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Letters to the Editor

Are perineal swabs required as part of initial staff screening in healthcare-associated *Streptococcus pyogenes* outbreaks?

Sir,

We read with interest the article published by Mahida *et al.* [1] on the outbreak of invasive group A streptococcal (iGAS) infection in their unit. Healthcare-associated iGAS infections are of serious concern, and, as this outbreak too indicates, they may be associated with high mortality/morbidity. The use of settle plates in this outbreak investigation is novel. We applaud the investigating team for improvising on methods in understanding dispersal of the organism in an outbreak situation.

Current Public Health England (PHE) guidance recommends screening the throat/skin lesions of healthcare workers (HCW) in iGAS outbreaks and to consider repeat screening to include other sites such as nose, anus and vagina [2]. However, Mahida *et al.* suggest that the initial screening of HCWs should include throat as well as perineal swabs. As we know, screening of HCWs as potential sources of serious infectious diseases is a very sensitive subject and usually undertaken after careful consideration. The psychological impact may be enormous despite support and counselling provided by occupational health departments [3]. However, in serious investigations such as these, screening becomes indispensable.

We question the necessity for having both throat and perineal swabs as initial screening sites for HCWs in iGAS outbreaks. In this outbreak, it appears that all HCWs colonized were identified by the use of throat swabs alone (and none had perineal colonization only). Moreover, the HCW who had perineal colonization had symptoms (pruritis ani) that could be attributable to GAS infection and therefore this HCW alone could have been considered for perineal screening following occupational health assessment. Therefore, we question whether a more intrusive test, such as a perineal swab, is necessary as part of initial screening of HCWs. These may be undertaken to check for clearance (as was found to be useful in this investigation) of colonized HCWs, if symptoms suggestive of infection is present at this site, or during repeat screening when throat swabs alone are insufficient to control the outbreak; as is outlined in current PHE guidance. In the presence of good compliance with standard precautions (including hand hygiene) and good environmental decontamination standards; the likelihood of transmission of GAS (or other organisms) from staff or from vectors, to patients would be expected to be low. As the authors have highlighted, focus on such outbreaks should be on addressing issues related to poor compliance with infection prevention practices, and gaps in knowledge/education among HCWs.

Also, it is not clear from Mahida *et al.*'s report whether phylogenetic trees were constructed. *Emm* typing alone may be insufficient to indicate directionality of transmission, i.e. staff to patient transmission or vice versa, although epidemiological investigation here may indicate staff to patient transmission as the most likely route. Whole genome sequencing (WGS) phylogenetic trees are useful and results would be interesting to readers. This may help us understand better the more dynamic mechanisms of infection transmission. It is also not certain that environmental shedding was from a perineal source. As the authors have noted, asymptomatic shedding is known to occur from throat carriage. More sensitive techniques such as WGS of the different isolates, again, may be useful.

Finally, we must not forget the psychosocial support that is required for HCWs who may be 'implicated' as sources of outbreaks. Occupational health departments must be adequately resourced and supported by other professionals (such as mental health teams) in managing this issue.

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HIV postexposure prophylaxis knowledge among healthcare workers in a Colombian hospital

Sir,

Healthcare workers (HCWs) are at risk of contracting human immunodeficiency virus (HIV) as a result of occupational exposure while treating infected patients. It is estimated that 2.5% of HIV infections in HCWs are attributable to occupational sharps exposures, and 90% of these occur in low-income countries and are preventable [1]. HIV postexposure prophylaxis (PEP) is an effective antiretroviral treatment course used to reduce the risk of HIV acquisition following accidental occupational exposure to HIV.

Adequate knowledge and practices on PEP for HIV among HCWs are fundamental for HIV prevention. Several studies have explored knowledge and practices on PEP for HIV among HCWs worldwide. However, there is little information on occupational exposure to HIV and use of PEP services in Latin America, while no studies on PEP in Colombia were found in the medical databases (Medline, Scopus, SCI, SciELO and LILACS). Thus, a cross-sectional study was conducted to assess knowledge of PEP for HIV among HCWs in one hospital in Colombia.

A cross-sectional survey using self-administered, structured questionnaires comprising 15 questions was conducted on 115 HCWs (including medical doctors, nurses and laboratory scientists) at the La Divina Misericordia Hospital in Magangué, Colombia; a secondary referral hospital with >300 beds. The questionnaire was adapted from published studies [2–4] and validated through consultation with epidemiology experts. The survey was distributed in paper and electronic form. All responses were anonymous. Results of knowledge on PEP were categorized as: good (10 or more correct answers), moderate (six to nine correct answers) or poor (five or fewer correct answers).

The 115 HCWs included in this study (60.8% female) were aged from 23 to 45 years, with a mean of 27.2 (standard deviation 2.4) years. Most participants (71.3%, $N = 82$) had heard of PEP for HIV, with the main source of information being ward rounds (88.7%, $N = 61$). The majority of HCWs had poor (61.7%, $N = 71$) or moderate (26.9%, $N = 31$) knowledge about PEP. The overall mean knowledge score was 4.2 ± 2.8 points. Only nine participants (7.8%) reported having received training on PEP for HIV, and the overall knowledge score increased with previous training on PEP ($P < 0.05$). No significant difference was observed in the three groups.

Our study revealed that the majority of HCWs had poor-to-moderate knowledge about PEP, and these results were consistent with previous studies in low-and-middle-income countries [4,5]. Of particular concern, only approximately 71% of participants had heard of PEP for HIV; this is a much lower proportion than reported among HCWs in some African countries [2,4]. Although this study may not reflect the full snapshot of PEP knowledge in Colombia (given the small convenience sample and the inclusion of a single medical institution), it does suggest that more education and wider dissemination of HIV PEP guidelines among HCWs in Colombia is required urgently to ensure prompt access to PEP services.

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