Next-generation HIV PrEP and Other Considerations

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Prevention of HIV transmission can be divided into interventions focused on HIV negative persons (e.g., microbicides, vaccines) and those focused on HIV positive persons (e.g.,condoms, treatment as prevention). This talk will cover the following aspects of novel HIV prevention technologies:

1) Next generation pre-exposure prophylaxis (PrEP): While the first PrEP trials with anti-retroviral (ARV) drugs showed promise, several failures in adherence highlighted the way forward for development of next generation PrEP. Results from several ongoing pre-clinical studies of systemic and topical PrEP will be presented to illustrate how barriers to adherence might be overcome,
2) CD4 and viral load (VL) point of care (POC): The individual- and population-level benefits of antiretroviral treatment (ART) for HIV control are now supported by impressive scientific evidence, notably from the Strategic Timing of AntiRetroviral Treatment (START), TEMPRANO, and the HPTN052 trials. However, significant delays and hurdles along the HIV care cascade still result in late presentation to HIV care for most PLHIV, especially so in low-resource settings. We explore how CD4 and VL POC devices might help improve linkage to care and prioritize limited resources.
3) Brighton Collaboration Viral Vector Vaccine Safety Working Group (V3SWG): Recombinant viral vectors provide an effective means for heterologous antigen expression in vivo and thus represent promising platforms for developing novel vaccines against human pathogens from Ebola to HIV and tuberculosis. An increasing number of candidate viral vector vaccines are entering human clinical trials. The V3SWG was formed to improve our ability to anticipate potential safety issues and meaningfully assess or interpret safety data, thereby facilitating greater public acceptance when these new vaccines are licensed.