIV, but **needs confirmation** 'true positive'[1] **Non reactive** - negative for HIV. If exposed to HIV, retest after 12 weeks (window)
Western blot	Confirmatory test
HIV p24 antigen	High during HIV primary illness
CD4 lymphocyte	Marker of immune function, usually › 500
HIV RNA (viral load)	Marker of HIV level in serum, should be undetectable if on treatment

4. Management

- The clinician who ordered the test is responsible for following up results

Negative HIV test - if exposed to HIV, advise retest after window period of 12 weeks[1]

Positive HIV test[1,2]

- Get advice from local Sexual Health Service/HIV Public Health team **before** advising patient:
  - if person has done an HIV 'self-test' (or a 'rapid test' done) and is reactive, do HIV serology to confirm
  - check the result is confirmed as a **true positive** - check with lab
  - **results should be given in person (if possible)** by a **clinician experienced in HIV who will**:
    - concurrently offer HIV support/counselling
    - offer/start immediate treatment (ART)[5]- to be prescribed by s100 MO/NP
    - order bloods - CD4, HIV viral load, CHEM20, glucose, lipids, hep A[2]
    - urinalysis + other STI/BBV tests, p. 448
    - screen for TB, p. 255
    - arrange follow up within a few days to see how patient is coping[1] + refer for counselling/give continued support
    - refer for HIV specialist care[1]
    - advise/assist contact tracing and management of contacts

Post-Exposure Prophylaxis (PEP)[4]

- PEP is to reduce risk of HIV after exposure to blood or bodily fluids
- **Immediately after exposure** advise:[4]
  - if wounds/skin exposed, wash with soap and water; if eyes/mucous membranes, irrigate with water (remove contact lenses); do not douche vagina/rectum after sexual exposure; if oral exposure, spit out and rinse mouth with water
- **Assess if PEP may be recommended:**
  - unprotected anal or vaginal sex/condom breakage OR shared injecting equipment with:
    - HIV positive person (not if sexual contact has undetected viral load)
    - person at higher risk of HIV eg MSM
    - person from high HIV prevalent country. See http://aidsinfo.unaids.org/
    - perpetrator(s) of sexual assault - particularly if by multiple people of unknown HIV status[4]
  - **work related exposure** with HIV positive person eg needle stick injury, blood/body fluids
  - if HIV status of source not known, attempt to get urgent HIV test - this should not delay PEP
- **If PEP indicated/unsure:**
  - promptly consult MO/NP with expertise in HIV eg sexual health/infectious disease MO, who may:
    - **risk assess** ± order PEP. **If ordered, start as soon as possible after exposure** *(within 72 hours)*
    - 3 day starter pack should be in clinic (course is 4 weeks)
    - advise pregnancy test + order baseline bloods - HIV (Ab, Ag) LFT, EU + STI/BBV tests, p. 448
    - order follow up bloods
  - **if work related exposure** - source is usually able to be identified and tested for HIV. PEP may be prescribed immediately if definite exposure or if source is at high risk of being HIV positive and unable to be tested immediately[4]
- For more information see PEP guidelines http://www.pep.guidelines.org.au/

Pre-Exposure Prophylaxis (PrEP)[3]

- Recommended for people at risk of HIV transmission:
  - advise to discuss with MO/NP for prescription - can take regularly or 'on-demand'
  - need HIV testing 3 monthly while taking
  - for more information see PrEP guidelines https://prepguidelines.com.au/

5. Follow up[2]

- If HIV diagnosis, will require:
  - close follow up - within a few days to check wellbeing + as needed
  - long-term regular reviews by MO/NP experienced in HIV, in collaboration with usual MO/NP
  - support to adhere to long-term medications as needed
- As needed, see *HIV Monitoring tool (new patient + ongoing patient review)* https://www.ashm.org.au/resources

6. Referral/consultation[2]

- HIV is notifiable (laboratory will notify) ➂
- Refer to social worker/psychologist as needed for ongoing counselling. For further information see *Australian standards for psychological support for adults with HIV* https://www.ashm.org.au/resources/hiv-resources-list/australian-standards-psychological-support-adults-hiv/