Supplementary Online Content

Freund Y, Cachanado M, Aubry A, et al. Effect of the pulmonary embolism rule-out criteria on subsequent thromboembolic events among low-risk emergency department patients: the PROPER randomized clinical trial. *JAMA*. doi:10.1001/jama.2017.21904

eTable 1. Characteristics of Participating Emergency Departments

eTable 2. Clinical Probability and PERC Score

eTable 3. Posthoc Sensitivity Analyses

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This supplementary material has been provided by the authors to give readers additional information about their work.

Emergency department	Annual census	Patients recruited (N, %)	Setting	Trainees (N)	Senior emergency physicians (N)	Mean years in practice of senior emergency physicians
Pitie-salpetriere (Paris)	66 000	589 (0.8%)	Urban	10	25	6
Saint Antoine (Paris)	65 000	164 (0.3%)	Urban	9	25	5
Tenon (Paris)	44 000	98 (0.2%)	Urban	7	13	5
Cochin (Paris)	55 000	100 (0.2%)	Urban	9	22	7
Bichat (Paris)	80 000	70 (0.08%)	Urban	10	28	5
Lariboisiere (Paris)	79 000	91 (0.1%)	Urban	12	25	7
HEGP (Paris)	50 000	139 (0.3%)	Urban	8	21	7
Avicenne (Bobigny)	40 000	212 (0.5%)	Urban	6	13	5
Saint Camille (Bry s Marne)	44 000	37 (0.08%)	Urban	6	14	5
Mondor (Créteil)	53 000	55 (0.1%)	Urban	10	18	3
Ambroise Paré (Boulogne)	38 000	79 (0.2%)	Urban	8	14	10
Purpan-Rangueil (Toulouse)	37 000	115 (0.3%)	Urban	11	20	8
Minjoz (Besançon)	30 000	84 (0.3%)	Semi Rural	10	22	8
Edouard Herriot (Lyon)	70 000	83 (0.11%)	Urban	14	36	5

Supplemental Table 1: Characteristics of participating emergency departments.
All centers were academic emergency departments, adult only, saw both medical and surgical patients and have 24/7 coverage by a senior emergency physician. Trainees are post-graduate young doctors in their 3 to 6 years internship. Senior emergency physicians are board certified physicians who completed their training.

Posthoc sensitivity analysis 1: Exclusion of 150 patients with PERC=0 in the PERC group

	PERC	Control
ITT population	**n=812**	**n=954**
PERC=0	309 (38%)	364 (38%)
RGS <2	677 (83%)	772 (81%)
RGS ≥2 and <5	135 (17%)	182 (19%)
Wells score <2	729 (90%)	746 (78%)
Wells score ≥2 and <6	75 (9%)	178 (19%)
Wells score >6	8 (1%)	30 (3%)

Posthoc sensitivity analysis 2: Addition of 175 patients with PERC=0 in the Control group

	PERC	Control
ITT population	**n=962**	**n=1129**
PERC=0	459 (48%)	539 (48%)
RGS <2	827 (86%)	947 (84%)
RGS ≥2 and <5	135 (14%)	182 (16%)
Wells score <2	875 (91%)	921 (81%)
Wells score ≥2 and <6	79 (8%)	178 (16%)
Wells score >6	8 (1%)	30 (3%)

Supplemental Table 2: Clinical probability and PERC score. PERC: Pulmonary Embolism Rule-out Criteria. RGS: Revised Geneva Score

Posthoc sensitivity analysis 1: Exclusion of 150 patients with PERC=0 in the PERC group

ITT population	PERC n=812	Control n=954	Difference	[95%CI]	p
Primary outcome (TE event at 3 months)	32 (4%)	29 (3%)	0.9%	]-∞ ; 2.4%]	0.49
CTPA performed	129 (16%)	220 (23%)	7.2%	[3.4% ; 11.0%]	<0.001
Hospital admission	116 (14%)	152 (16%)	-1.6%	[-5.1% ; 1.8%]	0.34
Anticoagulation therapy introduced	21 (3%)	33 (3%)	0.9%	[-0.8% ; 2.6%]	0.29
Re admission to the hospital at 3 months	40 (5%)	62 (7%)	1.6%	[-0.8% ; 3.9%]	0.17
All causes death at 3 months	3 (0.4%)	2 (0.2%)	0.2%	[-0.5% ; 0.8%]	0.52
Per protocol population	**n=697**	**n=902**			
Primary outcome (TE event at 3 months)	1 (0.1%)	0 (0%)	0.1%	]-∞ ; 0.8%]	
CTPA performed	114 (16%)	211 (23%)	7.0%	[3.0% ; 11.1%]	<0.001
Hospital admission	96 (14%)	139 (15%)	-1.6%	[-5.2% ; 2.0%]	0.36
Anticoagulation therapy introduced	19 (3%)	28 (3%)	0.4%	[-1.4% ; 2.2%]	0.66
Re admission to the hospital at 3 months	35 (5%)	62 (7%)	1.8%	[-0.6% ; 4.3%]	0.12
All causes death at 3 months	1 (0.1%)	1 (0.1%)	0.0%	[-0.4% ; 0.5%]	0.85

Posthoc sensitivity analysis 2: Addition of 175 patients with PERC=0 in the Control group

ITT population	PERC n=962	Control n=1129	Difference	[95%CI]	p
Primary outcome (TE event at 3 months)	32 (3%)	29 (3%)	0.8%	]-∞ ; 2.0%]	
CTPA performed	129 (13%)	220 (19%)	6.0%	[2.8% ; 9.3%]	<0.001
Hospital admission	121 (13%)	152 (13%)	-0.9%	[-3.9% ; 2.1%]	0.55
Anticoagulation therapy introduced	21 (2%)	33 (3%)	0.7%	[-0.7% ; 2.2%]	0.29
Re admission to the hospital at 3 months	43 (4%)	62 (6%)	1.0%	[-1.0% ; 3.0%]	0.30
All causes death at 3 months	3 (0.3%)	2 (0.2%)	0.1%	[-0.4% ; 0.7%]	0.52
Per protocol population	**n=847**	**n=1077**			
Primary outcome (TE event at 3 months)	1 (0.1%)	0 (0%)	0.1%	]-∞% ; 0.7%]	
CTPA performed	114 (14%)	211 (20%)	6.1%	[2.7% ; 9.5%]	<0.001
Hospital admission	101 (12%)	139 (13%)	-1.0%	[-4.0% ; 2.1%]	0.52
Anticoagulation therapy introduced	19 (2%)	28 (3%)	0.4%	[-1.1% ; 1.8%]	0.61
Re admission to the hospital at 3 months	38 (4%)	62 (6%)	1.3%	[-0.8% ; 3.3%]	0.21
All causes death at 3 months	1 (0.1%)	1 (0.1%)	0.0%	[-0.4% ; 0.4%]	0.86

Supplemental table 3: posthoc analyses of primary and secondary endpoints. ITT: intention to treat. NNT: number needed to treat. TE: thromboembolic. CTPA: Computed tomographic pulmonary angiography. ED: emergency department. IQR: inter-quartile range.

	PERC group	Control group		
ITT population posthoc analysis 1	**n=812**	**n=954**	Difference (95%CI)	p
Pulmonary embolism	14 (1.7%)	26 (2.7%)	1.0% (-0.04% to 2.4%)	0.16
ITT population posthoc analysis 2	**n=962**	**n=1129**		
Pulmonary embolism	14 (1.5%)	25 (2.3%)	0.8% (-0.3% to 2.1%)	0.16

Supplemental table 4: Initial diagnosis of pulmonary embolism in the emergency department.