

Table S1: PRISMA Checklist (2020).

| Section and Topic             | Item # | Checklist item                                                                                                                                                                                                                                                                                       | Location where item is reported |
|-------------------------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| <b>TITLE</b>                  |        |                                                                                                                                                                                                                                                                                                      |                                 |
| Title                         | 1      | Identify the report as a systematic review.                                                                                                                                                                                                                                                          | Pg 1                            |
| <b>ABSTRACT</b>               |        |                                                                                                                                                                                                                                                                                                      |                                 |
| Abstract                      | 2      | Made as per the Journal guidelines                                                                                                                                                                                                                                                                   | Pg 1                            |
| <b>INTRODUCTION</b>           |        |                                                                                                                                                                                                                                                                                                      |                                 |
| Rationale                     | 3      | Describe the rationale for the review in the context of existing knowledge.                                                                                                                                                                                                                          | Pg 2                            |
| Objectives                    | 4      | Provide an explicit statement of the objective(s) or question(s) the review addresses.                                                                                                                                                                                                               | Pg 3                            |
| <b>METHODS</b>                |        |                                                                                                                                                                                                                                                                                                      |                                 |
| Eligibility criteria          | 5      | Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.                                                                                                                                                                                          | Supplementary Table 2           |
| Information sources           | 6      | Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted.                                                                                            | Pg 3                            |
| Search strategy               | 7      | Present the full search strategies for all databases, registers and websites, including any filters and limits used.                                                                                                                                                                                 | Supplementary Table 3           |
| Selection process             | 8      | Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.                     | Pg 3&4                          |
| Data collection process       | 9      | Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process. | Pg 3                            |
| Data items                    | 10a    | List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect.                        | Pg 3                            |
|                               | 10b    | List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.                                                                                         | Pg 3&4                          |
| Study risk of bias assessment | 11     | Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process.                                    | Pg 4                            |
| Effect measures               | 12     | Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results.                                                                                                                                                                  | Pg 4                            |
| Synthesis methods             | 13a    | Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)).                                                                                 | Pg 4                            |
|                               | 13b    | Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.                                                                                                                                                | NA                              |
|                               | 13c    | Describe any methods used to tabulate or visually display results of individual studies and syntheses.                                                                                                                                                                                               | Pg 4                            |
|                               | 13d    | Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to                                                                                                                                       | Pg 4                            |

| Section and Topic             | Item # | Checklist item                                                                                                                                                                                                                                                                       | Location where item is reported     |
|-------------------------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
|                               |        | identify the presence and extent of statistical heterogeneity, and software package(s) used.                                                                                                                                                                                         |                                     |
|                               | 13e    | Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).                                                                                                                                                 | Pg 4                                |
|                               | 13f    | Describe any sensitivity analyses conducted to assess robustness of the synthesized results.                                                                                                                                                                                         | Pg 9                                |
| Reporting bias assessment     | 14     | Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).                                                                                                                                                              | Pg 9                                |
| Certainty assessment          | 15     | Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.                                                                                                                                                                                | NA                                  |
| <b>RESULTS</b>                |        |                                                                                                                                                                                                                                                                                      |                                     |
| Study selection               | 16a    | Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.                                                                                         | Figure 1                            |
|                               | 16b    | Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.                                                                                                                                                          | Pg 4                                |
| Study characteristics         | 17     | Cite each included study and present its characteristics.                                                                                                                                                                                                                            | Pg 5, table 1                       |
| Risk of bias in studies       | 18     | Present assessments of risk of bias for each included study.                                                                                                                                                                                                                         | Pg 7, Supplementary Tables 4a & 4b  |
| Results of individual studies | 19     | For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots.                                                     | Figure 2                            |
|                               | 20a    | For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.                                                                                                                                                                               | Table 1, Supplementary Tables 4a,4b |
| Results of syntheses          | 20b    | Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect. | Figure 2                            |
|                               | 20c    | Present results of all investigations of possible causes of heterogeneity among study results.                                                                                                                                                                                       | Table 2                             |
|                               | 20d    | Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.                                                                                                                                                                           | Pg 7 & Figure 2                     |
| Reporting biases              | 21     | Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.                                                                                                                                                              | Pg 8, Figure 3a                     |
| Certainty of evidence         | 22     | Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.                                                                                                                                                                                  | NA                                  |
| <b>DISCUSSION</b>             |        |                                                                                                                                                                                                                                                                                      |                                     |
|                               | 23a    | Provide a general interpretation of the results in the context of other evidence.                                                                                                                                                                                                    | Pg 9 & 10                           |
| Discussion                    | 23b    | Discuss any limitations of the evidence included in the review.                                                                                                                                                                                                                      | Pg 10 & 11                          |
|                               | 23c    | Discuss any limitations of the review processes used.                                                                                                                                                                                                                                | Pg 10 & 11                          |
|                               | 23d    | Discuss implications of the results for practice, policy, and future research.                                                                                                                                                                                                       | Pg 11                               |

| Section and Topic                              | Item # | Checklist item                                                                                                                                                                                                                             | Location where item is reported |
|------------------------------------------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| <b>OTHER INFORMATION</b>                       |        |                                                                                                                                                                                                                                            |                                 |
| Registration and protocol                      | 24a    | Provide registration information for the review, including register name and registration number, or state that the review was not registered.                                                                                             | Pg 3                            |
|                                                | 24b    | Indicate where the review protocol can be accessed, or state that a protocol was not prepared.                                                                                                                                             | Pg 3                            |
|                                                | 24c    | Describe and explain any amendments to information provided at registration or in the protocol.                                                                                                                                            | NA                              |
| Support                                        | 25     | Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.                                                                                                              | Pg 11                           |
| Competing interests                            | 26     | Declare any competing interests of review authors.                                                                                                                                                                                         | Pg 11                           |
| Availability of data, code and other materials | 27     | Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review. | Pg 11                           |

**Table S2.** Inclusion and exclusion criteria.

**Research Question: What is the prevalence of ocular manifestations in Monkeypox patients?**

|                      | Inclusion                                                                                                         | Exclusion                                                             |
|----------------------|-------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| <b>Participants</b>  | Confirmed Monkeypox patients <ul style="list-style-type: none"> <li>All gender</li> <li>All age groups</li> </ul> | Suspected or probable Monkeypox patients                              |
| <b>Disease</b>       | Ocular manifestations                                                                                             |                                                                       |
| <b>Outcome</b>       | Prevalence of Ocular manifestations                                                                               | Risk factors and treatment of ocular manifestations of mpox patients. |
| <b>Study Designs</b> | Prevalence studies, case series, cross-sectional studies, cohort studies, case control studies, surveys.          | Qualitative, Policy, case reports and Opinion reports.                |
|                      | Geography-Global level                                                                                            |                                                                       |
|                      | Date of Search- Publish till December 12 <sup>th</sup> December 2022                                              |                                                                       |
|                      | English Language<br>Human studies                                                                                 |                                                                       |
|                      | Published and Un-published data                                                                                   |                                                                       |

**Table S3.** The adjusted search terms as per searched electronic databases [as of 12.12.2022].

| Database                                  | No | Search Query                                                                                                      | Results |
|-------------------------------------------|----|-------------------------------------------------------------------------------------------------------------------|---------|
| <b>Cochrane</b>                           |    |                                                                                                                   |         |
|                                           | #1 | ((mpox:ti,ab) OR (monkeypox:ti,ab)) OR (mpxv:ti,ab)                                                               | 12      |
|                                           | #2 | (((((eye:ti,ab) OR (ophthalmic:ti,ab)) OR (ocular:ti,ab)) OR (optic:ti,ab)) OR (vision:ti,ab)) OR (visual:ti,ab)) | 127,174 |
|                                           | #3 | #1 AND #2 AND (English[Filter] )                                                                                  | 0       |
| <b>EBSCOHost-Academic Search Complete</b> |    |                                                                                                                   |         |
|                                           | #1 | TX mpox OR TX monkeypox OR TX mpxv                                                                                | 387     |

|                       |                                                                                                                                                                                        |           |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| #2                    | TX eye OR TX ophthalmic OR TX ocular OR TX optic OR TX vision OR TX visual                                                                                                             | 400409    |
| #3                    | #1 AND #2 AND (English[Filter])                                                                                                                                                        | 127       |
| <b>EMBASE</b>         |                                                                                                                                                                                        |           |
| #1                    | ((mpox:ti,ab) OR (monkeypox:ti,ab)) OR (mpxv:ti,ab)                                                                                                                                    | 2421      |
| #2                    | (((((eye:ti,ab) OR (ophthalmic:ti,ab)) OR (ocular:ti,ab)) OR (optic:ti,ab)) OR (vision:ti,ab)) OR (visual:ti,ab)                                                                       | 1,183,268 |
| #3                    | #1 AND #2 AND (English[Filter] )                                                                                                                                                       | 49        |
| <b>ProQuest</b>       |                                                                                                                                                                                        |           |
| #1                    | ((TI,AB(mpox)) OR (TI,AB(monkeypox))) OR (TI,AB(mpxv))                                                                                                                                 | 535       |
| #2                    | (((((TI,AB(eye)) OR (TI,AB(ophthalmic))) OR (TI,AB(ocular))) OR (TI,AB(optic))) OR (TI,AB(vision))) OR (TI,AB(visual))                                                                 | 441629    |
| #3                    | 1 AND 2 AND (English[Filter] )                                                                                                                                                         | 17        |
| <b>PubMed</b>         |                                                                                                                                                                                        |           |
| #1                    | ((mpox[Title/Abstract]) OR (monkeypox[Title/Abstract])) OR (mpxv[Title/Abstract])                                                                                                      | 2,219     |
| #2                    | (((((eye[Title/Abstract]) OR (ophthalmic[Title/Abstract])) OR (ocular[Title/Abstract])) OR (optic[Title/Abstract])) OR (vision[Title/Abstract])) OR (visual[Title/Abstract])           | 940,706   |
| #3                    | 1 AND 2 AND (English[Filter])                                                                                                                                                          | 40        |
| <b>Scopus</b>         |                                                                                                                                                                                        |           |
| #1                    | ((TITLE-ABS(mpox)) OR (TITLE-ABS(monkeypox))) OR (TITLE-ABS(mpxv))                                                                                                                     | 2,110     |
| #2                    | (((((TITLE-ABS(eye)) OR (TITLE-ABS(ophthalmic))) OR (TITLE-ABS(ocular))) OR (TITLE-ABS(optic))) OR (TITLE-ABS(vision))) OR (TITLE-ABS(visual))                                         | 2,125,543 |
| #3                    | #1 AND #2 AND (English[Filter] )                                                                                                                                                       | 38        |
| <b>Web of Science</b> |                                                                                                                                                                                        |           |
| #1                    | ((((TI=mpox OR AB=mpox)) OR ((TI=monkeypox OR AB=monkeypox))) OR ((TI=mpxv OR AB=mpxv))                                                                                                | 1625      |
| #2                    | (((((TI=eye OR AB=eye)) OR ((TI=ophthalmic OR AB=ophthalmic))) OR ((TI=ocular OR AB=ocular))) OR ((TI=optic OR AB=optic)) OR ((TI=vision OR AB=vision))) OR ((TI=visual OR AB=visual)) | 1,125,399 |
| #3                    | #1 AND #2 AND (English[Filter] )                                                                                                                                                       | 26        |

**Table S4a: Quality assessment of included case series with the use of *National Heart, Lung, and Blood Institute (NHLBI)* quality assessment tool.**

| Author (YOP)            | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Overall Quality |
|-------------------------|----|----|----|----|----|----|----|----|----|-----------------|
| Patel et al. (2022)     | Y  | Y  | Y  | Y  | NA | Y  | NA | Y  | Y  | Good            |
| Thornhill et al. (2022) | Y  | Y  | CD | N  | NA | Y  | NA | Y  | Y  | Fair            |

\*YOP: Year of Publication; Y: Yes; N: No; NA: Not Applicable; CD: Cannot Determine; NI: No Information; NIH: National Institute of Health. Q1: Was the study question or objective clearly stated?  
 Q2: Was the study population clearly and fully described, including a case definition?  
 Q3: Were the cases consecutive?  
 Q4: Were the subjects comparable?  
 Q5: Was the intervention clearly described?  
 Q6: Were the outcome measures clearly defined, valid, reliable, and implemented consistently across all study participants?  
 Q7: Was the length of follow-up adequate?  
 Q8: Were the statistical methods well-described?  
 Q9: Were the results well-described?

**Table S4. b:** Quality assessment of included cross-sectional and cohort studies with the use of *National Heart, Lung, and Blood Institute (NHLBI)* quality assessment tool.

| Author (YOP)              | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Quality rating |
|---------------------------|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|----------------|
| Català et al. (2022)      | Y  | Y  | N  | Y  | N  | NA | NA | NA | Y  | NI  | Y   | N   | NA  | N   | Poor           |
| deSousa et al., (2022)    | Y  | Y  | Y  | Y  | N  | NA | NA | NA | Y  | NI  | Y   | N   | NA  | N   | Fair           |
| Hughes et al., (2014)     | Y  | N  | NI | NI | N  | NA | NA | NA | Y  | NI  | N   | N   | NA  | N   | Poor           |
| Huhn et al. (2005)        | Y  | Y  | Y  | Y  | N  | NA | NA | NA | Y  | NI  | Y   | N   | NA  | N   | Fair           |
| Jazek et al., (1988)      | Y  | Y  | Y  | Y  | N  | NA | NA | NA | Y  | NI  | Y   | N   | NA  | N   | Fair           |
| Jazek et al., (1988)      | Y  | Y  | Y  | Y  | N  | NA | NA | NA | Y  | NI  | Y   | N   | NA  | N   | Fair           |
| Mande et al., (2022)      | Y  | Y  | Y  | Y  | N  | NA | NA | NA | Y  | NI  | Y   | N   | NA  | N   | Fair           |
| Ogoina et al. (2020)      | Y  | Y  | Y  | N  | N  | NA | NA | NA | Y  | NI  | Y   | N   | NA  | N   | Poor           |
| Pittman et al., (2022)    | Y  | Y  | Y  | Y  | N  | NA | NA | NA | Y  | NI  | Y   | N   | NA  | Y   | Good           |
| Whitehouse et al., (2021) | Y  | Y  | Y  | Y  | N  | NA | NA | NA | Y  | NI  | Y   | N   | Y   | N   | Good           |

\*YOP: Year of Publication; Y: Yes; N: NO; NA: Not Applicable; CD: Cannot Determine; NI: No Information.

Q1: Was the research question or objective in this paper clearly stated?  
 Q2: Was the study population clearly specified and defined?  
 Q3: Was the participation rate of eligible persons at least 50%?  
 Q4: Were all the subjects selected or recruited from the same or similar populations (including the same time period)? Were inclusion and exclusion criteria for being in the study prespecified and applied uniformly to all participants?  
 Q5: Was a sample size justification, power description, or variance and effect estimates provided?  
 Q6: For the analyses in this paper, were the exposure(s) of interest measured prior to the outcome(s) being measured?  
 Q7: Was the timeframe sufficient so that one could reasonably expect to see an association between exposure and outcome if it existed?  
 Q8: For exposures that can vary in amount or level, did the study examine different levels of the exposure as related to the outcome (e.g., categories of exposure, or exposure measured as continuous variable)?  
 Q9: Were the exposure measures (independent variables) clearly defined, valid, reliable, and implemented consistently across all study participants?  
 Q10: Was the exposure(s) assessed more than once over time?  
 Q11: Were the outcome measures (dependent variables) clearly defined, valid, reliable, and implemented consistently across all study participants?  
 Q12: Were the outcome assessors blinded to the exposure status of participants?  
 Q13: Was loss to follow-up after baseline 20% or less?  
 Q14: Were key potential confounding variables measured and adjusted statistically for their impact on the relationship between exposure(s) and outcome(s)?