A SELECTION OF TEN CURRENT READINGS ON TOPICS RELATED TO SEXUAL HEALTH

some available as free full-text and some requiring payment

Selection of readings made by A/Prof Goh Lee Gan

READING 1 – HIV PREEXPOSURE PROPHYLAXIS

Krakower D, Mayer KH. What primary care providers need to know about preexposure prophylaxis for HIV prevention: a narrative review. Ann Intern Med. 2012 Oct 2;157(7):490-7. Review. PubMed PMID: 22821365.

URL: http://annals.org/article.aspx?articleid=1363525 – free full text

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Comment in
Ann Intern Med. 2012 Oct 2;157(7):519-20.

ABSTRACT

As HIV prevalence climbs globally, including more than 50 000 new infections per year in the United States, we need more effective HIV prevention strategies. The use of antiretrovirals for preexposure prophylaxis (PrEP) among high-risk persons without HIV is emerging as one such strategy. Randomized, controlled trials have demonstrated that once-daily oral PrEP decreased HIV incidence among at-risk men who have sex with men and African heterosexuals, including serodiscordant couples. An additional randomized, controlled trial of a topical pericoital antiretroviral microbicide gel decreased HIV incidence among at-risk heterosexual South African women. Two other studies in African women did not demonstrate the efficacy of oral or topical PrEP, raising concerns about adherence patterns and efficacy in this population. The U.S. Food and Drug Administration (FDA) Antiviral Drugs Advisory Committee reviewed these studies and additional data in May 2012 and voted to advise the approval of oral tenofovir-emtricitabine for PrEP in high-risk populations. On 16 July 2012, the FDA recommended that this combination medication be approved for use as PrEP in high-risk persons without HIV. Patients may seek PrEP from their primary care providers, and those receiving PrEP require monitoring. Thus, primary care providers should become familiar with PrEP. This review outlines current knowledge about PrEP as it pertains to primary care, including identifying persons likely to benefit from PrEP; counseling to maximize adherence and reduce potential increases in risky behavior; and monitoring for potential drug toxicities, HIV acquisition, and antiretroviral drug resistance. Issues related to cost and insurance coverage are also discussed. Recent data suggest that PrEP, combined with other prevention strategies, holds promise in helping to curtail the HIV epidemic. PMID: 22821365 [PubMed - indexed for MEDLINE]

READING 2 – HIV IN PREGNANCY

Taylor GP, Clayden P, Dhar J, Gandhi K, Gilleece Y, Harding K, Hay P, Kennedy J, Low-Beer N, Lyall H, Palfreeman A, Tookey P, Welch S, Wilkins E, de Ruiter A. British HIV Association guidelines for the management of HIV infection in pregnant women 2012. HIV Med. 2012 Sep;13 Suppl 2:87-157. doi: 10.1111/j.1468-1293.2012.01030_2.x. PubMed PMID: 22830373.

URL: http://onlinelibrary.wiley.com/doi/10.1111/j.1468-1293.2012.01030.x/abstract -- payment required

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ABSTRACT

The overall purpose of these guidelines is to provide guidance on best clinical practice in the treatment and management of human immunodeficiency virus (HIV)-positive pregnant women in the UK. The scope includes guidance on the use of

antiretroviral therapy (ART) both to prevent HIV mother-to-child transmission (MTCT) and for the welfare of the mother herself, guidance on mode of delivery and recommendations in specific patient populations where other factors need to be taken into consideration,such as coinfection with other agents. The guidelines are aimed at clinical professionals directly involved with, and responsible for, the care of pregnant women with HIV infection. PMID: 22830373 [PubMed - indexed for MEDLINE]

READING 3 – HIV TRANSMISSION RATE MODELING

Pinkerton SD. HIV transmission rate modeling: a primer, review, and extension. AIDS Behav. 2012 May;16(4):791-6. doi: 10.1007/s10461-011-0042-8. Review. PubMed PMID: 21928097.

URL: http://dx.doi.org/10.1007/s10461-011-0042-8 -- payment required

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ABSTRACT

Several mathematical modeling studies based on the concept of "HIV transmission rates" have recently appeared in the literature. The transmission rate for a particular group of HIV-infected persons is defined as the mean number of secondary infections per member of the group per unit time. This article reviews the fundamental principles and mathematics of transmission rate models; explicates the relationship between these models, Bernoullian models of HIV transmission, and mathematical models based on the concept of the "reproductive rate of infection"; describes an extension of existing transmission rate models to better incorporate the positive impact of HIV treatment; and discusses the limitations of the transmission rate modeling approach. Results from the extended transmission rate model indicate that approximately 51.6% of new sexually-transmitted infections in the US are due to the transmission risk behaviors of infected persons who are unaware of their infection, including 10.9% due to persons in the acute phase of HIV infection. Findings from this study suggest that significant reductions in HIV incidence likely will require a combination of increased antibody testing, enhanced early detection of acute HIV infection, appropriate medical care and antiretroviral medicine adherence counseling, and behavioral risk reduction interventions. PMID: 21928097 [PubMed - indexed for MEDLINE]

READING 4 – HIV VOLUNTARY COUNSELLING AND TESTING

Fonner VA, Denison J, Kennedy CE, O'Reilly K, Sweat M. Voluntary counseling and testing (VCT) for changing HIV-related risk behavior in developing countries. Cochrane Database Syst Rev. 2012 Sep 12;9:CD001224. doi: 10.1002/14651858.CD001224.pub4. Review. PubMed PMID: 22972050.

URL: http://dx.doi.org /10.1002/14651858.CD001224.pub4 – payment required

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ABSTRACT

BACKGROUND: Voluntary counseling and testing (VCT) continues to play a critical role in HIV prevention, care and treatment. In recent years, different modalities of VCT have been implemented, including clinic-, mobile- and home-based testing and counseling. This review assesses the effects of all VCT types on HIV-related risk behaviors in low- and middle-income countries.

OBJECTIVES: The primary objective of this review is to systematically review the literature examining the efficacy of VCT

in changing HIV-related risk behaviors in developing countries across various populations.
SEARCH METHODS: Five electronic databases - PubMed, Excerpta Medica Database (EMBASE), PsycINFO, Sociological Abstracts, and the Cumulative Index to Nursing and Allied Health Literature (CINAHL) - were searched using predetermined key words and phrases. Hand-searching was conducted in four key journals including AIDS, AIDS and Behavior, AIDS Education and Prevention, and AIDS Care; the tables of contents of these four journals during the included time period were individually screened for relevant articles. The reference lists of all articles included in the review were screened to identify any additional studies; this process was iterated until no additional articles were found.
SELECTION CRITERIA: To be included in the review, eligible studies had to meet the following inclusion criteria: 1) Take place in a low- or middle-income country as defined by the World Bank, 2) Published in a peer-reviewed journal between January 1, 1990 and July 6, 2010, 3) Involve client-initiated VCT, including pre-test counseling, HIV-testing, and post-test counseling, and 4) Use a pre/post or multi-arm design that compares individuals before and after receiving VCT or individuals who received VCT to those who did not, and 5) Report results pertaining to behavioral, psychological, biological, or social HIV-related outcomes.
DATA COLLECTION AND ANALYSIS: All citations were initially screened and all relevant citations were independently screened by two reviewers to assess eligibility. For all included studies data were extracted by two team members working independently using a standardized form. Differences were resolved through consensus or discussion with the study coordinator when necessary. Study rigor was assessed using an eight point quality score and through the Cochrane Collaboration's Risk of Bias Assessment Tool. Outcomes comparable across studies, including condom use and number of sex partners, were meta-analyzed using random effects models. With respect to both meta-analyses, data were included from multi-arm studies and from pre/post studies if adequate data were provided. Other outcomes, including HIV-incidence, STI incidence/prevalence, and positive and negative life events were synthesized qualitatively. For meta-analysis, all outcomes were converted to the standard metric of the odds ratio. If an outcome could not be converted to an odds ratio, the study was excluded from analysis.
MAIN RESULTS: An initial search yielded 2808 citations. After excluding studies failing to meet the inclusion criteria, 19 were deemed eligible for inclusion. Of these studies, two presented duplicate data and were removed. The remaining 17 studies were included in the qualitative synthesis and 8 studies were meta-analyzed. Twelve studies offered clinic-based VCT, 3 were employment-based, 1 involved mobile VCT, and 1 provided home-based VCT. In meta-analysis, the odds of reporting increased number of sexual partners were reduced when comparing participants who received VCT to those who did not, unadjusted random effects pooled OR= 0.69 (95% CI: 0.53-0.90, p=0.007). When stratified by serostatus, these results only remained significant for those who tested HIV-positive. There was an insignificant increase in the odds of condom use/protected sex among participants who received VCT compared to those who did not, unadjusted random effects pooled OR=1.39 (95% CI: 0.97-1.99, p=0.076). When stratified by HIV status, this effect became significant among HIV-positive participants, random effects pooled OR= 3.24 (95% CI: 2.29-4.58, p<0.001).
AUTHORS' CONCLUSIONS: These findings add to growing evidence that VCT can change HIV-related sexual risk behaviors thereby reducing HIV-related risk, and confirming its importance as an HIV prevention strategy. To maximize the effectiveness of VCT, more studies should be conducted to understand which modalities and counseling strategies produce significant reductions in risky behaviors and lead to the greatest uptake of VCT. PMID: 22972050 [PubMed - indexed for MEDLINE]

READING 5 – HIV SCREENING

Chou R, Selph S, Dana T, Bougatsos C, Zakher B, Blazina I, Korthuis PT. Screening for HIV: systematic review to update the 2005 U.S. Preventive Services Task Force recommendation. Ann Intern Med. 2012 Nov 20;157(10):706-18. doi: 10.7326/0003-4819-157-10-201211200-00007. Review. PubMed PMID: 23165662.

URL: http://annals.org/article.aspx?articleid=1392192 – payment required

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ABSTRACT
BACKGROUND: A 2005 U.S. Preventive Services Task Force (USPSTF) review found good evidence that HIV screening is accurate and that antiretroviral therapy (ART) for immunologically advanced disease is associated with substantial clinical

benefits, but insufficient evidence to determine the effects on transmission or in less immunologically advanced disease.
PURPOSE: To update the 2005 USPSTF review on benefits and harms of HIV screening in adolescents and adults, focusing on research gaps identified in the prior review.
DATA SOURCES: MEDLINE (2004 to June 2012) and the Cochrane Library (through the second quarter of 2012).
STUDY SELECTION: Randomized trials and observational studies that compared HIV screening strategies and reported clinical outcomes, evaluated the effects of starting ART at different CD4 cell count thresholds and long-term harms, or reported the effects of interventions on transmission risk.
DATA EXTRACTION: 2 authors abstracted and checked study details and quality using predefined criteria. DATA SYNTHESIS: No study directly evaluated the effects on clinical outcomes of screening versus no screening for HIV infection. A randomized trial and a subgroup analysis from a randomized trial found that ART initiation at CD4 counts less than 0.250 × 109 cells/L was associated with a higher risk for death or AIDS-defining events than initiation at CD4 counts greater than 0.350 × 109 cells/L (hazard ratios, 1.7 [95% CI, 1.1 to 2.5] and 5.3 [CI, 1.3 to 9.6]). Large, fair-quality cohort studies also consistently found that ART initiation at CD4 counts of 0.350 to 0.500 × 109 cells/L was associated with lower risk for death or AIDS-defining events than delayed initiation. New evidence from good-quality cohorts with longer-term follow-up confirms a previously observed small increased risk for cardiovascular events associated with certain antiretrovirals. Strong evidence from 1 good-quality randomized trial and 7 observational studies found that ART was associated with a 10- to 20-fold reduction in risk for sexual transmission of HIV.
LIMITATIONS: Only English-language articles were included. Observational studies were included. Studies done in resource-poor or high-prevalence settings were included but might have limited applicability to general screening in the United States.
CONCLUSION: Previous studies have shown that HIV screening is accurate, targeted screening misses a substantial proportion of cases, and treatments are effective in patients with advanced immunodeficiency. New evidence indicates that ART reduces risk for AIDS-defining events and death in persons with less advanced immunodeficiency and reduces sexual transmission of HIV.
PRIMARY FUNDING SOURCE: Agency for Healthcare Research and Quality.
PMID: 23165662 [PubMed - indexed for MEDLINE]

READING 6 – SAFER SEX ADVICE

Clutterbuck DJ, Flowers P, Barber T, Wilson H, Nelson M, Hedge B, Kapp S, Fakoya A, Sullivan AK; Clinical Effectiveness Group of British Association for Sexual Health and HIV (BASHH) and British HIV Association (BHIVA). UK national guideline on safer sex advice. Int J STD AIDS. 2012 Jun;23(6):381-8. doi: 10.1258/ijsa.2012.200312. PubMed PMID: 22807529.

URL: http://ijsa.rsmjournals.com/cgi/pmidlookup?view=long&pmid=22807529 – payment required

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ABSTRACT
This guideline provides evidence-based guidance on the content of safer sex advice and the provision of brief behaviour change interventions deliverable in genitourinary (GU) medicine clinics. Much of the advice is applicable to other healthcare settings including general practice and clinics providing HIV care. Advice on condom use and effectiveness, oral sex and other sexual practices, testing for sexually transmitted infections (STI) and partner reduction is provided. Advice specific to the transmission of HIV infection including seroadaptive behaviours and negotiated safety is also included. An accompanying review of the evidence supporting the guideline with a complete reference list is available online. A patient information leaflet based on the advice statements developed is also available through the BASHH website.
PMID: 22807529 [PubMed - indexed for MEDLINE]

READING 7 – MSM

Mayer KH. Sexually transmitted diseases in men who have sex with men. Clin Infect Dis. 2011 Dec;53 Suppl 3:S79-83. doi: 10.1093/cid/cir696. PubMed PMID:22080272

URL: http://cid.oxfordjournals.org.libproxy1.nus.edu.sg/content/53/suppl_3/S84.long -- free full text

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ABSTRACT

Men who have sex with men (MSM) have increased rates of human immunodeficiency virus (HIV) infection and sexually transmitted diseases (STDs) compared with demographically matched controls. The reasons for the disproportionate infection burden are complex, including biological, behavioral, and sociocultural factors. HIV and syphilis may often be coprevalent among MSM. The use of nucleic acid amplification testing has enhanced the ability to detect frequently asymptomatic gonococcal and chlamydial infections of the rectum and other sites. Lymphogranuloma proctitis outbreaks among MSM were noted in the developed world several years ago but have not been common recently. MSM are at increased risk for viral hepatitis and anal human papillomavirus disease. Preventive interventions include vaccination for the former and anal cytologic screening for the latter. Because of the diverse ways in which MSM may be exposed to STDs, it is essential for clinicians to obtain a thorough sexual history in a culturally competent manner.

PMID: 22080272 [PubMed - indexed for MEDLINE]

READING 8 – WSW

Gorgos LM, Marrazzo JM. Sexually transmitted infections among women who have sex with women. Clin Infect Dis. 2011 Dec;53 Suppl 3:S84-91. doi:10.1093/cid/cir697. PubMed PMID: 22080273.

URL: http://www.cid.oxfordjournals.org /cgi/pmidlookup?view=long&pmid=22080273 – free full text

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ABSTRACT

Women who have sex with women (WSW) are a diverse group with variations in sexual identity, sexual behaviors, sexual practices, and risk behaviors. WSW are at risk of acquiring bacterial, viral, and protozoal sexually transmitted infections (STIs) from current and prior partners, both male and female. Bacterial vaginosis is common among women in general and even more so among women with female partners. WSW should not be presumed to be at low or no risk for STIs based on sexual orientation, and reporting of same-sex behavior by women should not deter providers from considering and performing screening for STIs, including chlamydia, in their clients according to current guidelines. Effective delivery of sexual health services to WSW requires a comprehensive and open discussion of sexual and behavioral risks, beyond sexual identity, between care providers and their female clients.

PMID: 22080273 [PubMed - indexed for MEDLINE]

READING 9 – HIV SERODISCORDANT COUPLES

Curran K, Baeten JM, Coates TJ, Kurth A, Mugo NR, Celum C. HIV-1 prevention for HIV-1 serodiscordant couples. Curr HIV/AIDS Rep. 2012 Jun;9(2):160-70. doi: 10.1007/s11904-012-0114-z. Review. PubMed PMID: 22415473; PubMed Central PMCID: PMC3570050.

URL: http://link.springer.com /article/10.1007%2Fs11904-012-0114-z – payment required

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ABSTRACT

A substantial proportion of HIV-1 infected individuals in sub-Saharan Africa are in stable relationships with HIV-1 uninfected partners, and HIV-1 serodiscordant couples thus represent an important target population for HIV-1 prevention. Couple-based HIV-1 testing and counseling facilitates identification of HIV-1 serodiscordant couples, counseling about risk reduction, and referrals to HIV-1 treatment, reproductive health services, and support services. Maximizing HIV-1 prevention for HIV-1 serodiscordant couples requires a combination of strategies, including counseling about condoms, sexual risk, fertility, contraception, and the clinical and prevention benefits of antiretroviral therapy (ART) for the HIV-1-infected partner; provision of clinical care and ART for the HIV-1-infected partner; antenatal care and services to prevent mother-to-child transmission for HIV-1-infected pregnant women; male circumcision for HIV-1-uninfected men; and, pending guidelines and demonstration projects, oral pre-exposure prophylaxis (PrEP) for HIV-1-uninfected partners.
PMCID: PMC3570050 [Available on 2013/6/1] PMID: 22415473 [PubMed - indexed for MEDLINE]

READING 10 – ADULT SYPHILIS

Ghanem KG, Workowski KA. Management of adult syphilis. Clin Infect Dis. 2011 Dec;53 Suppl 3:S110-28. doi: 10.1093/cid/cir701. PubMed PMID: 22080265.

URL: http://www.cid.oxfordjournals.org /cgi/pmidlookup?view=long&pmid=22080265

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ABSTRACT

There are several important unanswered key questions in the management of adult syphilis. A systematic literature review was conducted and tables of evidence were constructed to answer these important questions. A single dose of 2.4 million units of benzathine penicillin G remains the drug of choice for managing early syphilis. Enhanced antibiotic therapy has not been shown to improve treatment outcomes, regardless of human immunodeficiency virus (HIV) status. Although additional data on the efficacy of azithromycin in treating early syphilis have emerged, reported increases in the prevalence of a mutation associated with azithromycin resistance precludes a recommendation for its routine use. Cerebrospinal fluid (CSF) examination should be performed in all persons with serologic evidence of syphilis infection and neurologic symptoms. In those persons with early syphilis who do not achieve a ≥ 4-fold serologic decline in their rapid plasma reagin (RPR) titers 6-12 months after adequate therapy and those with late latent infection who do not achieve a similar decline within 12-24 months, CSF examination should be considered. Among HIV-infected persons, CSF examination among all those with asymptomatic late latent syphilis is not recommended owing to lack of evidence that demonstrates clinical benefit. HIV-infected persons with syphilis of any stages whose RPR titers are ≥ 1:32 and/or whose CD4 cell counts are <350 cells/mm(3) may be at increased risk for asymptomatic neurosyphilis. If CSF pleocytosis is evident at initial CSF examination, these examinations should be repeated every 6 months until the cell count is normal. Several important questions regarding the management of syphilis remain unanswered and should be a priority for future research.
PMID: 22080265 [PubMed - indexed for MEDLINE]