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Providers should discuss U=U with all patients living with HIV

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As scientific knowledge surrounding the link between HIV viral suppression and transmission risk evolves, messaging to patients must be updated accordingly. Presenting the results of the multisite, observational PARTNER2 study at the 22nd International AIDS Conference, Alison Rodger reported that no phylogenetically linked infections occurred following more than 76 000 condomless sex acts between virally suppressed men and their HIV-negative male partners.[1] This finding reinforces existing consensus by WHO and more than 750 other organisations worldwide that people whose HIV viral load is stably suppressed cannot sexually transmit the virus.[2] With evidence supporting undetectable=untransmittable (U=U) now overwhelming (table),[1,3–6] providers should be routinely communicating the message to all of their patients living with HIV.

The benefits of informing patients with HIV about U=U are numerous. Patients' awareness about U=U incentivises attainment and maintenance of viral suppression, thus aligning with treatment goals by strengthening patients' motivation to initiate and adhere to antiretroviral regimens. Education about U=U offers psychosocial benefits for individuals who are stably suppressed, alleviating self-stigma, relieving guilt surrounding potential transmission, and enabling sex without fear. Beyond direct benefits, educating patients about U=U could indirectly reduce community viral load by encouraging HIV medication adherence and consequent viral suppression, supporting public-health goals to reduce population level incidence.[7] Additionally, education of patients facilitates knowledge dissemination to partners and social networks. Widespread unawareness and misinformation surrounding U=U at present, including within key populations such as men who have sex with men,[8] make knowledge dissemination especially vital. Resultant increases in social awareness might reduce HIV stigma in the broader community, motivate HIV testing among people uncertain of their serostatus, and lessen anxiety about HIV acquisition among seronegative individuals. These social consequences could ultimately accelerate structural reforms that benefit people living with HIV, such as dismantling punitive HIV criminalisation laws, which are prevalent globally.[9]

Contrary to what might be expected on the basis of robust scientific evidence supporting U=U and the positive implications of awareness for patient and public health, preliminary research suggests that health-care providers are not consistently educating patients with

	Enrolled sample	Study design	Number of condomless sex acts	Number of new HIV infections		
				Total	Phylogenetically linked	Phylogenetically linked when HIV-positive partner virally suppressed
HPTN 052 (2016)[3]	1763 serodifferent couples; 98% male–female couples	Two-arm trial with HIV-positive partner randomised to early or delayed ART	..	78 19 in early-ART group; 59 in delayed-ART group	46* 3 in early-ART group; 43 in delayed-ART group	0
PARTNER1 (2016)[4]	1166 serodifferent couples; 888 in analysis subset; 62% male–female couples	Observational	55 193 total; 34 214 in male–female couples; 20 979 in male–male couples†	11	0	0
PARTNER2 (2018)[1]	972 serodifferent male–male couples; 783 in analysis subset	Observational	76 991	15	0	0
Opposites Attract (2018)[5]	358 serodifferent male–male couples	Observational	12 447 counted when HIV-positive partner virally suppressed and HIV-negative partner not on PrEP	3	0	0

For a systematic review and meta-analysis of earlier relevant research, see Attia et al (2009).[6] U=U=undetectable=untransmittable. ART=antiretroviral therapy. PrEP=pre-exposure prophylaxis. *Viral linkage status not determined for six of 78 infections. †Estimates calculated by averaging the number of within-couple condomless sex acts self-reported by each serostatus subgroup within each couple type.

***Table*: Evidence for U=U 2016–18**

HIV about U=U. A recent international survey of more than 1000 providers[10] found that only 77% of infectious disease specialists and 42% of primary care physicians communicated the message to patients when informing them of their undetectable viral load level. Reported reasons for withholding such information included disbelief (ie, belief that HIV risk is not fully mitigated, despite evidence otherwise), perception that U=U negates personal responsibility, and concerns about patients' behaviour and misunderstanding.[10]

The recent roll-out of HIV pre-exposure prophylaxis (PrEP) offers an analogous circumstance involving provider reticence to educate patients about a biomedical breakthrough, sometimes on similarly moralistic and paternalistic bases unsupported by medical evidence.[11] As with PrEP, the flexibility of established norms and protocols, which allows education of patients about U=U to be optional and reliant on provider discretion, might lead to inconsistent delivery.[12] Whether consciously or not, providers' biases about the type of patient whose personal responsibility, behaviour, and capacity for understanding is in question might manifest in their decisions about whom to educate about U=U. This presents the opportunity for clinical practices to exacerbate existing HIV disparities.[12]

Unfortunately, and inevitably, U=U potentiates existing disparities. Irrespective of providers' messaging to patients about U=U, people living with HIV who do not have affordable access to HIV treatment lack the opportunity to reap the same rewards of U=U as their more privileged counterparts. Likewise, populations facing criminalisation and health-care discrimination experience unique challenges to accessing treatment safely and embracing U=U within their own lives. However, for the U=U message to be withheld from any person living with HIV is inexcusable, particularly in settings where treatment is accessible.

Providers caring for patients with HIV should universally inform their patients about U=U as part of routine HIV care. Conveying benefits and risks surrounding any treatment is fundamental to patients' decision-making, and this HIV treatment benefit should be no exception. Education of patients about U=U is crucial to maximising the wellbeing of people living with HIV and their communities and to minimising the contribution of provider biases to HIV disparities.

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