**Appendix 1: PICO Search Strategy**

Q1) Are SED more effective at treating patients with ocular surface disease, than conventional treatment?

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| Population | Intervention | Comparison | Outcome |
| Patients with Oculare  Surface Disease | Serum Eye Drops | Conventional treatment |  |
| Sjögren's Syndrome related dry eye, Mucous Membrane Pemphigoid, Stevens‐Johnson‐Syndrome, Graft Versus Host Disease, Ulcerative keratitis, neurotrophic cornea, diabetic cornea, persistent epithelial defects, ocular surface reconstruction surgery, supportive therapy | * Serum or Cord Blood or Plasma or Blood Products   AND   * Autologous or allogeneic   AND  eyedrops | Artificial Tears  Ocular Lubricants  Carmellose  Hyaluronates | Clinical:   * Ocular Surface Disease index, tear film break-up time, Schirmer's Test, Osmolarity, Oxford staining Score, Ocular Surface Staining Score, Visual acuity, Near Vison, Radner Read Speed   Laboratory:  HLA DR2, impression cytology, cytokines, goblet cells, mucin, gene expression, proteonomics, metabolomics |

Q2) Is there evidence of superiority in the cost and clinical effectiveness of autologous serum eye drops (Auto-SED) versus allogeneic serum eye drops (Allo-SED) at treating patients with ocular surface disease?

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| Population | Intervention | Comparison | Outcome |
| Patients with Ocular Surface Disease | Serum Eye Drops | Serum Eye Drops |  |
| Sjögren's Syndrome related dry eye, Mucous Membrane Pemphigoid, Stevens‐Johnson‐Syndrome, Graft Versus Host Disease, Ulcerative keratitis, neurotrophic cornea, diabetic cornea, persistent epithelial defects, ocular surface reconstruction surgery, supportive therapy | Autologous  Serum Eye Drops | Allogeneic Serum Eye Drops  Clinical Trial | Clinical:   * Ocular Surface Disease index, tear film break-up time, Schirmer's Test, Osmolarity, Oxford staining Score, Ocular Surface Staining Score, Visual acuity, Near Vison, Radner Read Speed   Laboratory:  - HLA DR2, impression cytology, cytokines, goblet cells, mucin, gene expression, proteonomics, metabolomics  Direct Cost  Indirect Cost  EQ5D |

Q3) What effect does dose size have on the effect of treatment with SED for patients with ocular surface disease?

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| Population | Intervention | Comparison | Outcome |
| Patients with Ocular Surface Disease | Serum Eye Drops |  |  |
| Sjögren's Syndrome related dry eye, Mucous Membrane Pemphigoid, Stevens‐Johnson‐Syndrome, Graft Versus Host Disease, Ulcerative keratitis, neurotrophic cornea, diabetic cornea, persistent epithelial defects, ocular surface reconstruction surgery, supportive therapy | Autologous allogeneic  Serum Eye Drops  Dose | Clinical Trial, Case series, case reports | Clinical:   * Ocular Surface Disease index, tear film break-up time, Schirmer's Test, Osmolarity, Oxford staining Score, Ocular Surface Staining Score, Visual acuity, Near Vison, Radner Read Speed   Laboratory:  HLA DR2, impression cytology, cytokines, goblet cells, mucin, gene expression, proteonomics, metabolomics |

Q4) What effect does concentration of formulation have on the effect of treatment with SED for patients with ocular surface disease?

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| Population | Intervention | Comparison | Outcome |
| Patients with Ocular Surface Disease | Serum Eye Drops |  |  |
| Sjögren's Syndrome related dry eye, Mucous Membrane Pemphigoid, Stevens‐Johnson‐Syndrome, Graft Versus Host Disease, Ulcerative keratitis, neurotrophic cornea, diabetic cornea, persistent epithelial defects, ocular surface reconstruction surgery, supportive therapy | Autologous allogeneic  Serum Eye Drops  Formulation Concentration  Dilution  Preparation | Clinical Trial, case reports, series | Clinical:   * Ocular Surface Disease index, tear film break-up time, Schirmer's Test, Osmolarity, Oxford staining Score, Ocular Surface Staining Score, Visual acuity, Near Vison, Radner Read Speed   Laboratory:  HLA DR2, impression cytology, cytokines, goblet cells, mucin, gene expression, proteonomics, metabolomics |

Q5) What effect does duration of treatment have on the effect of treatment with SED for patients with ocular surface disease?

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| Population | Intervention | Comparison | Outcome |
| Patients with Ocular Surface Disease | Serum Eye Drops |  |  |
| Sjögren's Syndrome related dry eye, Mucous Membrane Pemphigoid, Stevens‐Johnson‐Syndrome, Graft Versus Host Disease, Ulcerative keratitis, neurotrophic cornea, diabetic cornea, persistent epithelial defects, ocular surface reconstruction surgery, supportive therapy | Autologous allogeneic  Serum Eye Drops  Duration  Treatment | Clinical Trial, case reports, series | Clinical:   * Ocular Surface Disease index, tear film break-up time, Schirmer's Test, Osmolarity, Oxford staining Score, Ocular Surface Staining Score   Laboratory:  HLA DR2, impression cytology, cytokines, goblet cells, mucin, gene expression, proteonomics, metabolomics |

Q6) What effect does frequency of treatment have on the effect of treatment with SED for patients with ocular surface disease?

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| Population | Intervention | Comparison | Outcome |
| Patients with Ocular Surface Disease | Serum Eye Drops |  |  |
| Sjögren's Syndrome related dry eye, Mucous Membrane Pemphigoid, Stevens‐Johnson‐Syndrome, Graft Versus Host Disease, Ulcerative keratitis, neurotrophic cornea,  diabetic cornea, persistent epithelial defects, ocular surface reconstruction surgery, supportive therapy | Autologous allogeneic  Serum Eye Drops  Duration  Treatment  Number of drops | Clinical Trial, case reports, series | Clinical:   * Ocular Surface Disease index, tear film break-up time, Schirmer's Test, Osmolarity, Oxford staining Score, Ocular Surface Staining Score, Visual acuity, Near Vison, Radner Read Speed   Laboratory:  HLA DR2, impression cytology, cytokines, goblet cells, mucin, gene expression, proteonomics, metabolomics |

Q7) Which clinical outcome measures best record the treatment effect for monitoring ocular surface disease?

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| Population | Intervention | Comparison | Outcome |
| Patients with Ocular Surface Disease | Serum Eye Drops |  |  |
| Sjögren's Syndrome related dry eye, Mucous Membrane Pemphigoid, Stevens‐Johnson‐Syndrome, Graft Versus Host Disease, Ulcerative keratitis, neurotrophic cornea, diabetic cornea, persistent epithelial defects, ocular surface reconstruction surgery, supportive therapy | Autologous allogeneic  Serum Eye Drops | Clinical trials, case reports, series | Clinical:   * Ocular Surface Disease index, tear film break-up time, Schirmer's Test, Osmolarity * Anxiety, Depression, Quality of Life * Laboratory:   HLA DR2, impression cytology, cytokines, goblet cells, mucin |

Q8) Which patient reported outcome measures best record the treatment effect for monitoring impact on patient debility?

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| Population | Intervention | Comparison | Outcome |
| Patients with Ocular Surface Disease | Serum Eye Drops |  |  |
| Sjögren's Syndrome related dry eye, Mucous Membrane Pemphigoid, Stevens‐Johnson‐Syndrome, Graft Versus Host Disease, Ulcerative keratitis, neurotrophic cornea, diabetic cornea, persistent epithelial defects, ocular surface reconstruction surgery, supportive therapy |  | Epidemiiological studies, metanalysis, case reports, series | Ocular Surface Disease index (OSDI,  NEI VFQ, Dry Eye Question (DEQ), impact of dry eye on everyday life (IDEEL) questionnaire, International Sjogren’s classification, Hospital Anxiety and Depression Score |