

Table S1. Studied biomarkers for the prediction of SAI, SAP or UTI.

Marker	References	Outcome	Number of patients	Diagnostic criteria	Sample collection time (from stroke onset)	Direction	Clinical findings
Albumin	Dziedzic et al., 2006 [1]	SAP	705	Own criteria	First 36h	↓	Independent predictor of SAP
Blood glucose	Zonneveld et al., 2017 [2]	SAI, SAP and UTI	1676	CDC criteria [3]	At admission	↑	Independent predictor of SAI, SAP and UTI
Copeptin	Fluri et al., 2012 [4]	SAI, SAP and UTI	383	CDC criteria	First 72h	↑	Independent predictor of SAI, SAP and UTI
	Hotter et al., 2020 [5]	SAP	573	PISCES criteria [6]	First 40h	↑	Independent predictor of SAP
CRP	Fluri et al., 2012 [4]	SAI, SAP and UTI	383	CDC criteria	First 72h	↑	Independent predictor of SAI, SAP and UTI

	Bustamante et al., 2017b [7]	SAI	699 (systematic review)	Depending on the study	First 24h, 24-48h and 48-72h	↑	Independent predictor of SAI between 24 and 48h.
FT3	Suda et al., 2018b [8]	SAI	520	CDC criteria	At admission	↓	Independent predictor of SAI
HDL	Rodríguez-Sanz et al., 2013 [9]	SAI	1385	Own criteria	Morning following admission	↑	Independent predictor of lower risk of SAI
Heart rate variability	Günther et al., 2012 [10]	SAI	43	CDC criteria	First 48h and 4±1 days	NA	Independent predictor of SAI
HLA-DR	Zhang et al., 2009 [11]	SAI	53	Own criteria	1, 2, 4, 6 and 14 days after stroke	↓	Predictive value for SAI at days 1 and 2
	Hoffmann et al., 2017 [12]	SAP	479	CDC criteria		↓	

IFN-γ	Salat et al., 2013 [13]	SAI	92	CDC criteria	After the administration of thrombolytic therapy	↓	Independent predictor of SAI
	Lin et al., 2016 [14]	SAI	54	ESPIAS clinical trial criteria [15]	First 24h	↓	Lower levels in patients with SAI
IL1-ra	Tanzi et al., 2011 [16]	SAI	112	Own criteria	1, 3, 7, 30 and 90 days	↑	Independent predictor of SAI at 72h
IL-6	Worthmann et al., 2015 [17]	SAI	56	Local clinical practice criteria	6h, 12h, 24h, 3 days and 7 days	↑	Higher levels in SAI patients at 12h, 24h, day 3 and day 7
	Kwan et al., 2013 [18]	SAI	82	Langhorne et al., 2000	First 72h	↑	Independent predictor of SAI
	Chamorro et al., 2006 [20]	SAI	110	ESPIAS clinical trial criteria	Admission, 1, 2, 3, 4 and 7 days	↑	Higher levels in patients with SAI at days 1, 2 and

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IL-10	Worthmann et al., 2015 [17]	SAI	56	Local clinical practice criteria	6h, 12h, 24h, 3 days and 7 days	↑	Independent predictor of SAI at 6h
	Chamorro et al., 2006 [20]	SAI	110	ESPIAS clinical trial criteria	Admission, 1, 2, 3, 4 and 7 days	↑	Independent predictor of SAI at admission
	Ashour et al., 2016 [21]	SAI	60	Engel et al., 2010; Stott et al., 2009	Admission, 4 and 7 days	↑	Independent predictor of SAI at admission
	Salat et al., 2013 [13]	SAI	92	CDC criteria	After the administration of thrombolytic therapy	↑	Independent predictor of SAI
IL-13	Salat et al., 2013 [13]	SAI	92	CDC criteria	After the administration of thrombolytic therapy	↑	Independent predictor of SAI

LBP	Worthmann et al., 2015 [17]	SAI	56	Local clinical practice criteria	6h, 12h, 24h, 3 days and 7 days	↑	Higher levels in SAI patients at 12h, 24h, day 3 and day 7
MHR	Sun et al., 2020 [24]	SAP	803	PISCES criteria	First 24h	↑	Independent predictor of SAP (highest quartile)
miRNA-21	Lin et al., 2016 [14]	SAI	54	ESPIAS clinical trial criteria	First 24h	↑	Higher levels in patients with SAI
Monocyte count	Sun et al., 2020 [24]	SAP	803	PISCES criteria	First 24h	↑	Independent predictor of SAP (highest quartile)
MR-proADM	Zapata-Arriaza et al., 2019 [25]	SAP	45	THRCT [26]	First 24h, 1 and 2 days	↑	Associated with SAP at 24h
	Bustamante et al., 2017a [27]	SAI	125	CDC criteria	Baseline (6h) and 24 hours (two different	↑	Independent predictor of SAI at baseline

					groups)		
NK cells count	De Raedt et al., 2015 [28]	SAI	59	CDC criteria	At admission, 1, 3, 5 and 7 days	↑	Higher levels in patients with SAI at admission
NLR	Nam et al., 2018 [29]	SAP	1317	PISCES criteria	First 24h	↑	Higher levels in patients with SAP
PCT	Fluri et al., 2012 [4]	SAI, SAP and UTI	383	CDC criteria	First 72h	↑	Independent predictor of SAI, SAP and UTI
	Hotter et al., 2020 [5]	SAP	573	PISCES criteria	First 40h	↑	Independent predictor of SAP
	Hug et al., 2011 [30]	SAP	50	Own criteria	Day 1 and 4	↑	No predictive value for SAP
Prealbumin	Ye et al., 2017 [31]	SAI	104	Own criteria	First day of admission	↓	Lower levels in patients with SAI

SAA	Azurmendi et al., 2017 [32]	SAI	40	CDC criteria	First 72h, 1, 3 and 5 days	↑	Associated with SAI at all time points
	Zapata-Arriaza et al., 2019 [25]	SAP	45	THRCT	First 24h, 1 and 2 days	↑	Associated with SAP in combination with suPAR at day 2
	Schweizer et al., 2020 [33]	SAI	283 (cohort A) and 367 (cohort B)	CDC criteria	First 72h (cohort A) and first 24h (cohort B)	↑	Independent predictor of SAI in both cohorts.
suPAR	Zapata-Arriaza et al., 2019 [25]	SAP	45	THRCT	First 24h, 1 and 2 days	↑	Associated with SAP in combination with SAA at day 2
	Bustamante et al., 2017a [27]	SAI	125	CDC criteria	Baseline (6h) and 24 hours (two different groups)	↑	Independent predictor of SAI at 24h

Vitamin D	Huang et al., 2019 [34]	SAP	863	CDC criteria	First day of admission	↓	Independent predictor of SAP
WBC count	Fluri et al., 2012 [4]	SAI, SAP and UTI	383	CDC criteria	First 72h	↑	Independent predictor of SAI, SAP and UTI

This table summarizes the biomarkers presented in section 4 alphabetically ordered. The table includes the reference of the publication in which each biomarker was studied, outcome of the biomarker, number of patients in the study, diagnostic criteria for infections, time of blood sample collection after stroke, direction of the expression alteration (upregulated ↑ or downregulated ↓) regarding the control group, and the clinical finding. The references can be found in the main text. Abbreviations: WBC: white blood cell, NLR: neutrophil-to-lymphocyte ratio, NK: natural killer, HDL: high density lipoprotein, NA: non-annotated, CRP: C-reactive protein, SAA: serum amyloid A, suPAR: soluble urokinase receptor, MR-proADM: mid-regional proadrenomedullin, PCR: procalcitonin, IL: interleukin, IFN-γ: interferon-γ, LBP: lipopolysaccharide binding protein, MHR: Monocyte to high-density lipoprotein cholesterol ratio, miRNA-21: microRNA-21, HLA-DR: Human Leukocyte Antigen – DR, FT3: free triiodothyronine, CDC: Centers for Disease Control and Prevention, THRCT: Thorax high-resolution computed tomography, SAI: Stroke-associated infection, SAP: Stroke-associated pneumonia, UTI: Urinary tract infection, PISCES: Pneumonia in stroke consensus.

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