Perles cliniques 2019 en médecine vasculaire

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Conflits d'intérêt

Aucun

Objectifs de la présentation

- Citer les résultats d'études pertinentes en médecine vasculaire en 2019.
- Intégrer dans sa pratique de nouvelles approches thérapeutiques fondées sur des données récemment publiées.
- Critiquer les études récentes en médecine vasculaire.

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POINT

SELECT-D

DECLARE-TIMI 58

Méta-analyse iSGLT2

ODYSSEY-OUTCOMES

GdP prévention 1e ACC-AHA

REDUCE-IT

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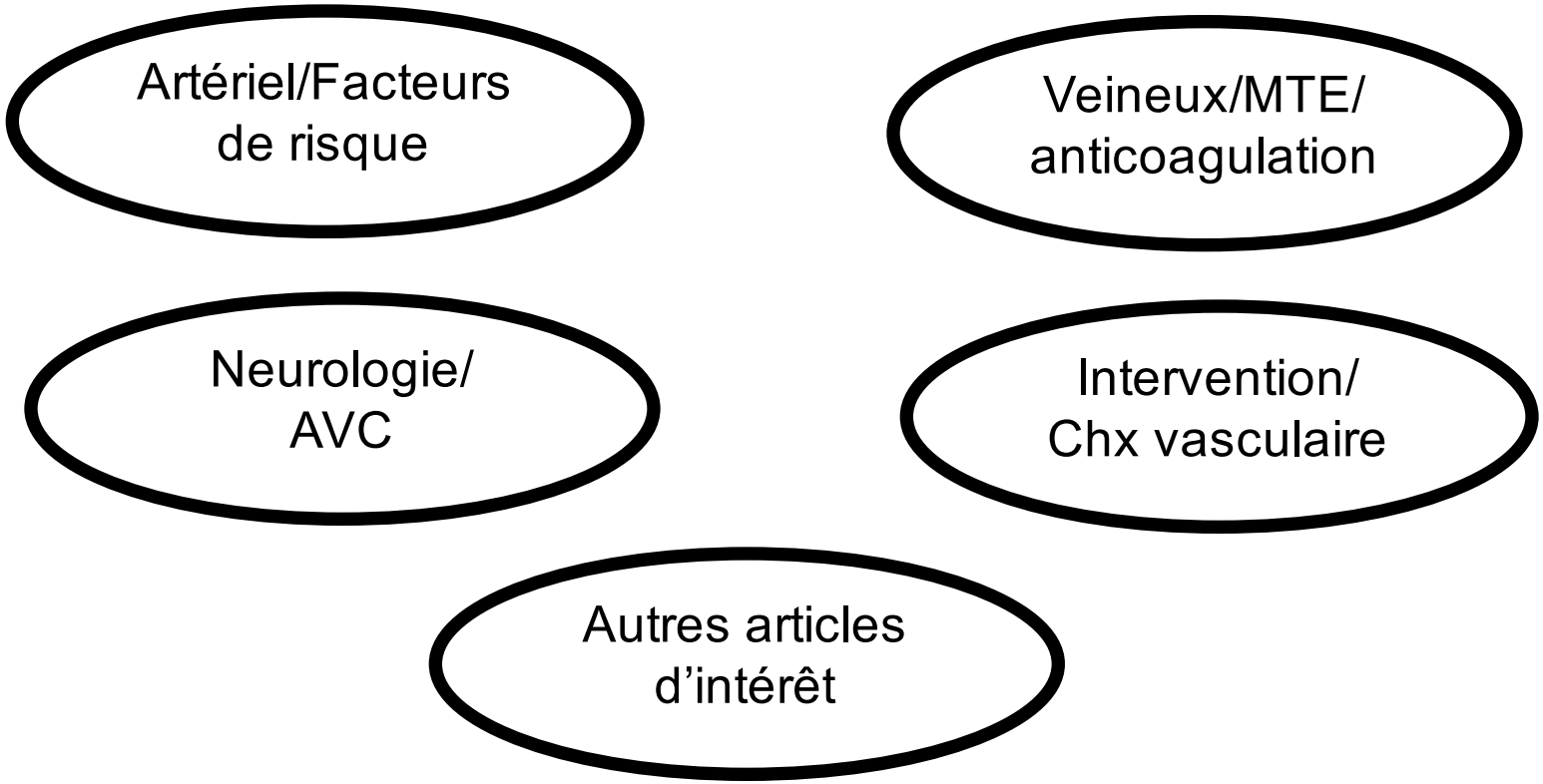


A Randomized Trial of E-Cigarettes versus Nicotine-Replacement Therapy

Hajek P, Phillips-Waller A, Przulj D et coll.

N Engl J Med. 2019;380:629-37.

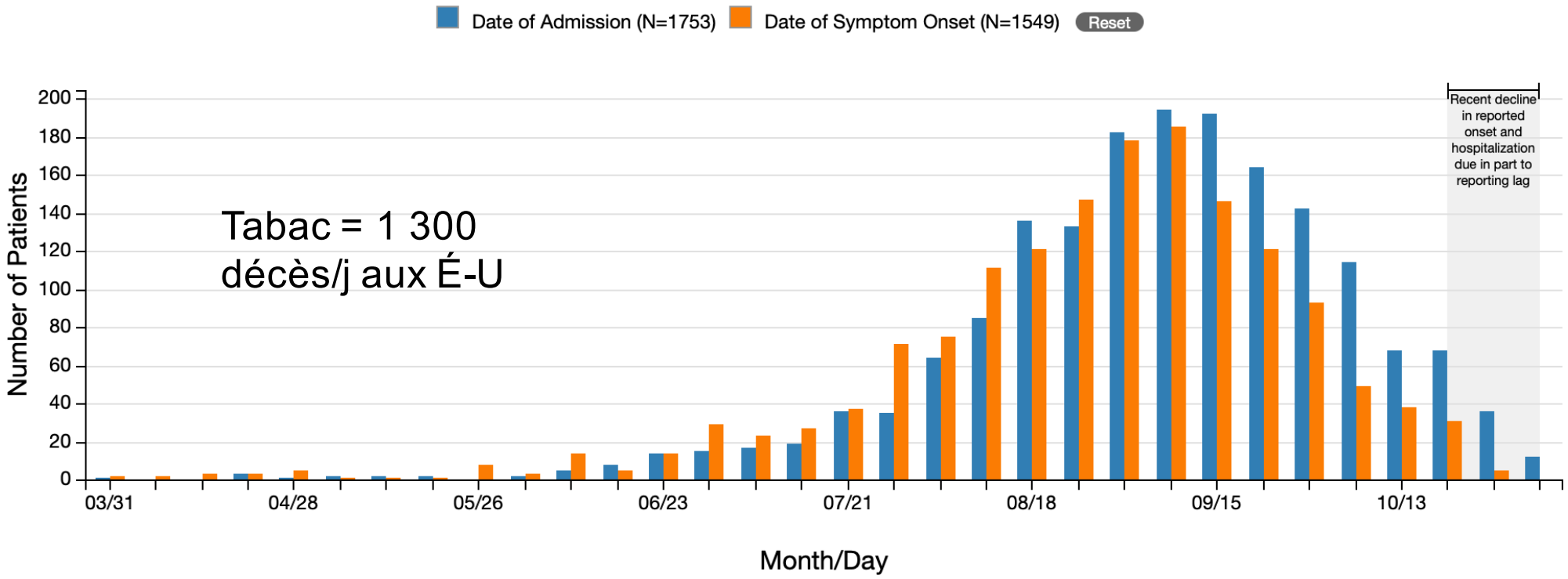
Table 2. Abstinence Rates at Different Time Points and Smoking Reduction at 52 Weeks.*

Outcome	E-Cigarettes (N=438)	Nicotine Replacement (N=446)	Primary Analysis: Relative Risk (95% CI)†	Sensitivity Analysis: Adjusted Relative Risk (95% CI)
Primary outcome: abstinence at 52 wk — no. (%)	79 (18.0)	44 (9.9)	1.83 (1.30–2.58)	1.75 (1.24–2.46)‡
Secondary outcomes				
Abstinence between wk 26 and wk 52 — no. (%)	93 (21.2)	53 (11.9)	1.79 (1.32–2.44)	1.82 (1.34–2.47)§
Abstinence at 4 wk after target quit date — no. (%)	192 (43.8)	134 (30.0)	1.45 (1.22–1.74)	1.43 (1.20–1.71)¶
Abstinence at 26 wk after target quit date — no. (%)	155 (35.4)	112 (25.1)	1.40 (1.14–1.72)	1.36 (1.15–1.67)‡
Carbon monoxide–validated reduction in smoking of ≥50% in participants without abstinence between wk 26 and wk 52 — no./total no. (%)	44/345 (12.8)	29/393 (7.4)	1.75 (1.12–2.72)	1.73 (1.11–2.69)‖

NNT = 12
(IC 95 % 8-28)

Impact clinique : la e-cig est plus efficace que les Tx de remplacement nicotinique pour cesser de fumer à un an lorsqu'accompagné d'un soutien psychologique.

Dates of symptom onset and hospital admission for patients with lung injury associated with e-cigarette use, or vaping — United States, March 31–November 9, 2019



UNIVERSITÉ DE SHERBROOKE
Faculté de médecine et des sciences de la santé

Canagliflozin and Renal Outcomes in Type 2 Diabetes and Nephropathy

Perkovic V, Jardine MJ, Neal B et coll.

N Engl J Med. 2019;380:2295-306.

Variable	Canagliflozin		Placebo		Canagliflozin	Placebo	Hazard Ratio (95% CI)	P Value
	no./total no.				*events/ 1000 patient-yr*			
Efficacy								
Primary composite outcome	245/2202	(11 %)	340/2199	(15 %)	43.2	61.2	0.70 (0.59–0.82)	0.00001
Doubling of serum creatinine level	118/2202		188/2199		20.7	33.8	0.60 (0.48–0.76)	<0.001
End-stage kidney disease	116/2202		165/2199		20.4	29.4	0.68 (0.54–0.86)	0.002
Estimated GFR <15 ml/min/1.73 m^2	78/2202		125/2199		13.6	22.2	0.60 (0.45–0.80)	NA
Dialysis initiated or kidney transplantation	76/2202		100/2199		13.3	17.7	0.74 (0.55–1.00)	NA
Renal death	2/2202		5/2199		0.3	0.9	NA	NA
Cardiovascular death	110/2202		140/2199		19.0	24.4	0.78 (0.61–1.00)	0.05
Secondary outcomes								
Cardiovascular death or hospitalization for heart failure	179/2202		253/2199		31.5	45.4	0.69 (0.57–0.83)	<0.001
Cardiovascular death, myocardial infarction, or stroke	217/2202		269/2199		38.7	48.7	0.80 (0.67–0.95)	0.01
Hospitalization for heart failure	89/2202		141/2199		15.7	25.3	0.61 (0.47–0.80)	<0.001
Safety‡								NA
Any adverse event	1784/2200		1860/2197		351.4	379.3	0.87 (0.82–0.93)	NA
Any serious adverse event	737/2200		806/2197		145.2	164.4	0.87 (0.79–0.97)	NA
Serious adverse event related to trial drug	62/2200		42/2197		12.2	8.6	1.45 (0.98–2.14)	NA
Amputation	70/2200		63/2197		12.3	11.2	1.11 (0.79–1.56)	NA
Fracture	67/2200		68/2197		11.8	12.1	0.98 (0.70–1.37)	NA
Diabetic ketoacidosis‖	11/2200		1/2197		2.2	0.2	10.80 (1.39–83.65)	NA

NNT = 24
(IC 95 % 16-43)

Impact clinique : chez les pts avec DM2 + néphropathie, la canagliflozine diminue le risque d'IRCT et d'ECVM à 2,6 ans.

Ticagrelor in Patients with Stable Coronary Disease and Diabetes

Steg PG, Bhatt DL, Simon T et coll.

N Engl J Med. 2019;381:1309-20.

Outcome	Ticagrelor (N=9619)		Placebo (N=9601)		Hazard Ratio (95% CI)*	P Value
	Patients with Event	K–M Estimate at 36 Mo†	Patients with Event	K–M Estimate at 36 Mo†		
	no. (%)	%	*no. (%)*	%		
Primary efficacy outcome						
Cardiovascular death, myocardial infarction, or stroke	736 (7.7)	6.9	818 (8.5)	7.6	0.90 (0.81–0.99)	0.04
Secondary efficacy outcomes						
Cardiovascular death	364 (3.8)	3.3	357 (3.7)	3.0	1.02 (0.88–1.18)	0.79
Myocardial infarction	274 (2.8)	2.6	328 (3.4)	3.3	0.84 (0.71–0.98)	
Ischemic stroke	152 (1.6)	1.5	191 (2.0)	1.8	0.80 (0.64–0.99)	
Death from any cause‡	579 (6.0)	5.1	592 (6.2)	4.9	0.98 (0.87–1.10)	
	no. (%)	*no./100 patient-yr*	*no. %*	*no./100 patient-yr*		
Adjudicated adverse events†						
TIMI major bleeding	206 (2.2)	0.89	100 (1.0)	0.38	2.32 (1.82–2.94)	<0.001
TIMI major or minor bleeding	285 (3.0)	1.23	129 (1.4)	0.49	2.49 (2.02–3.07)	<0.001

NNT = 116
(IC 95 % 61-1026)

NNH = 90
(IC 95 % 68-134)

Impact clinique : chez les pts avec MCAS stable et DM2, la combinaison ticagrelor + AAS entraine moins d'ECV mais plus de saignement majeur que l'AAS + placébo à 40 mois.

Dapagliflozin in Patients with Heart Failure and Reduced Ejection Fraction

McMurray JJV, Solomon SD, Inzucchi SE et coll.

N Engl J Med. 2019;381:1995-2008.

Variable	Dapagliflozin (N=2373)		Placebo (N=2371)		Hazard or Rate Ratio or Difference (95% CI)	P Value
		events/100 patient-yr		*events/100 patient-yr*		
Efficacy outcomes						
Primary composite outcome — no. (%)†	386 (16.3)	11.6	502 (21.2)	15.6	0.74 (0.65 to 0.85)	<0.001
Hospitalization or an urgent visit for heart failure	237 (10.0)	7.1	326 (13.7)	10.1	0.70 (0.59 to 0.83)	NA
Hospitalization for heart failure	231 (9.7)	6.9	318 (13.4)	9.8	0.70 (0.59 to 0.83)	NA
Urgent heart-failure visit	10 (0.4)	0.3	23 (1.0)	0.7	0.43 (0.20 to 0.90)	NA
Cardiovascular death	227 (9.6)	6.5	273 (11.5)	7.9	0.82 (0.69 to 0.98)	NA
Secondary outcomes						
Cardiovascular death or heart-failure hospitalization — no. (%)	382 (16.1)	11.4	495 (20.9)	15.3	0.75 (0.65 to 0.85)	<0.001
Total no. of hospitalizations for heart failure and cardiovascular deaths‡	567	—	742	—	0.75 (0.65 to 0.88)	<0.001
Change in KCCQ total symptom score at 8 mo§	6.1±18.6	—	3.3±19.2	—	1.18 (1.11 to 1.26)	<0.001
Worsening renal function — no. (%)¶	28 (1.2)	0.8	39 (1.6)	1.2	0.71 (0.44 to 1.16)	NA
Death from any cause — no. (%)	276 (11.6)	7.9	329 (13.9)	9.5	0.83 (0.71 to 0.97)	NA
Safety outcomes‖						
Discontinuation due to adverse event — no./total no. (%)	111/2368 (4.7)	—	116/2368 (4.9)	—	—	0.79

NNT = 21
(IC 95 % 15-38)

Impact clinique : chez les pts avec DM2 et ICFEd, la dapagliflozine diminue le risque d'IC décompensée et de mortalité CV à 18 mois.

Apixaban to Prevent Venous Thromboembolism in Patients with Cancer

Carrier M, Abou-Nassar K, Mallick R et coll.

N Engl J Med. 2019;380:711-9.

Table 2. **Efficacy and Safety Clinical Outcomes.**

Outcome	Apixaban (N=288)	Placebo (N=275)	Hazard Ratio (95% CI)*	P Value
Venous thromboembolism — no. (%)	12 (4.2)	28 (10.2)	0.41 (0.26–0.65)	<0.001
Deep-vein thrombosis — no. (%)	7 (2.4)	12 (4.4)		
Pulmonary embolism — no. (%)†	5 (1.7)	16 (5.8)‡		
Incidental pulmonary embolism — no./total no.	3/5	6/16		
Major bleeding episode				
Any episode — no. (%)	10 (3.5)	5 (1.8)	2.00 (1.01–3.95)	0.046
Severity of episode — no./total no. (%)§				
Category 1	1/10 (10)	0		
Category 2	8/10 (80)	3/5 (60)		
Category 3	1/10 (10)	2/5 (40)		
Category 4	0	0		
Clinically relevant nonmajor bleeding — no. (%)¶	21 (7.3)	15 (5.5)	1.28 (0.89–1.84)	
Outcome occurred during the treatment period — no. (%)				
Venous thromboembolism	3 (1.0)	20 (7.3)	0.14 (0.05–0.42)	
Major bleeding episode	6 (2.1)	3 (1.1)	1.89 (0.39–9.24)	
Death from any cause — no. (%)	35 (12.2)	27 (9.8)	1.29 (0.98–1.71)	

NNT = 17
(IC 95 % 10-57)

NNH = 60
(IC 95 % 23-102)

Impact clinique : chez les pts ambulatoires avec cancer à risque modéré-élevé commençant une chimiothérapie, l'apixaban à dose prophylactique entraîne moins de MTE mais plus de saignements majeurs que la placébo à 6 mois.

Rivaroxaban for Thromboprophylaxis in High-Risk Ambulatory Patients with Cancer

Khorana AA, Soff GA, Kakkar AK et coll.

N Engl J Med. 2019;380:720-8.

Table 2. Primary Efficacy End Points during the Period up to Day 180 and during the Intervention, According to Trial Group.*

End Point	Up to Day 180			During Intervention		
	Placebo (N=421)	Rivaroxaban (N=420)	Hazard Ratio (95% CI)	Placebo (N=421)	Rivaroxaban (N=420)	Hazard Ratio (95% CI)
Primary efficacy composite end point	37 (8.8)	25 (6.0)	0.66 (0.40–1.09)†	27 (6.4)	11 (2.6)	0.40 (0.20–0.80)
Symptomatic event‡	19 (4.5)	15 (3.6)	—	12 (2.9)	5 (1.2)	—
Symptomatic proximal DVT in lower limb	8 (1.9)	9 (2.1)	1.12 (0.43–2.91)	4 (1.0)	3 (0.7)	0.72 (0.16–3.22)
Symptomatic distal DVT in lower limb	5 (1.2)	2 (0.5)	0.40 (0.08–2.07)	2 (0.5)	0	NA
Symptomatic DVT in upper limb	6 (1.4)	4 (1.0)	0.67 (0.19–2.39)	6 (1.4)	2 (0.5)	0.33 (0.07–1.63)
Symptomatic nonfatal pulmonary embolism	5 (1.2)	5 (1.2)	1.02 (0.29–3.52)	0	1 (0.2)	NA
Asymptomatic event‡	18 (4.3)	9 (2.1)	—	15 (3.6)	5 (1.2)	—
Asymptomatic proximal DVT in lower limb	11 (2.6)	4 (1.0)	0.35 (0.11–1.11)	10 (2.4)	3 (0.7)	0.29 (0.08–1.07)
Incidental pulmonary embolism	10 (2.4)	6 (1.4)	0.59 (0.21–1.62)	5 (1.2)	2 (0.5)	0.38 (0.07–1.98)
Venous thromboembolism–related death	3 (0.7)	1 (0.2)	0.33 (0.03–3.18)	1 (0.2)	1 (0.2)	0.97 (0.06–15.55)

Table 3. Primary Safety End Points, According to Trial Group.*

End Point	Placebo (N=404)	Rivaroxaban (N=405)	Hazard Ratio (95% CI)	P Value
	no. of patients with event (%)			
Primary safety end point: major bleeding	4 (1.0)	8 (2.0)	1.96 (0.59–6.49)	0.26
Secondary safety end point: clinically relevant nonmajor bleeding	8 (2.0)	11 (2.7)	1.34 (0.54–3.32)	0.53
Major and clinically relevant nonmajor bleeding	12 (3.0)	19 (4.7)	1.54 (0.75–3.17)	0.24

NNH = 102
(IC 95 % 38-147)

Impact clinique : chez les pts ambulatoires avec cancer à haut risque (Khorana ≥ 2), le rivaroxaban n'a pas diminué de façon significative le risque de MTE ou de mortalité mais a augmenté le risque de saignement à 6 mois.

Direct oral anticoagulant for the prevention of thrombosis in ambulatory patients with cancer: A systematic review and meta-analysis

Li A, Kuderer NM, Garcia DA et coll.

J Thromb Haemost. 2019. doi: 10.1111/jth.14613.

TABLE 2 Summary of findings for the main comparisons of the meta-analysis from two phase III trials

Outcome (study period)	DOAC No. (%)	Placebo No. (%)	Risk ratio (95% CI)	Absolute risk difference (95% CI)
Efficacy outcomes (ITT 6-mo study period)[a]				
Overall VTE	37/711 (5.20%)	65/704 (9.23%)	0.56 (0.35 to 0.89)	−4.09% (−6.93 to −1.24)
Symptomatic VTE	24/711 (3.38%)	41/704 (5.82%)	0.58 (0.29 to 1.13)	−2.59% (−6.26 to +1.09)
Symptomatic PE	7/711 (0.98%)	15/704 (2.13%)	0.47 (0.09 to 2.37)	−1.28% (−4.16 to +1.61)
Symptomatic DVT	17/711 (2.39%)	26/704 (3.69%)	0.65 (0.35 to 1.18)	−1.27% (−3.06 to +0.51)
All-cause mortality	119/711 (16.74%)	127/704 (18.04%)	0.98 (0.67 to 1.44)	−0.53% (−6.88 to +5.83)
Sensitivity efficacy outcomes (ITT on-treat study period)[b]				
Overall VTE	14/711 (1.97%)	47/704 (6.68%)	0.30 (0.16 to 0.53)	−4.77% (−6.96 to −2.59)
Symptomatic VTE	7/711 (0.98%)	28/704 (3.98%)	0.25 (0.08 to 0.84)	−3.14% (−6.44 to +0.15)
Safety outcomes (mITT on-treat study period)[c]				
Major bleeding	14/693 (2.02%)	7/679 (1.03%)	1.96 (0.80 to 4.82)	+0.99% (−0.31 to +2.28)
CRNMB	29/693 (4.18%)	22/679 (3.24%)	1.28 (0.74 to 2.20)	+0.83% (−1.00 to +2.66)

NNT = 25
(IC 95 % 15-75)

NNH = 102
(IC 95 % 45-352)

Impact clinique : chez les pts avec néoplasie sans ATCD de MTE, l'utilisation des ACOD diminue le risque de MTE de près de 50% mais augmente le risque de saignement de près du double.

Venous Thromboembolism Prophylaxis and Treatment in Patients With Cancer: ASCO Clinical Practice Guideline Update

Nigel S. Key, MB ChB[1]; Alok A. Khorana, MD[2]; Nicole M. Kuderer, MD[3]; Kari Bohlke, ScD[4]; Agnes Y.Y. Lee, MD, MSc[5]; Juan I. Arcelus, MD, PhD[6]; Sandra L. Wong, MD, MS[7]; Edward P. Balaban, DO[8]; Christopher R. Flowers, MD, MS[9]; Charles W. Francis, MD[10]; Leigh E. Gates[11]; Ajay K. Kakkar, MBBS, PhD[12]; Mark N. Levine, MD, MSc[13]; Howard A. Liebman, MD[14]; Margaret A. Tempero, MD[15]; Gary H. Lyman, MD, MPH[16]; and Anna Falanga, MD[17]

The use of direct oral anticoagulants for primary thromboprophylaxis in ambulatory cancer patients: Guidance from the SSC of the ISTH

Tzu-Fei Wang[1] | Jeffrey I. Zwicker[2] | Cihan Ay[3,4] | Ingrid Pabinger[3] | Anna Falanga[5,6] | Darko Antic[7] | Simon Noble[8] | Alok A. Khorana[9] | Marc Carrier[10] | Guy Meyer[11]

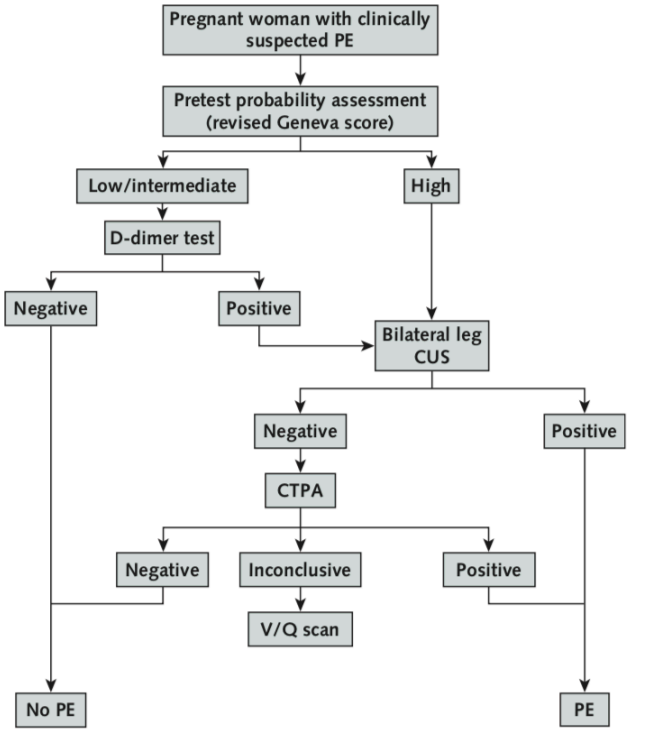
[1] J Clin Oncol 2019 Aug 5:JCO1901461. doi: 10.1200/JCO.19.01461.
[2] J Thromb Haemost. 2019;17:1772-8.

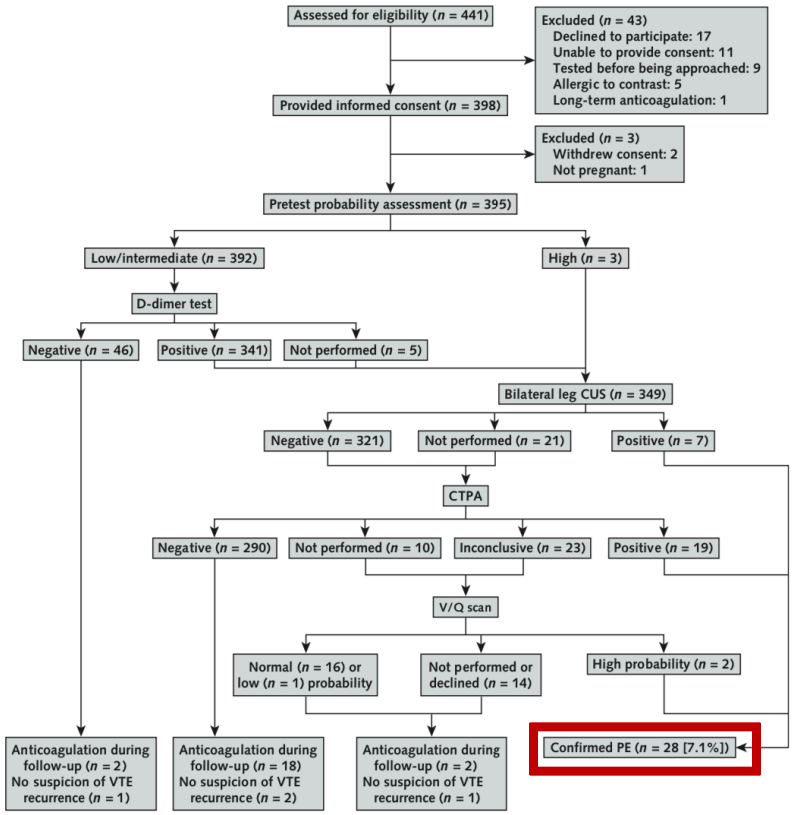
Diagnosis of pulmonary embolism during pregnancy: a multicenter prospective management outcome study

Righini M, Robert-Ebadi H, Elias A et coll.

Ann Intern Med. 2018;169:766-773.

Figure 1. Diagnostic algorithm used in the study.





Impact clinique : une stratégie Dx basée sur l'évaluation de la probabilité clinique, les D-Dimères, un Doppler veineux et un angioscan pulmonaire peut éliminer l'EP chez la femme enceinte.

Pregnancy-Adapted YEARS Algorithm for Diagnosis of Suspected Pulmonary Embolism

van der Pol LM, Tromeur C, Bistervels IM et coll.

N Engl J Med. 2019;380:1139-49.

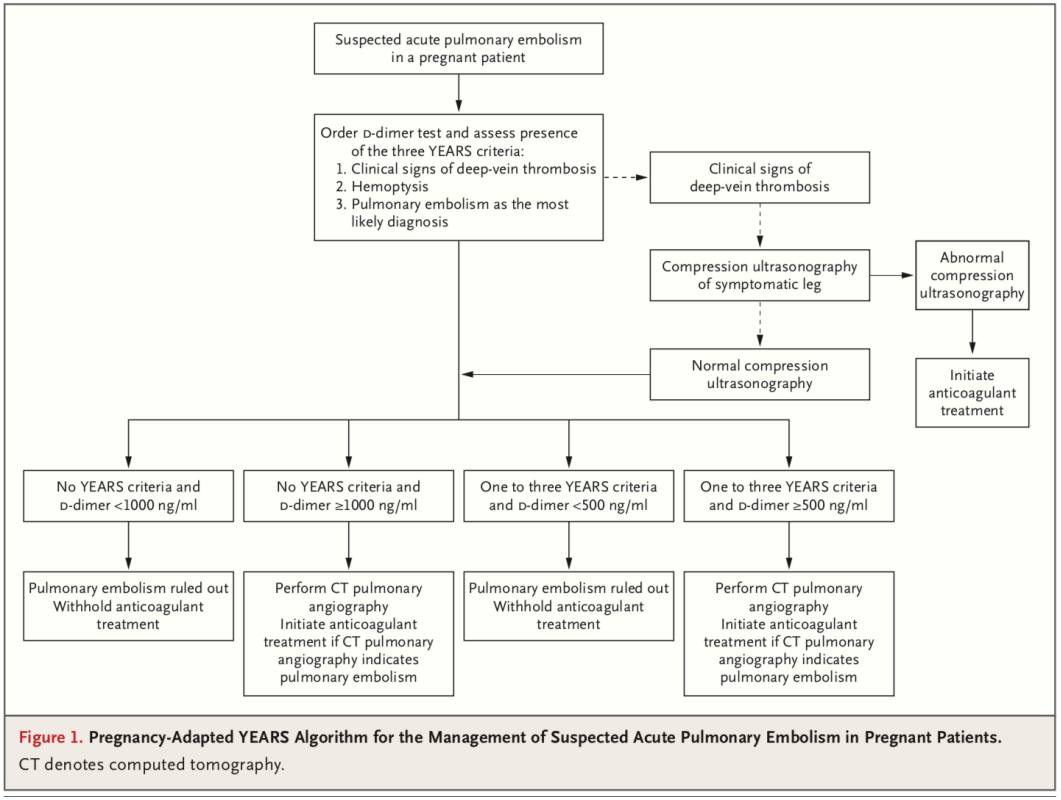
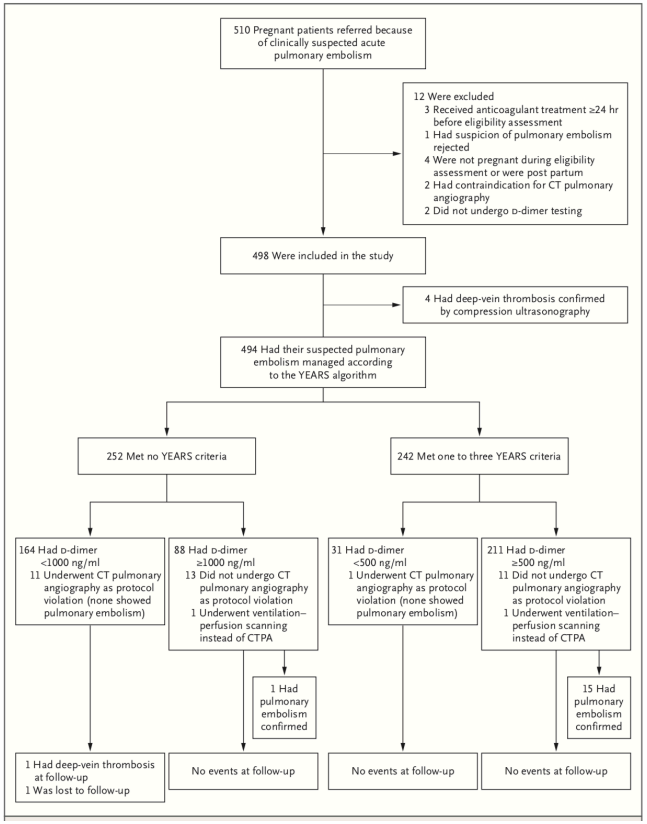


Figure 1. Pregnancy-Adapted YEARS Algorithm for the Management of Suspected Acute Pulmonary Embolism in Pregnant Patients.
CT denotes computed tomography.



4

1 + 15

1

= 4 %

Impact clinique : l'EP peut être éliminer de façon sécuritaire avec l'algorithme Dx YEARS adapté pour la femme enceinte dans tous les trimestres. L'angioscan pulm peut être évité chez 32-65% des ptes.

Long term risk of symptomatic recurrent venous thromboembolism after discontinuation of anticoagulant treatment for first unprovoked venous thromboembolism event: systematic review and meta-analysis

Khan F, Rahman A, Carrier M et coll.

BMJ. 2019;366:l4363.

Table 2 | Risk of recurrent venous thromboembolism (VTE) after discontinuation of anticoagulation in patients with a first unprovoked VTE event

Interval after anticoagulation	Person years of follow-up	Recurrent events					Event rate per 100 person years*				
		VTE	DVT	PE	PE+DVT	Fatal PE	VTE	DVT	PE	PE+DVT	Fatal PE
1st year	6678.0	644	350	194	20	28	10.3 (8.6 to 12.1); 81, <0.001	6.2 (4.8 to 7.7); 79, <0.001	3.3 (2.4 to 4.2); 68, <0.001	0.3 (0.1 to 0.5); 44, 0.008	0.4 (0.2 to 0.7); 57, <0.001
2nd year	3906.0	262	151	82	7	12	6.3 (5.1 to 7.7); 56, 0.002	3.7 (2.8 to 4.7); 55, 0.003	2.0 (1.4 to 2.6); 36, 0.07	0.2 (0.1 to 0.4); 0, 0.63	0.3 (0.2 to 0.6); 10, 0.34
2 year cumulative incidence, % (95% CI)							16.0 (13.3 to 18.8)	9.7 (7.5 to 12.0)	5.2 (3.7 to 6.7)	0.5 (0.2 to 0.9)	0.7 (0.4 to 1.3)
Years 3-5	4772.0	182	116	54	5	6	3.8 (3.2 to 4.5); 24, 0.27	2.5 (2.0 to 2.9); 0, 0.59	1.0 (0.4 to 1.8); 83, <0.001	0.1 (0.0 to 0.3); 71, 0.02	0.1 (0.0 to 0.3); 53, 0.09
5 year cumulative incidence, % (95% CI)							25.2 (21.3 to 29.3)	16.3 (12.9 to 19.5)	8.0 (4.0 to 11.6)	0.8 (0.2 to 1.8)	1.0 (0.4 to 2.2)
Years 6-10	3023.4	99	67	27	0	3	3.1 (1.7 to 4.9); 84, <0.001	2.2 (1.0 to 3.8); 86, <0.001	0.7 (0.2 to 1.6); 79, 0.009	0.0 (0.0 to 0.1); 0, 1.00	0.1 (0.0 to 0.3); 0, 0.37
10 year cumulative incidence, % (95% CI)							36.1 (27.8 to 45.0)	25.1 (17.2 to 33.7)	11.2 (5.9 to 18.4)	0.8 (0.2 to 2.3)	1.5 (0.4 to 3.6)

DVT=deep vein thrombosis; PE=pulmonary embolism.
*Data are event rate (95% CI); I^2 (%), P value unless stated otherwise. P value is for heterogeneity.

Impact clinique : chez les pts avec 1e épisode de MTE non provoquée ATC au moins 3 mois, le risque de récidive est de 10% à 1 an, 25% à 5 ans et 36% à 10 ans après l'arrêt de l'anticoagulation, avec 4% des récidives qui sont mortelles.

Dabigatran for Prevention of Stroke after Embolic Stroke of Undetermined Source

Diener HC, Sacco RL, Easton JD et coll.

N Engl J Med. 2019;380:1906-17.

Outcome	Dabigatran Group (N=2695)	Aspirin Group (N=2695)	Hazard Ratio (95% CI)†
	no. of patients (annualized rate)		
Primary outcome: first recurrent stroke	177 (4.1)	207 (4.8)	0.85 (0.69–1.03)‡
Key secondary outcomes§			
Ischemic stroke	172 (4.0)	203 (4.7)	0.84 (0.68–1.03)
Composite of nonfatal stroke, nonfatal myocardial infarction, or cardiovascular death	207 (4.8)	232 (5.4)	0.88 (0.73–1.06)
Major bleeding	77 (1.7)	64 (1.4)	1.19 (0.85–1.66)
Intracranial hemorrhage	32 (0.7)	32 (0.7)	0.98 (0.60–1.60)

Impact clinique : chez les pts avec AVC embolique de source indéterminée (ESUS), le dabigatran n'est pas supérieur à l'AAS pour prévenir la récidive d'AVC à 19 mois.

Effects of antiplatelet therapy after stroke due to intracerebral haemorrhage (RESTART): a randomised, open-label trial

RESTART Collaboration.

Lancet. 2019;393:2613-2623.

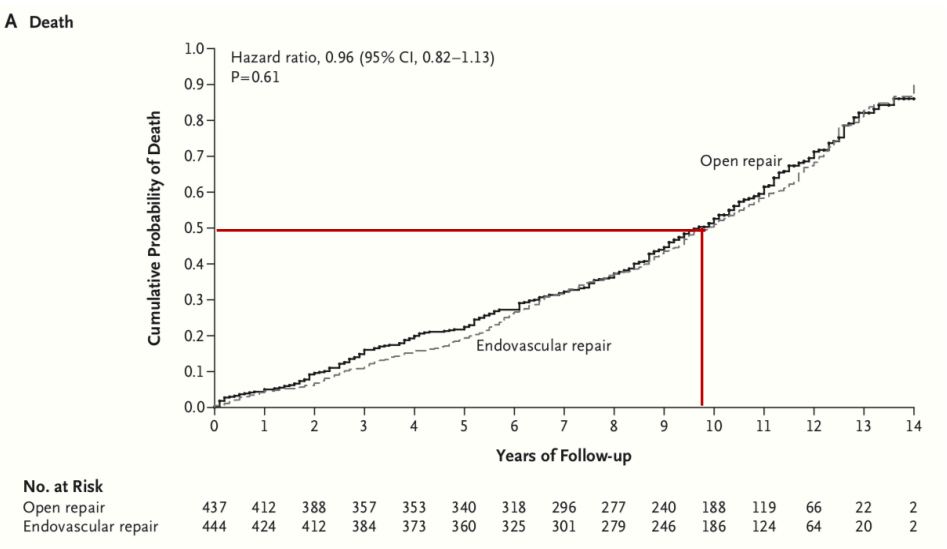
	Start antiplatelet therapy (n=268)	Avoid antiplatelet therapy (n=268)	Log-rank test p value	Unadjusted analysis		Adjusted analysis	
				HR (95% CI)	p value	HR (95% CI)	p value
Primary outcome							
Recurrent symptomatic spontaneous intracerebral haemorrhage	12	23	0·057	0·51 (0·26–1·03)	0·062	0·51 (0·25–1·03)	0·060
Sensitivity analyses of the primary outcome							
Recurrent symptomatic spontaneous intracerebral haemorrhage or symptomatic stroke of uncertain subtype	12	24	0·041	0·49 (0·25–0·99)	0·046	0·49 (0·24–0·98)	0·044
Recurrent symptomatic spontaneous intracerebral haemorrhage or death of undetermined cause	13	25	0·047	0·51 (0·26–1·00)	0·051	0·51 (0·26–0·99)	0·048
Secondary outcomes							
All major haemorrhagic events (all types of symptomatic spontaneous or traumatic intracranial haemorrhage, or symptomatic major extracranial haemorrhage)	18	25	0·27	0·71 (0·39–1·30)	0·27	0·71 (0·39–1·30)	0·27
All major occlusive vascular events (ischaemic stroke; myocardial infarction; mesenteric ischaemia; peripheral arterial occlusion; deep vein thrombosis; pulmonary embolism; or carotid, coronary, or peripheral arterial revascularisation procedures)	39	38	0·97	1·01 (0·65–1·58)	0·97	1·02 (0·65–1·60)	0·92
All major haemorrhagic or occlusive vascular events	54	61	0·42	0·86 (0·60–1·24)	0·42	0·86 (0·60–1·24)	0·43
Major occlusive vascular events*	45	52	0·39	0·84 (0·56–1·25)	0·39	0·84 (0·56–1·25)	0·39
Major vascular events (as defined by the Antithrombotic Trialists' Collaboration)	45	65	0·026	0·65 (0·45–0·95)	0·027	0·65 (0·44–0·95)	0·025

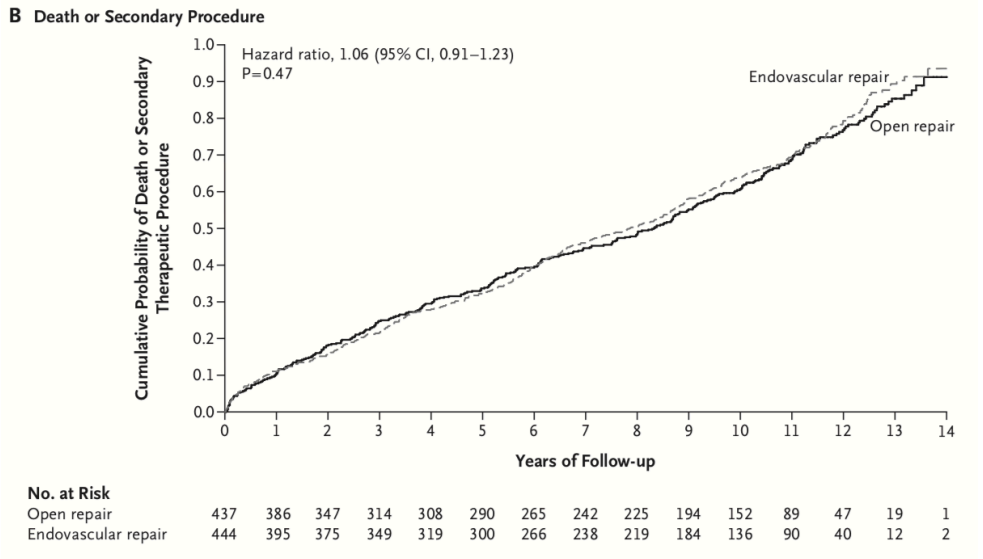
Impact clinique : chez les pts en prévention 2^{e} sous Tx qui ont eu une HIC, la reprise d'un ATP post-HIC (en moyenne 76 jours après) n'est pas associée à une augmentation significative du risque de récidive à 2 ans.

Open versus Endovascular Repair of Abdominal Aortic Aneurysm

Lederle FA, Kyriakides TC, Stroupe KT et coll.

N Engl J Med. 2019;380:2126-35.





Impact clinique : chez les pts avec AAA traités de façon endovasculaire ou par chirurgie ouverte, la survie à long terme (14 ans) est similaire.

Perioperative Management of Patients With Atrial Fibrillation Receiving a Direct Oral Anticoagulant

Douketis JD, Spyropoulos AC, Duncan J et coll.

JAMA Intern Med. 2019;179:1469-78.

Outcome	DOAC Cohort		
	Apixaban (n = 1257)	Dabigatran Etexilate (n = 668)	Rivaroxaban (n = 1082)
Primary			
Major bleeding[a]			
No. (%)	17 (1.35)	6 (0.90)	20 (1.85)
1-Sided 95% CI	0-2.00	0-1.73	0-2.65
P value	.051	.02	.36
Arterial thromboembolism[b,c]			
No. (%)	2 (0.16)	4 (0.60)	4 (0.37)
1-Sided 95% CI	0-0.48	0-1.33	0-0.82
P value	<.001	.03	.001

Objectifs :
IC < 2 % de saignement
IC < 1,5 % d'embolie art.

Table 4. Incidence of Major Bleeding by Elective Surgery or Procedure-Associated Bleeding Risk

Procedure-Associated Bleeding Risk	Apixaban Cohort (n = 1257)	Dabigatran Etexilate Cohort (n = 668)	Rivaroxaban Cohort (n = 1082)
Low bleeding risk			
No. (%)	851 (67.7)	440 (65.9)	709 (65.5)
30-d Postoperative rate of major bleeding, % (95% CI)	0.59 (0-1.20)	0.91 (0-2.01)	1.27 (0-2.17)
High bleeding risk			
No. (%)	406 (32.3)	228 (34.1)	373 (34.5)
30-d Postoperative rate of major bleeding, % (95% CI)	2.96 (0-4.68	0.88 (0-2.62)	2.95 (0-4.76)

Impact clinique : les pts en FA sous ACOD nécessitant une interruption pour une chirurgie/procédure peuvent appliquer cette stratégie avec un faible risque d'hémorragie majeure ou d'événement TE.

Autres études d'impact (1/5)
Artériel/facteur de risque

SPRINT MIND Investigators for the SPRINT Research Group, Williamson JD, Pajewski NM, et al. Effect of Intensive vs Standard Blood Pressure Control on Probable Dementia: A Randomized Clinical Trial. JAMA. 2019;321:553-61.

Armitage J, Baigent C, Barnes E, et al. Efficacy and safety of statin therapy in older people: a meta-analysis of individual participant data from 28 randomised controlled trials. Lancet. 2019;393:407-15.

Gerstein HC, Colhoun HM, Dagenais GR, et al; REWIND Investigators. Dulaglutide and cardiovascular outcomes in type 2 diabetes (REWIND): a double-blind, randomised placebo-controlled trial. Lancet. 2019;394:121-130.

Moayyedi P, Eikelboom JW, Bosch J, et al. Pantoprazole to Prevent Gastroduodenal Events in Patients Receiving Rivaroxaban and/or Aspirin in a Randomized, Double-Blind, Placebo-Controlled Trial. Gastroenterology. 2019;157:403-12.

Autres études d'impact (2/5)
Artériel/facteur de risque

Hermida RC, Crespo JJ, Domínguez-Sardiña M, et al. Bedtime hypertension treatment improves cardiovascular risk reduction: the Hygia Chronotherapy Trial. Eur Heart J. 2019. doi: 10.1093/eurheartj/ehz754.

Autres études d'impact (3/5)
Veineux/MTE/anticoagulation

Connolly SJ, Crowther M, Eikelboom JW, et al. Full Study Report of Andexanet Alfa for Bleeding Associated with Factor Xa Inhibitors. N Engl J Med. 2019;380:1326-35.

Arabi YM, Al-Hameed F, Burns KEA, et al. Adjunctive Intermittent Pneumatic Compression for Venous Thromboprophylaxis. N Engl J Med. 2019;380:1305-15.

Ho KM, Rao S, Honeybul S, et al. A Multicenter Trial of Vena Cava Filters in Severely Injured Patients. N Engl J Med. 2019;381:328-37.

Ordi-Ros J, Saez-Comet L, Perez-Conesa M, et al. Rivaroxaban Versus Vitamin K Antagonist in Antiphospholipid Syndrome: A Randomized Noninferiority Trial. Ann Intern Med. 2019. doi: 10.7326/M19-0291.

Walker RF, Zakai NA, MacLehose RF, et al. Association of Testosterone Therapy With Risk of Venous Thromboembolism Among Men With and Without Hypogonadism. JAMA Intern Med. 2019. doi: 10.1001/jamainternmed.2019.5135.

Autres études d'impact (4/5)
Neurologie/AVC

Ma H, Campbell BCV, Parsons MW, et al. Thrombolysis Guided by Perfusion Imaging up to 9 Hours after Onset of Stroke. N Engl J Med. 2019;380:1795-803.

Markus HS, Levi C, King A, Madigan J, Norris J, Cervical Artery Dissection in Stroke Study I. Antiplatelet Therapy vs Anticoagulation Therapy in Cervical Artery Dissection: The Cervical Artery Dissection in Stroke Study (CADISS) Randomized Clinical Trial Final Results. JAMA Neurol. 2019;76:657-64.

Ferro JM, Coutinho JM, Dentali F, et al. Safety and Efficacy of Dabigatran Etexilate vs Dose-Adjusted Warfarin in Patients With Cerebral Venous Thrombosis: A Randomized Clinical Trial. JAMA Neurol. 2019. doi: 10.1001/jamaneurol.2019.2764.

Autres études d'impact (5/5)
Intervention/chirurgie vasculaire

Katsanos K, Spiliopoulos S, Kitrou P, Krokidis M, Karnabatidis D. Risk of death following application of paclitaxel-coated balloons and stents in the femoropopliteal artery of the leg: a systematic review and meta-analysis of randomized controlled trials. J Am Heart Assoc. 2018;7:e011245.

Brott TG, Calvet D, Howard G, et al. Long-term outcomes of stenting and endarterectomy for symptomatic carotid stenosis: a preplanned pooled analysis of individual patient data. Lancet Neurol. 2019;18:348-56.

Mrkobrada M, Chan MTV, Cowan D, et al. Perioperative covert stroke in patients undergoing non-cardiac surgery (NeuroVISION): a prospective cohort study. Lancet. 2019;394:1022-9.

Brittenden J, Cooper D, Dimitrova M, et al. Five-Year Outcomes of a Randomized Trial of Treatments for Varicose Veins. N Engl J Med. 2019;381:912-22.

Messages clés

- Nouvelles indications de traitement pour le diabète avec bénéfice clinique important.
- Traitement prophylactique chez certains sujets avec cancer.
- Nouveaux algorithmes diagnostiques pour l'investigation de l'EP chez la femme enceinte.
- De nombreuses nouvelles études nous aideront à mieux traiter nos patients avec problème vasculaire.

Merci !

Questions ?

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