CLINIC PRIMER FOR COMMON CONDITIONS

For the Cultured and the Sensitive - The Infectious Diseases Doctor

National Centre for Infectious Diseases

First Edition completed 2021

Collaboration between the Clinical HIV Programme and ID Residency Programme

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HIV Management

Principles of ART Selection

1. Effectiveness of the ARV regimen
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8. Cost-effectiveness

First-Line Regimens

<table>
<tr><th colspan="2">Prescription</th></tr>
<tr><td colspan="2">Preferred</td></tr>
<tr><td colspan="2">Triumeq PO 1 tab OD (Abacavir 600mg/Lamivudine 300mg/Dolutegravir 50mg)
Please ensure HBV negative</td></tr>
<tr><td colspan="2">Biktarvy PO 1 tab OD (Tenofovir alafenamide 25mg/Emtricitabine 200mg/Bictegravir 50mg)</td></tr>
<tr><td colspan="2">Lamivudine PO 300mg OD + Dolutegravir PO 50mg OD

*only for individuals who are HBV negative and HIV VL <500,000 copies/ml)</td></tr>
<tr><td colspan="2">Alternative</td></tr>
<tr><td rowspan="4">Truvada PO 1 tab OD (Tenofovir disoproxil fumarate 300mg/Emtricitabine 200mg)</td><td>Darunavir PO 800mg OD + Ritonavir PO 100mg OD</td></tr>
<tr><td>Efavirenz PO 400mg OD</td></tr>
<tr><td>Efavirenz PO 600mg OD</td></tr>
<tr><td>Rilpivirine PO 25mg OD</td></tr>
<tr><td rowspan="4">Kivexa 1 tab OD (Abacavir 600mg/Lamivudine 300mg)</td><td>Darunavir PO 800mg OD + Ritonavir PO 100mg OD</td></tr>
<tr><td>Efavirenz PO 400mg OD *only if HIV VL <100,000 copies/ml</td></tr>
<tr><td>Efavirenz PO 600mg OD
*only if HIV VL <100,000 copies/ml</td></tr>
<tr><td>Rilpivirine PO 25mg OD
*only if HIV VL <100,000 copies/ml AND CD4 > 200</td></tr>
</table>

Monitoring Parameters and Frequency

Investigations	Baseline	ART Initiation/Change	Within 3 months of ART initiation/change	Every 6 months	Every 12 months	Treatment Failures	Comments
CD4 count	√	√		√[a]	√[b]	√	[a] Every 6 months during first 2 years of ART or if viremia develops or CD4 < 300cells/mm3 or if treatment is delayed [b] Every 12 months after 2 years of ART with consistently suppressed viral load; optional once CD4 recovery has occurred, and no clinical decisions need to be made for OI prophylaxis
HIV viral load	√	√	√	√[c]		√	[c] Every 6 months for stable patients if viral load is not detected for ≥1 year and there are no concerns regarding adherence
HLA-B57*01		√[d]					[d] If starting abacavir
Anti HAV, total	√						
HBsAg, anti HBs, anti HBc	√				√[e]		[e] If non-immune and non-vaccinated
Anti HCV	√				√[f]		[f] If not already infected and has risk factors
Syphilis IgG, RPR	√			√[g]	√[h]		[g] If abnormal at last measurement or as clinically indicated [h] If normal at baseline
Gonorrhea/Chlamydia NAAT	√[i]						[i] From all appropriate sites Do as clinically indicated
Anti-Toxoplasma IgG	√[j]						[j] If cost is a consideration, do only if CD4 <100
Serum Cryptococcus Ag	√[k]						[k] Do only if CD4 <100
Full Blood Count	√	√	√[l]	√			[l] Only if on zidovudine
ALT	√	√	√	√			
Total bilirubin			√[m]	√			[m] Only if on atazanavir/ritonavir
Serum creatinine	√	√	√[n]	√			[n] Only if on zidovudine
Serum phosphate		√			√		Only if on tenofovir based regimes
Fasting lipid panel	√	√			√[o]		[n] If normal at last measurement or as clinically indicated if on treatment
Fasting glucose/HbA1c	√	√			√[p]		[p] If normal at last measurement or as clinically indicated if on treatment
Urine pregnancy test	√	√					For females; as clinically indicated if concerns for pregnancy
Urine glucose and protein	√	√		√			
Smoking cessation	√			√[q]			[p] If smoking
Blood pressure monitoring	√			√[r]	√[s]		[r] Every 3 to 6 months if hypertensive [s] Every 12 months if not hypertensive
Mood screen	√	√	√				When clinically indicated
HIV-associated neuro-cognitive disorders screen	√						When clinically indicated
Bone Mineral Density screen							When clinically indicated (tenofovir based regimes, age > 50, other risk factors)

Vaccination Schedule

Vaccinations	Baseline	1 month/28 days	2 months/8 weeks	6 months	Every 12 months	Every 5 years	Every 10 years	≥65 years old	Comments
Influenza vaccine	√				√				
Pneumococcal conjugate vaccine (PCV 13)	√								The PCV13 vaccine should be not be deferred for patients with CD4 count <200 cells mm3 and/or detectable viral load. If a dose of PPSV 23 was given before PCV 13, PCV 13 should be given at least 1 year from the last dose of PPSV 23
Pneumococcal polysaccharide vaccine (PPSV 23)			√*			√†		√‡	*The first dose of PPSV 23 should be given at least 8 weeks after PCV 13 is given however, the follow-up secondary administration of PPSV23 vaccine may be deferred until the patient's CD4 count is >200 cells/mm^3 and/or viral load is undetectable. If a dose of PPSV 23 is given before PCV 13, the next dose of PPSV 23 should be **given 5 years** from the last dose of PPSV 23 †Maximum of two doses of PPSV 23 can be given before the age of 65 years old, after which no further doses should be given until the patient reaches 65 years old. ‡One dose of PPSV 23 is given for all patients age 65 years old and above; after which no further doses of PPSV 23 are needed.
Hepatitis A vaccine	√€			√					€HAV vaccines should only be offered to individuals who are seronegative for HAV. Strongly encouraged for individuals who have chronic liver disease, MSM or injection drug users. Can consider delaying vaccination until CD4 >200 cells/mm^3
Hepatitis B vaccine	√¥	√		√					¥For individuals who are seronegative for HBV. Can consider delaying vaccination until CD4 >200 cells/mm^3
Hepatitis A and recombinant Hepatitis B vaccine (Twinrix)	√±	√		√					± For individuals who are seronegative for both HBV and HAV. Can consider delaying vaccination until CD4 >200 cells/mm^3

Human Papillomavirus vaccine (Gardasil 9-valent)	√ϕ	√		√					Φ Please note that individuals can only use Medisave for HPV vaccine if they are females between the age of 9 to 26 years old and are using HPV-4 vaccine. However, we encourage all people living with HIV infection to consider HPV vaccine to reduce risk of cervical cancer and anal cancer. There should be a minimum of 4 weeks interval between the first and second dose, 12 week minimum interval between the second and third dose and 5 month minimum interval between first and third dose.
Tdap vaccine	√‡						√		‡ For individuals who have never had Tdap vaccine before should be offered the vaccine at initial visit. Subsequently individuals should have booster shots every 10 years
Mumps, measles and rubella (MMR)	√ɾ	√							ɾ For patients with CD4 cell counts ⩾200 cells/mm^3 who do not have evidence of MMR immunity (evidenced by serology) or no history of previous MMR vaccination
Varicella vaccine	√ɵ	√							ɵ For patients with CD4 cell counts ⩾200 cells/mm^3 who do not have evidence of varicella immunity (evidenced by serology) or no history of previous varicella vaccination or varicella infection
COVID-19 mRNA vaccine (CD4 cell counts ⩾ 200 cells/mm^3 and virologically suppressed)	√	√#		√ӂ					#Between 1-2 months ӂ Booster shot: 6 months from the **last dose**
COVID-19 mRNA vaccine (CD4 cell counts <200 cells/mm^3 and virologically unsuppressed)	√	√#	√Ψ	√ӂ					#Between 1-2 months Ψ 2 months from **second dose** ӂ Booster shot: 6 months from the **last dose**

Pre-Exposure Prophylaxis

Guidance for the Prescription of PrEP: Evaluation and follow up

Step One

Proceed if nil issues

Who are eligible?

- ☐ Sexual partners of people living with HIV infection who is not suppressed
- ☐ Sexual activities under influence of drugs/alcohol
- ☐ Concerns for consistent use of condoms
- ☐ Request for PrEP (Case by case basis)

Within the last 6 months:

- ☐ Dx with STI
- ☐ More than 1 sexual partner without consistent use of condoms
- ☐ Given HIV PEP

Exclude contraindications

- ☐ Known HIV infection
- ☐ Clinical syndrome suggestive of acute HIV infection/HIV seroconversion
- ☐ Known impairment of renal function

(**TDF/FTC**: estimated creatinine clearance <60. **TAF/FTC**: estimated creatinine clearance < 30ml/min)

- ☐ Allergy or other known contraindication to any of the drugs in the PrEP regimen

Step Two

Proceed if nil issues

Key history

Thorough sexual history including timing of last condomless sex acts

HIV and STD screens in the last year, and date of the last HIV test

History of bone or renal disease

Importance of 3-monthly HIV/STD screens

Importance of taking PrEP as directed

Risk reduction advice, including for other STDs

Baseline Investigations

HIV screen (if high risk exposure within: 72 hours> consider PEP, 4 weeks> repeat HIV test in 4 weeks. If still keen to start PEP> HIV VL testing)

Creatinine, urinalysis for proteinuria (pts with pre-existing risk for renal impairment)

HBs Ag and anti HBs Ag

Anti HCV

Syphilis, chlamydia and gonorrhea screen

Urinary beta-HCG

Step Three

Follow Up Actions

At each visit

- ☐ Prescription should not exceed 3 months or 90 days with no automatic refill
- ☐ Positive prevention counselling
- ☐ Assess if PrEP is still needed
- ☐ Linkage to care for patients who seroconvert

At 4 weeks from initial visit

- ☐ Consider repeat HIV screen

At every 3-6 months

- ☐ HIV screen
- ☐ Creatinine*
- ☐ STI screen and treatment
- ☐ Anti HCV (3 mthly for high-risk individuals)**
- ☐ Urinary beta-HCG

Yearly (Certain individuals)

- ☐ Creatinine (if age > 50 years and/or kidney related co-morbidities)
- ☐ Anti HCV (lower risk individuals)

***All individuals should have a repeat creatinine at 1-3 mths after starting PrEP.** For individuals < 50 years old without co-morbidities, nil further repeat creatinine monitoring required if repeat creatinine is normal

**Includes MSM and people who use drugs

Guidance for Prescription of PrEP: How to prescribe PrEP

Methods	Suitable populations	Administration
Daily PrEP	All who have indications for PrEP	-All individuals: daily dosing of co-formulated TDF/FTC -Cis-gender men who have sex with men and trans-gender women who have sex with men: these individuals can also use daily dosing of co-formulated TAF/FTC Note: - Needs to be taken for 7 days before high levels of protection are achieved for both vaginal and rectal exposure to HIV. - Alternative regimens such as taking PrEP four times a week is not recommended -TAF/FTC can be only be used in cis-gender men who have sex with men and trans-gender women who have sex with men as daily PrEP regimen.
On-Demand PrEP	Select populations only On-demand PrEP has only been investigated and is recommended in cis-gender men who have sex with men	A double dose (two tablets) of co-formulated TDF/FTC to be taken 2-24 hours before potential sexual exposure, to be followed by single doses 24 and 48 hours after the initial dose. When potential exposure is sustained for more than a 24-hour period, 1 tablet per day should be taken until the last exposure followed by the 2 post exposure tablets. Note -TAF/FTC cannot be used in on-demand PrEP regimen

Guidance for Prescription of PrEP: How to prescribe PrEP

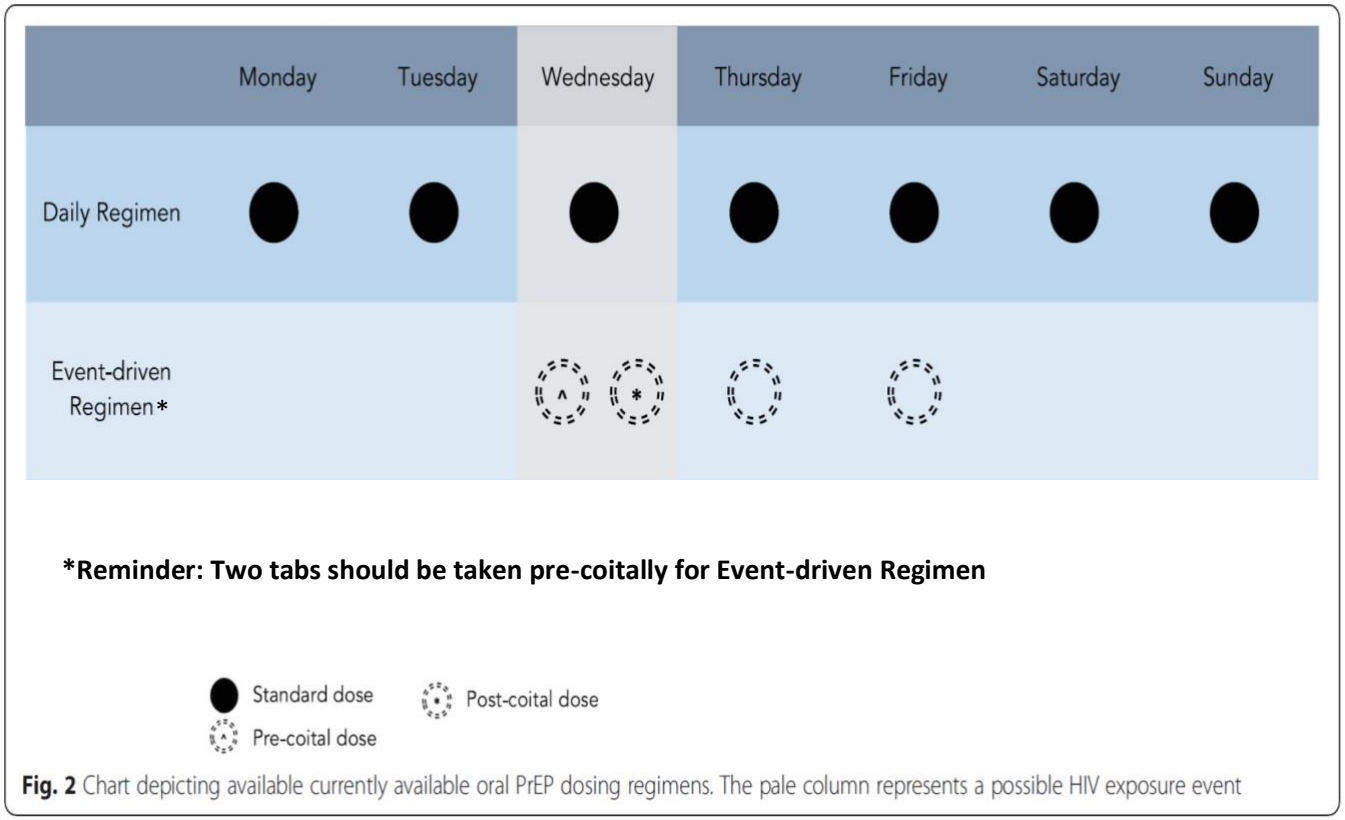


Fig. 2 Chart depicting available currently available oral PrEP dosing regimens. The pale column represents a possible HIV exposure event

Guidance for the Prescription of PrEP: Stopping PrEP

What should be done if PrEP is discontinued?	Tests/agenda to be done	Additional Considerations
Assess HIV status	HIV testing	
Hepatitis B testing and treatment considerations	Consider repeat HbsAg testing on planning to discontinue PrEP unless there is documented immunity	Patients who are HbsAg-positive and stop PrEP should have their liver function and hepatitis B viral load monitored after cessation of PrEP as there is a risk of reactivation of infection
Counselling	Advice on re-initiation of PrEP	Patients should be counselled that they should consider reinitation of PrEP if the risk of HIV infection should become present again

Post Exposure Prophylaxis

Basic patient information
1) Biodata
2) Past medical history, chronic medications
3) Drug allergies
4) Social history eg working as doctor in which department, or unemployed living with parents now

Exposure history
a) FOR ALL PATIENTS:
- History of blood transfusions, tattoos, recreational drug use, sexual history

b) OCCUPATIONAL
- Date and time of incident
- Information regarding source patient
- Details surrounding incident eg type of sharp, body fluid exposure
- Post incident measures taken

c) NON OCCUPATIONAL
- Date and time of incident
- Information regarding source
- Details surrounding incident eg receptive anal intercourse, condom use, concomitant alcohol or drug use

Symptom review + physical examination
a) OCCUPATIONAL
- Seroconversion symptoms/signs currently
- Injury itself (eg if from sharps)

b) NON OCCUPATIONAL
- Seroconversion symptoms currently
- Screen for other STD: genital discharge, ulcers, rash

Baseline serologies (usually done in ED):
Source: HIV Ag Ab, HBsAg, anti HCV
Exposed: HIV AgAb, HBsAg, anti HBs, anti HCV

RISK ASSESSMENT

A) If significant (moderate/high risk) mechanism of exposure:

HIV serostatus of source			
Non reactive	**Non reactive but suspicion for acute seroconversion illness**	**Reactive**	**Unknown**
Reassure and discharge	Baseline investigations: Urine pregnancy test if female & child bearing age FBC, Cr, LFT Consider other STD screen for non occupational exposure Start 28 day PEP regimen if within 72 hours of exposure, unless source has known well controlled HIV with HIV viral load below lower limits of detection Follow up: 14 days after starting PEP: FBC, Cr, ALT, AST HIV serology at 6 weeks, 12 weeks post incident		Individualized risk based assessment and discussion weighing risks and benefits of PEP

HCV		HCV serostatus of source	
Baseline HCV serostatus of exposed	**Negative**	**Reactive**	**Non reactive**
		HCV RNA at 4 weeks HCV RNA & anti HCV at 3 & 6 months	Reassure, no further action if source unlikely to have acute HCV infection
	Positive	Check HCV RNA immediately, refer hepatologist if positive	

HBV		HBV serostatus of source		
		HBsAg positive or high risk	**HBsAg negative**	**Unknown source**
HBV serostatus of exposed	**Anti HBs > 10**	No treatment		
	Vaccine non responder (Anti HBs <10 despite 2 vaccine series)	HBIG (0.06ml/kg) x 2 doses 1 month apart[#] Check HBsAg, total anti-HBc at 6 months	No treatment	Discuss risk/benefits of HBIG
	Unvaccinated or incomplete vaccine series so far	HBIG (0.06ml/kg) x 1[#] PLUS complete vaccine series Check HBsAg, total anti-HBc at 6 months, and anti-HBs post vaccination[¶]	HBV vaccination series Check anti-HBs post vaccination[¶]	

[#]If within 7 days of percutaneous exposure, or within 14 days of sexual exposure.
[¶]Check anti-HBs 1-2 months after last dose vaccine, and at least 6 months from HBIG if given

B) If low/negligible risk mechanism[§] of exposure:

Reassure and discharge.
If anxious or high risk source, may consider individualized discussion regarding risks and benefits of post exposure prophylaxis.

General principles in risk assessment (counselling)

Characteristics of exposure source

If the source patient is identifiable, baseline characteristics to establish include: HIV status (if known HIV infection, then whether HIV infection is well controlled on HAART or uncontrolled), Hepatitis B status and Hepatitis C status.
If the source patient is willing to be tested, baseline serologies to be sent include: HBsAg, anti-HCV, HIV Ag-Ab screen
There is still a need to evaluate for recent high-risk behaviours in the source patient as initial serology tests may be negative in early seroconversion illness.
Finally, if the source patient does not have any high-risk behavior and baseline serologies are negative, then there is no risk of transmission of infection regardless of mechanism of exposure.

General principles in assessment of risk of exposure mechanisms

General principles: what constitutes moderate/high risk exposure mechanisms?

Needlestick exposure, non-intact skin or mucosal exposure to blood or other potentially infectious bodily fluids constitutes moderate to high-risk exposure mechanisms.
Contact of intact skin with blood or other potentially infectious bodily fluids is considered to be low risk exposure. Mucosal exposure to bodily secretions that are generally considered non-infectious is considered to be low risk exposure as well, unless visibly contaminated with blood.

Potentially infectious sources

Apart from blood, other potentially infectious bodily fluids include CSF, pleural fluid, peritoneal fluid, pericardial fluid, synovial fluid, amniotic fluid, semen and vaginal discharge.
Unless visibly contaminated with blood, the following bodily secretions are generally not considered infectious: sputum, saliva, nasal secretions, tears, sweat, urine, vomitus, faeces.
Type of exposure: occupational versus non-occupational

Occupational exposures

Burden of attributable disease

The estimated global annual numbers of healthcare workers exposed to infectious diseases (HIV, Hepatitis B, Hepatitis C) attributable to contaminated sharps injuries among health-care workers is 3270000, 2100000 and 926000 respectively.
Hence there is a need for clear guidelines on the risk assessment and management in such situations.

Specific risk assessment factors

Type of occupational exposure	Risk of HIV transmission	Details to consider
Needlestick or other sharps exposure	0.00–2.38%	Needle had entered source patient's artery or vein prior to sharps injury (OR = 4.3, 95% CI: 1.7-12) Deep injury (OR = 15, 95% CI: 6.0-41) Device visibly contaminated with blood (OR = 15, 95% CI: 6.0-41) Other factors to consider: Type and volume of inoculum, dwell time Use of personal protective equipment (PPE) Skin integrity
Mucous membrane exposure	0.09% (probably an overestimate still)	

Non-occupational exposures

Specific risk assessment factors

Type of exposure		Estimated population risk of transmission per exposure
Receptive anal intercourse	Ejaculation	1.4–1.7% (1/71–1/59)
	Withdrawal	0.65% (1/154)
Insertive anal intercourse	Circumcised	0.11% (1/909)
	Uncircumcised	0.62% (1/161)
Vaginal intercourse	Receptive	0.08% (1/1250)
	Insertive	0.04% (1/2500)
Receptive or insertive oral intercourse		Unable to estimate risk – extremely low (<1/10000)
Shared needles / other injecting equipment		1/125
Human bites / spitting / sharing sex toys		Unable to estimate risk – extremely low, likely negligible

Sexual assault victims

All sexual assault victims should also be routinely offered prophylaxis for sexually transmitted infections, and HBV PEP if serostatus of source offender is HBsAg positive and victim is HBV non immune

a) Sexually transmitted infections

Gonorrhea / chlamydia: IM ceftriaxone 500mg once plus PO azithromycin 1g once

Trichomonas (for females): PO metronidazole 2g once

b) HBV post exposure prophylaxis (if source has known chronic hepatitis B or HBsAg positive, and victim is HBV non immune)

No previous HBV vaccination: HBIG (0.06ml/kg) x 1 dose, plus initiate HBV vaccination series on same day

Previous HBV vaccination with no postvaccination testing: Single HBV vaccine booster dose

Pre-exposure prophylaxis (PrEP) for non occupational exposures

Individuals who engage in behaviours that result in frequent and recurrent exposures that would require multiple or near sequential courses of PEP should be referred for counseling regarding PrEP once they have completed their 28 day course of PEP.

Potential ethical considerations in non occupational PEP (nPEP)

It was previously postulated that the promotion of post exposure prophylaxis following sexual exposure may potentially lead to more high risk sexual behaviours and hence increase the HIV transmission risk rather than decreasing the risk.

Studies have been performed to look at the association between the availability of nPEP and sexual risk behaviours during or after its use, mainly in the MSM population in developed countries. Majority of these studies did not report an increase in high-risk sexual behaviours after the recipt of nPEP. In a large behavioural intervention trial with 4295 MSM participants, while nPEP users were associated with high risk sex behaviours, in the subset of people who had previously already reported high risk sex behaviours, nPEP use was not associated with higher odds of high risk sex. A community cohort study of 1427 homosexual men in Sydney, Australia showed that while unprotected anal intercourse was a strong predictor of npEP use, but the use of nPEP was not associated with changes in HIV risk behavior.

HIV

Indications for starting PEP

Substantial risk for HIV transmission as determined by composite of risk of source (known HIV positive with HIV viral load not below the lower limits of detection, or suspicious for acute seroconversion illness) and mechanism of exposure (see section 2 for details)

Time frame for initiation

If PEP is indicated, to initiate as soon as possible after exposure and not more than 72 hours from exposure

Baseline laboratory evaluation in exposed person

FBC, creatinine, liver function test

HBsAg[a], anti HBs, anti HCV, HIV Ag Ab screen

Pregnancy screen in females of child bearing age, STD screen for non occupational exposure

PEP regimens suggested (doses suggested for normal renal function[b]) for 28 days

Preferred regimen:

Tenofovir 300mg OD + Lamivudine 300mg OD + Dolutegravir 50mg OD[c]

Alternative regimens:

Tenofovir 300mg OD + Lamivudine 300mg OD + Atazanavir 300mg OD + Ritonavir 100mg OD

Tenofovir 300mg OD + Lamivudine 300mg OD + Darunavir 800mg OD + Ritonavir 100mg OD

Tenofovir 300mg OD + Lamivudine 300mg OD + Raltegravir 400mg BD

Note that if source has known HIV infection with known or suspected resistance mutations, PEP regimen should be tailored according to resistance profile of the source.

Follow up testing / visits

If PEP is started, to check FBC, creatinine, ALT and AST 14 days after initiation with clinical review to ensure adherence and tolerability of PEP.

Subsequent repeat HIV Ag Ab screen to be performed at 6 weeks post incident, and 12 weeks post incident. If HIV seroconversion is noted at any point, further evaluation and management to be carried out as per other newly diagnosed HIV infection cases in SOC J. Extended follow-up for HIV testing up to 6-12 months is recommended for any exposed person who becomes infected with HCV after exposure to a source co-infected with HIV and HCV[d].

Advise to refrain from sexual activity, donation of blood / tissue / organs before completion of follow up.

Notes:

[a] Baseline existing hepatitis B infection in exposed victim – referral to hepatologist is indicated in view of the risk of hepatitis B flare once PEP is discontinued.

[b] Renal dose adjustments for tenofovir and lamivudine may be necessary depending on estimated creatinine clearance.

[c] Latest DHHS guidelines recommend avoiding dolutegravir for females who are within the first 12 weeks of pregnancy in view of possible neural tube defect risks while pending further study outcomes.

[d] This recommendation is based upon a case report of delayed HIV seroconversion in a health care professional who acquired HIV and HCV infection simultaneously through a needlestick exposure.

Hepatitis B

Risk of transmission

Assessment of transmission risk depends on a composite of mechanism of exposure and the HBV serostatus of the source. It also depends on whether the exposed victim is immune against hepatitis B.

Mechanism of exposure

HBV can be transmitted via percutaneous, mucosal or non intact skin exposure to infectious blood or body fluids: percutaneous exposure via sharps injury and sexual contact are efficient modes of transmission

Apart from blood, potentially infectious bodily fluids include semen and vaginal secretions, cerebrospinal fluid, pleural fluid, peritoneal fluid, pericardial fluid, synovial fluid and amniotic fluid

HBV can remain infectious on environmental surfaces for up to 7 days

Bodily fluids such as urine, feces, sweat, vomitus, nasopharyngeal washings, sputum are unlikely infectious unless significantly contaminated with blood

HBV serostatus of source

All HBsAg positive sources are infection; sources with elevated HBV DNA or HBeAg positivity are the most infectious

Sources with occult HBV infection (negative HBsAg but detectable HBV DNA) may also transmit infection

Mode of exposure	Risk of seroconversion of exposed victim (if non immune)
Percutaneous exposure to blood	23-37% if source HBeAg negative 37-62% if source HBeAg positive
Sexual transmission	18-44%

Post exposure prophylaxis

Exposed individuals who are hepatitis B immune or have prior hepatitis B infection do not require post exposure prophylaxis for hepatitis B.

For exposed individuals who have never been vaccinated before, have incomplete vaccination or are vaccine non responders:

HBV vaccine/serostatus of exposed	Post exposure prophylaxis	Follow up testing	Additional remarks
Vaccine non responder (Completed 2 vaccine series with anti-HBs < 10 still)	HBIG (0.06ml/kg) x 2 doses 1 month apart if within time frame*	HBsAg and total anti-HBc 6 months post exposure	Advise to refrain from donation of blood / tissue / organs before repeat follow up testing
Unvaccinated or incomplete vaccination series so far	HBIG (0.06ml/kg) x 1 if within time frame* Complete HBV vaccination series – can administer on different limb from HBIG	Anti-HBs 1-2 months after last dose of HBV vaccine and at least 6 months after HBIG HBsAg and total anti-HBc 6 months post exposure	

*Time frame for HBIG administration: ideally within 24hrs but maximum within 7 days from percutaneous exposure, or within 14 days from sexual exposure

Hepatitis C

Risk of transmission

Assessment of transmission risk depends on a composite of mechanism of exposure and the HCV serostatus of the source.

Assessing HCV status of source

If source anti-HCV is negative, no further testing is needed unless there is concern for acute HCV in the source for which HCV RNA testing should then be carried out to determine if there is acute HCV infection in the source

Mechanisms of exposure

Significant modes of exposure include contact with infectious blood or bodily fluids via percutaneous injury or contact with mucosal surfaces, or non intact skin. Estimated risk of HCV seroconversion is bout 1.8% following a needle-stick or sharps injury from an HCV-positive source.

Potentially infectious bodily fluids include cerebrospinal fluid, synovial fluid, pleural fluid, peritoneal fluid, amniotic fluid, semen and vaginal fluid

Note that bodily fluid such as urine, feces, sweat, vomitus, nasopharyngeal washings, sputum are unlikely infectious unless significantly contaminated with blood

HCV may also potentially remain infectious on environmental surfaces for prolonged periods of time

Post exposure prophylaxis

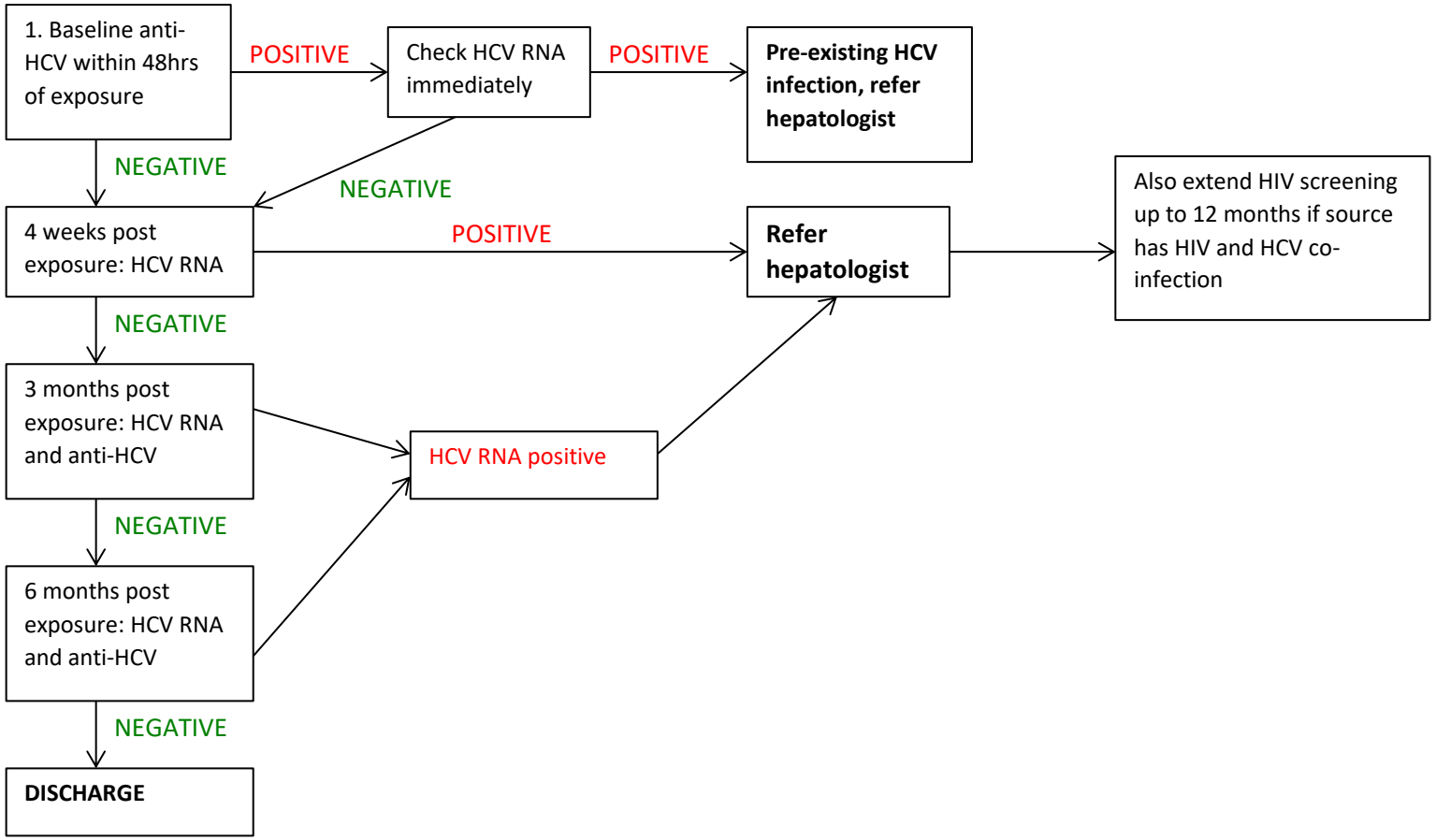
Currently there is no effective post exposure prophylaxis for individuals exposed to HCV. There is insufficient data to recommend the use of HCV direct-acting antivirals for the use of post exposure prophylaxis.

Follow up testing

If source is anti-HCV negative and not suspicious for acute HCV infection, and baseline anti-HCV of exposed person is negative, no further follow up testing is required.

If HCV serostatus of source is unknown or not available for testing, and baseline anti-HCV of exposed individual is negative, may offer follow up repeat anti-HCV of exposed in 6 months' post exposure.

If source is anti-HCV positive or has known hepatitis C infection, follow up testing for the exposed individual:



Advise to refrain from sexual activity, donation of blood / tissue / organs before completion of follow up.

HIV-related Opportunistic Infections

Candidiasis

Prescription		Duration/When to stop	Comments
Oropharyngeal			
#1	Fluconazole PO 200mg loading dose then 100mg OD	Total duration of 7 to 14 days.	
ALT	Nystatin suspension PO 4 to 6 ml QDS		Swish and swallow.
ALT	Itraconazole oral solution PO 200mg OD		
ALT	Posaconazole oral suspension PO 400mg BD x 1 day; then Posaconazole oral suspension PO 400mg OD		
Esophageal			
#1	Fluconazole PO400mg loading dose then 200mg OD	Total duration of 14 to 21 days.	
#1	Itraconazole oral solution PO 200mg OD		
ALT	Voriconazole PO/IV 200mg BD		
ALT	Anidulafungin IV 100mg x 1 dose; then Anidulafungin IV 50mg OD		
ALT	Amphotericin B deoxycholate IV 0.6mg/kg OD		
ALT	Liposomal Amphotericin B IV 3-4mg OD		
Uncomplicated Vulvovaginal			
#1	Fluconazole PO 150mg	Once dose.	
#1	Clotrimazole Topical 1 applicatorful OD	Total duration of 3 to 7 days.	
Chronic Suppressive Therapy			
#1	(Oropharyngeal) Fluconazole PO 100mg OD (Esophageal) Fluconazole PO 100 to 200mg OD (Vulvovaginal) Fluconazole PO 150mg weekly	CD4 count > 200 cells/mm^3	Chronic or prolonged use of azole may promote development of resistance. offered to persons who have frequent or severe recurrences, usually in the setting of nonadherence to ART

Cryptococcosis

Prescription		Duration/When to stop	Comments
(Induction) Extrapulmonary (including meningitis), Diffuse Pulmonary, Asymptomatic with Isolated Antigenemia (Serum LFA Titer >1:640)			
#1	Liposomal Amphotericin B IV 3-4mg OD + Flucytosine PO 25mg/kg QDS	At least 2 weeks of successful induction therapy (substantial clinical improvement and negative CSF cultures on repeat LP).	Renal dose adjustment required for flucytosine.
#1	Amphotericin B deoxycholate IV 0.7mg-1mg/kg OD + Flucytosine PO 25mg/kg QDS		Renal dose adjustment required for flucytosine.
ALT	Liposomal Amphotericin B IV 3-4mg OD + Fluconazole PO/IV 800 to 1200mg OD		If unable to tolerate flucytosine.
ALT	Amphotericin B deoxycholate IV 0.7mg-1mg/kg OD + Fluconazole PO/IV 800 to 1200mg OD		If unable to tolerate flucytosine.
ALT	Fluconazole PO/IV 800mg to 1200mg OD + Flucytosine PO 25mg/kg QDS		
ALT	Liposomal Amphotericin B IV 3-4mg OD		
ALT	Amphotericin B deoxycholate IV 0.7mg-1mg/kg OD		
(Consolidation) Extrapulmonary (including meningitis), Diffuse Pulmonary, Asymptomatic with Isolated Antigenemia (Serum LFA Titer >1:640)			
#1	Fluconazole PO 400mg OD if preferred induction therapy used; Fluconazole PO 800mg OD if ALT induction therapy used	At least 8 weeks of consolidation therapy.	Clinically stable with negative CSF cultures.
ALT	Fluconazole PO 1200mg OD		Clinically stable with positive CSF cultures.
(Maintenance) Extrapulmonary (including meningitis), Diffuse Pulmonary, Asymptomatic with Isolated Antigenemia (Serum LFA Titer >1:640)			
#1	Fluconazole PO 200mg OD	At least 1 year from initiation of antifungal therapy **AND** Asymptomatic from cryptococcal infection **AND** CD4 count ≥ 100 cells/mm^3 and suppressed VL in response to effective ART.	Restart maintenance therapy if CD4 declines to ≤100 cells/mm^3
Focal Pulmonary, Asymptomatic with Isolated Antigenemia (Serum LFA Titer < 1:320)			
#1	Fluconazole PO 400 to 800mg OD x 10 weeks; then Fluconazole PO 200mg OD	Total duration of 6 months.	

Cytomegalovirus

Prescription		Duration/When to stop	Comments
(Induction) Retinitis with Immediate Sight Threatening Lesions (within 1500 microns of the fovea)			
#1	Ganciclovir intravitreal 2mg/injection weekly Foscarnet intravitreal 2.4mg/injection weekly	Until lesion inactivity is achieved.	Provide high intraocular concentrations of drug and faster control of infection.
	Ganciclovir IV 5mg/kg BD Valganciclovir PO 900mg BD	Total duration of 14 to 21 days.	
ALT	Ganciclovir intravitreal 2mg/injection weekly Foscarnet intravitreal 2.4mg/injection weekly	Until lesion inactivity is achieved.	Provide high intraocular concentrations of drug and faster control of infection.
	Foscarnet IV 60mg/kg TDS Foscarnet IV 90mg/kg BD	Total duration of 14 to 21 days.	
(Maintenance) Retinitis with Immediate Sight Threatening Lesions (within 1500 microns of the fovea)			
#1	Ganciclovir IV 5mg/kg OD Valganciclovir PO 900mg OD	At least 3 to 6 months from initiation of CMV treatment **AND** lesions are inactive **AND** CD4 count > 100 for at least 3 to 6 months in response to ART.	Restart maintenance therapy if CD4 declines to ≤100 cells/mm^3. Consult ophthalmologist; regular ophthalmologic monitoring every 3 months after discontinuation of CMV treatment.
ALT	Foscarnet IV 90 to 120mg/kg OD		
(Induction) Retinitis with Peripheral Lesions			
#1	Valganciclovir PO 900mg BD	Total duration of 14 to 21 days.	
(Maintenance) Retinitis with Peripheral Lesions			
#1	Valganciclovir PO 900mg OD	At least 3 to 6 months from initiation of CMV treatment **AND** lesions are inactive **AND** CD4 count > 100 for at least 3 to 6 months in response to ART.	Restart maintenance therapy if CD4 declines to ≤100 cells/mm^3. Consult ophthalmologist; regular ophthalmologic monitoring every 3 months after discontinuation of CMV treatment
Esophagitis, Colitis			
#1	Ganciclovir IV 5mg/kg BD Valganciclovir PO 900mg BD	Total duration of 21 to 42 days **OR** until signs and symptoms have resolved. Maintenance therapy not necessary but considered after relapses.	Switch to PO valganciclovir once able to tolerate and absorb orally.
ALT	Foscarnet IV 60mg/kg TDS Foscarnet IV 90mg/kg BD		For patients with treatment limiting toxicities or ganciclovir resistance.

Mycobacterium Avium Complex

Prescription		Duration/When to stop	Comments
Disseminated Disease			
#1	Ethambutol PO 15 mg/kg OD	At least 12 months from initiation of MAC treatment **AND** Asymptomatic from MAC infection **AND** CD4 count > 100 for at least 6 months in response to ART.	At least 2 agents to prevent resistance. Susceptibility testing to macrolide recommended. Active TB should be ruled out.
	Clarithromycin PO 500mg BD		
#1	Ethambutol PO 15 mg/kg OD		
	Azithromycin PO 500mg OD		
+/-	Rifabutin PO 300mg OD	As above if included.	Third and/or fourth drug may be added for high mycobacterial loads (> 2log CFU/mL) or in absence of effective ART. Rifabutin is preferred as the third drug if required.
+/-	Levofloxacin PO 500mg OD		
+/-	Amikacin IV 10-15mg/kg OD		
+/-	Streptomycin IV/IM 1g OD		
Primary Prophylaxis			
#1	Clarithromycin PO 500mg BD	Initiation of effective ART.	Start only if no initiation of fully suppressive ART **AND** CD4 count < 50 **AND** dMAC ruled out on clinical assessment.
#1	Azithromycin PO 1200mg weekly		
#1	Azithromycin PO 600mg twice weekly		
ALT	Rifabutin PO 300mg OD		

Pneumocystis Pneumonia

Prescription		Duration/When to stop	Comments
Mild to Moderate Pneumonia			
#1	Trimethoprim 80mg/Sulfamethoxazole 400mg PO/IV 5mg (trimethoprim component)/kg 8H	Total duration of 21 days.	Check G6PD deficiency. Renal dose adjustment required. $*No.of\ tabs = \frac{Wgt\ (kg)\ x\ 5mg}{80mg}$
ALT	Primaquine PO 30mg OD		Check G6PD deficiency for primaquine.
	Clindamycin **PO** 450mg 6H Clindamycin **PO** 600mg 8H		
ALT	Atovaquone PO 750mg BD		To be taken with food. Atovaquone is not readily available in NCID and will need to be requested via pharmacy.
Severe Pneumonia (pO2 < 70mmHg or A-a Gradient ≥ 35mmHg)			
Give adjunctive corticosteroids if no contraindications. Begin as soon as possible and within 72 hours of PCP therapy. Follow this schedule. Prednisolone PO 40 mg BD x 5 days; then Prednisolone PO 40 mg OD x 5 days; then Prednisolone PO 20 mg OD x 11 days			
#1	Trimethoprim 80mg/Sulfamethoxazole 400mg IV 5mg (trimethoprim component)/kg 8H	Total duration of 21 days.	Check G6PD deficiency. Renal dose adjustment required. $*No.of\ tabs = \frac{Wgt\ (kg)\ x\ 5mg}{80mg}$ May switch to PO on clinical improvement.
ALT	Pentamidine IV 4mg/kg OD infused over ≥ 60min; reduced to 3mg/kg in event of toxicities		
ALT	Primaquine PO 30mg OD	Total duration of 21 days.	Check G6PD deficiency for primaquine.
	Clindamycin **IV** 600mg 6H Clindamycin **IV** 900mg 8H Clindamycin **PO** 450mg 6H Clindamycin **PO** 600mg 8H		
Primary and Secondary Prophylaxis (CD4 < 200cells/mm3)			
#1	Trimethoprim 80mg/Sulfamethoxazole 400mg PO 1 tab OD	CD4 count increased from <200 to ≥200 cells/mm^3 for ≥3 months in response to effective ART.	Check G6PD deficiency. Restart prophylaxis if CD4 declines to <100 cells/mm^3 or CD4 100 to 200 **AND** HIV RNA above detection limit of assay used.

ALT	Aerosolized pentamidine 300mg every 28 days	Consider if CD4 count 100 to 200 cells/mm^3 **AND** HIV RNA remains "Not Detected" for ≥ 3 to 6 months	Restart prophylaxis if CD4 declines to <100 cells/mm^3 or CD4 100 to 200 **AND** HIV RNA above detection limit of assay used.
ALT	Dapsone PO 100mg OD Dapsone PO 50mg BD		Check G6PD deficiency. Restart prophylaxis if CD4 declines to <100 cells/mm^3 or CD4 100 to 200 **AND** HIV RNA above detection limit of assay used.
ALT	Atovaquone PO 1500mg OD		To be taken with food. Atovaquone is not readily available in NCID and will need to be requested via pharmacy Restart prophylaxis if CD4 declines to <100 cells/mm^3 or CD4 100 to 200 **AND** HIV RNA above detection limit of assay used.

Toxoplasmosis

Prescription		Duration/When to stop	Comments
(Induction) Encephalitis			
#1	Pyrimethamine PO 200mg once, **THEN** (≤60kg) Pyrimethamine PO **50mg** OD + Sulfadiazine PO **1000mg** 6H + Leucovorin PO 10 to 25mg OD (>60kg) Pyrimethamine PO **75mg** OD + Sulfadiazine PO **1500mg** 6H + Leucovorin PO 10 to 25mg OD	At least 6 weeks of successful induction therapy (extend if extensive disease or response is incomplete at 6 weeks).	For patients with history of sulfa allergy, desensitization should be attempted. Consider adjunctive steroids if mass effect associated with focal lesions or edema. Anticonvulsants should be admitted if seizures and continued at least through period of acute treatment.
ALT	Pyrimethamine PO 200mg once, **THEN** (≤60kg) Pyrimethamine PO 50mg OD + Clindamycin IV/PO 600mg 6H + Leucovorin PO 10 to 25mg OD (>60kg) Pyrimethamine PO 75mg OD + Clindamycin IV/PO 600mg 6H + Leucovorin PO 10 to 25mg OD		Consider adjunctive steroids if mass effect associated with focal lesions or edema. Anticonvulsants should be admitted if seizures and continued at least through period of acute treatment.
(Chronic Maintenance) Encephalitis			
#1	(≤60kg) Pyrimethamine PO **25mg** OD + Sulfadiazine PO **1000mg** 12H + Leucovorin PO 10 to 25mg OD (>60kg) Pyrimethamine PO **50mg** OD + Sulfadiazine PO **1500mg** 12H + Leucovorin PO 10 to 25mg OD	Successful completion of initial therapy **AND** Asymptomatic from toxoplasma encephalitis **AND** CD4 count > 200 for at least 6 months in response to ART.	Restart **secondary prophylaxis**/chronic maintenance if CD4 declines to <100 cells/mm^3.
ALT	(≤60kg) Pyrimethamine PO **25mg** OD + Clindamycin **PO 600mg 8H** + Leucovorin PO 10 to 25mg OD (>60kg) Pyrimethamine PO **50mg** OD + Clindamycin **PO 600mg 8H** + Leucovorin PO 10 to 25mg OD		Restart **secondary prophylaxis**/chronic maintenance if CD4 declines to <100 cells/mm^3.
Primary Prophylaxis (Toxoplasma IgG positive and CD4 < 100cells/mm3)			
#1	Trimethoprim 80mg/Sulfamethoxazole 400mg PO 2 tabs OD	CD4 count increased from <200 to ≥200 cells/mm^3 for ≥3 months in response to effective ART. Consider if CD4 count 100 to 200 cells/mm^3 **AND** HIV RNA remains "Not Detected" for ≥ 1 year	Check G6PD deficiency. Restart prophylaxis if CD4 declines to <100 cells/mm^3
ALT	Dapsone PO 50mg OD + Pyrimethamine PO 50mg weekly + Leucovorin PO 10 to 25mg weekly		

Sexually Transmitted Infections

General Management

Holistic management of a diagnosed sexually transmitted infection should include:

1. Evaluation for other sexually transmitted infections.

Investigation	Comments
Chlamydia/Gonorrhea Screen (Nucleic Acid Amplification Test)	Consider sites: ♂ urine, ♀ vaginal; ano-rectal; oropharyngeal
HIV screen	HIV Ab-Ag screen
Hepatitis B and C	Anti-HBs, HBsAg, anti HCV
Syphilis	RPR, Syphilis IgG

2. Risk assessment: **P**artners, **P**ractices, **P**rotection, **P**ast history of STIs, **P**regnancy intent
3. Education and counselling: change in sexual behaviours and use of prevention methods e.g. pre-exposure vaccinations, pre-exposure prophylaxis, condoms, contraception methods, etc.
4. Partner counselling, screening and treatment.
5. Report to health authorities via CDLENS if applicable.

Genital Herpes

Prescription		Comments
First Episode		
#1	Aciclovir PO 400mg TDS x 7 to 10 days	Renal dose adjustment required.
ALT	Valaciclovir PO 1000mg BD x 7 to 10 days	Renal dose adjustment required.
Recurrent Episodes		
#1	Aciclovir PO 400mg TDS x 5 days Aciclovir PO 800mg TDS x 5 days	Renal dose adjustment required.
ALT	Valaciclovir PO 500mg BD x 3 days Valaciclovir PO 1000mg OD x 5 days	Renal dose adjustment required.
Chronic suppressive therapy		
#1	Aciclovir PO 400mg BD Valaciclovir PO 1000mg OD	Renal dose adjustment required. Usually offered to persons who experience ≥6 clinical episodes per year or who experience significant anxiety or distress related to their clinical recurrences.

Syphilis

Prescription		Comments
Primary, Secondary, Early Latent		
#1	Benzathine Penicillin IM 2.4MU once	Advise on Jarisch-Herxheimer reaction. Recommend for desensitization if allergy.ALT regimens are not recommended for pregnancy in all stages of syphilis*
ALT	Doxycycline PO 100mg BD x **14 days**	Advise on gastrointestinal side effects.
ALT	Ceftriaxone IM/IV 1g OD x 10 days	May be given at OPAT.
ALT	Azithromycin PO 2g once	Not recommended unless no other alternative options present. Not for MSM and pregnancy.
Late Latent		
#1	Benzathine Penicillin IM 2.4MU weekly x 3 doses	Recommend for desensitization if allergy. ALT regimens are not recommended for pregnancy in all stages of syphilis*
ALT	Doxycycline PO 100mg BD x **28 days**	Advise on gastrointestinal side effects.
Neurosyphilis, Ocular, Otic		
#1	Aqueous crystalline penicillin G IV 18 to 24 MU OD x 14 days Aqueous crystalline penicillin G IV 3 to 4 MU every 4H x 14 days	Recommend for desensitization if allergy. Continuous infusion may be given at OPAT. Consider Benzathine Penicillin IM 2.4MU weekly x 1 to 3 doses after completion. ALT regimens are not recommended for pregnancy in all stages of syphilis*
ALT	Procaine penicillin G IM 2.4MU OD + Probenecid PO 500mg 6H x 10 to 14 days	Do not give Probenecid to patient allergic to sulfa-containing medications. Consider Benzathine Penicillin IM 2.4MU weekly x 1 to 3 doses after completion.
ALT	Ceftriaxone IM/IV 1 to 2g OD x 10 to 14 days	May be given at OPAT.
Tertiary with Normal CSF Examination		
#1	Benzathine Penicillin IM 2.4MU weekly x 3 doses	Recommend for desensitization if allergy. ALT regimens are not recommended for pregnancy in all stages of syphilis*
*For individuals who are pregnant with immediate type allergic reactions to penicillin, please refer to allergist for penicillin skin testing and desensitization if allergy is proven.		

Chlamydia

Prescription		Comments
Uncomplicated Genital Infections (including urethritis; ♀ cervicitis)		
#1	Doxycycline PO 100mg BD x 7 days	Advise on gastrointestinal side effects.
ALT	Azithromycin PO 1g once	
ALT	Levofloxacin PO 500mg OD x 7 days	
Extragenital Infections (proctitis, epididymitis, pelvic inflammatory disease, oropharyngeal)		
#1	Doxycycline PO 100mg BD x 7 days + Ceftriaxone IM 500mg once **Ceftriaxone IM 1g once for persons weight > 150kg*	Advise on gastrointestinal side effects. May omit ceftriaxone if negative for gonorrhea in asymptomatic rectal and oropharyngeal Chlamydial infections. For pelvic inflammatory disease, consider addition of metronidazole for anaerobic cover and refer gynaecologist. For symptomatic proctitis, it is reasonable to consider 3 weeks course of doxycycline for presumptive lymphogranuloma venereum. Advise abstinence for at least 1 week.
ALT	Azithromycin PO 1g once	
ALT	Levofloxacin PO 500mg OD x 7 days	
Lymphogranuloma venereum		
#1	Doxycycline PO 100mg BD x 21 days + Ceftriaxone IM 500mg once **Ceftriaxone IM 1g once for persons weight > 150kg*	Advise on gastrointestinal side effects. Advise abstinence for at least 1 week.
Chlamydial Infection in Pregnancy		
#1	Azithromycin PO 1g once	Benefits outweigh risk even in first trimester.
ALT	Amoxicillin PO 500mg TDS x 7 days	

Gonorrhea

Prescription		Comments
Uncomplicated Infections (pharyngitis, proctitis, urethritis; ♀ cervicitis)		
#1	Ceftriaxone IM 500mg once + (Doxycycline PO 100mg BD x 7 days) **Ceftriaxone IM 1g once for persons weight > 150kg*	Doxycycline if Chlamydia not excluded.
ALT	Azithromycin PO 2g once + Gentamicin IM 240mg once + (Doxycycline PO 100mg BD x 7 days)	Only used if severe cephalosporin allergy. Doxycycline if Chlamydia not excluded.
Conjunctivitis		
#1	Ceftriaxone IM **1g** once	Urgent ophthalmology review. Consider on-time lavage of infected eye.
Disseminated Infection		
#1	Ceftriaxone IM/IV **1g** OD	Admit.

Drug Susceptible Tuberculosis

General Management

1. Report to health authorities via CDLENS. Notification via MD532. Treatment progress at each visit via MD117.
2. General advice: avoid alcohol, over the counter medications, traditional or complementary medications while on tuberculosis treatment.
3. Go through medications list of patient and check for drug-drug interactions.
4. Optimize diabetic control.
5. Trace initial AFB cultures susceptibilities. Repeat AFB smear and cultures at least at the 2 months mark to check for clearance. Positive sputum culture should prompt review for causes of treatment failure.
6. Consider referral to TBCU for direct observed therapy. Medications are free if followed up at TBCU.

Duration of Treatment

Site of Involvement	**Duration of Treatment**
Uncomplicated pulmonary tuberculosis	Intensive x 2 months; continuation x 4 months. **Total 6 months**
Complicated pulmonary tuberculosis **positive culture at 2 months, severe cavitory disease, extrapulmonary involvement*	Intensive x 2 months; continuation x 7 months. **Total 9 months**
Central nervous system tuberculosis	Intensive x 2 months; continuation x 7 to 10 months. **Total 9 to 12 months**
Extrapulmonary tuberculosis	Intensive x 2 months; continuation x 4 months. **Total 6 months**

For ART-naive patients, ART should be started within 2 weeks after TB treatment initiation in those with CD4 count <50 cells/mm3 and, based on the preponderance of data, when TB meningitis is not suspected, within 8 weeks of starting anti-TB treatment in those with higher CD4 cell counts

Prescription		**Comments**
Intensive Phase – 2 months		
#1	Rifampicin PO 10mg/kg OD (Rifabutin PO 5mg/kg OD)	Maximum 600mg OD; multiples of 150mg. (Maximum 300mg OD; multiples of 150mg)
	Isoniazid PO 5mg/kg OD + Pyridoxine PO 10mg OD	Maximum 300mg OD; multiples of 100mg.
	Ethambutol PO 15 - 20mg/kg OD	Maximum 1600mg OD; multiples of 100mg. Snellen and Ishihara chart at least monthly.
	Pyrazinamide PO 25mg/kg OD	Maximum 2000mg OD; multiples of 500mg.
(Non-HIV) Continuation Phase		
#1	Rifampicin PO 10mg/kg 3x/week	Maximum 600mg OD; multiples of 150mg.
	Isoniazid PO 5mg/kg 3x/week + Pyridoxine PO 10mg 3x/week	Maximum 300mg OD; multiples of 100mg.
ALT	Rifampicin PO 10mg/kg OD (Rifabutin PO 5mg/kg OD)	Maximum 600mg OD; multiples of 150mg. (Maximum 300mg OD; multiples of 150mg)
	Isoniazid PO 5mg/kg OD + Pyridoxine PO 10mg OD	Maximum 300mg OD; multiples of 100mg.

(HIV) Continuation Phase		
#1	Rifampicin PO 10mg/kg OD (Rifabutin PO 5mg/kg OD)	Maximum 600mg OD; multiples of 150mg. (Maximum 300mg OD; multiples of 150mg)
	Isoniazid PO 5mg/kg OD + Pyridoxine PO 10mg OD	Maximum 300mg OD; multiples of 100mg.

References

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