Supplementary material 4: Critical appraisal of included studies with JBI Critical Appraisal Checklist for Prevalence Studies.

	Question								
Study	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Berçot et al., 2021	Yes	Yes	Unclear	Yes	Yes	Yes	Yes	Yes	Yes
Bradley et al., 2020	Yes	No	Unclear	Yes	Unclear	Yes	Yes	Yes	No
Brin et al., 2022	Yes	No	Unclear	No	Unclear	Yes	Yes	Yes	Unclear
Chambers et al., 2019	No	No	No	Yes	Unclear	Yes	No	Yes	No
Couldwell et al., 2018	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes
DeBaetselier et al., 2022	No	Unclear	No	No	Unclear	Yes	Yes	Yes	Unclear
Deborde et al., 2019 and Ducours et al., 2019	Yes	Unclear	Unclear	No	Unclear	Yes	Yes	Yes	Unclear
Guiraud et al., 2021	No	No	Unclear	Yes	Unclear	Yes	Yes	Yes	Unclear
Herms et al., 2021	Yes	No	Unclear	Yes	Yes	Yes	Yes	Yes	Yes
Jansen et al., 2020	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
McIver et al., 2019	No	No	Unclear	Yes	Yes	Yes	Yes	Yes	Yes
Read et al., 2019 and Chua et al., 2021	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Richardson et al., 2021	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes
Streeck et al., 2022	No	No	Unclear	Yes	Yes	Yes	Yes	Yes	Yes
Van Praet et al., 2020	No	No	Unclear	Yes	Yes	Yes	Yes	Yes	Yes

Below, we present the rational used for judging each question.

1. Was the sample frame appropriate to address the target population? This question assesses the risk of bias arising from differences between the sample evaluated and the target population, which may be caused by selecting an unrepresentative sample frame of the target population. We considered the sample frame appropriate when we judged it was likely to represent the complete population of interest (for instance, if the target population was “men attending a STI clinic”, an appropriate sample frame would be “a list of all male patients attended in that STI clinic” and an inappropriate sample frame would be “men attended the STI clinic in May”). If the authors did not clearly describe the target population, we assumed the target population as PrEP users in the country(s) of conduction of the study and assessed if the sample frame was appropriate to represent this population.

2. Were study participants recruited in an appropriate way? This question also assesses risk of bias arising from differences between the sample evaluated and the target population, which may be caused by using an inappropriate sampling method. We considered the recruitment appropriate if the authors used random sampling of the target population. Consecutive or convenience sampling was not considered appropriate. If all patients from the population were included, this question was answered “Yes”.

3. Was the sample size adequate? This question assesses issues related to the precision of estimates. We considered the sample size adequate when authors provided a justified sample size estimation and reached this planned sample size. When no sample size estimation was provided, the answer to this question was “Unclear”.

4. Were the study subjects and setting described in detail? This question assesses the reporting quality of the study. We consider the description of the subjects and setting adequate if authors reported at least the following variables: age, sex, gender, place of conduction of the study, years of data collection, samples used for analysis and method for MG detection.

5. Was data analysis conducted with sufficient coverage of the identified sample? This question assesses risk of bias arising from differences between the sample evaluated and the target population, which may be caused by differences between responders and non-

responders. The coverage was considered sufficient when there was a high response rate (≥ 80%) or when authors presented the characteristics from patients included and excluded from the final sample and there were no important differences between them.

6. Were valid methods used for the identification of the condition? This question assesses risk of bias arising from inadequate measurement of the condition of interest, considering that the use of invalid methods may lead to misclassification of participants regarding the presence or absence of the condition of interest. We only included in our review studies that used valid methods to identify MG infection; therefore, all studies presented low risk of bias related to this question.

7. Was the condition measured in a standard, reliable way for all participants? This question also assessed risk of bias arising from inadequate measurement of the condition of interest, specifically bias that can be present if different methods to identify the condition of interest are applied in different participants of the study. If all patients were evaluated in the same way, this question was answered as “Yes”.

8. Was there appropriate statistical analysis?

For complex samples, statistical analysis should incorporate the sampling design. For simple samples, the answer was “Yes”.

9. Was the response rate adequate, and if not, was the low response rate managed appropriately? This question also assesses the risk of bias arising from differences between the sample evaluated and the target population. Response rate was considered adequate if it was 80% or more. Low response rates should be managed by sensitivity analysis to be considered appropriately handled.