Supplementary Table 1: Diagnostic accuracy parameters of various blood-based parameters/indices for variceal prediction in pediatric portal hypertension after sensitivity analysis with exclusion of studies with high risk of bias

Index test	Target condition	No of study Cohorts included	Pooled sensitivity (95% CI)	Pooled specificity (95% CI)	Diagnostic odd's ratio (95% CI)	PLR (95% CI)	NLR (95% CI)
APRI	**EV**	4	0.80 (0.57-0.93)	0.70 (0.57-0.80)	9.60 (2.77-35.14	2.64 (1.64-4.16)	0.28 (0.10-0.63)
	CSV	7	0.77 (0.63-0.87)	0.67 (0.50-0.83)	6.99 (2.82-20.02)	2.33 (1.51-4.45)	0.34 (0.19-0.57)
Platelet count	**EV**	4	0.67 (0.43-0.83)	0.82 (0.65-0.91)	9.0 (2.84-25.77)	3.59 (1.80-7.73)	0.41 (0.22-0.70)
	CSV	5	0.62 (0.44-0.73)	0.68 (0.48-0.79)	3.34 (1.27-6.88)	1.88 (1.11-3.00)	0.57 (0.40-0.90)
CPR	**EV**	2	0.77 (0.44-0.88)	0.74 (0.48-0.89)	9.05 (1.72-37.19)	2.87 (1.29-7.32)	0.32 (0.15-0.80)
	CSV	5	0.65 (0.42-0.83)	0.68 (0.51-0.82)	4.02 (1.33-12.56)	2.03 (1.16-3.67)	0.51 (0.24-0.88)
VPR	**CSV**	3	0.80 (0.60-0.91)	0.55 (0.30-0.77)	5.20 (1.22-18.40)	1.80 (1.05-3.30)	0.35 (0.15-0.88)
K-VaPS	**CSV**	3	0.55 (0.33-0.80)	0.67 (0.49-0.81)	2.62 (0.74-9.33)	1.70 (0.84-3.13)	0.66 (0.30-1.12)

Abbreviations: EV: Any grade esophageal/gastric varices; CSV: Clinically significant varices; APRI: Aspartate aminotransferase to platelet ratio index; CPR: Clinical prediction rule; VPR: Varices prediction rule; K-VaPS: King's variceal prediction score; PLR: Positive likelihood ratio; NLR: Negative likelihood ratio; CI: Confidence interval

Supplementary Table 2: Subgroup analysis for diagnostic accuracy of APRI for prediction of varices in pediatric portal hypertension

Target condition	Covariates	No of study cohorts		Pooled sensitivity (95% CI)	Pooled specificity (95% CI)	DOR (95% CI)	PLR (95% CI)	NLR (95% CI)
Any grade varices (EV)	**Study design**	Prospective	5	0.84 (0.75-0.90)	0.72 (0.63-0.80)	13.36 (6.73-27.82)	3.01 (2.20-4.30)	0.23 (0.13-0.36)
		Retrospective	2	0.70 (0.45-0.90)	0.68 (0.45-0.84)	5.15 (1.29-26.16)	2.20 (1.13-4.50)	0.44 (0.14-0.88)
	Study population	Asian	4	0.82 (0.71-0.89)	0.74 (0.63-0.83)	12.69 (6.0-28.48)	3.10 (2.20-4.90)	0.25 (0.14-0.40)
		Non-Asian	3	0.79 (0.60-0.93)	0.68 (0.54-0.80)	8.10 (2.62-32.35)	2.47 (1.52-4.00)	0.31 (0.10-0.61)
	Sample size	<50	4	0.87 (0.61-0.97)	0.77 (0.52-0.90)	21.75 (3.85-131.83)	3.64 (1.65-8.86)	0.18 (0.04-0.52)
		>50	3	0.78 (0.67-0.88)	0.70 (0.62-0.88)	8.57 (4.29-19.80)	2.63 (1.92-3.70)	0.31 (0.17-0.48)
	Etiology of PHT	Only Biliary atresia	3	0.85 (0.70-0.93)	0.79 (0.65-0.89)	22.66 (7.26-69.69)	4.11 (2.36-7.55)	0.19 (0.08-0.37)
		Mixed	4	0.77 (0.62-0.88)	0.68 (0.59-0.76)	6.94 (3.03-16.45)	2.37 (1.70-3.20)	0.35 (0.18-0.58)
	Prevalence of EV	<50%	4	0.86 (0.73-0.94)	0.70 (0.59-0.79)	14.03 (5.84-38.96)	2.81 (2.04-4.19)	0.20 (0.08-0.38)
		>50%	3	0.75 (0.59-0.86)	0.74 (0.59-0.85)	8.34 (3.01-23.40)	2.82 (1.70-4.93)	0.34 (0.18-0.59)
	APRI cutoff	<1	4	0.86 (0.73-0.94)	0.70 (0.59-0.79)	14.03 (5.84-38.96)	2.81 (2.04-4.19)	0.20 (0.08-0.39)
		>1	3	0.75 (0.59-0.86)	0.74 (0.59-0.86)	8.34 (3.0-23.40)	2.82 (1.70-4.93)	0.35 (0.18-0.59)
	Interval between APRI estimation and UGIE	<1 week	3	0.86 (0.70-0.95)	0.71(0.55-0.83)	15.70 (4.97-54.0)	2.97 (1.87-5.10)	0.20 (0.07-0.43)
		>1 week	4	0.76 (0.63-0.86)	0.72 (0.59-0.82)	7.91 (3.52-18.47)	2.64 (1.78-4.22)	0.34 (0.19-0.54)
Clinically significant varices (CSV)	**Study design**	Prospective	6	0.71 (0.61-0.82)	0.69 (0.58-0.82)	5.72 (2.86-13.30)	2.35 (1.65-4.07)	0.41 (0.26-0.58)
		Retrospective	4	0.76 (0.61-0.87)	0.59 (0.44-0.72)	4.56 (1.71-12.12)	1.84 (1.26-2.84)	0.40 (0.21-0.72)
	Study population	Asian	5	0.78 (0.68-0.87)	0.77 (0.66-0.88)	12.15 (5.80-32.24)	3.36 (2.27-6.19)	0.28 (0.16-0.43)
		Non-Asian	5	0.71 (0.58-0.83)	0.54 (0.45-0.62)	2.96 (1.52-5.99)	1.56 (1.20-1.97)	0.53 (0.31-0.80)
	Sample size	<50	3	0.79 (0.60-0.90)	0.77 (0.53-0.92)	13.06 (3.08-56.48)	3.47 (1.59-9.90)	0.27 (0.12-0.57)
		>50	7	0.72 (0.64-0.79)	0.61 (0.51-0.70)	4.17 (2.35-7.31)	1.87 (1.43-2.47)	0.45 (0.32-0.62)

Etiology of PHT	Only Biliary atresia	7	0.78 (0.69-0.84)	0.72 (0.61-0.81)	8.78 (4.72-18.25)	2.73 (1.97-4.32)	0.31 (0.21-0.44)
	Mixed	3	0.67 (0.47-0.82)	0.51 (0.40-0.81)	2.13 (0.80-12.34)	1.36 (0.90-3.92)	0.64 (0.30-1.12)
Prevalence of CSV	<35%	6	0.74 (0.64-0.83)	0.63 (0.52-0.77)	5.19 (2.62-11.98)	2.06 (1.50-3.20)	0.40 (0.25-0.59)
	>35%	4	0.72 (0.58-0.85)	0.66 (0.50-0.80)	5.36 (2.09-15.97)	2.16 (1.39-3.67)	0.41 (0.21-0.68)
APRI cutoff	<2	7	0.72 (0.63-0.80)	0.59 (0.50-0.70)	3.77 (2.23-7.43)	1.77 (1.40-2.43)	0.47 (0.31-0.64)
	>2	3	0.80 (0.59-0.90)	0.75 (0.55-0.90)	12.21 (3.28-46.77)	3.19 (1.68-8.10)	0.27 (0.13-0.56)
Interval between APRI estimation and UGIE	<1 week	3	0.82 (0.68-0.90)	0.65 (0.46-0.81)	8.34 (2.87-25.02)	2.30 (1.48-4.19)	0.28 (0.14-0.55)
	>1 week	7	0.70 (0.62-0.79)	0.65 (0.53-0.78)	4.38 (2.30-9.57)	2.0 (1.46-3.23)	0.46 (0.30-0.64)

Abbreviations: PHT: Portal hypertension; APRI: Aspartate aminotransferase to platelet ratio index; UGIE: Upper gastrointestinal endoscopy; CI: Confidence interval; DOR: Diagnostic odd's ratio; PLR: Positive likelihood ratio; NLR: Negative likelihood ratio

Supplementary Table 3: Subgroup analysis for diagnostic accuracy of platelet counts for prediction of varices in pediatric portal hypertension

Target condition	Covariates	No of study cohorts		Pooled sensitivity (95% CI)	Pooled specificity (95% CI)	DOR (95% CI)	PLR (95% CI)	NLR (95% CI)
Any grade varices (EV)	**Study design**	Prospective	4	0.70 (0.51-0.84)	0.77 (0.64-0.89)	8.60 (2.91-24.40)	3.14 (1.77-6.29)	0.38 (0.20-0.65)
		Retrospective	1	0.68 (0.55-0.78)	0.81 (0.63-0.92)	9.04 (4.29-28.16)	3.61 (1.72-7.54)	0.40 (0.28-0.56)
	Study population	Asian	2	0.64 (0.32-0.86)	0.79 (0.48-0.94)	6.77 (1.01-38.14)	3.0 (1.01-10.05)	0.46 (0.18-1.0)
		Non-Asian	3	0.74 (0.60-0.84)	0.77 (0.63-0.87)	9.60 (3.72-25.08)	3.20 (1.93-5.83)	0.34 (0.20-0.54)
	Sample size	<100	3	0.67 (0.44-0.84)	0.80 (0.61-0.92)	8.36 (2.22-31.56)	3.35 (1.58-8.35)	0.41 (0.20-0.75)
		>100	2	0.74 (0.49-0.86)	0.75 (0.52-0.88)	8.29 (1.97-26.44)	2.87 (1.38-5.95)	0.36 (0.18-0.75)
	Prevalence of EV	<50%	2	0.80 (0.58-0.90)	0.71 (0.46-0.87)	9.97 (2.38-38.49)	2.78 (1.43-6.66)	0.29 (0.13-0.65)
		>50%	3	0.65 (0.42-0.81)	0.81 (0.65-0.91)	8.13 (2.42-26.06)	3.42 (1.66-7.55)	0.44 (0.23-0.73)
	Platelet count cutoff	<1 lakh/mm^3	1	0.43 (0.26-0.76)	0.96 (0.38-98)	17.58 (9.74-42.96)	10.75 (2.04-18.19)	0.59 (0.18-0.89)
		>1 lakh/mm^3	4	0.77 (0.68-0.85)	0.74 (0.63-0.83)	9.48 (4.70-21.08)	2.93 (2.02-4.66)	0.31 (0.19-0.46)
	Interval between platelet count estimation and UGIE	<1 week	1	0.43 (0.26-0.76)	0.96 (0.38-98)	17.58 (9.74-42.96)	10.75 (2.04-18.19)	0.59 (0.18-0.89)
		>1 week	4	0.77 (0.68-0.85)	0.74 (0.63-0.83)	9.48 (4.70-21.08)	2.93 (2.02-4.66)	0.31 (0.19-0.46)
Clinically significant varices (CSV)	**Study design**	Prospective	3	0.67 (0.48-0.80)	0.62 (0.46-0.75)	3.22 (1.19-7.95)	1.73 (1.09-2.80)	0.54 (0.32-0.91)
		Retrospective	4	0.64 (0.48-0.76)	0.71 (0.56-0.82)	4.35 (1.82-10.62)	2.21 (1.37-3.73)	0.51 (0.32-0.76)
	Study population	Asian	5	0.70 (0.58-0.79)	0.69 (0.58-0.77)	5.0 (2.57-9.97)	2.22 (1.57-3.13)	0.45 (0.29-0.62)
		Non-Asian	2	0.54 (0.31-0.76)	0.70 (0.39-0.88)	2.75 (0.57-11.60)	1.80 (0.76-4.68)	0.66 (0.34-1.28)
	Sample size	<100	5	0.68 (0.57-0.77)	0.65 (0.52-0.76)	3.90 (1.91-7.77)	1.92 (1.35-2.86)	0.50 (0.34-0.72)
		>100	2	0.59 (0.33-0.80)	0.75 (0.50-0.88)	4.33 (1.05-16.10)	2.32 (1.02-4.87)	0.56 (0.27-0.98)
	Etiology of PHT	Only Biliary atresia	3	0.73 (0.58-0.84)	0.69 (0.55-0.80)	6.28 (2.51-15.10)	2.40 (1.55-3.88)	0.39 (0.23-0.63)
		Mixed	4	0.60 (0.43-0.73)	0.68 (0.48-0.81)	3.13 (1.16-7.77)	1.85 (1.07-3.27)	0.59 (0.37-0.94)

Prevalence of CSV	<35%	4	0.64 (0.47-0.77)	0.72 (0.56-0.83)	4.50 (1.81-11.10)	2.25 (1.34-3.81)	0.51 (0.32-0.76)
	>35%	3	0.67 (0.48-0.80)	0.62 (0.45-0.76)	3.28 (1.08-8.69)	1.74 (1.03-2.85)	0.54 (0.31-0.96)
Platelet count cutoff	<1 lakh/mm^3	3	0.54 (0.37-0.73)	0.79 (0.64-0.86)	4.34 (1.55-12.03)	2.54 (1.30-4.43)	0.59 (0.34-0.86)
	>1 lakh/mm^3	4	0.73 (0.61-0.80)	0.60 (0.48-0.70)	4.05 (2.06-7.46)	1.83 (1.34-2.47)	0.46 (0.31-0.67)
Interval between platelet count estimation and UGIE	<1 week	2	0.63 (0.37-0.81)	0.66 (0.48-0.81)	3.26 (0.93-11.08)	1.82 (0.94-3.41)	0.57 (0.27-1.03)
	>1 week	5	0.66 (0.54-0.77)	0.69 (0.54-0.81)	4.49 (2.01-10.37)	2.17 (1.40-3.54)	0.49 (0.32-0.70)

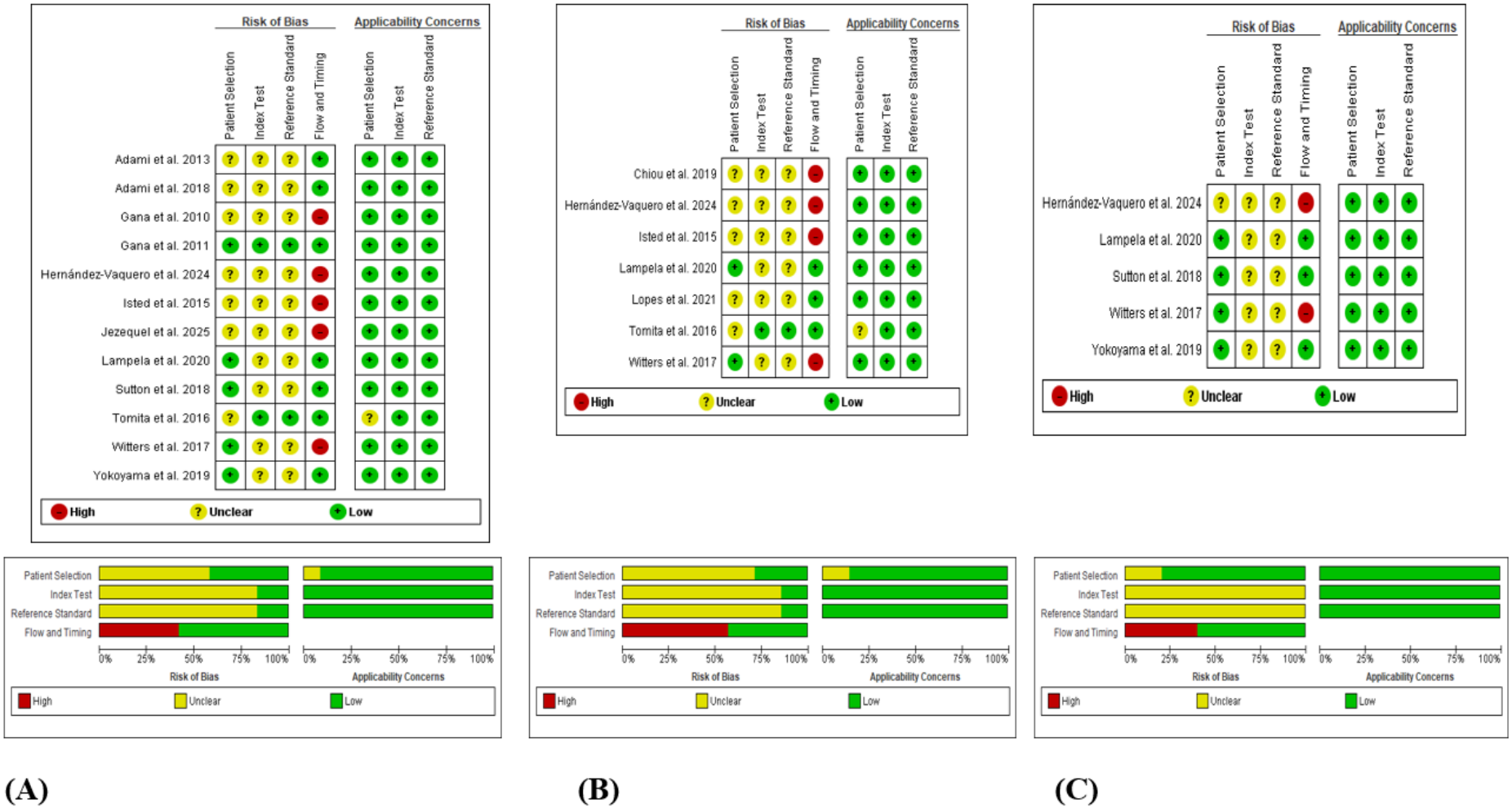
Abbreviations: PHT: Portal hypertension; UGIE: Upper gastrointestinal endoscopy; CI: Confidence interval; DOR: Diagnostic odd's ratio; PLR: Positive likelihood ratio; NLR: Negative likelihood ratio

Supplementary Table 4: Subgroup analysis for diagnostic accuracy of blood-test-based indices for prediction of clinically significant varices in pediatric portal hypertension

Index Test	Covariates	No of study cohorts		Pooled sensitivity (95% CI)	Pooled specificity (95% CI)	DOR (95% CI)	PLR (95% CI)	NLR (95% CI)
Clinical Prediction Rule (CPR)	**Study design**	Prospective	5	0.65 (0.48-0.78)	0.69 (0.58-0.80)	4.22 (1.88-10.18)	2.12 (1.42-3.30)	0.51 (0.30-0.76)
		Retrospective	3	0.57 (0.30-0.82)	0.66 (0.48-0.87)	2.73 (0.72-12.47)	1.70 (0.82-4.43)	0.64 (0.27-1.13)
	Study population	Asian	2	0.77 (0.42-0.93)	0.72 (0.42-0.88)	8.73 (1.30-50.50)	2.65 (1.12-6.70)	0.32 (0.09-0.89)
		Non-Asian	6	0.58 (0.41-0.73)	0.66 (0.58-0.77)	2.79 (1.30-5.96)	1.74 (1.16-2.58)	0.63 (0.41-0.90)
	Sample size	<50	4	0.52 (0.30-0.74)	0.81 (0.66-0.91)	4.65 (1.36-16.02)	2.68 (1.24-6.0)	0.60 (0.32-0.91)
		>50	4	0.68 (0.52-0.81)	0.61 (0.51-0.69)	3.31 (1.50-6.90)	1.74 (1.22-2.31)	0.52 (0.32-0.82)
	Etiology of PHT	Only Biliary atresia	4	0.67 (0.50-0.80)	0.70 (0.57-0.82)	4.96 (1.98-12.97)	2.26 (1.41-3.82)	0.46 (0.27-0.74)
		Mixed	4	0.57 (0.35-0.77)	0.64 (0.51-0.83)	2.46 (0.88-9.03)	1.60 (0.92-3.40)	0.66 (0.36-1.05)
	Prevalence of CSV	<50%	5	0.71 (0.58-0.82)	0.66 (0.56-0.79)	5.03 (2.34-11.15)	2.12 (1.50-3.46)	0.43 (0.27-0.66)
		>50%	3	0.49 (0.24-0.72)	0.69 (0.51-0.85)	2.17 (0.60-7.24)	1.57 (0.70-3.30)	0.74 (0.40-1.18)
	CPR cutoff	<114	6	0.66 (0.51-0.77)	0.65 (0.56-0.74)	3.62 (1.81-7.10)	2.24 (0.73-8.28)	0.62 (0.21-1.17)
		>114	2	0.53 (0.22-0.84)	0.77 (0.49-0.93)	3.89 (0.62-30.38)	2.82 (1.70-4.93)	0.35 (0.18-0.59)
	Interval between CPR assessment and UGIE	<1 week	3	0.57 (0.37-0.78)	0.71 (0.50-0.83)	3.33 (1.04-10.88)	1.97 (1.02-3.74)	0.60 (0.31-0.99)
		>1 week	5	0.63 (0.42-0.79)	0.66 (0.54-0.79)	3.32 (1.35-8.75)	1.83 (1.18-3.05)	0.56 (0.31-0.88)
Variceal Prediction Rule (VPR)	**Study design**	Prospective	3	0.79 (0.64-0.88)	0.63 (0.47-0.77)	6.42 (2.36-16.50)	2.12 (1.41-3.50)	0.33 (0.18-0.62)
		Retrospective	4	0.79 (0.68-0.87)	0.73 (0.55-0.87)	10.36 (3.67-29.76)	2.95 (1.66-6.14)	0.29 (0.17-0.47)
	Study population	Asian	2	0.81 (0.54-0.95)	0.82 (0.59-0.92)	19.11 (3.17-101.95)	3.34 (1.72-9.72)	0.24 (0.07-0.63)
		Non-Asian	5	0.79 (0.71-0.85)	0.64 (0.50-0.77)	6.53 (3.17-14.57)	2.17 (1.53-3.43)	0.34 (0.22-0.50)
	Sample size	<50	3	0.72 (0.54-0.86)	0.73 (0.52-0.89)	7.20 (2.10-31.38)	2.69 (1.40-6.78)	0.39 (0.18-0.69)
		>50	4	0.82 (0.72-0.88)	0.66 (0.49-0.80)	8.95 (3.70-22.69)	2.43 (1.58-4.36)	0.28 (0.17-0.45)
	Etiology of PHT	Only Biliary atresia	4	0.82 (0.69-0.90)	0.74 (0.60-0.83)	12.96 (5.03-33.03)	3.11 (1.99-4.84)	0.24 (0.13-0.43)
		Mixed	3	0.77 (0.63-0.86)	0.62 (0.42-0.84)	5.48 (1.94-19.60)	2.03 (1.25-4.63)	0.37 (0.21-0.67)

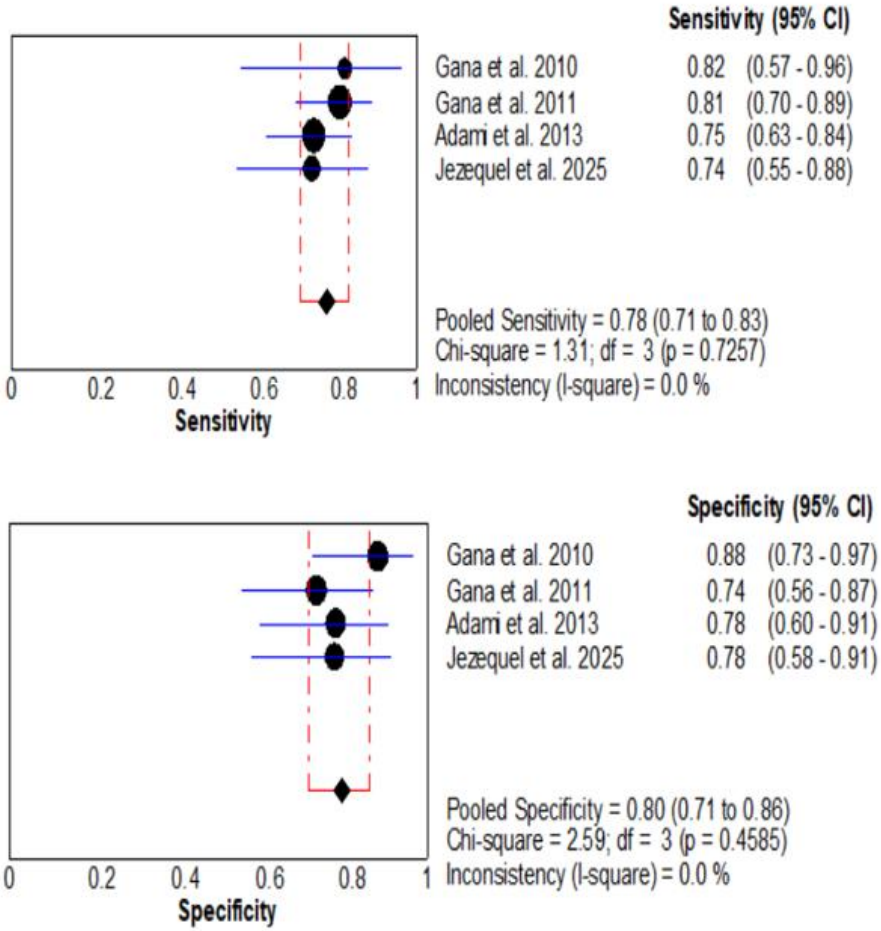
	Prevalence of CSV	<50%	5	0.83 (0.74-0.90)	0.68 (0.52-0.79)	10.13 (4.54-24.37)	2.55 (1.72-4.07)	0.26 (0.15-0.40)
		>50%	2	0.73 (0.49-0.86)	0.72 (0.42-0.92)	7.41 (1.36-44.93)	2.63 (1.14-9.86)	0.37 (0.19-0.86)
	VPR cutoff	<7.2	4	0.79 (0.68-0.88)	0.71 (0.55-0.84)	9.80 (3.77-24.99)	2.75 (1.72-4.84)	0.29 (0.17-0.48)
		≥7.2	3	0.78 (0.60-0.88)	0.68 (0.44-0.86)	7.72 (2.21-26.33)	2.43 (1.34-5.76)	0.32 (0.17-0.67)
	Interval between VPR and UGIE	<1 week	1	0.81 (0.54-0.95)	0.86 (0.74-0.93)	26.2 (12.87-35.02)	5.68 (2.48-7.19)	0.22 (0.14-0.55)
		>1 week	6	0.80 (0.72-0.86)	0.71 (0.57-0.82)	9.68 (4.34-20.27)	2.73 (1.82-4.43)	0.29 (0.19-0.43)
King's Variceal Prediction Score (K-VaPS)	**Study population**	Asian	1	0.71 (0.35-9.85)	0.75 (0.57-0.90)	7.5 (3.2-10.3)	2.84 (1.12-4.21)	0.38 (0.16-0.52)
		Non-Asian	4	0.44 (0.22-0.68)	0.72 (0.59-0.83)	1.96 (0.62-6.19)	1.53 (0.73-0.88)	0.79 (0.44-1.15)
	Sample size	<50	3	0.44 (0.19-0.75)	0.76 (0.59-0.90)	2.60 (0.62-11.72)	1.88 (0.72-4.70)	0.73 (0.33-1.13)
		>50	2	0.57 (0.27-0.80)	0.68 (0.47-0.83)	2.80 (0.54-11.28)	1.75 (0.70-3.60)	0.64 (0.27-1.27)
	Etiology of PHT	Only Biliary atresia	2	0.68 (0.42-0.86)	0.70 (0.47-0.86)	5.03 (1.13-19.60)	2.23 (1.06-4.84)	0.46 (0.20-0.94)
		Mixed	3	0.37 (0.15-0.67)	0.74 (0.56-0.88)	1.67 (0.40-7.94)	1.42 (0.49-3.72)	0.85 (0.44-1.24)
	Prevalence of CSV	<50%	2	0.68 (0.44-0.85)	0.69 (0.41-0.85)	4.80 (1.12-17.35)	2.18 (1.06-4.67)	0.47 (0.20-0.94)
		>50%	3	0.37 (0.15-0.67)	0.73 (0.55-0.87)	1.70 (0.42-6.80)	1.42 (0.53-3.39)	0.85 (0.45-1.27)
	K-VaPS cutoff	<76	2	0.51 (0.27-0.77)	0.64 (0.43-0.80)	1.90 (0.48-7.92)	1.43 (0.64-3.03)	0.77 (0.35-1.35)
		>76	3	0.46 (0.19-0.76)	0.78 (0.63-0.89)	3.02 (0.66-12.54)	2.07 (0.74-4.94)	0.69 (0.32-1.10)
	Interval between K-VaPS and UGIE	<1 week	3	0.56 (0.37-0.75)	0.69 (0.51-0.79)	2.61 (0.94-7.35)	1.69 (0.96-2.86)	0.66 (0.37-1.03)
		>1 week	2	0.37 (0.11-0.75)	0.79 (0.54-0.94)	2.44 (0.35-14.95)	1.83 (0.46-6.70)	0.79 (0.33-1.26)

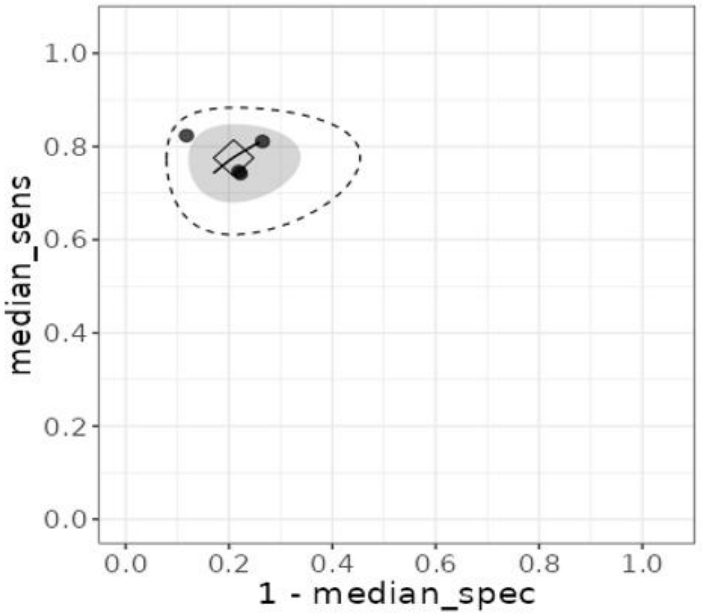
Abbreviations: PHT: Portal hypertension; CSV: Clinically significant varices; UGIE: Upper gastrointestinal endoscopy; CI: Confidence interval; DOR: Diagnostic odd's ratio; PLR: Positive likelihood ratio; NLR: Negative likelihood ratio



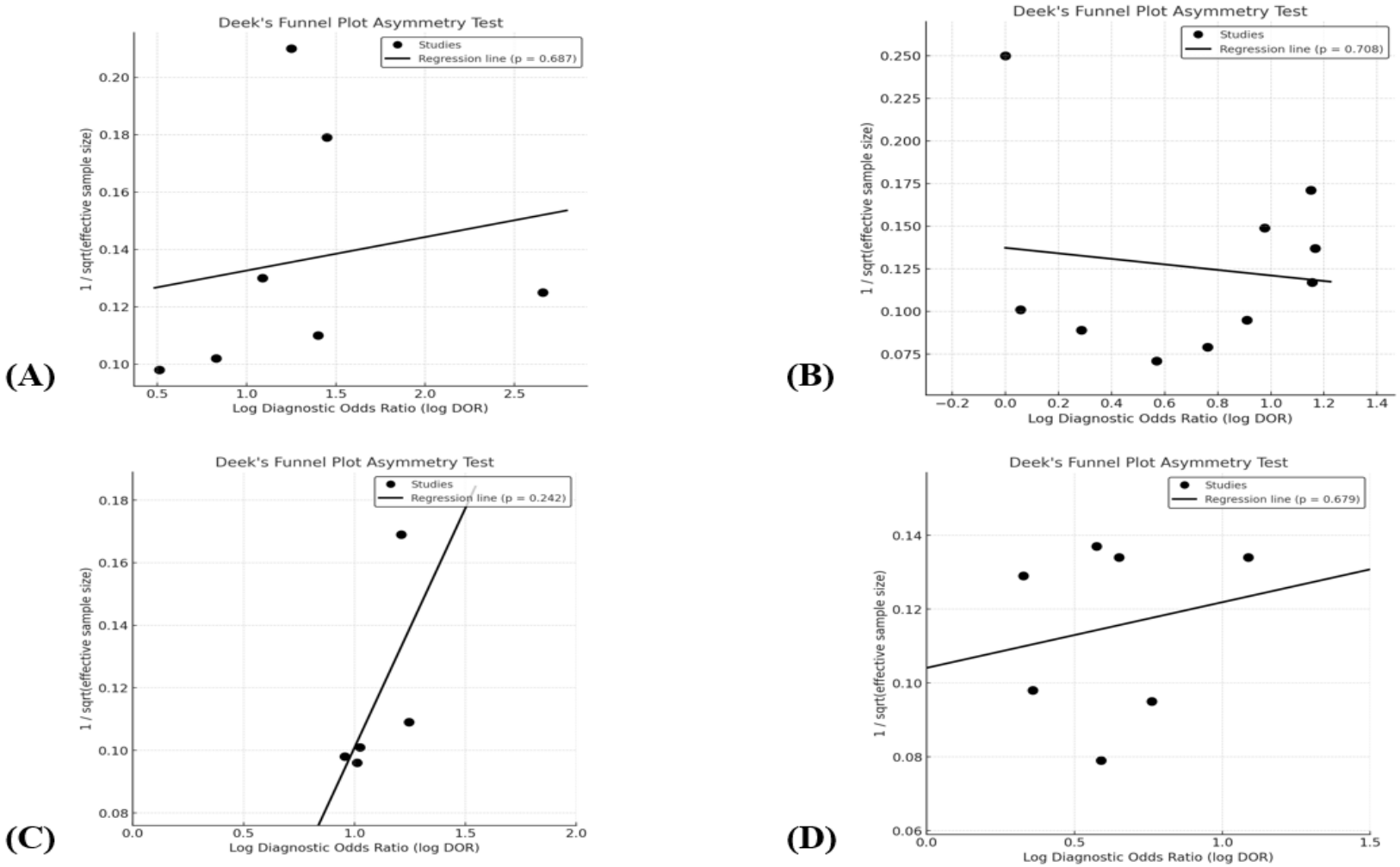
(A) **(B)** **(C)**

Supplementary Figure 1: Methodological quality assessment of included studies according to QUADAS-2 tool for (A): CPR; (B): VPR; (C): K-VaPS

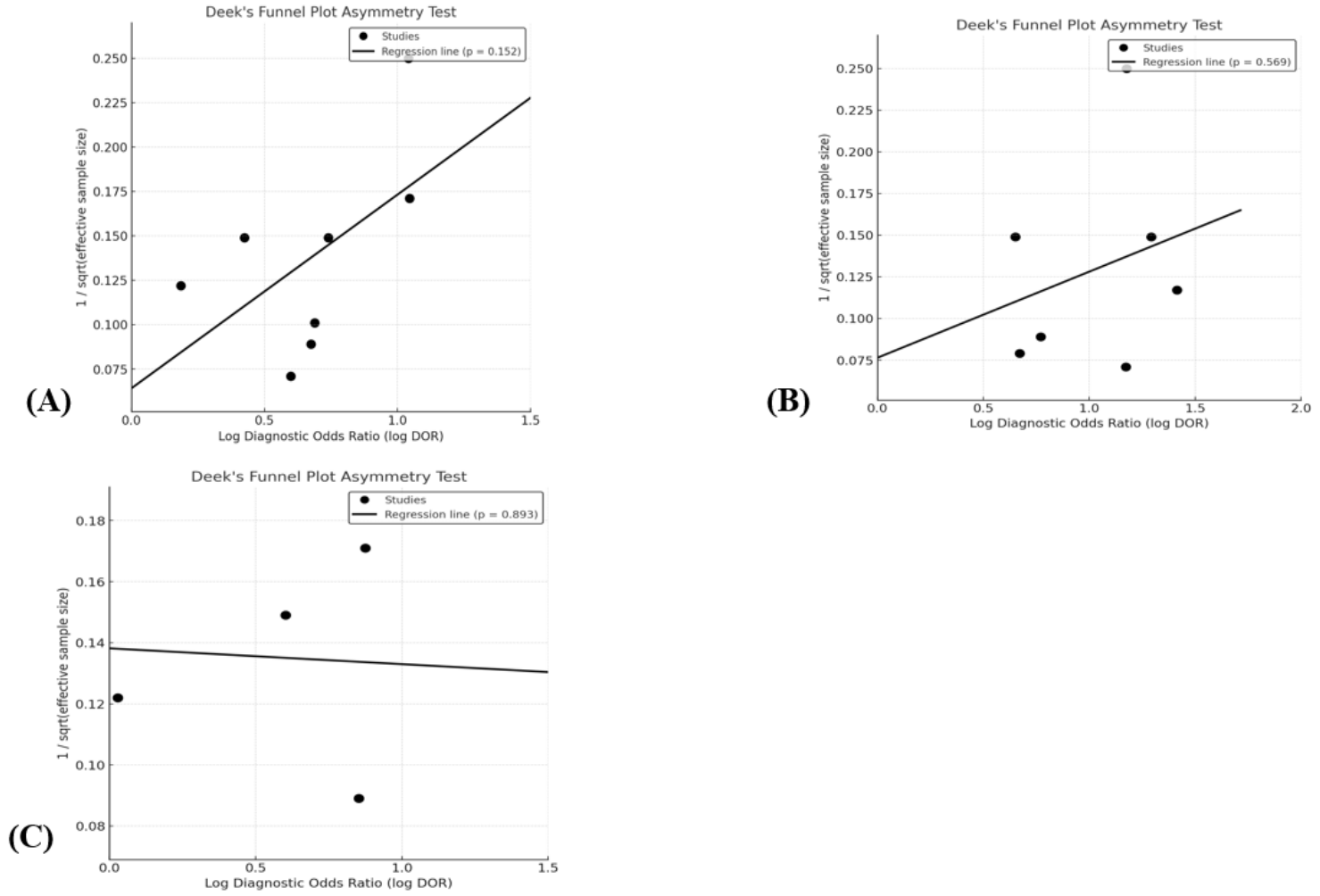




Supplementary Figure 2: Forest plot for sensitivity, specificity, and HSROC plot of CPR for EV prediction



Supplementary Figure 3: Deeks funnel plot asymmetry test for assessment of publication bias in studies evaluating the diagnostic performance of (A) APRI for prediction of EV; (B) APRI for prediction of CSV; (C) Platelet count for prediction of EV; (D) Platelet count for prediction of CSV



Supplementary Figure 4: Deeks funnel plot asymmetry test for assessment of publication bias in studies evaluating the diagnostic performance of (A) CPR for prediction of CSV; (B) VPR for prediction of CSV; (C) K-VaPS for prediction of CSV