Supplemental Materials

Supplemental Appendix. Search terms used in database

    1) Search terms for PubMed

(((("COVID-19"[Supplementary Concept] OR "Coronavirus"[MeSH Terms]) OR "severe acute respiratory syndrome coronavirus 2"[Supplementary Concept]) OR (((((("Coronavirus"[MeSH Terms] OR "Coronavirus"[All Fields]) OR "coronaviruses"[All Fields]) OR ((((((("COVID-19"[All Fields] OR "covid 2019"[All Fields]) OR "severe acute respiratory syndrome coronavirus 2"[Supplementary Concept]) OR "severe acute respiratory syndrome coronavirus 2"[All Fields]) OR "2019 ncov"[All Fields]) OR "sars cov 2"[All Fields]) OR "2019ncov"[All Fields]) OR (("wuhan"[All Fields] AND ("Coronavirus"[MeSH Terms] OR "Coronavirus"[All Fields]))))))) OR (("severe acute respiratory syndrome coronavirus 2"[Supplementary Concept] OR "severe acute respiratory syndrome coronavirus 2"[All Fields]) OR "2019 ncov"[All Fields])) OR (("severe acute respiratory syndrome coronavirus 2"[Supplementary Concept] OR "severe acute respiratory syndrome coronavirus 2"[All Fields]) OR "sars cov 2"[All Fields])))

AND (("embol*"[All Fields] OR "thromb*"[All Fields]) OR ("Embolism"[MeSH Terms] OR "Thrombosis"[MeSH Terms]))

-Filter: English, from 2020 - 2020

    2) Search terms for Embase

(('coronavirus infection'/exp OR 'coronavirus disease 2019'/exp OR 'severe acute respiratory syndrome coronavirus 2'/exp) OR (coronavirus OR 'covid 19' OR '2019 ncov' OR 'sars cov 2')) AND ((embol* OR thromb*) OR ('embolism'/exp OR 'thromboembolism'/exp OR 'thrombosis'/exp)) AND [english]/lim AND [2020-2020]/py

    3) Search terms for Cochrane Libary

"coronavirus" OR "COVID-19" OR "2019-nCOV" OR "SARS-COV-2" OR MeSH descriptor: [Coronavirus] explode all trees

AND

embol* OR thromb* OR embol* OR thromb* OR MeSH descriptor: [Embolism and Thrombosis] explode all trees

with Cochrane Library publication date from Jan 2020 to Dec 2020

    4) Search terms for SSRN

†The SSRN does not provide a combination of search terms, and we used keywords related to thromboembolism without COVID-19 in recent 6 months.

emboli OR embolic OR embolism OR thrombi OR thrombus OR thrombosis

5) Search terms for medRxiv and bioRxiv

†The medRxiv and bioRxiv do not provide a combination of search terms, and we used keywords related to thromboembolism without COVID-19 since Jan 2020.

emboli OR embolic OR embolism OR thrombi OR thrombus OR thrombosis

Supplemental Tables

Table 1. Quality assessment of the included studies

First author	Selection				Comparability	Outcome			Total score
	Representative ness of the exposed cohort	Selection of the non-exposed cohort	Ascertainm ent of exposure	Demonstration that outcome of interest was not present at start of study	Comparability of cohorts on the basis of the design or analysis	Assessment of outcome	Was follow-up long enough for outcomes to occur	Adequacy of follow-up of cohorts	
Grillet (23)	1	0	1	0	1	1	1	1	6
Leonard-Lorant (7)	0	1	1	0	0	1	1	1	5
Gervaise (21)	0	0	1	0	0	1	1	1	4
Klok (27)	1	0	0	0	0	1	1	1	4
Al-Samkari (13)	1	0	1	0	2	1	1	1	7
Zhang (37)	1	0	0	1	2	1	1	1	7
Ren (35)	1	0	0	1	0	1	1	1	5
Llitjos (28)	1	0	1	1	0	1	1	1	6
Helms (25)	1	1	1	1	1	1	1	1	8
Demelo-Rodríguez (18)	1	0	1	1	2	1	1	1	8
Middeldorp (32)	1	0	1	1	2	1	1	1	8

Cui (17)	1	0	1	0	0	1	1	1	5
Poissy (33)	1	1	1	0	0	1	1	1	6
Bompard (15)	1	0	1	0	0	1	1	1	5
Cattaneo (16)	0	0	0	1	0	1	1	1	4
Maatman (30)	1	0	1	0	0	1	1	1	5
Hékimian (24)	1	0	1	0	0	1	1	1	5
Artifoni (14)	1	0	1	0	0	1	1	1	5
Grandmaison (22)	1	0	1	1	0	1	1	1	6
Fraissé (20)	1	0	1	1	0	1	1	1	6
Lodigiani (29)	1	0	1	1	0	1	1	1	6
Longchamp (38)	1	0	1	1	0	1	1	1	6
Poyiadiji (34)	1	0	1	1	2	1	1	1	8
Fang (19)	0	0	1	0	0	1	1	1	4
Valle (36)	0	0	1	0	0	1	1	1	4
Manjunath (31)	1	0	1	0	0	1	1	1	5
Kerbikov (26)	1	0	1	1	2	1	1	1	8

Table 2. Incidence PE and DVT in each subgroup by disease severity.

First author	No.of patients	Disease Severity	Use of anticoagulation	Endpoints	Proportion of patients undergoing CTPA (%)	Incidence of PE (%)	Incidence of DVT* (%)
Grillet_1 (23)	61	non-ICU	Unknown	PE	100	9.8	N/A
Grillet_2 (23)	39	ICU	Unknown	PE	100	43.6	N/A
Leonard-Lorant_1 (7)	58	non-ICU	Yes	PE	100	13.8	N/A
Leonard-Lorant_2 (7)	48	ICU	Yes	PE	100	50.0	N/A
Gervaise_1 (21)	31	moderate	No	PE	100	16.1	N/A
Gervaise_2 (21)	41	severe or critical	No	PE	100	19.5	N/A
Klok (27)	184	ICU	Yes	PE, DVT	Unknown	35.3	0.5
Al-Samkari (13)	400	Various	Yes	PE, DVT	Unknown	2.5	2.5
Zhang_1 (37)	78	Various	Yes	PE, DVT	<100*	N/A	29.5
Zhang_2 (37)	65		Yes	PE, DVT	<100*	N/A	66.2
Ren (35)	48	ICU	Yes	DVT	N/A	N/A	85.4
Llitjos (28)	26	ICU	Yes	PE, DVT	Unknown	23.1	50.0
Helms (25)	150	ICU	Yes	PE, DVT	66.7	16.7	2.0
Demelo-Rodríguez (18)	156	Non-ICU	Yes	DVT	N/A	N/A	14.7
Middeldorp_1 (32)	123	non-ICU	Yes	PE, DVT	Unknown	1.6	2.0
Middeldorp_2 (32)	75	ICU	Yes	PE, DVT	Unknown	14.7	31.0
Cui (17)	81	ICU	No	DVT	N/A	N/A	24.7
Poissy (33)	107	ICU	Yes	PE, DVT	31.8	20.6	4.7

Bompard_1 (15)	111	Non-ICU	Yes	PE	100	18.0	N/A
Bompard_2 (15)	24	non-ICU	Yes	PE	100	50.0	N/A
Cattaneo (16)	64	Non-ICU	Yes	DVT	N/A	N/A	0.0
Maatman (30)	109	ICU	Yes	PE, DVT	Unknown	4.6	22.0
Hékimian (24)	51	ICU	Yes	PE	64.7	15.7	N/A
Artifoni (14)	71	Non-ICU	Yes	PE, DVT	45.1	9.9	21.1
Grandmaison (22)	29	ICU	Yes	PE, DVT	41.4	6.9	58.6
Fraissé (20)	92	ICU	Yes	PE, DVT	29.3	28.3	13.0
Lodigiani_1 (29)	314	Non-ICU	Yes	PE, DVT	<100*	2.5	1.6
Lodigiani_2 (29)	48	ICU	Yes	PE, DVT	<100*	4.2	2.1
Longchamp (38)	25	ICU	Yes	PE, DVT	36.0	24.0	24.0
Poyiadiji_1 (34)	246	Non-ICU	Yes	PE	100	22.0	N/A
Poyiadiji_2 (34)	82	ICU	Yes	PE	100	22.0	N/A
Fang_1 (19)	73	Non-ICU	Yes	PE	100	38.4	N/A
Fang_2 (19)	20	ICU	Yes	PE	100	65.0	N/A
Valle (36)	114	Various (severe)	Yes	PE	100	57.0	N/A
Manjunath (31)	23	Critically ill (ICU or step down unit)	Yes	PE	43.5	26.1	N/A
Kerbikov (26)	75	Moderate to severe (non-ICU)	Yes	DVT	N/A	N/A	20.0

Note.— CTPA, CT pulmonary angiography; PE, pulmonary embolism; DVT, deep vein thrombosis; ICU, intensive care unit; N/A, non-applicable

*The exact number for each subgroup was not provided in the included study.

Table 3. Information about PE location

First author	Endpoints	Incidence of PE (%)	PE location
Grillet	PE	23.0	10 lobar, 23 segmental
Leonard-Lorant	PE	30.2	7 main, 11 lobar, 9 segmental, 5 subsegmental
Gervaise	PE	18.1	2 main,4 lobar,7 segmental
Klok	PE, DVT	35.3	46 segmental or proximal, 19 subsegmental†
Al-Samkari	PE, DVT	2.5	6 proximal, 1 distal, 3 missing value†
Zhang	PE, DVT	0.7	N/A
Llitjos	PE, DVT	23.1	N/A
Helms	PE, DVT	16.7	9 troncular, 8 lobar, 5 segmental, 3 subsegmental
Middeldorp	PE, DVT	6.6	1 central or lobar, 10 segmental, 2 subsegmental
Poissy	PE, DVT	20.6	2 proximal, 10 segmental, 7 subsegmental , 3 missing
Bompard	PE	23.7	10 proximal , 18 segmental, 4 subsegmental
Maatman	PE, DVT	4.6	N/A
Hékimian	PE	15.7	4 main, 3 segmental
Artifoni	PE, DVT	9.9	1 main, 1 lobar, 2 segmental, 3 subsegmental
Grandmaison	PE, DVT	6.9	2 main
Fraissé	PE, DVT	28.3	5 main, 6 lobar, 15 segmental
Lodigiani	PE, DVT	2.8	N/A
Longchamp	PE, DVT	24.0	lobar 3, segmental 3
Poyiadiji	PE	22.0	9 central, 22 lobar, 37 segmental, 4 subsegmental

Fang	PE	44.1	5 main, 8 lobar, 16 segmental, 12 subsegmental
Valle	PE	57.0	11 main
Manjunath	PE	26.1	N/A

Note.— PE, pulmonary embolism; DVT, deep vein thrombosis; N/A, non-applicable
*Reported PE location cannot be categorized as central (main or lobar) or peripheral (segmental or subsegmental).

Table 4. Optimal cutoffs of D0dimeter for diagnosis of PE and corresponding sensitivities and specificities with varying weights in the Youden Index

Weights for sensitivity and specificity	optimal cutoff (µg/L)	sensitivity [%, 95% CI]	specificity [%, 95% CI]
(0.5, 0.5)	4453.2	62 [49, 73]	76 [65, 84]
(0.6, 0.4)	2969.0	72 [62, 81]	63 [51, 73]
(0.7, 0.3)	1614.9	84 [77, 90]	40 [31, 50]

PE, pulmonary embolism; CI, confidence interval