

Supplementary Material S1

Search Strategy

Database: Ovid MEDLINE(R) ALL <1946 to July 21, 2021 >

Search Strategy:

1. (((exp Coronavirus/or exp Coronavirus Infections/or (D614G or coronavirus* or corona virus* or OC43 or NL63 or 229E or HKU1 or HCoV* or ncov* or covid* or sars-cov* or sarscov* or Sars-coronavirus* or Severe Acute Respiratory Syndrome Coronavirus*).mp.) and ((2019* or 202*) .dp. or 20190101:20301231.(ep.)) not (SARS or SARS-CoV or MERS or MERS-CoV or Middle East respiratory syndrome or camel* or dromedar* or equine or coronary or coronal or covidence* or covidien or influenza virus or HIV or bovine or calves or TGEV or feline or porcine or BCoV or PED or PEDV or PDCoV or FIPV or FCoV or SADS-CoV or canine or CCov or zoonotic or avian influenza or H1N1 or H5N1 or H5N6 or IBV or murine corona*).mp.) or (((pneumonia or covid* or coronavirus* or corona virus* or ncov* or 2019-ncov or sars*).mp. or exp pneumonia/) and Wuhan.mp.) or (2019-ncov or ncov19 or ncov-19 or 2019-novel CoV or sars-cov2 or sars-cov-2 or sarscov2 or sarscov-2 or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or coronavirus-19 or covid19 or covid-19 or covid 2019 or ((novel or new or nouveau) adj2 (CoV on nCoV or covid or coronavirus* or corona virus or Pandemi*2)) or ((covid or covid19 or covid-19) and pandemic*2) or (coronavirus* and pneumonia)).mp. or COVID-19.rx,px,ox. or severe acute respiratory syndrome coronavirus 2.os.)) and 20191201:20301231.(dt). (160097)
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4. (thrombo?emboli\$ adj3 (venous or vein\$1)).tw,kf. (26908)
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6. (VTE or DVT or (thromb\$ adj3 (generati\$ or risk\$1))).tw, kf. (50967)
7. or/2-6 (166923)
8. exp Ambulatory Care/or ambulatory care facilities/or exp community health centers/or exp outpatient clinics, hospital/or surgicenters/or outpatients/(117754)
9. (outpatient\$ or out-patient\$ or ((follow-up or followed or followup) adj3 clinic\$1) or (out\$ adj2 hospital\$) or ambulat\$ or same day or same-day).tw,kf. (335278)
10. (surgicenter\$ or urgent care\$).tw,kf. (2687)
11. Ambulatory Surgical Procedures/or (surg\$ adj3 (day or (day\$ adj3 case\$) or short-stay\$ or office-based)).tw,kf. (30079)

12. Elective Surgical Procedures/or ((elective\$ or urgent) adj3 surg\$).tw,kf. (41069)
13. (post-discharg\$ or postdischarg\$ or (discharg\$ and (non-hospitali\$ adj3 hospitali\$))).tw,kf. (10712)
14. (((after\$ or post\$ or following) adj2 discharg\$) and (non-hospitali\$ or hospitali\$)).tw,kf. (11629)
15. or/8-14 (466172)
16. 1 and 7 and 15 (180)

Database: Embase Classic + Embase <1947 to 2021 July 21 >

Search Strategy:

1. (((exp Coronavirus/or exp Coronavirus Infections/or (coronavirus* or corona virus* or OC43 or NL63 or 229E or HKU1 or HCoV* or ncov* or covid* or sars-cov* or sarscov* or Sars-coronavirus* or Severe Acute Respiratory Syndrome Coronavirus* or D614G).mp.) not (SARS or SARS-CoV or MERS or MERS-CoV or Middle East respiratory syndrome or camel* or dromedar* or equine or coronary or coronal or covidence* or covidien or influenza virus or HIV or bovine or calves or TGEV or feline or porcine or BCoV or PED or PEDV or PDCoV or FIPV or FCoV or SADS-CoV or canine or CCov or zoonotic or avian influenza or H1N1 or H5N1 or H5N6 or IBV or murine corona*).mp.) or (((pneumonia or covid* or coronavirus* or corona virus* or ncov* or 2019-ncov or sars*).mp. or exp pneumonia/) and Wuhan.mp.) or (coronavirus disease 2019 or 2019-ncov or ncov19 or ncov-19 or 2019-novel CoV or severe acute respiratory syndrome coronavirus 2 or sars-cov2 or sars-cov-2 or sarscov2 or sarscov-2 or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or coronavirus-19 or covid19 or covid-19 or covid 2019 or ((novel or new or nouveau) adj2 (CoV or nCoV or covid or coronavirus* or corona virus or Pandemi*2)) or ((covid or covid19 or covid-19) and pandemic*2) or (coronavirus* and pneumonia)).mp. or (coronavirus disease 2019 or severe acute respiratory syndrome coronavirus 2).sh,dj.) and 20191201:20301231.(dc). (166242)
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4. (thrombo?emboli\$ adj3 (venous or vein\$1)).tw,kw. (43635)

5. ((pulmona\$ or lung\$) adj (embol\$ or thrombo?embol\$ or micro?embol\$)).tw,kw. (75891)
6. (VTE or DVT or (thromb\$ adj3 (generati\$ or risk\$1))),tw, kw. (89490)
7. or/2-6 (312062)
8. exp ambulatory care/or outpatient department/or health center/or outpatient/(310531)
9. (outpatient\$ or out-patient\$ or ((follow-up or followed or followup) adj3 clinic\$1) or (out\$ adj2 hospital\$) or ambulat\$ or same day or same-day).tw,kw. (550402)
10. (surgicenter\$ or urgent care\$).tw,kw. (4295)
11. ambulatory surgery/or (surg\$ adj3 (day or (day\$ adj3 case \$) or short-stay\$ or office-based)).tw,kw. (43232)
12. elective surgery/or ((elective\$ or urgent) adj3 surg\$).tw, kw. (67885)
13. (post-discharg\$ or postdischarg\$ or (discharg\$ and (non-hospitali\$ adj3 hospitali\$))).tw,kw. (18540)
14. (((after\$ or post\$ or following) adj2 discharg\$) and (non-hospitali\$ or hospitali\$)).tw,kw. (21744)
15. or/8-14 (778273)
16. 1 and 7 and 15 (363)

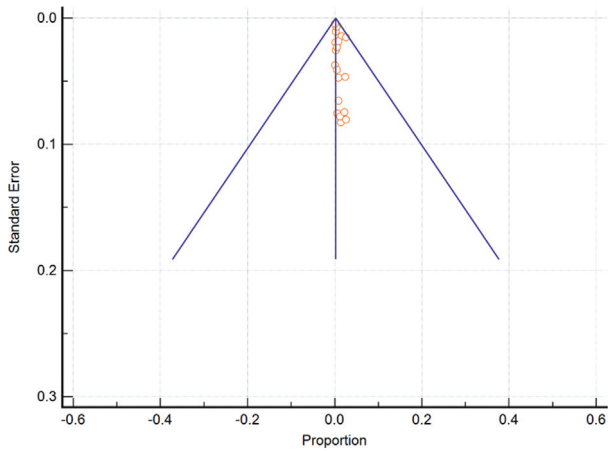


Fig. S1 Funnel plot for all patients (VTE events).

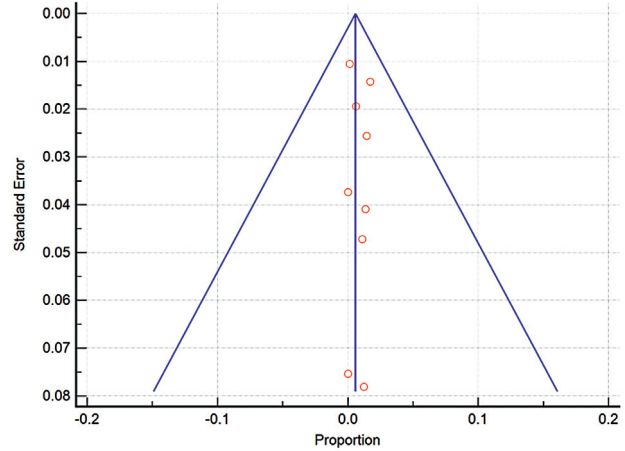


Fig. S2 Funnel plot for all patients (arterial events).

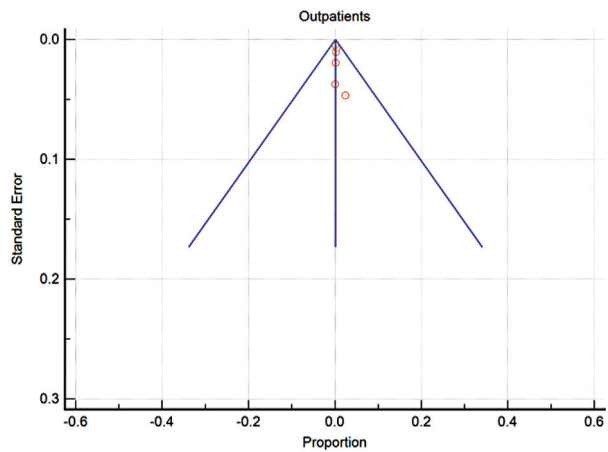


Fig. S3 Funnel plot for outpatients (VTE events).

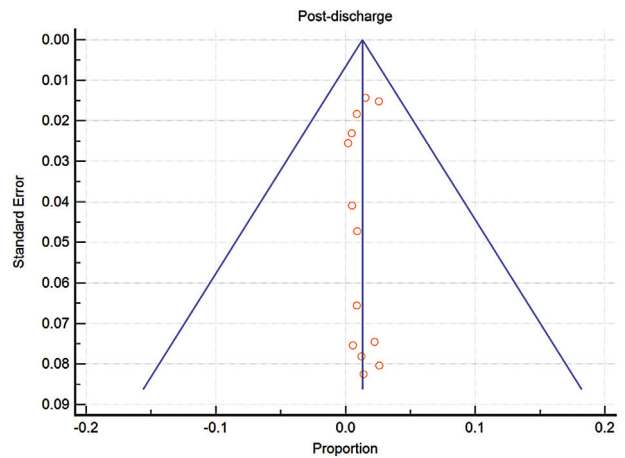


Fig. S4 Funnel plot for postdischarge patients (VTE events).

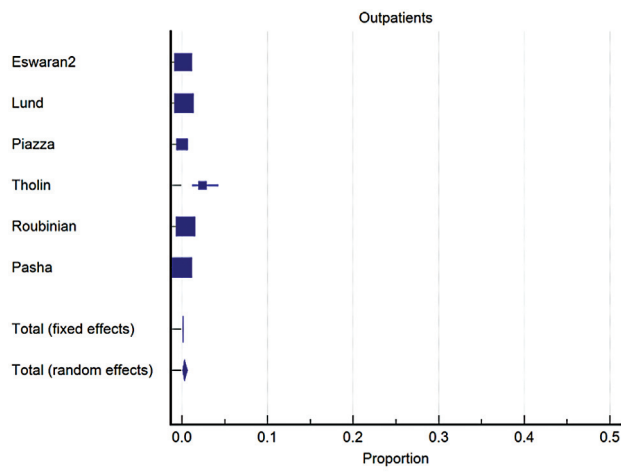


Fig. S5 Forest plot for outpatients (VTE events).

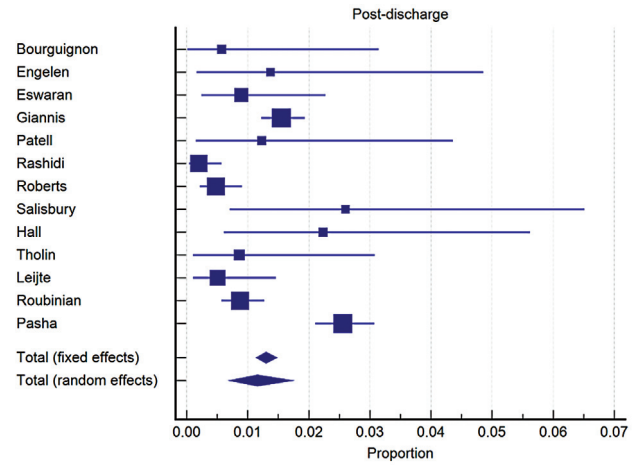


Fig. S6 Forest plot for post discharge patients (VTE events).

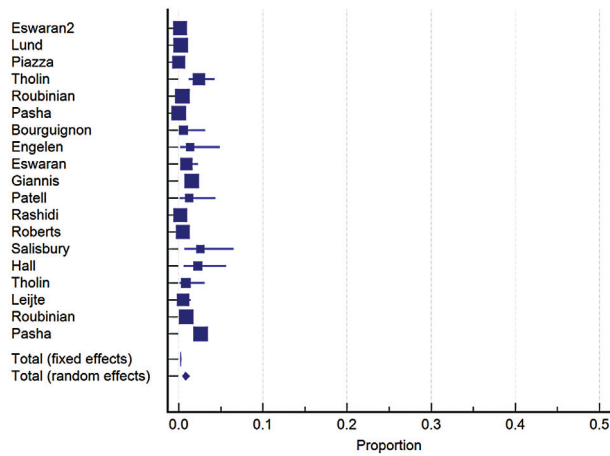


Fig. S7 Forest plot for all patients (VTE events).

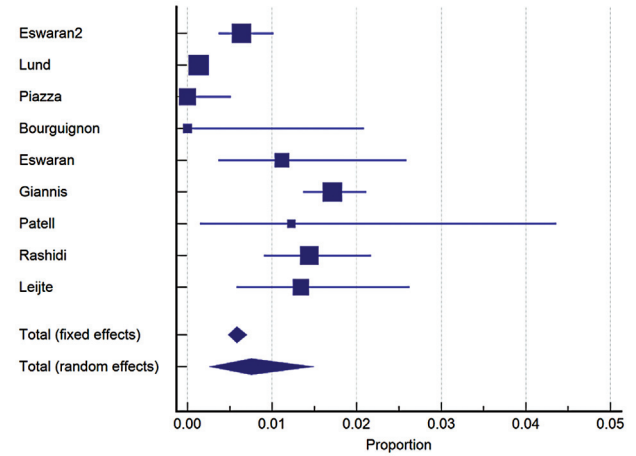


Fig. S8 Forest plot for all patients (arterial events).

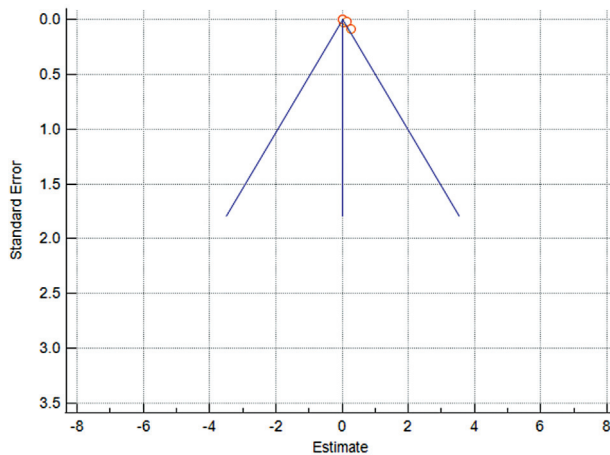


Fig. S9 Funnel plot for the incidence rate of venous thromboembolic events in outpatients.

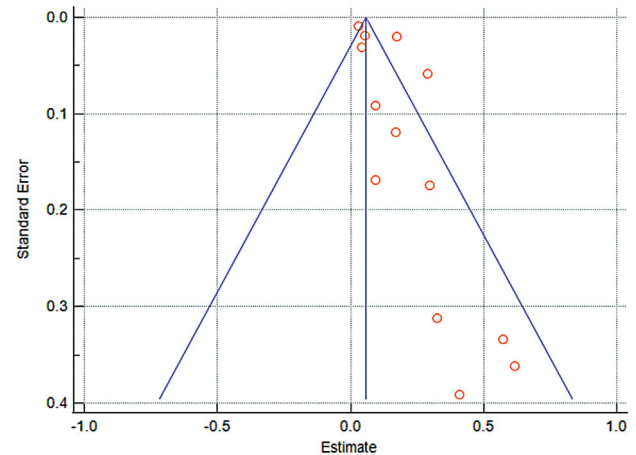


Fig. S10 Funnel plot for the incidence rate of venous thromboembolic events in post-discharge patients.

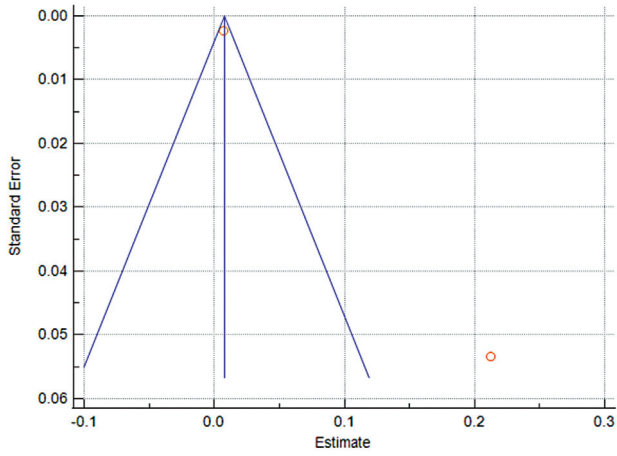


Fig. S11 Funnel plot for the incidence rate of arterial events in outpatients.

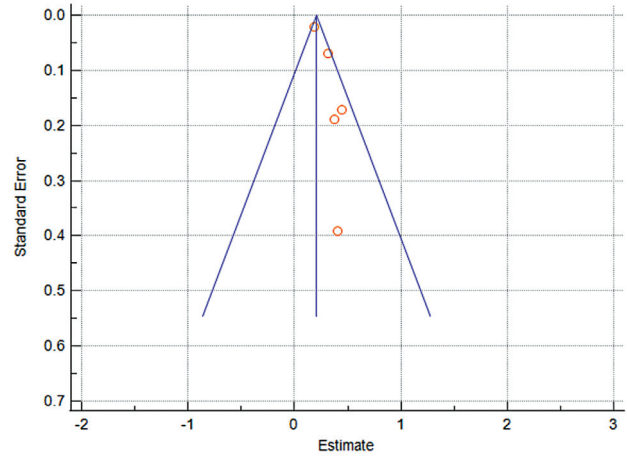


Fig. S12 Funnel plot for the incidence rate of arterial events in post-discharge patients.

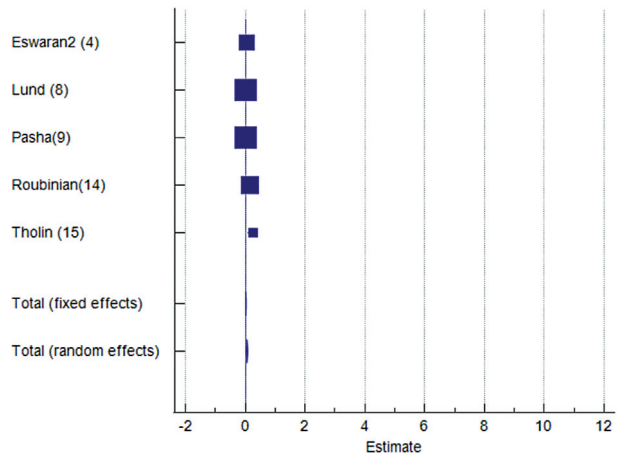


Fig. S13 Forest plot for the incidence rate of venous thromboembolic events in outpatients.

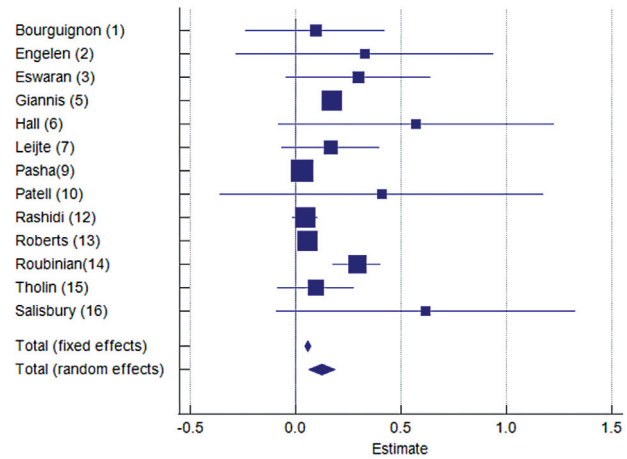


Fig. S14 Forest plot for the incidence rate of venous thromboembolic events in post-discharge patients.

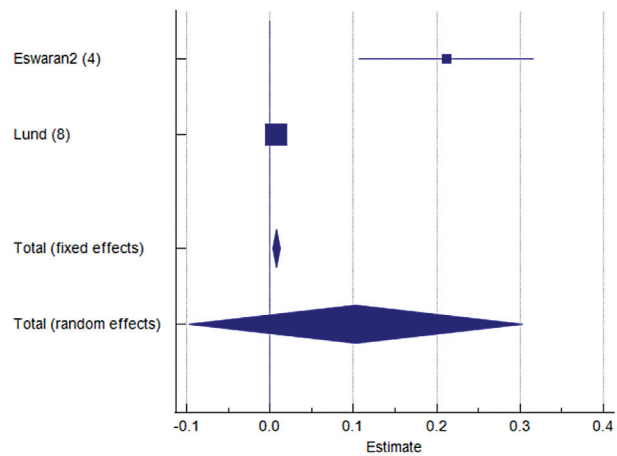


Fig. S15 Forest plot for the incidence rate of arterial events in outpatients.

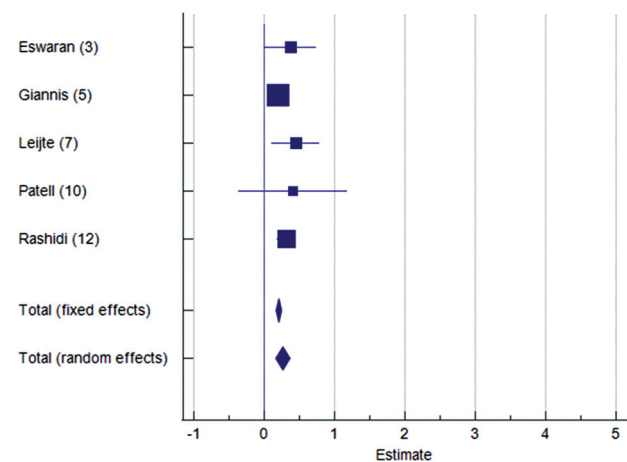


Fig. S16 Forest plot for the incidence rate of arterial events in post-discharge patients.

Table S1 Characteristics of included studies

No.	Study	Study design	No. of discharged	No. of outpatients	Median age (y)	Thromboprophylaxis	VTE events	Arterial events	Median follow-up
1	Bourguignon et al ¹	Retrospective	175	-	63	No prophylaxis, 24 on AC already	1	0	60 days
2	Engelen et al ²	Prospective	146	-	58	Low dose enoxaparin (0.5 mg/kg once daily) for 2 to 6 weeks after discharge was considered on individualized basis, especially in high-risk patients	2	-	6 weeks
3	Eswaran et al ³	Retrospective	447	-	54	190 discharged on prophylaxis (DOAC in 90%)	4	5	30 days
4	Eswaran et al ⁴	Retrospective	-	2,673	37.9	-	4	17	30 days
5	Giannis et al ⁵	Prospective	4,906	-	61.7	Thromboprophylaxis was prescribed in 12.7% based on IMPROVE VTE score.	76	84	90 days
6	Hall et al ⁶	Prospective	179	21	54.8	-	4	-	4-6 weeks
7	Leijte et al ⁷	Retrospective	596	-	-	-	3	8	30 days
8	Lund et al ⁸	Prospective	-	8,983	43	-	20	12	2 weeks to 6 months post positive COVID
9	Pasha et al ⁹	Retrospective	4,340	50,013	-	-	11/111 ^a	-	90 days before or after positive COVID
10	Patell et al ¹⁰	Retrospective	163	-	58	No prophylaxis post discharge	2	2	30 days
11	Piazza et al ¹¹	Retrospective	-	715	44.28	1 patient on prophylaxis /16 patients on therapeutic AC	0	0	30 days
12	Rashidi et al ¹²	Retrospective	1,529	-	56	97% on thromboprophylaxis	3	22	45 days
13	Roberts et al ¹³	Retrospective	1,877	-	-	No outpatient thromboprophylaxis	9	-	90 days
14	Nareg et al ¹⁴	Retrospective	2,984	22,209	-	-	26/95 ^a	-	30 days
15	Tholin et al ¹⁵	Prospective	232	458	49.6	19 patients discharged on thromboprophylaxis	2/11 ^a	-	3 months
16	Salisbury et al ¹⁶	Retrospective	154	-	61.5	5 patients got thromboprophylaxis, 51 already on full dose AC	4	-	42 days

Abbreviation: VTE, venous thromboembolism ; AC, Anticoagulants; DOAC, direct oral anticoagulants.

^aNumbers represent events in post-discharged and outpatients, respectively.

Table S2 Quality assessment of included studies according to the Newcastle-Ottawa scale

	Author	Study design	Selection	Compatibility	Outcome
1	Bourguignon et al ¹	Retrospective	***	*	***
2	Engelen et al ²	Prospective	***	*	***
3	Eswaran et al ³	Retrospective	****	*	***
4	Eswaran et al ⁴	Retrospective	Abstract only		
5	Giannis et al ⁵	Prospective	***	*	***
6	Hall et al ⁶	Prospective	***	*	**
7	Leijte et al ⁷	Retrospective	**	*	*
8	Lund et al ⁸	Prospective	***	*	**
9	Pasha et al ⁹	Retrospective	***	*	***
10	Patell et al ¹⁰	Retrospective	***	*	***
11	Piazza et al ¹¹	Retrospective	***	*	***
12	Rashidi et al ¹²	Retrospective	***	*	**
13	Roberts et al ¹³	Retrospective	***	*	**
14	Nareg et al ¹⁴	Retrospective	***	*	***
15	Tholin et al ¹⁵	Prospective	***	*	***
16	Salisbury et al ¹⁶	Retrospective	***	*	***

Table S3 Pooled estimates of the proportion of venous thromboembolic events according to proportion of thromboprophylaxis use and duration of follow-up

	Proportion	95% confidence interval	Q-test	p-Value	I ²
Thromboprophylaxis use					
> 20%	1.043	0.183–2.595	17.27	<0.001	82.63
< 20%	0.659	0.372–1.028	114.47	<0.001	91.26
Not reported	1.019	0.001–3.886	357.81	<0.001	99.16
Duration of follow-up					
> 42 days	0.809	0.230–1.737	560.9345	<0.001	98.57
< 42 days	0.665	0.373–1.041	42.3308	<0.001	78.74

Table S4 Egger's tests for publication bias (*p*-value)

Outcome	Egger's tests (<i>p</i> -value)	No. of studies
Arterial events(discharged)	0.0793	6
Arterial event (outpatients)	0.8755	3
Arterial events (all patients)	0.5275	9
Arterial events (prospective studies)	<0.0001	2
Arterial events (retrospective studies)	0.9234	7
Arterial events IR (outpatients)	<0.001	2
Arterial events IR (discharged)	0.0499	5
VTE (discharged)	0.5498	13
VTE (outpatients)	0.3614	6
VTE (all patients)	0.0196	16
VTE (prospective studies)	0.3127	5
VTE (retrospective studies)	0.0857	11
VTE IR (outpatients)	0.2075	5
VTE IR (discharged)	0.1431	13

Abbreviations: IR, incidence rate; VTE, venous thromboembolism.

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- Salisbury R, Lotchkova V, Jaafar S, et al. Incidence of symptomatic, image-confirmed venous thromboembolism following hospitalization for COVID-19 with 90-day follow-up. *Blood Adv* 2020;4 (24):6230–6239