eTable 1. Main characteristics of the included studies

Author	Year	Country	Study design	Setting	Cutoff (U)	Anticoagulation	Diagnostic criteria	Sample size	Prevalence (sepsis)	TP	FP	TN	FN	Sensitivity	Specificity
Ognibene	2022	Italy	NR	ED	20	K_2-EDTA	Sepsis-3	308	24.7%	71	135	97	5	0.93	0.42
Malinovska	2022	USA	PS	ED	20	K_2-EDTA	Sepsis-3	7952	2.3%	140	2577	5195	40	0.78	0.67
Yu	2022	Korea	RS	ED	21.935	K_2-EDTA	Sepsis-3	1234	6.7%	69	196	956	13	0.84	0.83
Poz	2022	Italy	PS	ED	20.1	K_2-EDTA	Sepsis-2	985	6.4%	55	261	661	8	0.87	0.72
Li	2021	Taiwan	PS	ED	20	K_2-EDTA	Sepsis-3	402	13.4%	49	219	129	5	0.91	0.37
Hausfater	2021	France	PS	ED	21.5	K_3-EDTA	Sepsis-3	1517	9.5%	117	426	947	27	0.81	0.69
Woo	2021	Korea	PS	ED	19.8	K_2-EDTA	Sepsis-3	549	34.2%	156	181	180	32	0.83	0.50
Polilli	2021	Italy	PS	ICU	20	K_3-EDTA	Sepsis-3	129	57.4%	71	35	20	3	0.96	0.36
Piva	2021	Italy	PS	ICU	24.63	K_2-EDTA	Sepsis-3	506	22.1%	75	88	306	37	0.67	0.78
Hou	2021	Taiwan	RS	ED	22.1	NR	Sepsis-2	1480	20.0%	191	469	715	105	0.65	0.60
Agnello	2021	Italy	RS	ICU	23	K_3-EDTA	Sepsis-3	82	28.1%	22	19	40	1	0.96	0.68
Agnello	2021	Italy	RS	ED	23	K_3-EDTA	Sepsis-2	703	6.8%	38	105	550	10	0.79	0.84
Agnello	2020	Italy	RS	ED	23	K_3-EDTA	Sepsis-2	2215	4.0%	81	201	1926	7	0.92	0.91
Polilli	2020	Italy	PS	Ward	22	K_3-EDTA	Sepsis-3	260	40.4%	99	47	108	6	0.94	0.70
Guo	2019	China	PS	ED	19.19	NR	Sepsis-3	154	26.6%	31	27	86	10	0.76	0.76
Crouser	2019	USA	PS	ED	20	K_2-EDTA	Sepsis-2	2158	17.8%	285	496	1277	100	0.74	0.72
Crouser	2019	USA	PS	ED	20	K_2-EDTA	Sepsis-2	505	13.3%	48	137	301	19	0.72	0.69
Crouser	2017	USA	PS	ED	20.5	K_2-EDTA	Sepsis-2	1320	7.4%	75	349	873	23	0.77	0.71

U: unit; NR: non reported; PS: prospective studies; RS: retrospective studies; ED: emergency department; ICU: intensive care unit; TP: true positive; FP: false positive; TN: true negative; FN: false negative

eTable 2. Summary of subgroup analysis of monocyte distribution width in the diagnosis of sepsis

Subgroup	Number of studies	Pooled sensitivity (95% CI)	Heterogeneity I^2 (%)	Subgroup difference P value	Pooled specificity (95% CI)	Heterogeneity I^2 (%)	Subgroup difference P value	AUC (95% CI)
Source of patients								
ICUs	3	0.90(0.67,0.98)	89.9	0.33	0.62(0.41,0.80)	94.4	0.54	0.88(0.75,1.06)
EDs	14	0.81(0.77,0.86)	79.7		0.69(0.61,0.77)	98.6		0.84(0.80,0.88)
Sample size								
Number of patients ≥ 650	9	0.80(0.74,0.85)	80.7	0.10	0.76(0.69,0.82)	98.7	0.01*	0.84(0.78,0.92)
Number of patients < 650	9	0.88(0.79,0.93)	84		0.59(0.48,0.70)	96.1		0.86(0.81,0.91)
Diagnostic criteria								
Sepsis-2	7	0.79(0.71,0.85)	81.3	0.07	0.76(0.67,0.83)	98.6	0.046*	0.83(0.76,0.91)
Sepsis-3	11	0.87(0.80,0.91)	79.1		0.63(0.53,0.72)	97.5		0.87(0.83,0.91)
Study design								
Prospective	13	0.83(0.77,0.87)	76	0.77	0.67(0.59,0.74)	96.8	0.14	0.85(0.81,0.89)
Retrospective	4	0.85(0.68,0.94)	89.1		0.78(0.64,0.88)	99.2		0.86(0.62,1.40)
Region								
Asia	5	0.80(0.71,0.87)	87.7	0.31	0.63(0.46,0.77)	98.7	0.39	0.80(0.72,0.91)

Non-Asia	13	0.85(0.79,0.90)	80.6		0.70(0.62,0.77)	97.9		0.87(0.84,0.91)
Prevalence								
≥15%	9	0.85(0.75,0.92)	88.7	0.55	0.62(0.53,0.71)	95.7	0.11	0.84(0.77,0.91)
<15%	9	0.83(0.78,0.86)	55.4		0.73(0.63,0.82)	98.9		0.87(0.83,0.91)
Anticoagulant								
K_2	10	0.81(0.75,0.86)	73.4	0.02*	0.65(0.56,0.74)	97.8	0.39	0.83(0.79,0.89)
K_3	6	0.91(0.84,0.95)	73.9		0.73(0.57,0.84)	98.4		0.93(0.87,0.98)
Cutoff value (U)								
Cutoff ≥ 20.3	9	0.83(0.75,0.89)	86.6	0.76	0.76(0.69,0.82)	98.3	<0.01*	0.86(0.78,0.96)
Cutoff < 20.3	9	0.85(0.78,0.89)	77		0.59(0.48,0.69)	97.2		0.83(0.80,0.88)

U: unit; ICUs: intensive care units; EDs: emergency departments

*$P < 0.05$

eTable 3. Summary of diagnostic accuracy for biomarkers, monocyte distribution width (MDW), procalcitonin, and C-reactive protein, for the studies included

Author, year	Sepsis/ control (n)	MDW				Procalcitonin				C-reactive protein			
		Cutoff (U)	Sensitivity	Specificity	AUC	Cutoff (ng/mL)	Sensitivity	Specificity	AUC	Cutoff (mg/L)	Sensitivity	Specificity	AUC
Ognibene 2022	76/232	20	0.93	0.42	0.77	0.5	0.62	0.80	0.80	5	0.95	0.22	0.71
Yu 2022	82/1152	21.935	0.94	0.70	0.90	0.099	0.91	0.54	0.79	31.75	0.90	0.77	0.89
Poz 2022	63/922	20.1	0.87	0.72	0.85	-	-	-	-	16.5	0.83	0.74	0.85
Li 2021	54/348	20	0.91	0.37	0.72	0.1	0.49	0.79	0.73	-	-	-	-
Hausfater 2021	144/1373	21.5	0.81	0.69	0.82	0.25	0.45	0.88	0.84	22	0.85	0.72	0.85
Woo 2021	188/361	19.8	0.83	0.50	0.71	0.05	0.77	0.67	0.76	4	0.70	0.67	0.75
Polilli 2021	74/55	20	0.96	0.36	0.84	0.5	0.77	0.71	0.81	-	-	-	-
Polilli 2020	105/155	22	0.94	0.70	0.88	1	0.83	0.87	0.88	-	-	-	-
Guo 2019	54/100	19.19	0.76	0.76	0.77	0.51	0.79	0.93	0.90	-	-	-	-

U: unit; AUC: Area under the receiver operating characteristic curve; −: Not available

eFigure 1. Deeks' funnel plot asymmetry test for publication bias