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Guidance for the Prescription of HIV Pre-Exposure Prophylaxis in Singapore: 2021 Updates

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Overview

- Prescription Guidance workgroup & process
- Who may be suitable for PrEP?
- PrEP Regimens
- Starting PrEP
- Monitoring while on PrEP
- Stopping PrEP

Why PrEP Recommendations?

- PrEP is an **evidence-based, highly effective** biomedical addition to the suite of behavioural measures to prevent HIV transmission and infection
- Effectiveness of PrEP is **>96%** when taken correctly as prescribed
- Importance of **local** recommendations to guide the use of this powerful tool in Singapore

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Guidance Development Workgroup and Processes

WORKGROUP

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- Aim
  - Provide guidance to prescribers and other practitioners on the optimal use of PrEP for the prevention of HIV infection in Singapore
- Composition
  - Directors of HIV clinical programmes and sexual health clinics (DSC)
  - Private practitioners with interest and experience in HIV
  - Community-based organisations who work with people from key populations at risk of HIV infection
  - Sociobehavioural scientist with domain expertise in sexual health and public health

PROCESS

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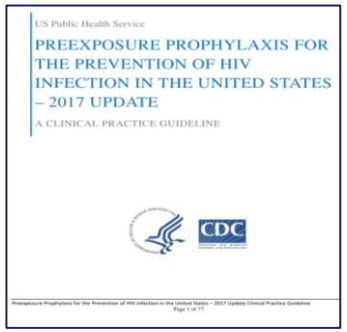
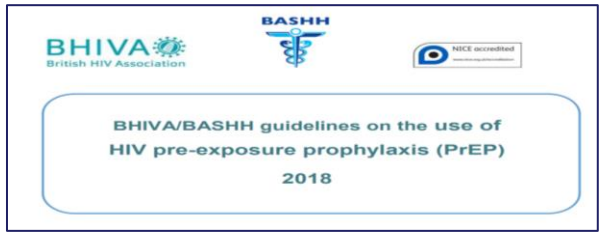
1) Review of select benchmark international guidelines and updates





2) Adaptation to Singapore context
   - ✓ Inclusion of guidance and experience from Singapore PrEP Taskforce

3) Consultation & feedback
   - ✓ ID Chapter, College of Physicians, Singapore
   - ✓ NHIVP Community Advisory Board
   - ✓ MOH Communicable Diseases Division

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KEY CHANGES

Key Changes to the Guidance

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- Updates on special clinical scenarios for the use of HIV PrEP
- Clarifications on contraindications to the use of HIV PrEP
- Updates on the use of TAF/FTC as HIV PrEP
- Monitoring and Evaluation of individuals taking PrE P

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WHO MAY BE SUITABLE FOR PREP?

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Indications for PrEP

Who may be suitable for PrEP?	Additional Considerations
Sexual partner of someone with HIV who is not on suppressive antiretroviral therapy	HIV viral suppression defined as plasma viral load <200 copies/mL for ≥ 6 months
Vaginal or anal intercourse without the consistent use of condoms with more than one partner in the last six months	If the high-risk exposure is after 72 hours but within 28 days of window period, HIV testing should be repeated after 4 weeks prior to starting PrEP. Alternatively, HIV RNA viral load can be done if patient is keen to start PrEP immediately.
Sexually transmitted infection in the last six months (laboratory confirmed, self-reported or received treatment)	Particularly syphilis
Received HIV post-exposure prophylaxis in the last six months	
Reported concerns about consistent use of condoms in the future	E.g. has difficulties using condoms
Engage in sexual activities under the influence of alcohol or other drugs	Or indicate that they may have such behaviour
Requesting for PrEP- case by case basis	E.g. left a monogamous partnership and will likely be having condomless sex in future

Contra-indications to PrEP

Contraindications to use of PrEP
Known HIV infection
Clinical syndrome suggestive of acute HIV infection/HIV seroconversion (please refer to special clinical scenarios section d.)
Known impairment of renal function (estimated creatinine clearance <60 ml/min for individuals considering TDF/FTC and estimated creatinine clearance < 30ml/min for individuals eligible for TAF/FTC)
Allergy or other known contraindication to any of the drugs in the PrEP regimen

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PREP REGIMENS

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PrEP Regimens

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

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PrEP Regimens

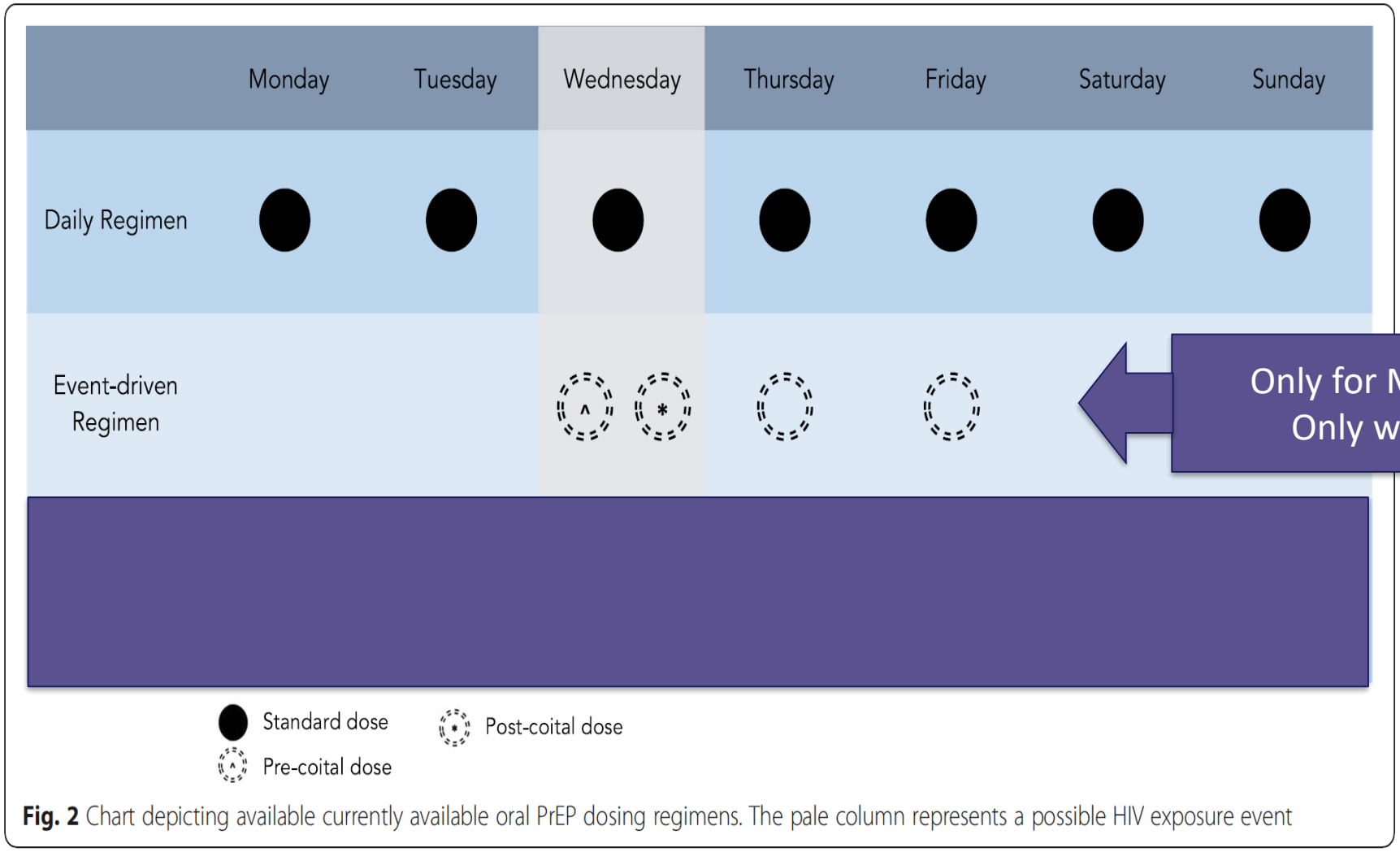

Fig. 2 Chart depicting available currently available oral PrEP dosing regimens. The pale column represents a possible HIV exposure event

Only for MSM and TGW
Only with TDF/FTC

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WHAT TO DO WHEN STARTING PREP?

Starting PrEP: Important Considerations

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Providers need to obtain and document the following important aspects of history-taking and discussion during their initial consultation with patients:

- **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 TDF/FTC or TAF/FTC for PrEP as directed**
- **Risk reduction** advice, including for other STDs

Starting PrEP:
Ensuring that the patient is HIV-negative

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What should be done at first consultation?	Example	Additional Considerations
Ensure that patient is HIV-negative	Using a 4th generation HIV test (either routine HIV EIA (enzyme-linked immunoassay) within the past 4 weeks OR rapid point-of-care finger-prick blood test on the day of consultation if no concern of recent exposure	Lab based HIV 4th General EIA test is preferred
	If recent high-risk exposure (within the past 72 hours) consider PEP and re-test after 28 days	Consider Post Exposure Prophylaxis
	If high-risk exposure after 72 hours but within past 28 days, repeat HIV testing after 4 weeks	
	IF patient keen to initiate PrEP immediately consider HIV RNA (viral load) testing	

Starting PrEP: Baseline Evaluations

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What should be done at first consultation?	Example	Additional Considerations
Baseline renal function testing	Serum creatinine	- Estimated creatinine clearance can be calculated using the modified Cockcroft-Gault equation
	Urinalysis for proteinuria	Only for patients with pre-existing risk for renal impairment, e.g. diabetes, hypertension
Hepatitis B screening	Hepatitis B surface antigen (HBsAg) and antibody (anti-HBs)	Vaccination against hepatitis B should be offered to non-immune individuals. If patients test positive for hepatitis B, they should be considered for treatment and not be offered on-demand PrEP.
Offer Hepatitis C screening	Hepatitis C antibody (anti-HCV)	Referral for hepatitis C treatment if positive
Offer STI screening and treatment	Syphilis screening	
	Other bacterial STIs (gonorrhoea, chlamydia, etc)	At relevant and appropriate sites based on sexual history or consider three in one testing as per site availability (urethral, rectal, pharyngeal, etc)
Offer pregnancy screening	Urinary beta-HCG	Contraception should be discussed and provided for women who are on PrEP and who do not wish to become pregnant

Starting PrEP:
Prescribing PrEP and Other Services

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What should be done at first consultation?	Example	Additional Considerations
Prescribe PrEP	Prescription should not exceed 3 months or 90 days with no automatic refills	A printed and endorsed prescription should be provided
Other services	Joint development of plan for effective PrEP use (including deciding on daily versus on-demand PrEP)	
	Vaccination against hepatitis A, B and human papillomavirus as indicated	

Starting PrEP: Counselling

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What should be done at first consultation?	Example	Additional Considerations
Counselling	Efficacy of PrEP	Key Message: PrEP is highly effective if taken as prescribed as part of an overall HIV prevention strategy (including the use of condoms)
	Adherence counselling	Key Message: It is important to take PrEP every day (for daily PrEP) and according to the schedule (for on-demand PrEP) for it to be effective.
	Engagement in care	Key Message: It is important to return for visits to get tested for HIV and assess for side effects to medication as well as to obtain new prescription so that PrEP is not interrupted.
	Sexual health counselling	Key Message: PrEP does not prevent other STIs, and regular testing and treatment for other STIs is needed to maintain sexual health. PrEP also does not prevent pregnancy and contraception should be used to prevent pregnancy if needed.

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MONITORING OF PATIENTS ON PREP

Starting PrEP: 3 – 6 monthly reviews

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What should be done after PrEP is started?	Tests/agenda to be done	Additional Considerations
Review 3-6 monthly thereafter	3rd/4th generation HIV test (either routine HIV EIA OR rapid POCT finger-prick blood test) 3 monthly	
	Serum Creatinine All individuals should get a repeat creatinine 1-3 months after starting PrEP. In individuals younger than 50 years old without any co-morbidities, nil further creatinine monitoring is required if the repeat creatinine test is normal. Individuals with kidney related co-morbidities or age 50 years and above should have a repeat serum creatinine check at least once every 12 months.	For individuals with co-morbidities or 50 years and above with routine creatinine monitoring done in other settings, PrEP providers can consider using these results in their clinic review instead of obtaining a separate serum creatinine if appropriate.

Starting PrEP:
3 – 6 monthly reviews

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What should be done at follow-up visits?	Example	Additional Considerations
3-6 monthly reviews	STD screening and treatment	Syphilis, gonorrhoea and chlamydia screening 3 – 6 monthly Frequency of screening depends on patient-reported sexual risk behaviour
	Anti-HCV 12 monthly Consider 3 monthly with very high-risk behaviour	For MSM and transgender women

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WHAT TO DO WHEN STOPPING PREP?

Stopping PrEP: Important Considerations

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What should be done at first consultation?	Example	Additional Considerations
Assess if PrEP is still needed	The need for continued PrEP should be determined based on assessment of the patient's risk of HIV infection 12 monthly	Patients should continue taking daily PrEP for 28 days after the last sexual exposure putting them at risk of HIV infection before discontinuing PrEP. Only cis-gender MSM can safely stop PrEP after taking a dose 24 and 48 hours after last at-risk exposure.
Linkage to care for patients who seroconvert	*All patients who test positive for HIV should be referred for treatment at a HIV care centre on an urgent basis*	HIV-infected patients can be started on HIV treatment without interruption

Stopping PrEP: What to Do

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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

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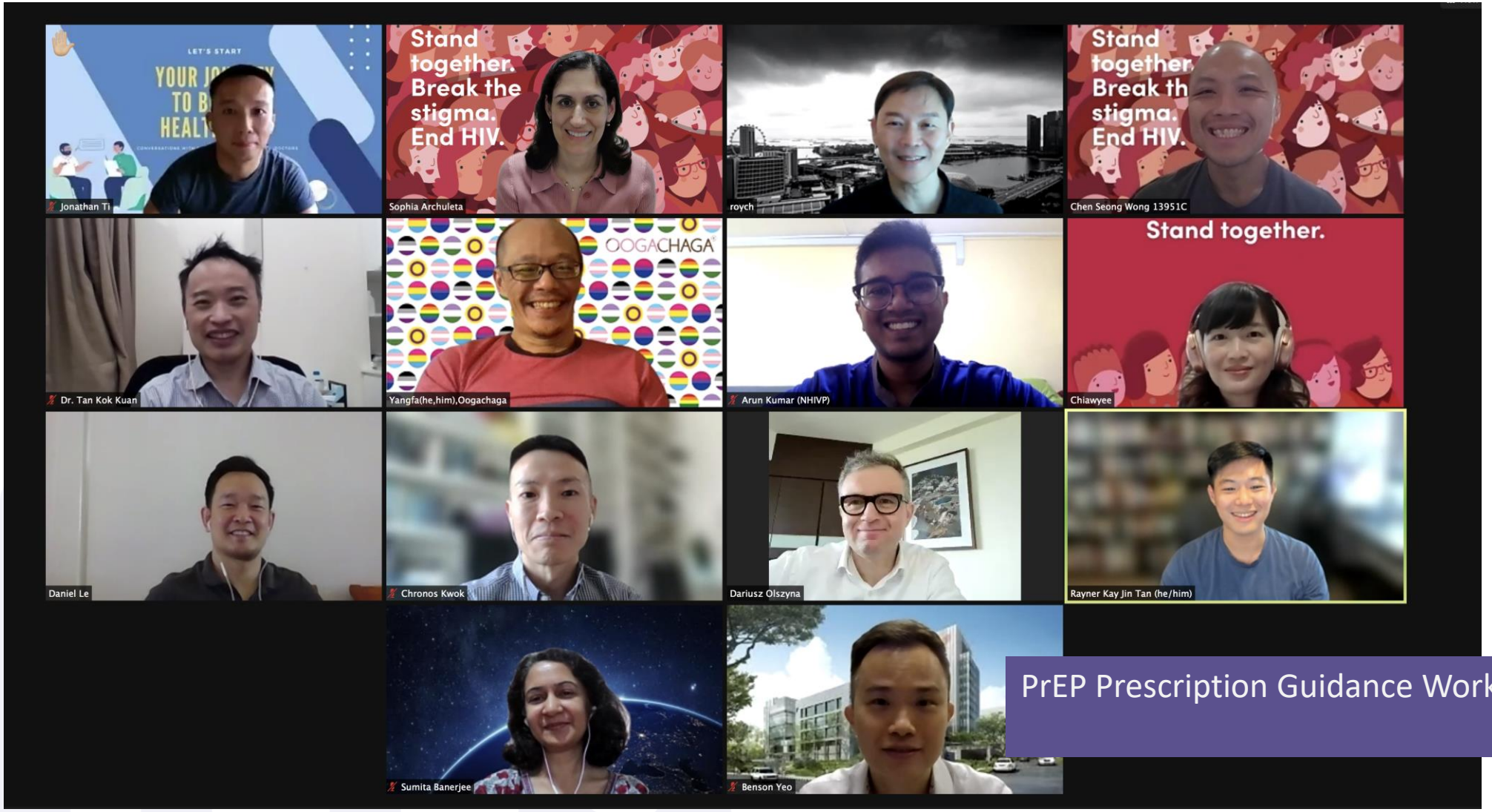
Acknowledgements



PrEP Prescription Guidance Workgroup

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Thank you!