

Supplementary table 1: Details of the arbitration process for the externally validated studies included in Table 1 of the main manuscript

Study	Details of arbitration process
<i>Sosale et al</i> ⁷⁰	5 persons graded each image with the majority grade considered as the gold standard
<i>Bahl et al</i> ⁷¹	NS
<i>Natarajan et al</i> ⁷²	2 ophthalmologists graded each image. In case of discrepancy, a VR surgeon made the final decision
<i>Astha et al</i> ⁵¹	Any disagreements were arbitrated by a third senior vitreo-retinal surgeon
<i>Ting et al</i> ⁶⁷	NS
<i>Bellemo et al</i> ⁵³	NS
<i>Ting et al</i> ²⁷	Varied between datasets
<i>Sayres et al</i> ⁷³	3 retinal specialists participated in multiple rounds of adjudication until consensus was reached
<i>Raumviboosuk et al</i> ⁶⁶	When disagreements occurred, graders were able to re-grade images with access to their prior grade and other specialists grade. If agreement was still not reached over 3 rounds of this approach, a senior retina specialist assigned the final grade
<i>Gulshan et al</i> ⁷⁴	At Aravind all images were adjudicated by a panel of 3 senior retinal specialists who graded images independently with any disagreements discussed until consensus was reached. At Sankara, if all graders agreed on final grade, that was accepted as the ground truth, otherwise the same protocol as at Aravind was used.
<i>Gulshan et al</i> ⁷⁵	An image was classified as referable if ≥50% of ophthalmologists graded it referable
<i>Bora et al</i> ⁴⁰	NS
<i>Ruamviboosuk et al</i> ⁵⁵	Any disagreements were reviewed by adjudicators in a round-robin fashion until all panel members agreed.
<i>Al-Turk et al</i> ⁷⁶	NS
<i>Al-Turk et al</i> ⁷⁷	NS
<i>Rajalakshmi et al</i> ⁷⁸	Disagreements adjudicated by a third retinal specialist
<i>Zhang et al</i> ⁵⁶	Disagreements were reviewed by a senior grader and their decision was taken as final grade
<i>Li et al</i> ⁵⁷	N/A (only 1 grader)
<i>Lin et al</i> ²⁵	Disagreements resolved by an expert retinal specialist
<i>Ming et al</i> ⁷⁹	Disagreements were re-graded by a specialist panel
<i>Pei Xiao Ting et al</i> ⁸⁰	Disagreements were adjudicated by a third retinal specialist
<i>Hao et al</i> ⁵⁸	Disagreements were reviewed by a more senior chief physician who decided the final grade
<i>Bawankar et al</i> ⁸¹	NS
<i>Hansen et al</i> ⁸²	NS
<i>Dong et al</i> ²⁶	Disagreements were reviewed by a third expert who made the final decision
<i>Yang et al</i> ⁵⁹	Disagreements were decided by a third senior grader
<i>Nunez do Rio et al</i> ⁵²	A senior ophthalmologist arbitrated disagreements
<i>Mathenge et al</i> ¹⁸	NS
<i>Li et al</i> ⁶⁸	Disagreements adjudicated by a third senior grader