Homophobia in the provision of sexual health care in the United Kingdom

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Abstract

Decision-making in the provision of healthcare is not just influenced by scientific evidence. We consider national decisions made in the United Kingdom related to sexually transmitted infection (STI) prevention in gay, bisexual and other men who have sex with men (GBMSM), with three specific examples – HIV PrEP, mpox, and doxycycline prophylaxis. We suggest that entrenched societal and political homophobia results in unacceptable delays and limitations to accessing highly effective interventions and that these delay result in real harm. Public health interventions must be equitable, and to deny effective, evidence based STI prevention for marginalised populations is short-sighted and unethical.

The United Kingdom (UK) Government's Equality Act 2010 provides a legal framework against discrimination and places a duty on health services to provide non-discriminatory care.[1] Sexual orientation is one of nine protected characteristics under this legislation, yet experiences of sexuality-driven discrimination in UK healthcare are rife.[2,3] Whilst frontline provision of sexual health and HIV care has a long tradition of inclusion and generally taking greater strides to combat sexuality-driven discrimination, these services still sit within larger National Health Service (NHS) organisations and public sector commissioning structures.[3] Health is a devolved matter for the four nations of the UK (England, Scotland, Wales, and Northern Ireland), although the UK Department of Health and Social Care and NHS England are responsible for 84% of the population.[4] Decisions related to healthcare provision must consider increasingly constrained NHS resources and, for sexual health, the progressive real-term cuts to the Public Health Grant. However, some of the decisions and discussion related to services for gay, bisexual and other men who have sex with men (GBMSM) raise concern about discrimination. We explore examples of potential discrimination in the provision of sexual health care to GBMSM.

HIV pre-exposure prophylaxis (PrEP)

HIV PrEP, the use of oral antiretrovirals to prevent HIV acquisition in people at high risk, was first demonstrated to be effective in 2010[5], yet it was not fully commissioned by NHS England until 2020.[6] The iPrex study, a randomised placebo controlled trial demonstrated a 44% reduction in HIV incidence with daily oral tenofovir disoproxil and emtricitabine (TDF/FTC) fixed dose combination.[5] Even in 2010 it was clear that many of the HIV diagnoses made within iPrex, which utilised an intention-to-treat analysis, were missed acute HIV at baseline or in people with low adherence. Whilst iPrex proved efficacy, reasonable questions were raised about real-world effectiveness. People's behaviour may change if they knew they were taking active drug, so-called "risk compensation", meaning HIV PrEP could be less effective; conversely, knowledge of efficacy could drive higher adherence making HIV PrEP more effective.

Further studies, IPERGAY[7] published in 2015 and PROUD[8] published in 2016, showed very high efficacy such that both trials stopped early due to a profound reduction in HIV incidence (86%). Further cost-effectiveness analyses showed that HIV PrEP was not just cost effective, but potentially cost saving over longer term.[9]

After initial work and consultation in preparation for the commissioning of PrEP, in 2016 NHS England took the view that it was not responsible for the commissioning of HIV prevention services, offering only funding for HIV testing implementation.[10] Whilst Public Health functions were indeed under the control of Local Authorities, there were several congruous precedents for NHS England to provide public health services.[11]

Following a legal challenge by The National AIDS Trust, a UK High Court judge ruled against NHS England, highlighting they did have the necessary power to commission HIV PrEP.[12,13] Whilst countries such as the USA, France, Canada, and South Africa moved to provide HIV PrEP, NHS England's decision to continue to fight against HIV PrEP commissioning, alongside unhelpful public comments from politicians and officials, created a narrative that provision of HIV PrEP would be at the expense of cancer and paediatric care.[12,14] The inherent homophobia was made apparent as GBMSM were pitted against other groups for healthcare funding, and with descriptions such as 'promiscuous' used in the media.[13] GBMSM were forced to pay out of pocket in the UK to protect their health, with many community organisations filling the gap left by the NHS.[15]

In the interim, NHS England agreed to fund the IMPACT trial, a large-scale implementation trial of HIV PrEP in England which started in 2017 and was in effect a roll out programme of HIV PrEP.[16] As part of the research trial, cheaper generic TDF/FTC could be used. However, despite enrolling over 20,000 participants, demand for places far outstripped the number available and IMPACT arguably

led to explicit health rationing and inequity. Services attached to academic departments with existing research infrastructure were able to initiate rollout quickly, others were not. IMPACT slots were released in batches, which meant that some people experienced longs wait to initiate HIV PrEP, with several documented cases of HIV acquisition occurring in the interim.[17] The decisions taken over the last decade have had a lasting impact on GBMSM in the UK, as well as other people who would benefit from HIV PrEP. A 2022 report found that half of sexual health clinics were not properly resourced to provide HIV PrEP services and nearly two-thirds of people wanting to access HIV PrEP were not able.[18] These surveys were conducted prior to the mpox outbreak among GBMSM outlined below, which significantly further negatively impacted HIV PrEP access.[19]

Mpox vaccination

May 2022 saw the start of an unprecedented global outbreak of mpox (previously known as monkeypox) primarily affecting GBMSM, prompting the World Health Organization to deem the infection an "evolving threat of moderate concern".[20] Historically mpox has been confined mainly to West and Central Africa with UK cases linked to travel or contact with travel-related cases, but most 2022 cases were linked not to travel but to sexual activity within GBMSM networks.[21] In the early stages of the UK outbreak, mpox was considered a high consequence infectious disease (HCID), and managed accordingly in highly specialised units. HCID status is dependent on several factors including a high case-fatality rate. Based on early analysis of community-transmitted cases (caused by clade IIb, B.1 lineage), this mpox lineage was rapidly downgraded from HCID status in June 2022.[22] In January 2023 the Advisory Committee on Dangerous Pathogens (ACDP) advised that although clade I (formerly Central African clade) mpox should still be considered an HCID, all clade II cases (formerly West African clade), not only the B.1 lineage, no longer met HCID status.[22]

What did this mean in practical terms? Whilst removing HCID status was entirely appropriate considering the low mortality overall and potentially overwhelming UK case numbers, it also meant

that the bulk of mpox management was shifted to Sexual Health Services (SHS). In theory, mpox care provided by open access services skilled at non-judgemental sexually transmitted infection (STI) management, health promotion, and contact tracing is preferable. However, since they moved from NHS to Local Authority (LA) control, SHS in England have seen systematic reductions in funding as the Government has slashed the Public Health Grant. SHS funding cuts of 29% between 2015/6 and 2023/4 are second only to the 45% cut to stop smoking services and tobacco control over the same time period.[23] When SHS are already at breaking point, not only due to reduced funding but also the pan-health and social care workforce crisis, and ever-rising SHS attendances over the last decade, their capacity to cope with a sudden increase in demand is obviously limited.[24] Managing mpox with little or no additional resource resulted in displaced sexual and reproductive health activity, including a negative impact on already suboptimal HIV PrEP access as outlined above.[18] A Consensus Statement from SHS stakeholders in July 2022 highlighted that some services saw a 90% reduction in access to HIV PrEP and long-acting reversible contraception and listed the sobering risks of reduced access to SHS.[19] This consensus also flagged multiple examples of the use of stigmatising language which, thanks to repeated advocacy from SHS and community partners, have been corrected in national publications. A letter to the leads of the Department of Health, NHS England and UKHSA was accompanied by a press release calling for additional funding of more than £50 million to prevent mpox becoming endemic in the UK. Subsequent discussions between SHS, commissioners and their community allies, and those national bodies, seemed to yield little progress.

Since the publication of an mpox control strategy was published by the four nation Public Health bodies in December 2022[25], there appears to have been scant dialogue about how they intend to ensure sufficient capacity in SHS – as outlined in that document. Similarly, the commitment to ongoing vaccination has been revised in the face of very low case numbers in 2023 to date. Whilst this makes epidemiological sense, there is concern that that numbers of people vaccinated so far falls short of the predicted demand.[26] The afore-mentioned consensus statement estimated that

125000 people, based on GUMCAD data, needed mpox vaccine in England. However, as of 13 April 2023 only 69,724 first doses, and 29,726 second doses, had been administered and whether that constitutes a successful vaccine rollout is questionable. UKHSA have since urged people at risk to come forward before mpox vaccination ceases in the Summer (June and July for first and second doses, respectively) but there is little evidence for that messaging reaching populations at risk.[26] A major part of the problem is our National Bodies' reluctance to follow the advice from community organisations with expertise in targeted sexual health messaging. This culminated in Terrence Higgins Trust (THT), the UK's largest sexual health charity, taking the unprecedented step of withdrawing from UKHSA mpox communications meetings thanks to UKHSA's "lacklustre monkeypox communications strategy" and lack of response despite consistent concerns and a letter to the UKHSA Chief Executive.[27]

Whether or not mpox case numbers increase again remains to be seen. If the outbreak does resurge, as some experts fear[28], the lower than advised vaccination rate and lack of input into shoring up SHS capacity, may leave us woefully ill-prepared to manage this.

Doxycycline prophylaxis

Doxycycline post-exposure prophylaxis (PEP) provides a novel biomedical intervention to potentially tackle and reverse rising rates of bacterial STIs, particularly among GBMSM and transgender women (TGW). Two randomised trials robustly demonstrated the efficacy of doxycycline PEP: the Doxypep study in the USA in GBMSM, transgender women and non-binary people living with HIV or using HIV PrEP[29] and the ANRS Doxyvac study in France in GBMSM with a at least one bacterial STI in the previous year. [30] Both studies showed a strikingly similar 65% reduction in the quarterly incidence of bacterial STIs and significant reduction in the incidence of chlamydia, syphilis and gonorrhoea individually, despite high rates of baseline gonorrhoea tetracycline resistance. Targeted use in

GBMSM and TGW with a recent STI diagnosis could prevent approximately 42% of STIs according to modelling.[31]

Driven by the major potential benefit, the first (and only as of April 2023) recommendations for the use doxycycline PEP were published in 2022 from the San Francisco Department of Public Health.[32] However, at the time of writing there is a paucity of guidelines, partly driven by concerns about driving antimicrobial resistance (AMR). Organisations in the UK, USA and Australia have provided information and guidance for clinicians with patients already using doxycycline PEP, which have been updated periodically as new data emerged.[33-35] UK guidance highlights that provision of high-quality sexual health care should include open discussions on doxycycline PEP.[32]

There is a long history of use of antibiotic prophylaxis for infections; studies spanning sexual health, infectious diseases and dermatology, have shown long term tetracyclines to be safe and well tolerated.[29,36,37] Acceptability among MSM for use of STI prophylaxis is high.[33,38] and surveys demonstrate that healthcare professionals are willing to prescribe doxycycline, particularly if recommended in guidelines.[38]

How valid are AMR concerns? At present, data on antimicrobial resistance emergence and selection of resistant infection with doxycycline PEP are limited, with relatively small numbers of gonococcal cultures reported in the studies.[29] However, it is important to note that *Chlamydia trachomatis* and *Treponema pallidum* have never been shown to develop meaningful tetracycline resistance after years of use as first or second line treatment.[35,39,40] Gonorrhoea is the most common bacterial STI among GBMSM and high levels of tetracycline resistant *Neisseria gonorrhoeae* in the UK already preclude its use as treatment, and one would postulate, for prophylaxis.[33] Interestingly, although France has similarly high levels of tetracycline resistant *N. gonorrhoeae,* the Doxyvac study

demonstrated a significant reduction in gonorrhoea incidence with doxycycline PEP (adjusted hazard ratio 0.49; 95% confidence interval: 0.32-0.76 [p=0.001]).[30]

Understanding the potential risk of AMR emergence with doxycycline PEP is critical so warrants high quality research in a variety of settings with robust AMR surveillance. Data on tetracycline use outside STI prophylaxis is also limited. A systematic review on the impact of tetracyclines for other indications on normal flora identified only seven eligible randomised trials with modest impact, limited resistance data and no data on emergence of specific AMR genes.[37] Initial findings for changes in commensal or colonising bacteria, such as *Staph aureus*, in the US and French doxycycline prophylaxis studies have demonstrated little cause for concern, suggesting that fears about AMR in commensals and other organisms may be unfounded.[29,30] Crucially, most trials of doxycycline for malaria prophylaxis were carried out prior significant concerns about AMR and reliable measurement of AMR outcomes. More recent trials of oral tetracyclines in dermatology have failed to measure and report AMR outcomes.[36,37] Why is doxycycline for STI prevention in GBMSM different? Why should prevention of STIs be held to a higher level of account than other infections? The gatekeeping of antibiotics for STI prophylaxis for a subset of a small population group, sits very uncomfortably when we consider widespread use of antibiotics in medicine and in livestock farming, and consequent AMR.[41] The 2021 census in England and Wales found that 3.2% of people identified as gay, lesbian, bisexual or another sexual orientation and 0.5% of people as trans, non-binary or a different gender identity.[42]

Contrary to the fear expressed to date, the use of doxycycline PEP could be a useful tool in the prevention of further AMR emergence. A significant reduction in STI incidence would lead to reductions in use of cephalosporins, macrolides, and penicillins for STI treatment and 'epidemiological' management of sexual partners. There is merit in the balanced consideration of doxycycline PEP alongside ongoing discussions on the appropriate frequency of asymptomatic STI

screening, and subsequent antibiotic treatment. Reductions in asymptomatic chlamydia and gonorrhoea testing in MSM has been suggested to improve antimicrobial stewardship and reduce overall antibiotic use.[43] Broader reductions in antibiotic use in this population may yield benefit in terms of AMR, an important consideration in the face of macrolide-resistant and extremely-drug-resistant *Shigella* outbreaks.[44]

Beyond avoidable STI acquisition, what are the potential harms of delaying doxycycline PEP rollout? Doxycycline is easily available to buy online, including through websites originally set up to sell generic HIV PrEP; arguably the tardy implementation of HIV PrEP in the UK outlined above contributed to this use. Up to 10% of GBMSM have self-sourced antibiotic STI prophylaxis (predominantly doxycycline),[33,45] and surveys from Europe and Australia suggest individuals have used non-doxycycline antibiotics as STI prophylaxis.[33.,46] However, physician-prescribed doxycycline with clinical oversight, accurate risk/benefit counselling, and appropriate testing would be optimal. These surveys likely underestimate self-sourcing since they predate the publication of doxycycline PEP recommendations and guidance, as well as the wealth of community-led discussion, news articles, and verified publicly available information for potential users.

In the wake of the exciting doxycycline PEP data, several news organisations reported on the subject. An American national news organisation published an online article headlined 'Taking an antibiotic after sex helps gay men curb STDs – but might fuel drug resistance'.[47] Antimicrobial resistance is indeed a major public health threat, but we must consider the balance of harm and choose our words wisely. To do otherwise risks fuelling a narrative that a community already facing homophobia and transphobia from healthcare professionals and the public are 'to blame'.

Conclusions

There are clear parallels between current professional and public discussion about doxycycline STI prophylaxis and historical debate about HIV PrEP. It is therefore paramount that the lessons learned are applied now. Clinicians and policymakers must reflect on why greater concern is being placed on the use of doxycycline used to prevent STIs in LGBTQ+ identifying individuals, than has ever been placed on its use in other populations and contexts.

More broadly, we must also consider inequities related to the broader determinants of health. We know that heterosexuals identifying as Black Caribbean experience higher STI rates[48] and that Black African and Black Caribbean GBMSM with a PrEP need are less likely to start or continue PrEP than those identifying as White British.[49] We know higher chlamydia rates are associated with lower socioeconomic status.[49] Working with community organisations and trusted messengers is critical to ensure people are higher risk are informed and supported to access STI prevention.

Finally, we must consider our societal attitudes to sex in general. Histrionic rhetoric about sex education has driven an earlier than planned review of mandatory relationships and sex education in schools.[50] There is a real risk that children will be denied balanced teaching about sexuality, STIs and gender. What foundation does this build for a society where all protected characteristics are respected, and all adults are equipped to enjoy fulfilling and consensual sex? To delay the rollout of a proven intervention for one group in society based on not yet proven risks, as well as setting the required standard of evidence intrinsically higher, goes against the principles of medical ethics. We risk missing the opportunity to do good whilst focusing on, yet uncertain, harm. We deny individuals autonomy prevent STIs and we deny society the potentially significant benefit of fewer STIs and a net reduction in STI-related antibiotic use.

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