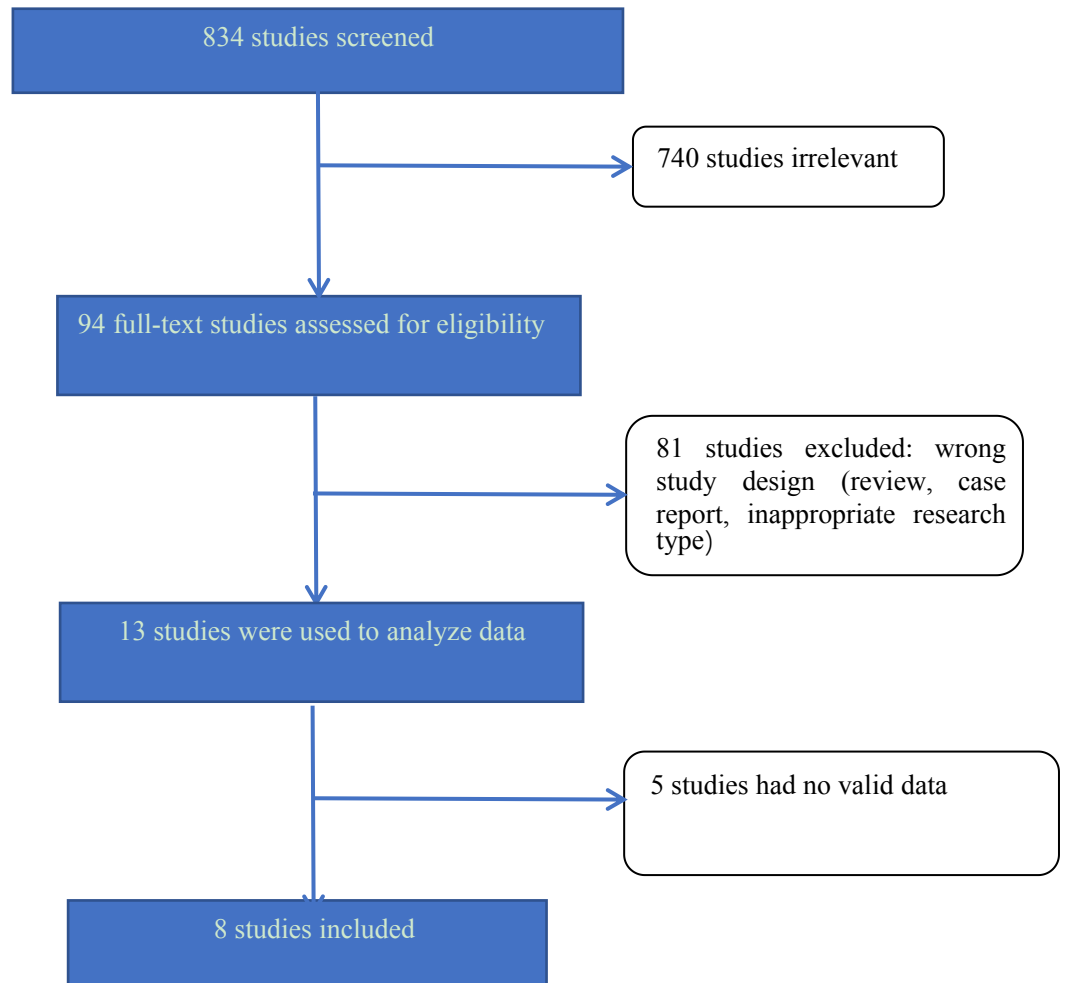


# Supplementary materials

**Table S1:** Final logistic regression model of factors affecting the timing of tracheostomy

	<i>P</i> value	OR	95% CI
Hypertension	0.274*	2.020	(0.573, 7.119)
NIHSS	<b>0.004</b>	0.859	(0.774, 0.952)
GCS	0.286	0.831	(0.591, 1.168)

**Notes and abbreviations:** \*three decimal points are reserved GCS: Glasgow coma score; NIHSS: National Institute of Health stroke scale; Bold value indicates statistical significance at  $p < 0.05$



**Figure S1:** Flowchart for inclusion of literature

**Table S2: NOS score**

References	Selection			Demonstration that outcome of interest was not present at start of study (maximum: *)	Comparability		Outcome		Total
	Representativeness of exposed cohort (maximum: *)	Selection of nonexposed cohort (maximum: *)	Ascertainment of exposure (maximum: *)		Comparability of cohorts in terms of design or analysis (maximum: **)	Assessment of outcome (maximum: *)	Follow up was long enough for outcomes to occur (maximum: *)	Adequacy of follow up of cohorts (maximum: *)	
Alsherbini 2019 <sup>28</sup>	*	*	*	*	*	*	/	/	*****
Bösel 2013 <sup>4</sup>	*	*	*	*	*	*	*	*	*****
Catalino2018 <sup>29</sup>	*	*	*	*	*	*	/	/	*****
Chen 2019 <sup>30</sup>	*	*	*	*	**	*	/	/	*****
Gessler 2015 <sup>31</sup>	*	*	*	*	**	*	*	*	*****
Hallan 2022 <sup>27</sup>	*	*	*	*	*	*	/	/	*****
Böse2022 <sup>19</sup>	*	*	*	*	**	*	*	*	*****
Villwock 2014 <sup>32</sup>	*	*	*	*	**	*	/	/	*****

**Table S3:** Literature characteristics and clinical information

References	Criterion		Total (lost)		Female (male)		Age		IS		ICH		SAH		GCS		SET Score	
	early	late	early	late	early	late	early	late	early	late	early	late	early	late	early	late	early	late
Alsherbini 2019 <sup>28</sup>	≤7 days	8-14 days	44	96	20(24)	51(45)	54.0±12.9	55.9±13.5	4	17	18	37	22	42	NA	NA	14(4.59)	14.2(5.26)
Bösel 2013 <sup>4</sup>	≤3 days	7-14 days	30	30	10(20)	10(20)	61±12	61±13	11	9	13	13	6	8	9(3.11)	7.74(3.89)	12.28(3.11)	13.35(3.98)
Catalino2018 <sup>29</sup>	≤10 days	> 10 days	15	33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chen 2019 <sup>30</sup>	≤6 days	> 6 days	316	109	93(233)	36(73)	57.1±12.6	61.2±13.8	NA	NA	301	92	15	17	NA	NA	NA	NA
Gessler 2015 <sup>31</sup>	≤7 days	8-20days	39	109	22(17)	72(37)	55±12.7	56±11.3	NA	NA	NA	NA	39	109	NA	NA	NA	NA
Hallan 2022 <sup>27</sup>	≤7 days	7-180 days	1210	1210	417(793)	395(815)	50.3±18.69	50.13±19.14	NA	NA	1210	1210	NA	NA	NA	NA	NA	NA
Böse2022 <sup>19</sup>	≤5 days	> 10 days	186(9)	194(5)	96(90)	93(101)	59.3±11.7	57.6±12.0	49	59	78	78	59	57	6.64(3.73)	6(4.48)	15.05(3.73)	15.05(3.73)
Villwock 2014 <sup>32</sup>	≤10 days	11-25days	5591	7574	2460(3131)	3514(4060)	60.3±13.9	61.8±14.2	NA	NA	5591	7574	NA	NA	NA	NA	NA	NA

Abbreviations: NA: not available; IS: Ischemic stroke; ICH: intracerebral hemorrhage; SAH: subarachnoid hemorrhage; GCS: Glasgow coma score; SET Score: Stroke-Related Early Tracheostomy Score