Supplemental Material

SUPPLEMENTAL TABLE 1. Study-Level Sensitivity Estimates — Pool A (Pre-TAVI Index vs Pre-TAVI FFR)

Study	Sensitivity	95% Wilson Lower CI	95% Wilson Upper CI
Mejia-Renteria 2020	0.836	0.717	0.911
Dowling 2022	0.727	0.518	0.868
Fezzi 2023	0.821	0.673	0.910
Sejr-Hansen 2022	0.750	0.468	0.911

Sensitivity was calculated as TP/(TP+FN). Ninety-five percent confidence intervals were computed using the Wilson score method without continuity correction. TP = true positive; FN = false negative; FFR = fractional flow reserve; TAVI = transcatheter aortic valve implantation.

SUPPLEMENTAL TABLE 2. Study-Level Specificity Estimates — Pool A (Pre-TAVI Index vs Pre-TAVI FFR)

Study	TN	FP	Specificity	95% Wilson Lower CI	95% Wilson Upper CI
Mejia-Renteria 2020	66	17	0.795	0.696	0.868
Dowling 2022	32	3	0.914	0.776	0.970
Fezzi 2023	153	6	0.962	0.920	0.983
Sejr-Hansen 2022	13	4	0.765	0.527	0.904

Specificity was calculated as TN/(TN+FP). Ninety-five percent confidence intervals were computed using the Wilson score method without continuity correction. TN = true negative; FP = false positive; FFR = fractional flow reserve; TAVI = transcatheter aortic valve implantation.

SUPPLEMENTAL TABLE 3. Study-Level Sensitivity Estimates — Pool B (Pre-TAVI Index vs Post-TAVI FFR)

Study	TP	FN	Sensitivity	95% Wilson Lower CI	95% Wilson Upper CI
Sejr-Hansen 2022	11	3	0.786	0.524	0.924
Fezzi 2023	29	16	0.644	0.498	0.768
Fukuishi 2024	8	5	0.615	0.355	0.823

Sensitivity was calculated as TP/(TP+FN), where invasive FFR measured after valve implantation served as the reference standard. Ninety-five percent confidence intervals were computed using the Wilson score method. TP = true positive; FN = false negative; FFR = fractional flow reserve; TAVI = transcatheter aortic valve implantation.

SUPPLEMENTAL TABLE 4. Study-Level Specificity Estimates — Pool B (Pre-TAVI Index vs Post-TAVI FFR)

Study	TN	FP	Specificity	95% Wilson Lower CI	95% Wilson Upper CI
Sejr-Hansen 2022	13	2	0.867	0.621	0.963
Fezzi 2023	134	4	0.971	0.928	0.989
Fukuishi 2024	24	1	0.960	0.805	0.993

Specificity was calculated as TN/(TN+FP), where invasive FFR measured after valve implantation served as the reference standard. Ninety-five percent confidence intervals were computed using the Wilson score method. TN = true negative; FP = false positive; FFR = fractional flow reserve; TAVI = transcatheter aortic valve implantation.

SUPPLEMENTAL TABLE 5. Risk of Bias Assessment Using QUADAS-2

Study	Patient Selection	Index Test	Reference Standard	Flow and Timing
Mejia-Renteria 2020 [13]	Low risk	Low risk	Low risk	Low risk
Dowling 2022 [14]	Some concerns	Low risk	Low risk	Low risk
Sejr-Hansen 2022 [15]	Some concerns	Low risk	Low risk	Some concerns*

Fezzi 2023 [16]	Some concerns	Low risk	Low risk	Some concerns*
Fukuishi 2024 [17]	Low risk	Low risk	Low risk	Some concerns*

Risk of bias was assessed using the Quality Assessment of Diagnostic Accuracy Studies-2 (QUADAS-2) tool across four domains: patient selection, index test, reference standard, and flow and timing. Studies were categorized as low risk, some concerns, or high risk according to predefined signaling questions.

*"Some concerns" in the flow and timing domain reflect studies in which post-TAVI fractional flow reserve (FFR) was used as the reference standard, introducing temporal separation between angiography-derived index computation and invasive physiological measurement. FFR = fractional flow reserve, QUADAS-2 = Quality Assessment of Diagnostic Accuracy Studies-2, TAVI = transcatheter aortic valve implantation