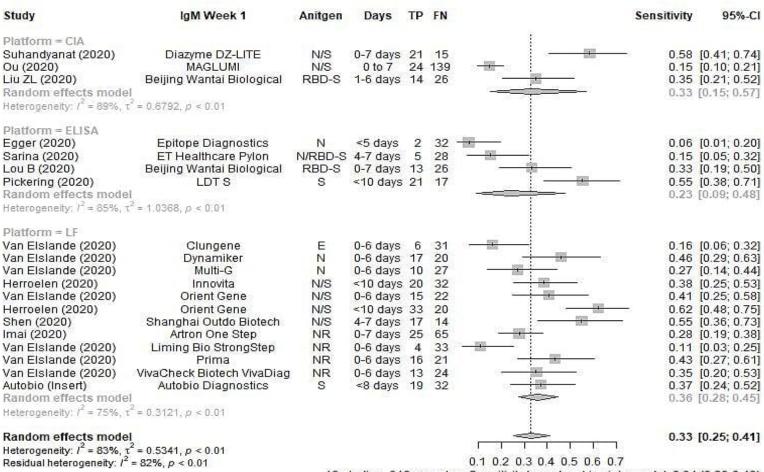
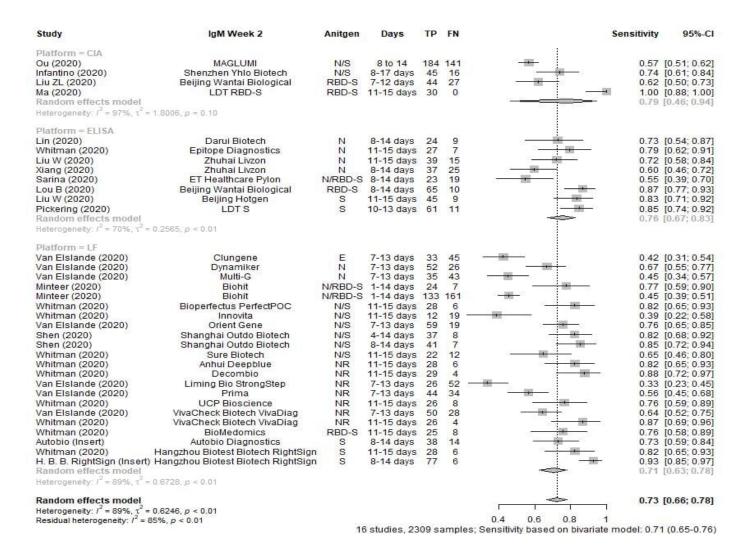
Figure s3. Forest Plots

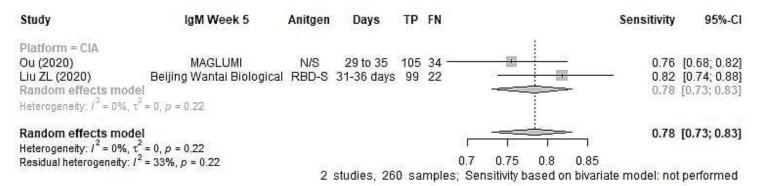


12 studies, 919 samples; Sensitivity based on bivariate model: 0.34 (0.26-0.42)



Study	IgM Week 3	Anitgen	Days	TP	FN		Sensitivity	95%-CI
Platform = CIA Ou (2020) Liu ZL (2020) Ma (2020) Random effects model Heterogeneity: 1 ² = 95%, τ ² =	MAGLUMI Beijing Wantai Biological LDT RBD-S 1.7801, p = 0.68	N/S RBD-S RBD-S	15 to 21 13-18 days 16-20 days	102	16		0.86 1.00	[0.78; 0.87] [0.79; 0.92] [0.94; 1.00] [0.68; 0.99]
Platform = ELISA Lin (2020) Liu W (2020) Xiang (2020) Lou B (2020) Liu W (2020) Pickering (2020) Random effects model Heterogeneity: $l^2 = 63\%$, $\tau^2 = 100$	Darui Biotech Zhuhai Livzon Zhuhai Livzon Beijing Wantai Biological Beijing Hotgen LDT S	N N N RBD-S S S	>14 days 16-20 days 15-21 days 15-29 days 16-20 days 14-19 days	65 58 53	3 10 16 2 2 6		0.82 0.80 0.97 0.96 0.89	[0.76; 0.98] [0.69; 0.91] [0.70; 0.88] [0.88; 1.00] [0.87; 1.00] [0.77; 0.96] [0.83; 0.95]
Platform = LF Van Elslande (2020) Van Elslande (2020) Van Elslande (2020) Minteer (2020) Herroelen (2020) Van Elslande (2020) Dellier (2020) Herroelen (2020) Van Elslande (2020) Herroelen (2020) Van Elslande (2020) Van Elslande (2020) Hetelslande (2020)	Clungene Dynamiker Multi-G Biohit Innovita Orient Gene Orient Gene Orient Gene Liming Bio StrongStep Prima VivaCheck Biotech VivaDiag Autobio Diagnostics Hangzhou Biotest Biotech RightSign	E N N N/RBD-S N/S N/S N/S N/S N/S N/S N/S N/S N/S N/	14-25 days 14-25 days 14-25 days >14 days 10-20 days 14-25 days 15-21 days 10-20 days 14-25 days 14-25 days 14-25 days >14 days >14 days	37 22 111 25 37 28 38 19 26 37 289	1 16 7 17 1 6 4 19 12 1 13		- 0.97 0.58 - 0.94 0.60 - 0.97 0.82 - 0.90 0.50 0.68 - 0.97 - 0.96 - 0.95	[0.38; 0.71] [0.86; 1.00] [0.41; 0.74] [0.88; 0.98] [0.43; 0.74] [0.86; 1.00] [0.65; 0.93] [0.77; 0.97] [0.33; 0.67] [0.51; 0.82] [0.86; 1.00] [0.93; 0.98] [0.90; 0.98] [0.75; 0.93]
Random effects model Heterogeneity: $I^2 = 91\%$, $\tau^2 =$ Residual heterogeneity: $I^2 = 8$		14	etudiae 17	20 ca	mnle	0.4 0.5 0.6 0.7 0.8 0.9 es; Sensitivity based on bivar	1	[0.82; 0.93]

Study	IgM Week 4	Anitgen	Days	TP	FN		Sensitivity	95%-CI
Platform = CIA Ou (2020)	MAGLUMI	N/S	22 to 28	146	26		0.85	[0.79; 0.90]
Liu ZL (2020)	Beijing Wantai Biological		25-30 days			1 - 100		[0.86; 0.96]
Ma (2020) Random effects model Heterogeneity: I ² = 90%, t	LDT RBD-S		21-25 days			-	1.00	[0.94; 1.00] [0.77; 0.99]
Platform = ELISA								
Liu W (2020)	Zhuhai Livzon	N	21-30 days	26	6		0.81	[0.64; 0.93]
Xiang (2020)	Zhuhai Livzon	N	22-28 days		27711			[0.54; 0.85]
Liu W (2020)	Beijing Hotgen	S	21-30 days					[0.71; 0.96]
Random effects model Heterogeneity: $I^2 = 2\%$, τ^2	2000 C		- 10 A			-		[0.70; 0.87]
Platform = LF						Ž.		
Herroelen (2020)	Innovita	N/S	21-45 days	27	49 -	- 24	0.36	[0.25; 0.47]
Herroelen (2020)	Orient Gene	N/S	21-45 days	57	19	- 150 m	0.75	[0.64; 0.84]
Random effects model Heterogeneity: / ² = 91%, τ							0.56	[0.28; 0.81]
Random effects model							0.84	[0.67; 0.93]
Heterogeneity: $I^2 = 94\%$, τ^2 Residual heterogeneity: I^2						0.3 0.4 0.5 0.6 0.7 0.8 0.9	1	
residual lieterogenetty. I	- 0370, p < 0.01	6	studies, 619	san		; Sensitivity based on bivariate	model: 0.82	(0.67-0.91)



Forest Plot IgM Specificity

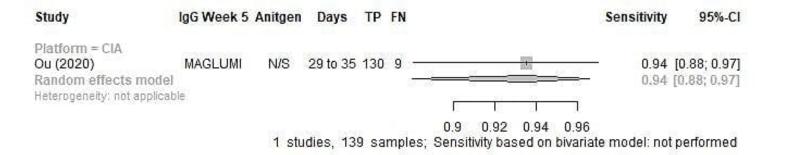
Study	lgM	Anitgen	Control	TN	FP				Specificity	95%-CI
Platform = CIA								1		
Suhandyanat (2020)	Diazyme DZ-LITE	N/S	1	234	1				1.00	[0.98; 1.00]
Ou (2020)	MAGLUMI	N/S	C	204	5			1990	0.98	[0.95; 0.99]
Infantino (2020)	Shenzhen Yhlo Biotech	N/S	1	59	5		- 1			[0.83; 0.97]
Liu ZL (2020)	Beijing Wantai Biological	RBD-S	C	144	0				1.00	[0.97; 1.00]
Ma (2020)	LDT RBD-S	RBD-S	1	446	37		100	- :	0.92	[0.90; 0.95]
Random effects mode	el								0.98	[0.93; 1.00]
Heterogeneity: $I^2 = 89\%$,	$\tau^2 = 1.8433, \rho < 0.01$									
Platform = ELISA										
Egger (2020)	Epitope Diagnostics	N	P	451	5			5000 5000	0.99	[0.97; 1.00]
Sarina (2020)	ET Healthcare Pylon	N/RBD-S	1	333	3			- 1	0.99	[0.97; 1.00]
Lou B (2020)	Beijing Wantai Biological	RBD-S	C	300	0			1	1.00	[0.99; 1.00]
Pickering (2020)	LDTS	S	1	104	1			- 15	0.99	[0.95; 1.00]
Random effects mode								♠	0.99	[0.99; 1.00]
Heterogeneity: $I^2 = 0\%$, τ^2	$^{2} = 0, \rho = 0.99$									
Platform = LF										
Van Elslande (2020)	Clungene	E	3	94	9	-	1		0.91	[0.84; 0.96]
Van Elslande (2020)	Dynamiker	N	i i	98	5		8		0.95	[0.89; 0.98]
Van Elslande (2020)	Multi-G	N	1	94	9	57	15		0.91	[0.84; 0.96]
Minteer (2020)	Biohit	N/RBD-S	C	40	1	15	5	1000	0.98	[0.87; 1.00]
Minteer (2020)	Biohit	N/RBD-S	1	1386	11			A1000	0.99	[0.99; 1.00]
Herroelen (2020)	Innovita	N/S	1	56	0			- 1	1.00	[0.94; 1.00]
Van Elslande (2020)	Orient Gene	N/S		98	5		€ .	- 3	0.95	[0.89; 0.98]
Herroelen (2020)	Orient Gene	N/S	1	55	1		68		0.98	[0.90; 1.00]
Shen (2020)	Shanghai Outdo Biotech	N/S	1	60	0			30	1.00	[0.94; 1.00]
lmai (2020)	Artron One Step	NR	P	47	1		24	150	0.98	[0.89; 1.00]
Van Elslande (2020)	Liming Bio StrongStep	NR	1	102				- 1	0.99	[0.95; 1.00]
Van Elslande (2020)	Prima	NR	J	96	7	199			503,000,000,00	[0.86; 0.97]
Van Elslande (2020)	VivaCheck Biotech VivaDiag		1	103	0			- 1		[0.96; 1.00]
Autobio (Insert)	Autobio Diagnostics	S	P	311	1			- 1		[0.98; 1.00]
Random effects mode									0.98	[0.96; 0.99]
Heterogeneity: $I^2 = 80\%$,	$\tau^2 = 1.2223, p < 0.01$									
Random effects mode								- ♦	0.99	[0.97; 0.99]
Heterogeneity: $I^2 = 86\%$, j	$\chi^2 = 1.4965, p < 0.01$									
Residual heterogeneity: I2						0.85	0.9	0.95	1	
		15 st	udies, 50	23 sa	imple	es; Spec	ificiy base	d on bivariate	model: 0.97	7 (0.95-0.98)

Study	IgG Week 1	Anitgen	Days	TP	FN		Sensitivity	95%-CI
Platform = CIA						1		
Chew (2020)	Abbott	N	<7 days	7	74	- 1000 - 1000	0.09	[0.04; 0.17]
Theel (2020)	Abbott	N	0-7 days		34			[0.03; 0.25]
Suhandyanat (2020)	Diazyme DZ-LITE	N/S	0-7 days		11			[0.52; 0.84]
Ou (2020)	MAGLUMI	N/S	0 to 7		120			[0.20; 0.34]
Theel (2020)	Ortho Clinical Diagnostics Vitros	S	0-7 days	1				[0.00; 0.14]
Herroelen (2020)	DiaSorin LIAISON	S1/S2	<10 days	16				[0.19; 0.46]
Random effects model		awaa		0.50	7.71			[0.07; 0.41]
Heterogeneity: $I^2 = 93\%$, τ								# 600 P 1 00 P 1 P 1
Platform = ELISA								
Egger (2020)	Epitope Diagnostics	N	<5 days	1	33	<u> </u>	0.03	[0.00; 0.15]
Theel (2020)	Epitope Diagnostics	N	0-7 days					[0.00; 0.14]
Herroelen (2020)	EUROIMMUN (NCP)	N	<10 days			THE TO A:		[0.41; 0.70]
Sarina (2020)	ET Healthcare Pylon		4-7 days		27			[0.07; 0.35]
Lou B (2020)	Beijing Wantai Biological	RBD-S	0-7 days					[0.19; 0.50]
EUROIMMUN (Insert)	EUROIMMUN	S	<11 day		27			[0.04; 0.30]
Pickering (2020)	LDTS	s	<10 days					[0.36; 0.69]
Van Elslande (2020)	EUROIMMUN	S1	0-6 days		29			[0.10; 0.38]
Herroelen (2020)	EUROIMMUN	S1	<10 days		C72.70			[0.28; 0.56]
Pickering (2020)	EUROIMMUN	S1	<10 days			A		[0.13; 0.43]
Theel (2020)	EUROIMMUN	S1	0-7 days					[0.00; 0.09]
Random effects model		٠.	0. 00,0	S.F.S.	99			[0.08; 0.34]
Heterogeneity: $I^2 = 91\%$, τ								Marcon Library
Platform = LF								
Van Elslande (2020)	Clungene	E	0-6 days	11	26	10/01	0.30	[0.16; 0.47]
Van Elslande (2020)	Dynamiker	N	0-6 days					[0.14; 0.44]
Van Elslande (2020)	Multi-G	N	0-6 days			24 to 1940 CA		[0.16; 0.47]
Herroelen (2020)	Innovita	N/S	<10 days					[0.30; 0.59]
Van Elslande (2020)	Orient Gene	N/S	0-6 days					[0.25; 0.58]
Herroelen (2020)	Orient Gene	N/S	<10 days					[0.35; 0.63]
Imai (2020)	Artron One Step	NR	0-7 days					[0.01; 0.09]
Van Elslande (2020)	Liming Bio StrongStep	NR	0-6 days					[0.18; 0.50]
Van Elslande (2020)	Prima	NR	0-6 days					[0.25; 0.58]
Van Elslande (2020)	VivaCheck Biotech VivaDiag	NR	0-6 days					[0.20; 0.53]
Autobio (Insert)	Autobio Diagnostics	s	<8 days			and the second s		[0.19; 0.46]
Random effects model		9	~o days	10	33			[0.22; 0.41]
Heterogeneity: $I^2 = 80\%$, τ								
Random effects model	Ď					<u> </u>	0.23	[0.16; 0.32]
Heterogeneity: $I^2 = 91\%$, τ	² = 1.2046, p < 0.01					84 S 18 18	1//	
Residual heterogeneity: 12	= 80%, p < 0.01					0 0.2 0.4 0.6	0.8	
	100000 40 A 500 A	13 s	tudies, 13	43 s	amo	oles; Sensitivity based on bivar		6 (0.2-0.34)
		23,200		to Re	2.20			

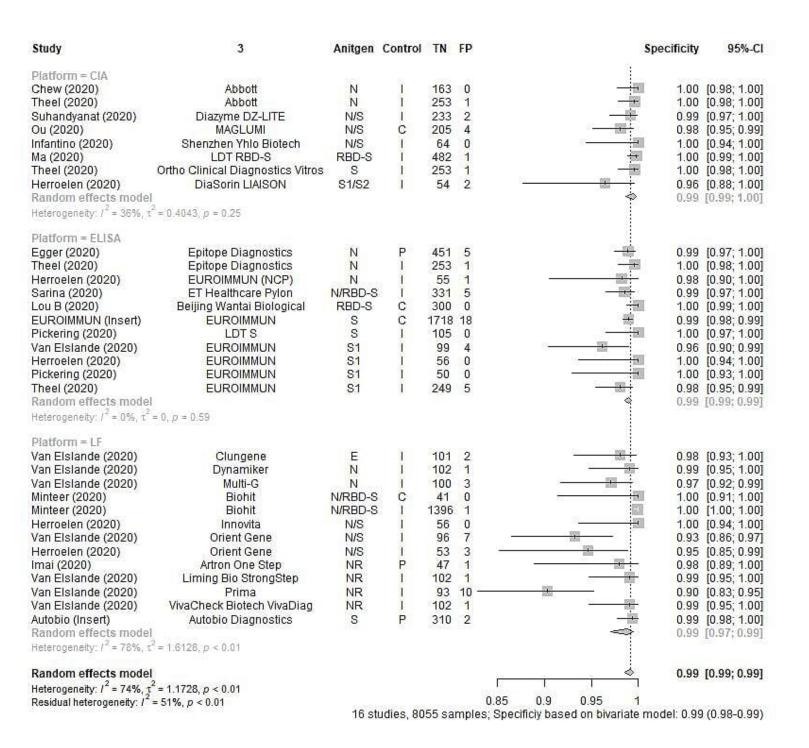
Abbott Abbott MAGLUMI Shenzhen Yhlo Biotech LDT RBD-S Clinical Diagnostics Vitros P < 0.01 Darul Biotech Epitope Diagnostics Epitope Diagnostics Zhuhai Livzon Zhuhai Livzon ET Healthcare Pylon Beijing Wantai Biological	N N/S N/S RBD-S S	7-13 days 8-14 days 8 to 14 8-17 days 11-15 days 8-14 days	17 45 216 47 29 35	22 46 109 14 1 56		0.49 0.66 0.77 0.97 0.38	[0.28; 0.60] [0.39; 0.60] [0.61; 0.72] [0.65; 0.87] [0.83; 1.00] [0.28; 0.49] [0.44; 0.82]
Abbott MAGLUMI Shenzhen Yhlo Biotech LDT RBD-S Clinical Diagnostics Vitros P < 0.01 Darul Blotech Epitope Diagnostics Epitope Diagnostics Zhuhai Livzon Zhuhai Livzon ET Healthcare Pylon	N N/S N/S RBD-S S	8-14 days 8 to 14 8-17 days 11-15 days 8-14 days	45 216 47 29	46 109 14 1		0.49 0.66 0.77 0.97 0.38	[0.39; 0.60] [0.61; 0.72] [0.65; 0.87] [0.83; 1.00] [0.28; 0.49]
MAGLUMI Shenzhen Yhlo Biotech LDT RBD-S o Clinical Diagnostics Vitros p < 0.01 Darul Blotech Epitope Diagnostics Epitope Diagnostics Zhuhai Livzon Zhuhai Livzon ET Healthcare Pylon	N/S N/S RBD-S S	8 to 14 8-17 days 11-15 days 8-14 days	45 216 47 29	46 109 14 1		0.49 0.66 0.77 0.97 0.38	[0.39; 0.60] [0.61; 0.72] [0.65; 0.87] [0.83; 1.00] [0.28; 0.49]
Shenzhen Yhlo Biotech LDT RBD-S o Clinical Diagnostics Vitros p < 0.01 Darul Blotech Epitope Diagnostics Epitope Diagnostics Zhuhai Livzon Zhuhai Livzon ET Healthcare Pylon	N/S RBD-S S	8-17 days 11-15 days 8-14 days	47 29	14		0.66 0.77 0.97 0.38	[0.61; 0.72] [0.65; 0.87] [0.83; 1.00] [0.28; 0.49]
Shenzhen Yhlo Biotech LDT RBD-S o Clinical Diagnostics Vitros p < 0.01 Darul Blotech Epitope Diagnostics Epitope Diagnostics Zhuhai Livzon Zhuhai Livzon ET Healthcare Pylon	N/S RBD-S S	8-17 days 11-15 days 8-14 days	47 29	14	-	0.77 0.97 0.38	[0.65; 0.87] [0.83; 1.00] [0.28; 0.49]
Darul Blotech Epitope Diagnostics Epitope Diagnostics Epitope Diagnostics Epitope Diagnostics Epitope Diagnostics Zhuhai Livzon Zhuhai Livzon ET Healthcare Pylon	RBD-S S N N	11-15 days 8-14 days	29	1		0.97 0.38	[0.83; 1.00] [0.28; 0.49]
Darul Blotech Epitope Diagnostics Epitope Diagnostics Epitope Diagnostics Zhuhai Livzon Zhuhai Livzon ET Healthcare Pylon	S	8-14 days			-	0.38	[0.28; 0.49]
Darul Blotech Epitope Diagnostics Epitope Diagnostics Zhuhai Livzon Zhuhai Livzon ET Healthcare Pylon	N N						
Darul Blotech Epitope Diagnostics Epitope Diagnostics Zhuhai Livzon Zhuhai Livzon ET Healthcare Pylon	N	8-14 days					101111111111111111111111111111111111111
Epitope Diagnostics Epitope Diagnostics Zhuhai Livzon Zhuhai Livzon ET Healthcare Pylon	N	8-14 days			i		
Epitope Diagnostics Epitope Diagnostics Zhuhai Livzon Zhuhai Livzon ET Healthcare Pylon	N	8-14 days					
Epitope Diagnostics Epitope Diagnostics Zhuhai Livzon Zhuhai Livzon ET Healthcare Pylon	N	0 14 0010	24	9		0.73	[0.54; 0.87]
Epitope Diagnostics Zhuhai Livzon Zhuhai Livzon ET Healthcare Pylon		8-14 days	41	50			[0.35; 0.56]
Zhuhai Livzon Zhuhai Livzon ET Healthcare Pylon		11-15 days	31	3	- 10		[0.76; 0.98]
Zhuhai Livzon ET Healthcare Pylon	N	11-15 days	39	15			[0.58; 0.84]
ET Healthcare Pylon	N	8-14 days	27	35	100		[0.31; 0.57]
	N/RBD-S		28	14	- 100		[0.50; 0.80]
	RBD-S	8-14 days	57	28	- 10		[0.56; 0.77]
Beijing Hotgen	S	11-15 days		13			[0.62; 0.87]
LDT S	S	10-13 days	61	11	100		[0.02, 0.07]
EUROIMMUN	S1		43	35	100		
	S1	7-13 days		16			[0.43; 0.66]
EUROIMMUN	S1	10-13 days	56		-		[0.66; 0.87]
EUROIMMUN	51	8-14 days	25	66	-		[0.19; 0.38]
						0.00	[0.55; 0.76]
p < 0.01							
	-	~					10 10 0 741
Clungene	E	7-13 days	47	31	-		[0.49; 0.71]
Dynamiker	N	7-13 days	48	30	- 10		[0.50; 0.72]
					-		[0.54; 0.76]
5.70.75.40.00							[0.59; 0.90]
		the larger way and the same of					[0.30; 0.41]
*					-		[0.62; 0.91]
					-		[0.63; 0.93]
					100		[0.58; 0.79]
							[0.56; 0.87]
Anhui Deepblue	NR				- 10	0.62	[0.44; 0.78]
Decombio	NR		29		- 10	0.88	[0.72; 0.97]
Liming Bio StrongStep	NR	and the second second second second	50			0.64	[0.52; 0.75]
Prima	NR	7-13 days		22	- 10	0.72	[0.60; 0.81]
UCP Bioscience	NR	11-15 days	25	9	- 100	0.74	[0.56; 0.87]
aCheck Biotech VivaDiag	NR	7-13 days	47	31		0.60	[0.49; 0.71]
aCheck Biotech VivaDiag	NR	11-15 days	25	5	+ 1	0.83	[0.65; 0.94]
BioMedomics	RBD-S	11-15 days	23	10		0.70	[0.51; 0.84]
Autobio Diagnostics	S	8-14 days	34	18	- 10	0.65	[0.51; 0.78]
hou Biotest Biotech RightSign	S	11-15 days	22	12			[0.46; 0.80]
hou Biotest Biotech RightSign	S	8-14 days	76	7		0.92	[0.83; 0.97]
					-		[0.64; 0.76]
p < 0.01							
					-	0.68	[0.62; 0.73]
p < 0.01						0.68	[0.62; 0.73]
	Multi-G Biohit Biohit Biohit Biohit Bioperfectus PerfectPOC Innovita Orient Gene Sure Biotech Anhui Deepblue Decombio Liming Bio StrongStep Prima UCP Bioscience aCheck Biotech VivaDiag aCheck Biotech VivaDiag BioMedomics Autobio Diagnostics nou Biotest Biotech RightSign	Multi-G N/RBD-S Biohit N/RBD-S Biohit N/RBD-S Bioperfectus PerfectPOC N/S Innovita N/S Orient Gene N/S Sure Biotech N/S Anhui Deepblue NR Decombio NR Liming Bio StrongStep NR Prima NR UCP Bioscience NR aCheck Biotech VivaDiag NR aCheck Biotech VivaDiag NR BioMedomics RBD-S Autobio Diagnostics S nou Biotest Biotech RightSign S hou Biotest Biotech RightSign S	Multi-G	Multi-G	Multi-G N 7-13 days 51 27 Biohit N/RBD-S 1-14 days 24 7 Biohit N/RBD-S 1-14 days 103 191 dioperfectus PerfectPOC N/S 11-15 days 27 7 Innovita N/S 11-15 days 25 6 Orient Gene N/S 7-13 days 54 24 Sure Biotech N/S 11-15 days 25 9 Anhui Deepblue NR 11-15 days 21 13 Decombio NR 11-15 days 21 13 NR 11-15 days 29 4 Liming Bio StrongStep NR 7-13 days 50 28 Prima NR 7-13 days 56 22 UCP Bioscience NR 11-15 days 25 9 aCheck Biotech VivaDiag NR 7-13 days 47 31 aCheck Biotech VivaDiag NR 11-15 days 25 5 <	Multi-G	Multi-G

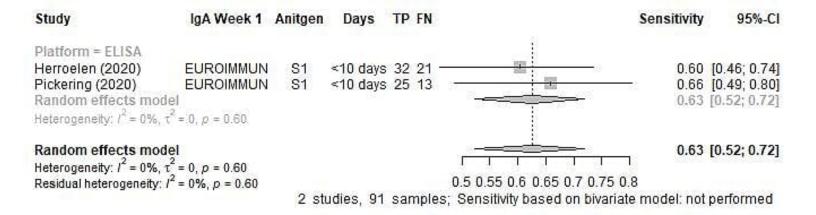
Study	IgG Week 3	Anitgen	Days	TP	FN		Sensitivity	95%-CI
Platform = CIA								
Dellier (2020)	Abbott	N	15-21 days	31	3		0.91	[0.76; 0.98]
Theel (2020)	Abbott	N	>14 days	56	5	- Di-		[0.82; 0.97]
Abbott Architect (Insert)	Abbott	N	>13 days	88	0	-		[0.96; 1.00]
Ou (2020)	MAGLUMI	N/S		233	23	- 17	0.91	[0.87; 0.94]
Ma (2020)	LDT RBD-S	RBD-S	16-20 days	55	0	+		[0.94; 1.00]
Theel (2020)	Ortho Clinical Diagnostics Vitros	S	>14 days	61	0	i 	manufacture of the contract of	[0.94; 1.00]
Herroelen (2020)	DiaSorin LIAISON	S1/S2	10-20 days	34	8 -	ight.	0.81	[0.66; 0.91]
Random effects model			166					[0.87; 0.99]
Heterogeneity: $I^2 = 92\%$, $\tau^2 =$	2.9530, p = 0.65							
Platform = ELISA								
Lin (2020)	Darui Biotech	N	>14 days	33	1	The state of the s		[0.85; 1.00]
Theel (2020)	Epitope Diagnostics	N	>14 days	61	0	i 		[0.94; 1.00]
Herroelen (2020)	EUROIMMUN (NCP)	N	10-20 days		4	- 33		[0.77; 0.97]
Liu W (2020)	Zhuhai Livzon	N	16-20 days	48	7	-	0.87	[0.76; 0.95]
Xiang (2020)	Zhuhai Livzon	N	15-21 days		14	-	0.83	[0.73; 0.90]
Lou B (2020)	Beijing Wantai Biological	RBD-S	15-29 days	56	4	100	0.93	[0.84; 0.98]
Liu W (2020)	Beijing Hotgen	S	16-20 days		4		0.93	[0.82; 0.98]
Pickering (2020)	LDTS	S	14-19 days		7			[0.75; 0.95]
Van Elslande (2020)	EUROIMMUN	S1	14-25 days	34	4			[0.75; 0.97]
Herroelen (2020)	EUROIMMUN	S1	10-20 days		5			[0.74; 0.96]
Meyer (2020)	EUROIMMUN	S1	11-20 days		7	nda		[0.86; 0.97]
Pickering (2020)	EUROIMMUN	S1	14-19 days		8	100		[0.73; 0.93]
Theel (2020)	EUROIMMUN	S1	>14 days	61	0			[0.94; 1.00]
Random effects model							0.92	[0.88; 0.95]
Heterogeneity: $I^2 = 59\%$, $\tau^2 =$	0.3385, p = 0.62							
Platform = LF	32C/100 = 10.0	125	CONTRACTOR STORY	62300	0.7517		D 945-000000	The termination of the parameter
Van Elslande (2020)	Clungene	E	14-25 days		1	- 10		[0.86; 1.00]
Van Elslande (2020)	Dynamiker	N	14-25 days		2	- 50		[0.82; 0.99]
Van Elslande (2020)	Multi-G	N	14-25 days		1	- 1		[0.86; 1.00]
Minteer (2020)	Biohit		>14 days					[0.86; 0.96]
Herroelen (2020)	Innovita	N/S	10-20 days		7			[0.69; 0.93]
Van Elslande (2020)	Orient Gene	N/S	14-25 days		3	- 10		[0.79; 0.98]
Dellier (2020)	Orient Gene	N/S	15-21 days		5	-		[0.69; 0.95]
Herroelen (2020)	Orient Gene	N/S	10-20 days		3			[0.81; 0.99]
Van Elslande (2020)	Liming Bio StrongStep	NR	14-25 days		1	C III		[0.86; 1.00]
Van Elslande (2020)	Prima	NR	14-25 days		0			[0.91; 1.00]
Van Elslande (2020)	VivaCheck Biotech VivaDiag	NR	14-25 days		2			[0.82; 0.99]
Autobio (Insert)	Autobio Diagnostics	S	>14 days			-		[0.97; 1.00]
Random effects model	Hangzhou Biotest Biotech RightSign	S	>14 days	152	6	-		[0.92; 0.99] [0.92; 0.97]
Heterogeneity: $I^2 = 60\%$, $\tau^2 =$	0.5122, p = 0.01							
Random effects model						→	0.95	[0.92; 0.96]
Heterogeneity: $I^2 = 74\%$, $\tau^2 = $ Residual heterogeneity: $I^2 = 3$	0.7378, p = 0.02						į	
Residual heterogeneity: $I^2 = 2$	26%, p = 0.10	5,79		202000	0.000000	0.7 0.75 0.8 0.85 0.9 0.95		2121212121
		16	studies, 229	38 sa	ample	es; Sensitivity based on bivaria	te model: 0.9	2 (0.9-0.94)

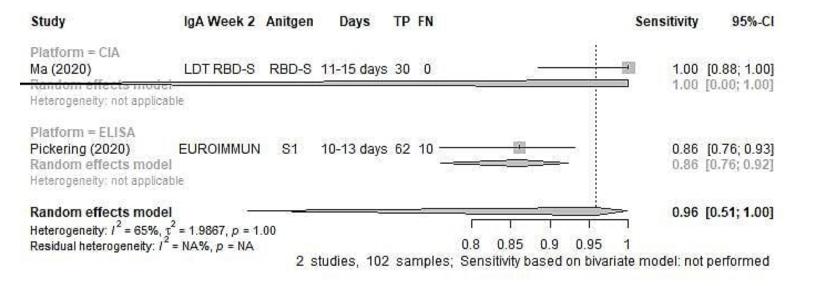
Study	IgG Week 4	Anitgen	Days	TP	FN		Sensitivity	95%-CI
Platform = CIA						Ī		
Chew (2020)	Abbott	N	>20 days	27	5		0.84	[0.67: 0.95]
Ou (2020)	MAGLUMI	N/S	22 to 28	163		i —	0.95	[0.90; 0.98]
Ma (2020)	LDT RBD-S	RBD-S	21-25 days	56	0	-		[0.94; 1.00]
O. C. D. VITROS (Insert)	Ortho Clinical Diagnostics Vitros	S	>14 days	36	4	- 17	- 0.90	[0.76; 0.97]
Herroelen (2020)	DiaSorin LIAISON	S1/S2	21-45 days	56	19			[0.63; 0.84]
Random effects model								[0.80; 0.97]
Heterogeneity: $I^2 = 85\%$, τ^2	= 1.0613, p < 0.01							5 7.5 T E
Platform = ELISA						2002		
Herroelen (2020)	EUROIMMUN (NCP)	N	21-54	61	15		0.80	[0.70; 0.89]
Liu W (2020)	Zhuhai Livzon	N	21-30 days	28	4		0.88	[0.71; 0.96]
Xiang (2020)	Zhuhai Livzon	N	22-28 days	32	6	- 5	0.84	[0.69; 0.94]
Liu W (2020)	Beijing Hotgen	S	21-30 days	27	5		0.84	[0.67; 0.95]
Herroelen (2020)	EUROIMMUN	S1	21-45 days	63	11	- 4	0.85	[0.75; 0.92]
Meyer (2020)	EUROIMMUN	S1	21-39 days	59	2		0.97	[0.89; 1.00]
Random effects model							0.87	[0.81; 0.91]
Heterogeneity: $I^2 = 36\%$, τ^2 :	= 0.1013, p = 0.24							A 100 B
Platform = LF						V		
Herroelen (2020)	Innovita	N/S	21-45 days	55	21 -		0.72	[0.61; 0.82]
Herroelen (2020)	Orient Gene	N/S	21-45 days	69	7	- 12	0.91	[0.82; 0.96]
Random effects model							0.83	[0.66; 0.93]
Heterogeneity: $I^2 = 76\%$, τ^2	= 0.3440, p < 0.01							
Random effects model							0.88	[0.83; 0.92]
Heterogeneity: $I^2 = 76\%$, τ^2 :							The second second	
Residual heterogeneity: 12 =	70%, p < 0.01					0.7 0.8 0.9	1	
		8	studies, 84	o sar	nples;	Sensitivity based on bivari	ate model: 0.86	6 (0.81-0.9)

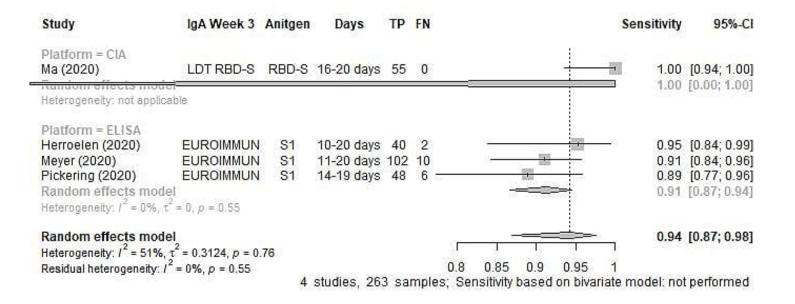


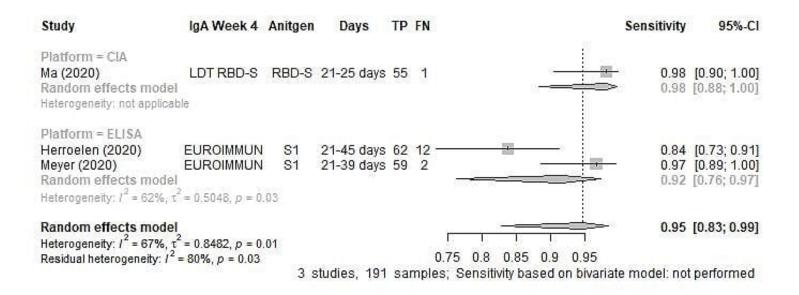
Forest Plot IgG Specificit



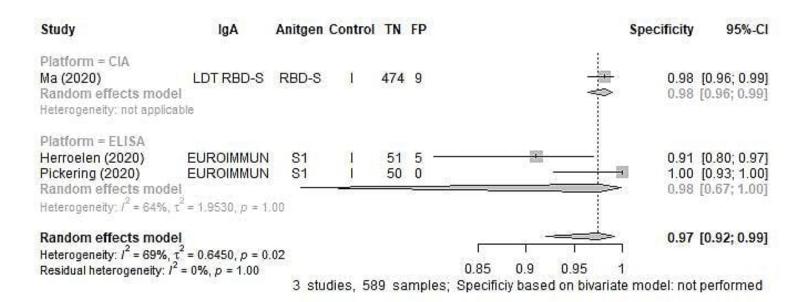


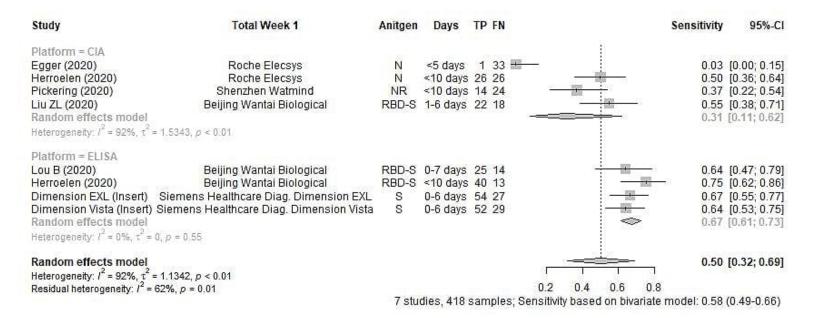


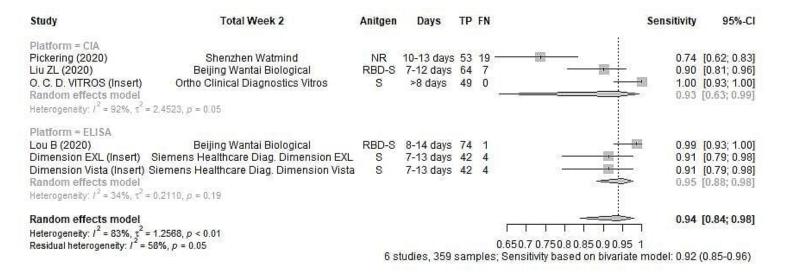


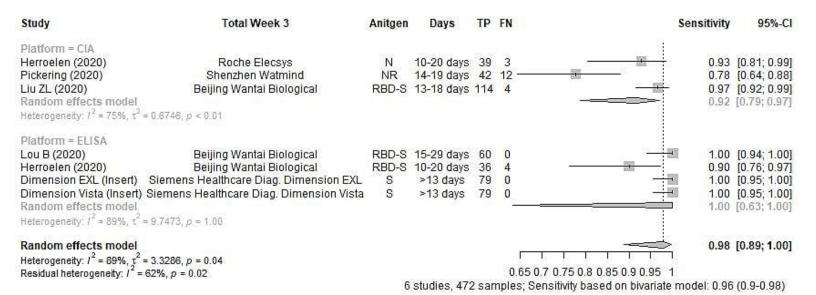


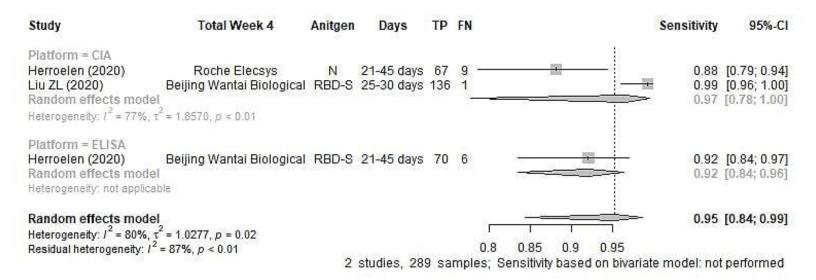
Forest Plot IgA Specificity

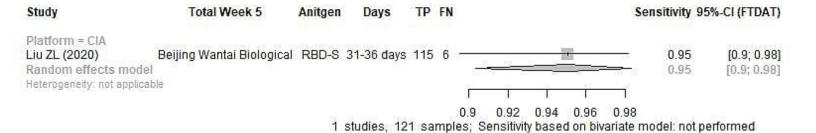








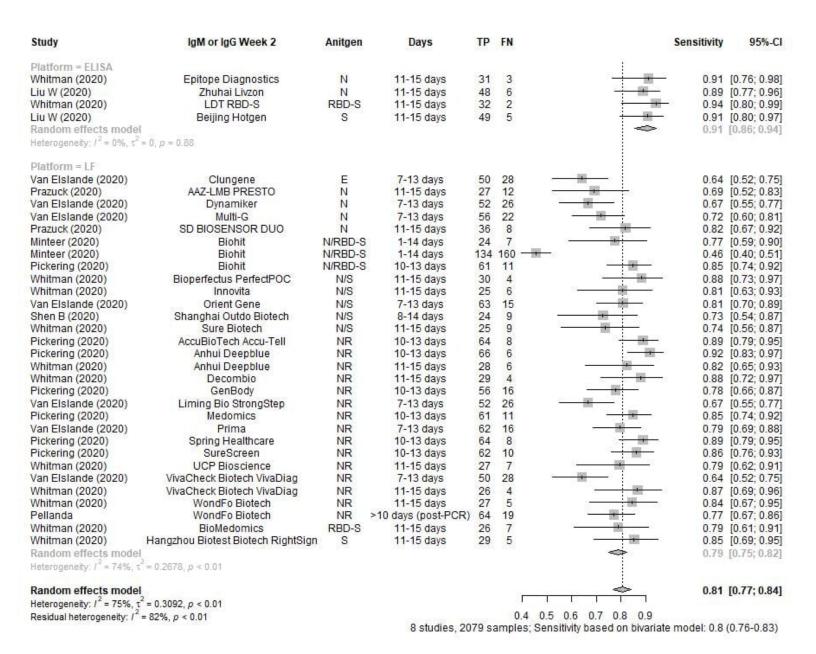


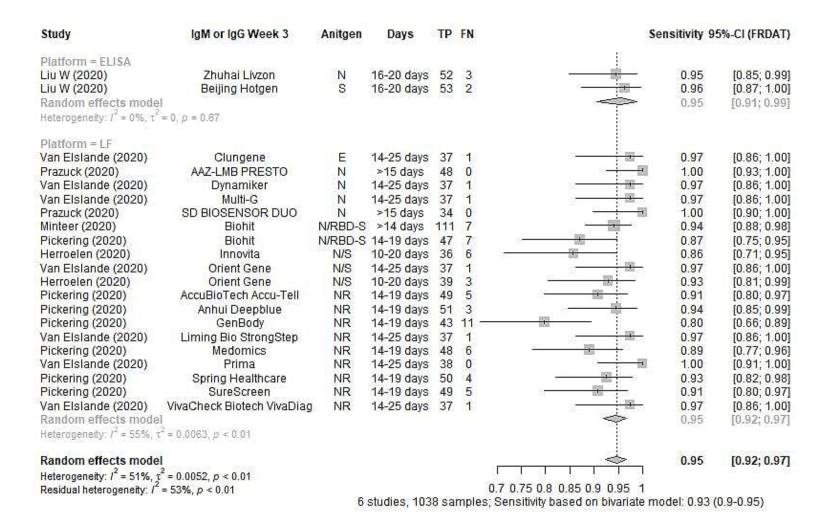


Forest Plot Total Antibody Specificity

Study	Total	Anitgen	Control	TN	FP		Specificity	95%-CI
Platform = CIA								
Egger (2020)	Roche Elecsys	N	P	455	1		1.00	[0.99; 1.00]
Herroelen (2020)	Roche Elecsys	N	1	56	0		1.00	[0.94; 1.00]
Pickering (2020)	Shenzhen Watmind	NR	1	41	9	120	0.82	[0.69; 0.91]
Liu ZL (2020)	Beijing Wantai Biological	RBD-S	C	142	2	-	0.99	[0.95; 1.00]
Random effects model							0.99	[0.90; 1.00]
Heterogeneity: $I^2 = 88\%$, τ^2 :	= 4.0054, p < 0.01						■ # C-00000	
Platform = ELISA								
Lou B (2020)	Beijing Wantai Biological	RBD-S	C	300	0	()	1.00	[0.99; 1.00]
Herroelen (2020)	Beijing Wantai Biological	RBD-S	1	57	0	- 1	1.00	[0.94; 1.00]
Dimension EXL (Insert)	Siemens Healthcare Diag. Dimension EXL	S	P	1527	2	The state of the s	1.00	[1.00; 1.00]
Dimension Vista (Insert)	Siemens Healthcare Diag. Dimension Vista	S	P	1526	3) II	1.00	[0.99; 1.00]
Random effects model Heterogeneity: $t^2 = 0\%$, $\tau^2 =$	0, p = 0.98						1.00	[1.00; 1.00]
Random effects model							1.00	[0.98; 1.00]
Heterogeneity: $I^2 = 88\%$, τ^2	= 4.1749. p < 0.01							A
Residual heterogeneity: 12 =						0.7 0.75 0.8 0.85 0.9 0.95	1	
**************************************	SECURITY NEWS WAS SAID	7 s	tudies, 4	121 s	amp	oles; Specificiy based on bivariat	e model: 0.9	9 (0.96-1)

Study	IgM or IgG Week 1	Anitgen	Days	TP	FN		Sensitivity	95%-CI
Platform = CIA Suhandyanat (2020) Random effects model Heterogeneity: not applicable	Diazyme DZ-LITE	N/S	0-7 days	25	11	——————————————————————————————————————		[0.52; 0.84] [0.53; 0.82]
Platform = ELISA Egger (2020) Random effects model Heterogeneity: not applicable	Epitope Diagnostics	N	<5 days	3	31	Ⅲ		[0.02; 0.24] [0.03; 0.24]
Random effects model Heterogeneity: $l^2 = 75\%$, $\tau^2 =$	Clungene Dynamiker Multi-G Biohit Innovita Orient Gene Orient Gene Shanghai Outdo Biotech AccuBioTech Accu-Tell Anhui Deepblue Artron One Step GenBody Liming Bio StrongStep Medomics Prima Spring Healthcare SureScreen /ivaCheck Biotech VivaDiag	N/S N/S N/S NR NR NR NR NR NR NR	0-6 days 0-6 days 0-6 days <10 days <10 days 0-6 days <10 days	17 16 22 28 17 34 22 26 30 25 13 13 20 21 29 27	20 21 16 24 20 19 18 65 25 24 18 16 9		0.46 0.43 0.58 0.54 0.46 0.64 0.55 0.68 0.79 0.28 0.34 0.35 0.53 0.57 - 0.76 0.71 0.35	[0.20; 0.53] [0.29; 0.63] [0.27; 0.61] [0.41; 0.74] [0.39; 0.68] [0.29; 0.63] [0.50; 0.77] [0.38; 0.71] [0.51; 0.82] [0.63; 0.90] [0.19; 0.38] [0.20; 0.51] [0.20; 0.53] [0.36; 0.69] [0.39; 0.73] [0.60; 0.89] [0.54; 0.85] [0.20; 0.53] [0.45; 0.59]
Random effects model Heterogeneity: I^2 = 82%, τ^2 = Residual heterogeneity: I^2 =		7 stu	dies, 830	sam	ples	0.2 0.4 0.6 0.8 Sensitivity based on bivariate		[0.42; 0.59] (0.43-0.59)





Study	lgM or lgG Week 4	Anitgen	Days	TP	FN		Sensitivity	95%-CI (FRDAT)
Platform = ELISA Liu W (2020) Liu W (2020) Random effects model Heterogeneity: $I^2 = 0\%$, τ^2		N S	21-30 days 21-30 days				- 0.94 0.88 0.91	[0.79; 0.99] [0.71; 0.96] [0.82; 0.97]
Platform = LF Herroelen (2020) Herroelen (2020) Random effects model Heterogeneity: / ² = 88%, t		N/S N/S	21-45 days 21-45 days		19 ⁻		0.75 0.92 0.84	[0.64; 0.84] [0.84; 0.97] [0.65; 0.97]
Random effects modely Heterogeneity: $I^2 = 71\%$, τ' Residual heterogeneity: I^2	2 = 0.0117, p = 0.02	2 s	studies, 216	sa	Charles Harris	.65 0.7 0.75 0.8 0.85 0.9 0.95 es; Sensitivity based on bivaria	0.87 te model: not	[0.77; 0.95]

Forest Plot IgM or IgG Specificity

Study	IgM or IgG	Anitgen	Control	TN	FP		Specificity	95%-CI
Platform = CIA Suhandyanat (2020) Random effects model Heterogeneity: not applicat		N/S	Ĩ	232	3	*		[0.96; 1.00] [0.96; 1.00]
Platform = ELISA Egger (2020) Random effects model Heterogeneity: not applicate		N	Р	446	10	≡		[0.96; 0.99] [0.96; 0.99]
Platform = LF Van Elslande (2020) Van Elslande (2020) Van Elslande (2020) Minteer (2020) Minteer (2020) Pickering (2020) Herroelen (2020) Van Elslande (2020) Herroelen (2020) Pickering (2020) Pickering (2020) Pickering (2020) Pickering (2020) Van Elslande (2020) Pickering (2020) Pickering (2020) Pickering (2020) Pickering (2020) Pickering (2020)		E N N DO-S N/RBD-S N/RBDS N/S N/S N/S N/S N/S N/S N/S N/S N/S N/	1	93 98 91 40 1386 47 56 94 52 51 41 47 50 101 93 88 49 50 102	3 0 9 4 2 9 9 1 0 2 4 15 1 0		0.95 0.88 0.98 0.99 0.94 1.00 0.91 0.93 0.96 0.82 0.82 0.98 1.00 0.98 0.96 0.85 0.98	[0.83; 0.95] [0.89; 0.98] [0.81; 0.94] [0.87; 1.00] [0.99; 1.00] [0.83; 0.99] [0.94; 1.00] [0.84; 0.96] [0.83; 0.98] [0.87; 1.00] [0.69; 0.91] [0.69; 0.91] [0.93; 1.00] [0.93; 1.00] [0.90; 0.99] [0.77; 0.92] [0.89; 1.00] [0.93; 1.00] [0.93; 1.00] [0.93; 1.00] [0.93; 1.00] [0.93; 1.00] [0.93; 1.00] [0.93; 1.00]
Heterogeneity: $I^2 = 83\%$, τ^2 Random effects model Heterogeneity: $I^2 = 83\%$, τ^2 Residual heterogeneity: I^2	² = 1.0865, <i>p</i> < 0.01	8 stu	ıdies, 34	60 sar		0.7 0.75 0.8 0.85 0.9 0.95 os; Specificiy based on bivariate		[0.94; 0.98] (0.93-0.96)