

Appendix 1 Search strategies

PubMed

("Perfusion"[Mesh] OR "perfus*" [tw] OR "venous congestion" OR "viability") AND ("Indocyanine green" [Mesh] OR "indocyanin*" [tw]) OR ("optical imaging"[Mesh] OR "ICG A*" OR "ICG fluorescence imaging" [tw] OR "fluorescent angiography" [tw] OR "Near-infrared fluorescence imaging" [tw] OR PDE OR Spy Elite OR HyperEye OR FLUOBEAM OR Luna OR Quest Spectrum Platform) AND ("time-intensity" [tw] OR "paramet*" [tw] OR "variable*" [tw] OR "quantification" [tw] OR "quantitative" [tw] OR "metric*" [tw] OR "Ingress*" [tw] OR "Egress*" [tw] OR "Fluorescence intensity" [tw] OR "Slope" [tw] OR "perfusion rate" [tw] OR "perfusion index" [tw] OR "Transit time" [tw] OR "AUC" [tw]) AND ("Plastic surgery" [tw] OR "Breast surgery" [tw] OR "Reconstructive surgery" [tw] OR "Mastectomy" [tw] OR "free flap" [tw] OR "perforator" [tw] OR "TRAM" [tw])

122 (1 nov 2023)

Embase

('Perfusion'/exp OR 'perfus*' OR 'venous congestion' OR viability) AND ('indocyanine green'/exp OR 'indocyanin*') OR ('ICG fluorescence imaging' OR 'fluorescent angiography' OR 'near-infrared fluorescence imaging' OR PDE OR 'Spy Elite' OR 'HyperEye' OR 'FLUOBEAM' OR 'Luna' OR 'Quest Spectrum Platform') AND ('time-intensity' OR 'paramet*' OR 'variable*' OR 'quantification' OR 'quantitative' OR 'metric*' OR 'ingress*' OR 'egress*' OR 'fluorescence intensity' OR 'slope' OR 'perfusion rate') AND ('plastic surgery' OR 'breast surgery' OR 'reconstructive surgery' OR 'mastectomy' OR 'free flap' OR 'perforator' OR 'TRAM')

201 (1 nov 2023)

Appendix 2

- Abbreviations
- ASPS: American Society of Plastic Surgeons
- AU: Arbitrary units
- DIEP: Deep inferior epigastric artery perforator
- DR: Drainage ratio
- F_{\max} : Maximum fluorescence intensity
- ICG: Indocyanine green
- ICG-FA: Indocyanine green fluorescence angiography
- ITT: Intrinsic transit time
- MeSH: Medical subject headings
- NAC: Nipple-areolar complex
- NPV: Negative predictive value
- PAP: Profunda artery perforator flap
- PPV: Positive predictive value
- ROI: Region of interest
- RT: Rise time
- SIEA: Superficial inferior epigastric artery flap
- T_{\max} : Time to reach maximum fluorescence intensity
- T_{\max_Slope} : Time from initial fluorescence increase to maximum slope value
- TRAM: Transverse rectus abdominis myocutaneous flap
- T0: Time from injection to onset of fluorescence intensity rise
- T1: Time from ICG injection to initial perfusion of the least vascularized area
- $T_{1/2\max}$: Time to reach 50% of maximum intensity