XXIX SIMPOSI SOCIETAT CATALANA DE CONTRACEPCIÓ

13 de març de 2025

Factors de risc cardiovascular en l'anamnesi: què ens diu la ciència?

Ángeles Blanco Molina

Medicina Interna

Conflicto de intereses

- Exeltis: Conferencias, Trabajo de Investigación clínica.

Introducción

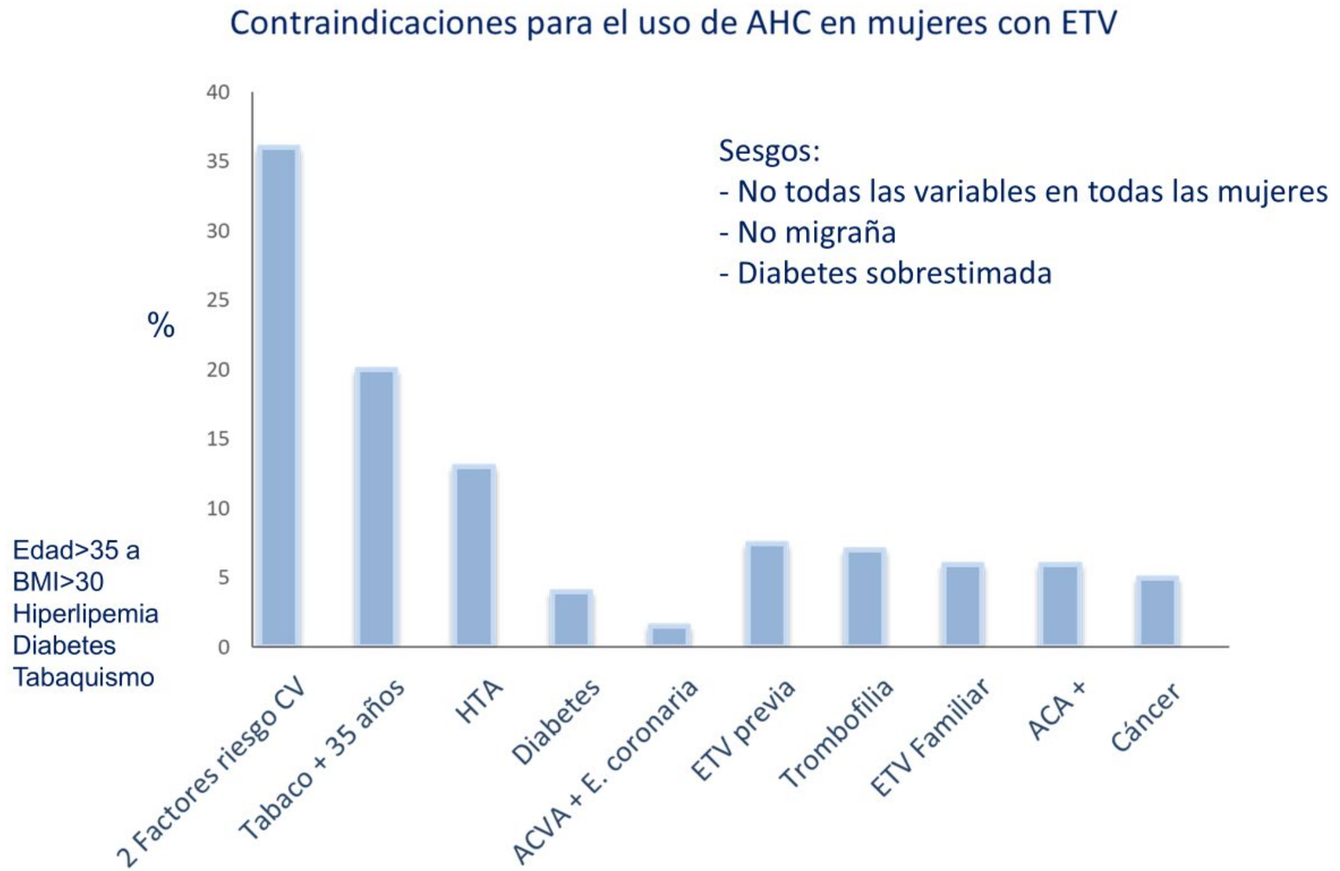
- 2024: En España mujeres edad 15-50 años: 11.018.155 mujeres (INE)
- 20% Usuarias de Anticoncepción hormonal combinada: 2.203.631 mujeres (Encuesta SEC 2024)

XV Forum Multidisciplinar de la Enfermedad Tromboembólica Venosa

16-17 de Mayo 2019
Hotel Meliá Barajas. Madrid

- ETV en no usuarias de AHC: 2/10.000 mujeres /año.
- ETV en mujeres con AHC: 10/10.000 personas/año (Yonis et al. JAMA 2025)
- España: ETV relacionada con la AHC: 1.762 ETV/ año.
- ¿Son muchas o pocas? 0,08%
- ¿Se puede reducir esta cifra?
- 36% contraindicación categoría 3 o 4 OMS

Una de las actuaciones para disminuir la ETV relacionada con la anticoncepción hormonal es realizar una elección del anticonceptivo ajustado a los Factores de Riesgo de la mujer (siempre que la mujer consulte).



- Lauring JR et al. Combined hormonal contraception use in reproductive-age women with contraindications to estrogen use. Am J Obstet Gynecol. 2016 Sep;215(3):330.e1-7.
- Hugon-Rodin J et al.. Combined Hormonal Contraceptives and First Venous Thrombosis in Young French Women: Impact of Thrombotic Family History. J Endocr Soc. 2017 Apr 20;1(6):762-771.

Importancia de los Factores de riesgo de Trombosis y la Anticoncepción Hormonal Combinada

Trombosis arterial

- HTA
- IAM o ACV previo.
- Tabaco.

Trombosis venosa

- ETV previa
- Tabaco
- Trombofilia
- Otros: Inmovilidad, Cirugía, Cáncer…

Los Factores de Riesgo van a determinar la elección del Anticonceptivo Hormonal

BOX 2. Categories of medical eligibility criteria for contraceptive use

U.S. MEC 1 = A condition for which there is no restriction for the use of the contraceptive method

U.S. MEC 2 = A condition for which the advantages of using the method generally outweigh the theoretical or proven risks

U.S. MEC 3 = A condition for which the theoretical or proven risks usually outweigh the advantages of using the method

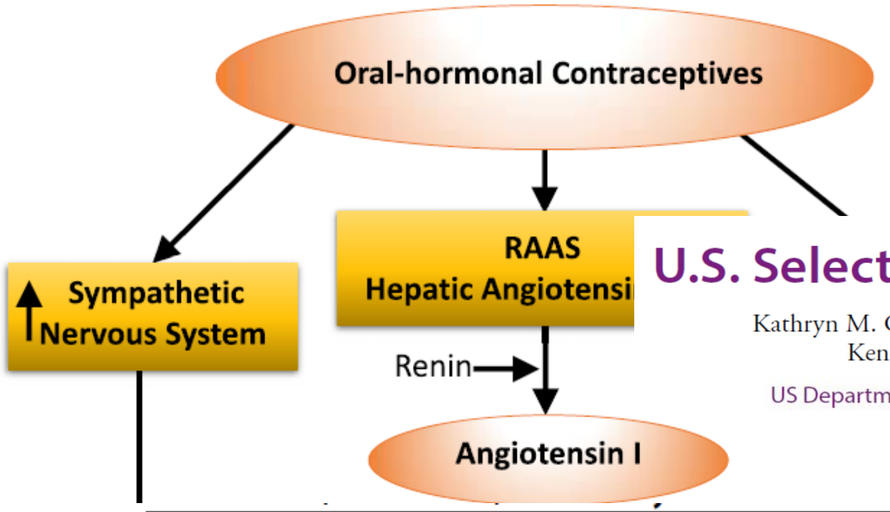
U.S. MEC 4 = A condition that represents an unacceptable health risk if the contraceptive method is used

Source: Nguyen AT, Curtis KM, Tepper NK, et al. U.S. medical eligibility criteria for contraceptive use, 2024. MMWR Recomm Rep 2024;73 (No. RR-4):1–126.
Abbreviation: U.S. MEC = *U.S. Medical Eligibility Criteria for Contraceptive Use*.

U.S. Medical Eligibility Criteria for Contraceptive Use, 2024

U.S. Centers for Disease Control and Prevention
MMWR
Recommendations and Reports / Vol. 73 / No. 4
Morbidity and Mortality Weekly Report
August 8, 2024

Anticoncepción hormonal e HTA



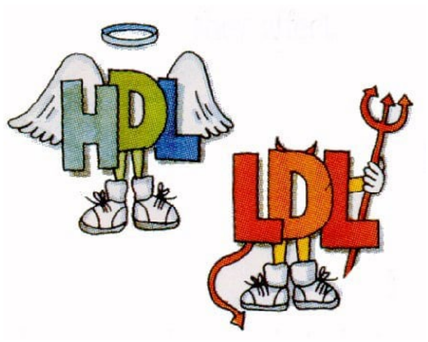
U.S. Selected Practice Recommendations for Contraceptive Use, 2024

Kathryn M. Curtis, PhD[1]; Antoinette T. Nguyen, MD[1]; Naomi K. Tepper, MD[1]; Lauren B. Zapata, PhD[1]; Emily M. Snyder, MPH[1]; Kendra Hatfield-Timajchy, PhD[1]; Katherine Kortsmit, PhD[1]; Megan A. Cohen, MD[1]; Maura K. Whiteman, PhD[1]

US Department of Health and Human Services | Centers for Disease Control and Prevention | MMWR | August 8, 2024 | Vol. 73 | No. 3

Condition	Cu-IUD	LNG-IUD	Implant	DMPA	POP	CHC
Hypertension						
Systolic blood pressure ≥160 mm Hg or diastolic bloodpressu re ≥100 mm Hg are associated with increased risk for adverse health events as a result of pregnancy.						
a. Adequately controlled hypertension	1*	1*	1*	2*	1*	3*
b. Elevated blood pressure levels (properly taken measurements)						
i. Systolic 140–159 mm Hg or diastolic 90–99 mm Hg	1*	1*	1*	2*	1*	3*
ii. Systolic ≥160 mm Hg or diastolic ≥100 mm Hg	1*	2*	2*	3*	2*	4*
c. Vascular disease	1*	2*	2*	3*	2*	4*

Oral h
Pharm



Dislipemias y Anticoncepción hormonal

FSRH The Faculty of Sexual & Reproductive Healthcare of the Royal College of Obstetricians & Gynaecologists

Breast examination, cervical screening, testing for thrombophilia, hyperlipidaemia or diabetes mellitus and liver function tests are not routinely required prior to initiation of CHC.

Protocolo SEGO/SEC: *Requisito recomendable*:

En mujeres de más de 35 años con factores de riesgo para enfermedad cardiovascular se **aconseja** realizar determinación de perfil lipídico: triglicéridos, colesterol total, HDL, LDL, glucemia y perfil hepático.

Diabetes y Anticoncepción hormonal

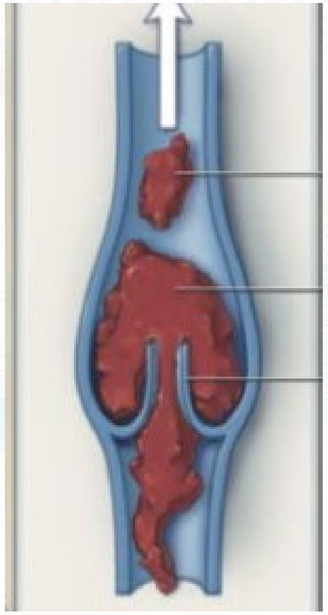
- Las mujeres con **diabetes insulinodependiente y no insulinodependiente sin enfermedad vascular** pueden usar **cualquier método anticonceptivo** (U.S. MEC categoría 2).
- **Diabetes de más de 20 años de duración** o evidencia de **enfermedad microvascular** (retinopatía, nefropatía o neuropatía) o **macrovascular contraindica el uso de anticonceptivos hormonales combinados y medroxiprogesterona** (U.S. MEC categoría 3 o 4 según la gravedad de la afección). La píldora de progestágeno solo, los DIU-LNG y el implante subdérmico son alternativas adecuadas para esta población.

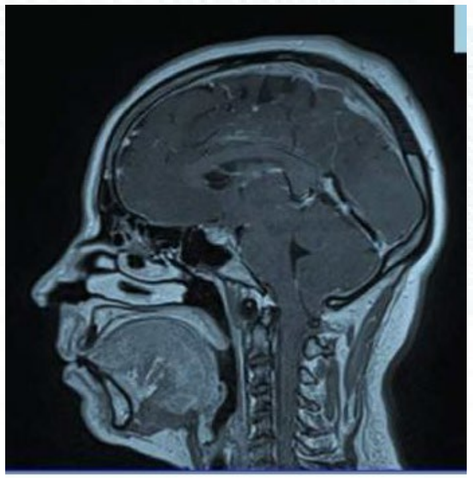
Nguyen et al. U.S. Medical Eligibility Criteria for Contraceptive Use, 2024. MMWR Recomm Rep. 2024 Aug 8;73(4):1-126.

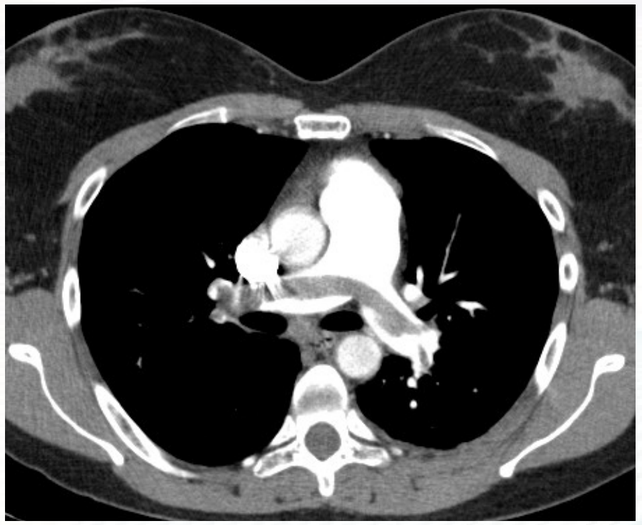
SOCIETAT CATALANA DE CONTRACEPCIÓ

L'Acadèmia

Factores de riesgo de Enfermedad Tromboembólica Venosa (ETV)

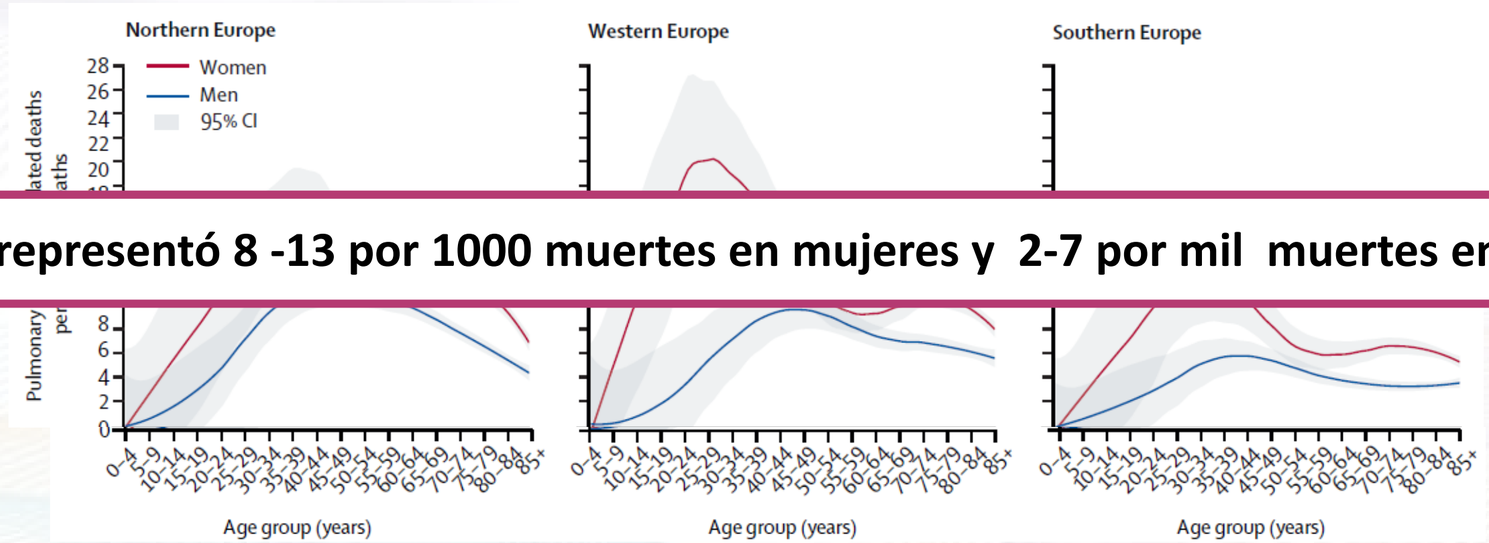






Trends in mortality related to pulmonary embolism in the European Region, 2000-15: analysis of vital registration data from the WHO Mortality Database

15 a 55 años: EP representó 8 -13 por 1000 muertes en mujeres y 2-7 por mil muertes en hombres



Barco et al. Trends in mortality related to pulmonary embolism in the European Region, 2000-15: analysis of vital registration data from the WHO Mortality Database. Lancet Respir Med. 2020 Mar;8(3):277-287

Age-sex specific pulmonary embolism-related mortality in the USA and Canada, 2000–18: an analysis of the WHO Mortality Database and of the CDC Multiple Cause of Death database

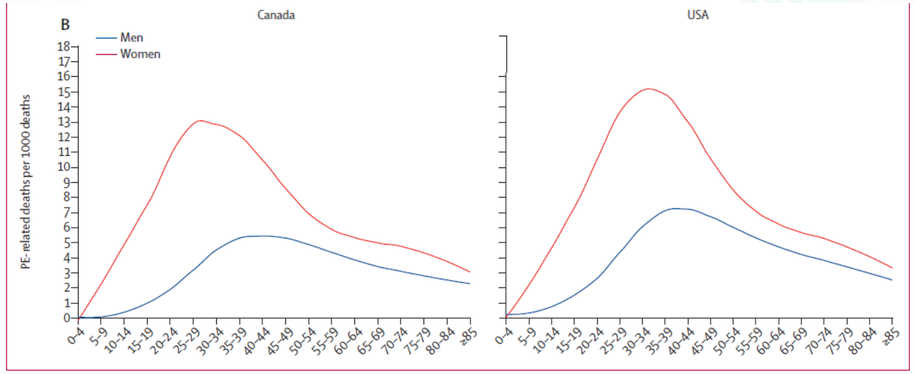
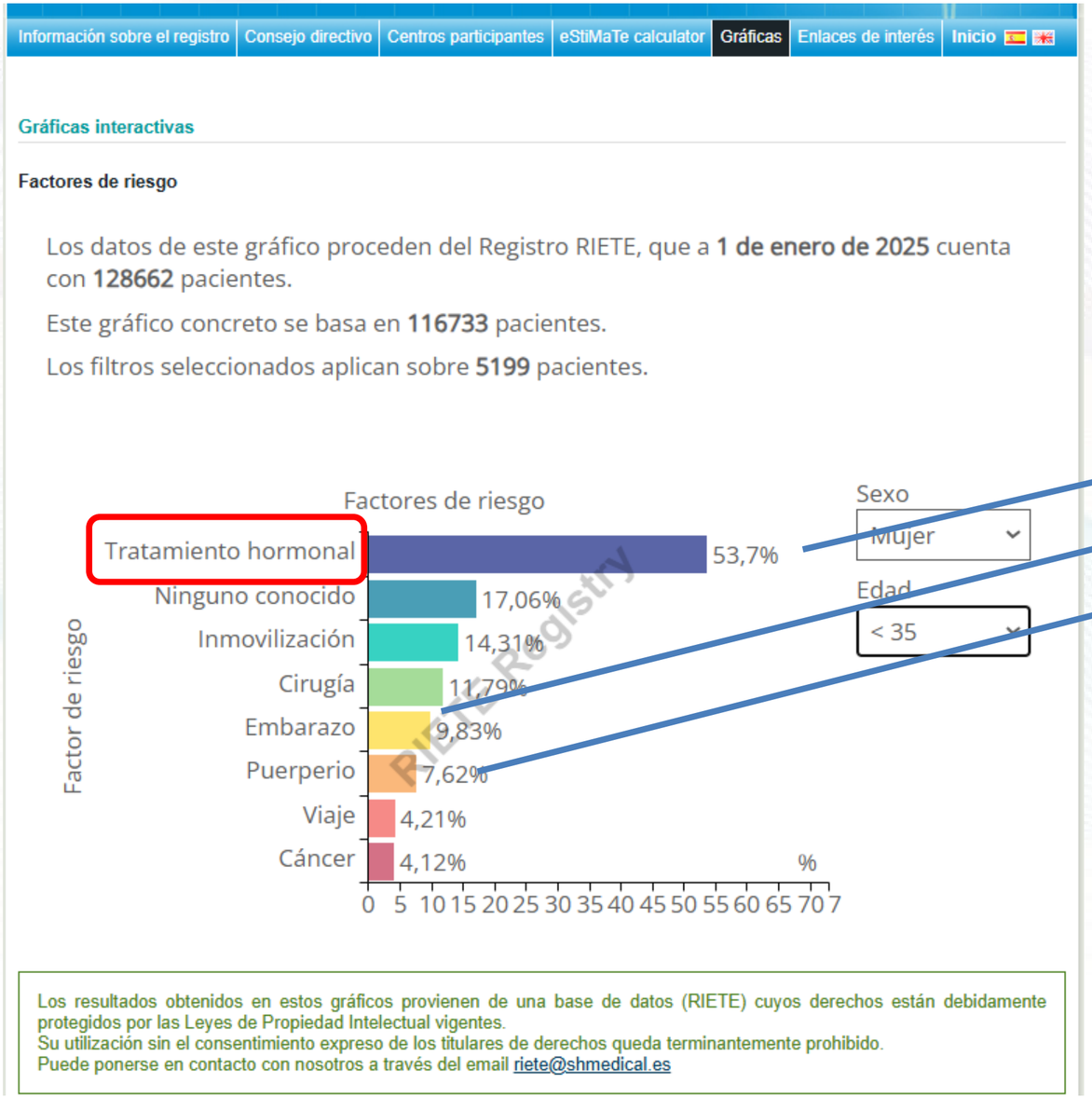


Figure 3: PE-related mortality across age groups and contribution of PE-related mortality to total mortality in the USA and Canada, 2000–17
Data from the WHO Mortality Database. Mortality rate by age group (observed; A) and average annual number of deaths with PE as the underlying cause per 1000 total deaths (proportionate mortality [B]; showed by locally weighted scatterplot smoother lines). PE=pulmonary embolism.

Barco et al. Age-sex specific pulmonary embolism-related mortality in the USA and Canada, 2000-18: an analysis of the WHO Mortality Database and of the CDC Multiple Cause of Death database. Lancet Respir Med. 2021 Jan;9(1):33-42.

Factores de riesgo de ETV en la mujer joven



53,7 %

9,83 %

7,62 %

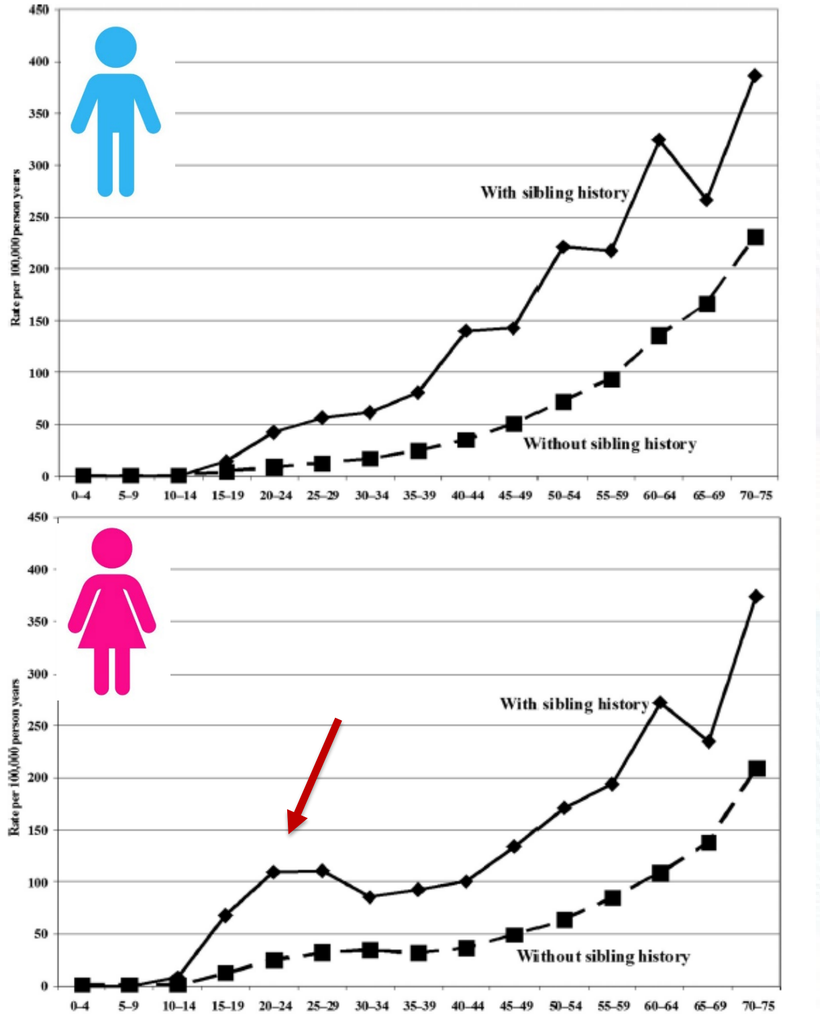
71,15 %

El 71% de la ETV en las mujeres <35 años tiene una causa hormonal

Factores de riesgo de ETV: Edad, Historia personal y familiar de ETV

Table 3 Predisposir
lism (data modified fr
and Spencer[24])

Strong risk factors (O
Fracture of lower limb
Hospitalization for heart fai
(within previous 3 months
Hip or knee replacement
Major trauma
Myocardial infarction (with
Previous VTE : Categoría 3
Spinal cord injury



Konstantinides V et al. European Heart Journal (2020) 41, 543603

re 2. Age-specific incidence rates of venous thromboembolism in siblings with and without a familial sibling histo

Zöller et al. Circulation. 2011;124:1012-1020

The impact of a male or female thrombotic family history on contraceptive counseling: a cohort study

E. F. W. VAN VLIJMEN,* N. J. G. M. VEEGER,† S. MIDDELDORP,‡ K. HAMULYÁK,§ M. H. PRINS,¶ H. C. KLUIN-NELEMANS* and K. MEIJER*

J Thromb Haemost 2016; 14: 1741–8.

Las mujeres con historia familiar (mujer) de ETV relacionada con AHC o Embarazo son especialmente susceptibles a la exposición a esos factores hormonales.

Historia Familiar de ETV: Categoría 1 para solo Progestágeno y 2 para AHC

Factores de riesgo de ETV: Obesidad

Table 2 Synergistic effect of body mass index and oral contraceptive use on the risk of venous thrombosis (data from references shown in table)

BMI (kg/m^2)	OR (95% CI) of (confirmed) VTE	Reference
Oral contraceptive users who were overweight/obese vs. non-users of oral contraceptives of normal weight (BMI <25 kg/m^2)		
25 to ≤30	1.4 (1.0–2.0)	Nightingale *et al.* (2000)[27]
30 to <35	1.8 (1.1–2.9)	
>35	3.1 (1.6–5.8)	
>25 to <30	10.2 (3.8–27.3)	Abdollahi *et al.* (2003)[28]
>30	9.8 (3.0–31.8)	
>25 to <30	11.63 (7.46–18.14)	Pomp *et al.* (2007)[29]
>30	23.78 (13.35–42.34)	

BMI, body mass index; CI, confident interval; OR, odds ratio; VTE, venous thromboembolism.

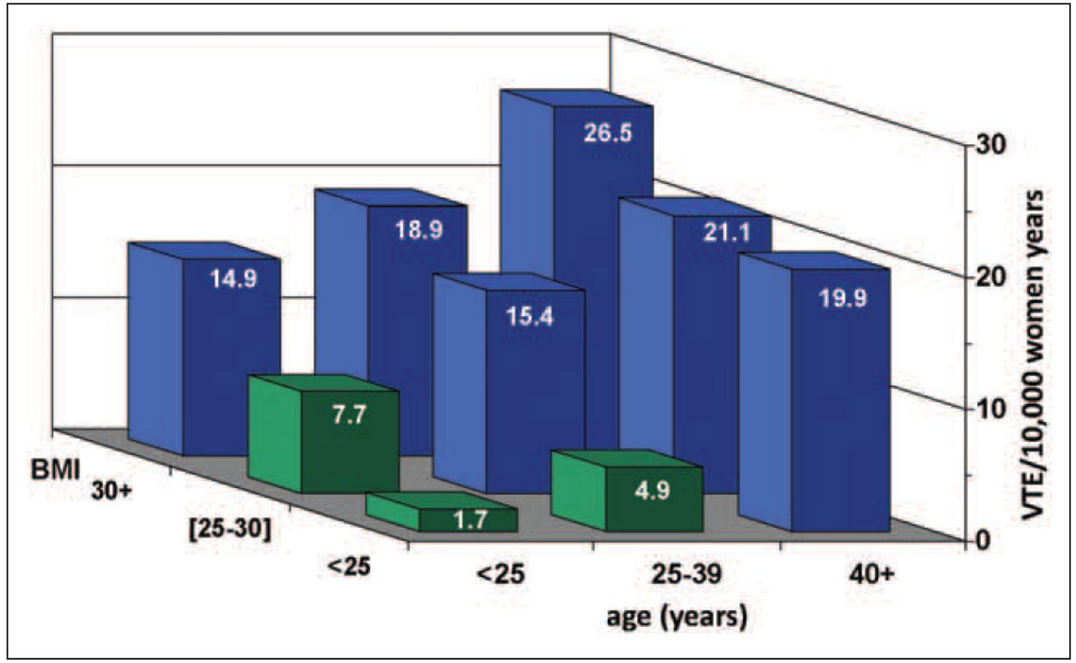
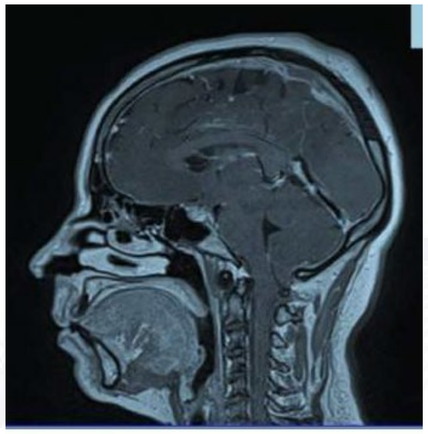


Figure 8. BMI and age as risk factors for VTE with OC use. Weight and age are independent risk factors with additive effect. Mod from [112].

Rosano et al. Obesity and contraceptive use: impact on cardiovascular risk. ESC Heart Fail. 2022 Dec;9(6):3761-3767.

Rabe et al . Contraception and Thrombophilia. A statement from the German Society for Gynecological Endocrinology and Reproductive Medicine (DGGEF e.V.) and the Professional Association of Germ... Gynaecologists (BVF e.V.). J Reproduktionsmed Endokrinol 2011; 8 (Special Issue 1): 178–218.



Original Investigation

Risk of Cerebral Venous Thrombosis in Obese Women

Susanna M. Zuurbier, MD; Marcel Arnold, MD, PhD; Saskia Middeldorp, MD, PhD; Anne Broeg-Morvay, MD; Suzanne M. Silvis, MD; Mirjam R. Heldner, MD; Julia Meisterernst, MD; Banne Nemeth, MD; Eva R. Meulendijks, BSc; Jan Stam, MD, PhD; Suzanne C. Cannegieter, MD, PhD; Jonathan M. Coutinho, MD, PhD

JAMA Neurol. 2016;73(5):579-584

Table 5. Stratification by Oral Contraceptive Use in Women

BMI	No. (%) of Study Participants[a]		Adjusted OR (95% CI)[b]
	Cases (n = 129)	Controls (n = 3148)	
No OC use			
<25	17 (13.2)	1190 (37.8)	1 [Reference][c]
25-29.99	11 (8.5)	843 (26.8)	0.85 (0.30-2.41)
≥30	7 (5.4)	384 (3.1)	1.29 (0.46-3.66)
OC use			
<25	36 (27.9)	486 (15.4)	5.09 (2.58-10.02)
25-29.99	31 (24.0)	186 (5.9)	11.87 (5.94-23.74)
≥30	27 (20.9)	59 (1.9)	29.26 (13.47-63.60)

Abbreviations: BMI, body mass index (calculated as weight in kilograms divided by height in meters squared); OC, oral contraceptive; OR, odds ratio.

[a] The number of study participants was divided by the total number (unknown and missing cases excluded) to calculate the percentage.

[b] The multivariate model is adjusted for age, history of cancer, ethnicity, and smoking status.

[c] Patients with a BMI less than 25 without OC use were the reference category.

WHO 2015
UKMEC 2016

Factores de riesgo: Obesidad

Table 6 Medical Eligibility Criteria for the use of different contraceptive methods related to obesity classes [70, 71]

	Copper IUD	IUS	Implant	Injectable	CHC	POP
BMI 30–34 kg/m^2	1	1	1	1	**2**	1
BMI ≥ 35 kg/m^2	1	1	1	1	**3**	1

Categories different from number 1 are marked in bold since they are referred to a method that should not be used in any circumstance

70. WHO (2015) Medical eligibility criteria for contraceptive use, 5thedn. World Health Organization, Geneva. 71. UKMEC (2016) UK Medical Eligibility Criteria for Contraceptive Use (UKMEC 2016), Faculty of Sexual and Reproductive Healthcare. http://www.fsrh.org/pdfs/UKMEC 2016.pdf. Accessed 9 Sept 2019

TABLE A1. (*Continued*) Summary of classifications for hormonal contraceptive methods and intrauterine devices

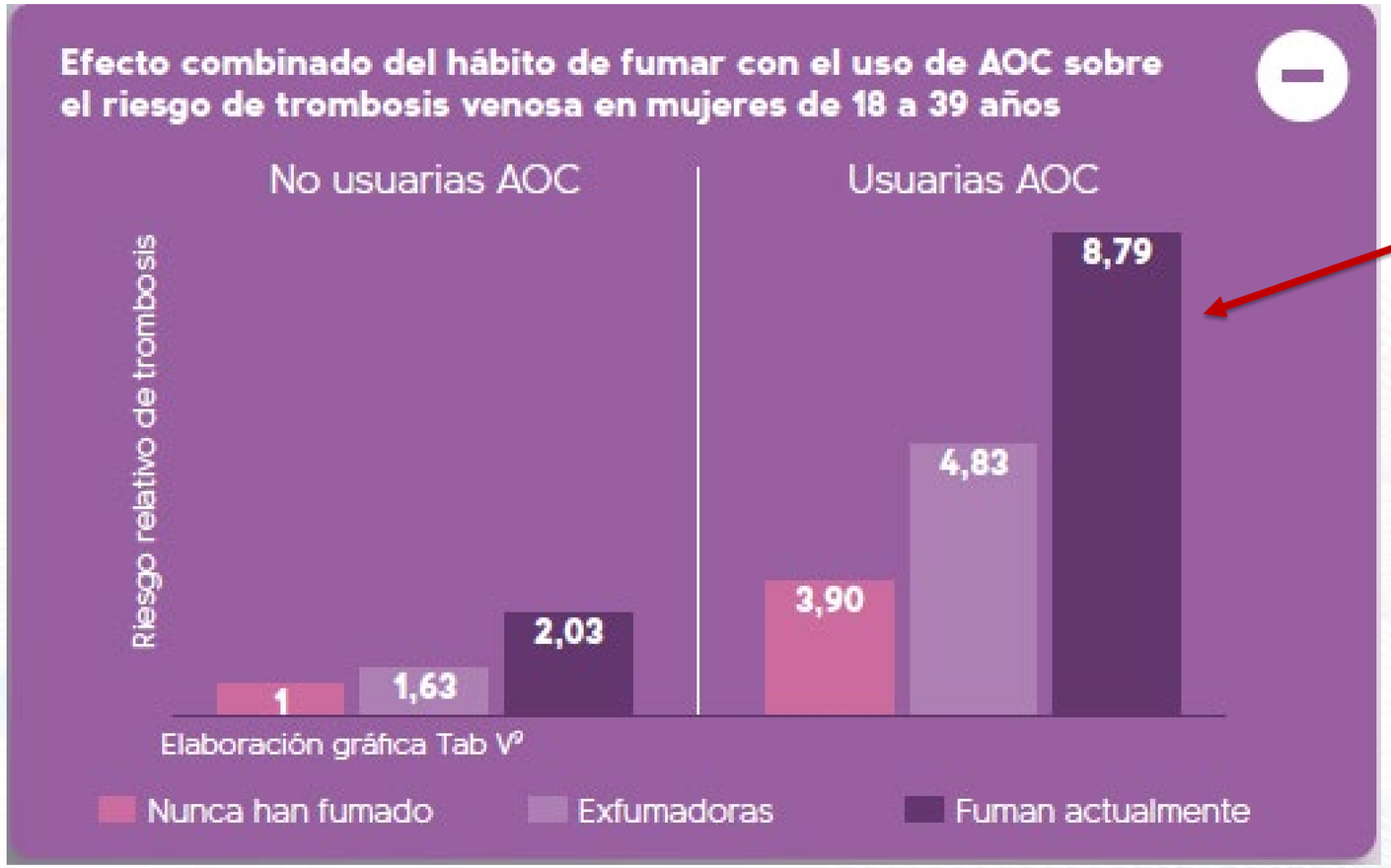
Condition	Cu-IUD	LNG-IUD	Implant	DMPA	POP	CHC
Obesity						
a. BMI ≥30 kg/m^2	1	1	1	1	1	2*
b. Menarche to <18 years and BMI ≥30 kg/m^2	1	1	1	2	1	2*

U.S. Medical Eligibility Criteria for Contraceptive Use, 2024

Nguyen et al. U.S. Medical Eligibility Criteria for Contraceptive Use, 2024. MMWR Recomm Rep. 2024 Aug 8;73(4):1-126.

CHC	Clarification/Evidence/Comment
2	**Clarification:** Risk for thrombosis increases with multiple risk factors, such as obesity, older age (e.g., ≥40 years), diabetes, smoking, family history of thrombosis, and dyslipidemia. When a person has multiple risk factors, any of which alone would increase risk for thrombosis, use of CHCs might increase thrombosis risk to an unacceptable level. However, a simple addition of categories for multiple risk factors is not intended; for example, a combination of two category 2 risk factors might not necessarily warrant a higher category.
2	

Factores de riesgo de ETV: Tabaco



Pomp ER et al. Smoking increases the risk of venous thrombosis and acts synergistically with oral contraceptive use. Am. J. Hematol, 2008. 83:97–102

Nguyen et al. U.S. Medical Eligibility Criteria for Contraceptive Use, 2024. MMWR Recomm Rep. 2024 Aug 8;73(4):1-126.

Condition	Cu-IUD	LNG-IUD	Implant	DMPA	POP	CHC
Smoking						
a. Age <35 years	1	1	1	1	1	2
b. Age ≥35 years						
i. <15 cigarettes per day	1	1	1	1	1	3
ii. ≥15 cigarettes per day	1	1	1	1	1	4

Factores de riesgo de ETV: Trombofilia

van Vlijmen EF et al. Combined oral contraceptives, thrombophilia and the risk of venous thromboembolism: a systematic review and meta-analysis. J Thromb Haemost. 2016 Jul;14(7):1393-403.

Riesgo de ETV con el uso de Anticoncepción combinada según Tipo de Trombofilia

Condition type	Baseline VTE incidence (95% CI)	RR with COC (95% CI)[a]	Absolute risk with COC (95% CI)
Low-risk thrombophilia			
Heterozygous FVL	0.5% (0.1–1.3%)/y[50] By age 45: 12%[64]	RR 5.89 (4.21–8.23)[45]	0.49 (0.18–1.07) to 2.0 (0.07–0.41) per 100 pill-years[45]
Heterozygous PGM	0.4% (0.1–1.1%)/y	RR 5.24 (2.69–10.20)[45]	
High-risk thrombophilia			
Homozygosity of FVL or PGM or double heterozygosity[b]	FVL: 1.8% (0.1–4.0%)/y[50]	RR 7.15 (2.93–17.45)[45]	0.86 (0.10–3.11) per 100 pill-years[45]
AT, PC, or PS deficiency	1.5% (0.7–2.8%)/y[50] By age 45: AT: 41%, PC: 26%, PS: 21%[64]		4.3 (1.4–9.7) to 4.62 (2.5–7.9) per 100 pill-years[45]
Antiphospholipid antibodies	Overall: 0.8–1.02 per 100 PY[65,66] LAC: 1.3% per year; 5.9% (1.2–10.6%) at 10y[67] Triple positive[c]: 9.8% at 2y; 37.1% at 10y[68]	-	-
Sickle cell trait	Overall: 0.438 (0.324–0.720)/100 PY <70y: 0.265 (0.139–0.469)/100 PY[69]	OR 6.7 (1.0–43)[60]	-
Sickle cell disease	3.58 (0.04–25.4)/100 PY[69]; 11.3% (8.3–15.3%) by age 40[70]	-	-

Skeith L, Bates SM. Estrogen, progestin, and beyond: thrombotic risk and contraceptive choices. Hematology Am Soc Hematol Educ Program. 2024 Dec 6;2024(1):644-651.

Medical Eligibility Criteria for Contraceptive Use. 5th edition. Geneva: World Health Organization; 2015. Available from: https://www.ncbi.nlm.nih.gov/books/NBK321151/

SUMMARY TABLE

	COC//P/CVR	CIC	POP	DMPA/NET-EN		LNG/ETG/ IMPLANTS	CU-IUD		LNG-IUD
KNOWN THROMBOGENIC MUTATIONS (e.g. factor V Leiden; prothrombin mutation; protein S, protein C, and antithrombin deficiencies)	4[a]	4[a]	2[a]	2[a]		2[a]	1[a]		2[a]
SYSTEMIC LUPUS ERYTHEMATOSUS				I	C		I	C	
a) Positive (or unknown) antiphospholipid antibodies	4	4	3	3	3	3	1	1	3

TABLE A1. (*Continued*) Summary of changes in classifications for hormonal contraceptive methods and intrauterine devices from *U.S. Medical Eligibility Criteria for Contraceptive Use, 2016*

Condition	Cu-IUD	LNG-IUD	Implant	DMPA	POP	CHC	Clarification
Thrombophilia (e.g., factor V Leiden mutation; prothrombin gene mutation; protein S, protein C, and antithrombin deficiencies; or antiphospholipid syndrome This condition is associated with increased risk for adverse health events as a result of pregnancy (Box 3).	1	2	2	3*	2	4	Routine screening in the general population before contraceptive initiation is not recommended. If a person has current or history of DVT/PE, see recommendations for DVT/PE.* Classification of antiphospholipid syndrome includes presence of a clinical feature (e.g., thrombosis or obstetric morbidity) and persistently abnormal antiphospholipid antibody test on two or more occasions at least 12 weeks apart (*3*).*

Nguyen et al. U.S. Medical Eligibility Criteria for Contraceptive Use, 2024. MMWR Recomm Rep. 2024 Aug 8;73(4):1-126.

¿Cómo identificar a las mujeres con riesgo de ETV y que anticonceptivo deben de usar?

Realizando una buena historia clínica

Historia PERSONAL de ETV

Historia FAMILIAR de ETV

Paresia de MMII

Inmovilización
o cirugía mayor

Más de 2 Factores Riesgo:

- Edad >35 años
- Índice masa corporal>35
- Tabaquismo >10 cigarrillos /día

Trombofilia PERSONAL
o en FAMILIARES de 1º

Postparto

Beyer-Westendorf et al. Vasa. 2018 Oct;47(6):441-450.

Importancia de la anamnesis en a la detección de los Factores de Riesgo de ETV

Creación de un checklist

Variable	Checked	Comments
Reason for treatment		
Age		
BMI		
Smoking status		
Blood pressure		
Puerperium		

Personal history		
Thrombosis		
Heart disease or stroke		
Breast cancer		
Family history		
Thrombosis		
Heart disease or stroke		
Breast cancer		

Migraine		
With aura		
Without aura		
Other diseases		
Hyperlipidaemia		
Diabetes		
Cholelithiasis		
Other liver diseases		
Drug or alcohol intake		

ORIGINAL ARTICLE Open Access

Anamnesis Checklist for Informed Oral Contraceptive Choices: A Spanish Perspective

Josep Perelló-Capo,[1,2,*] Ángeles Blanco Molina,[3] Javier Trujillo Santos,[4] María López Menéndez Arqueros,[5] Esther de la Viuda,[6,7] Borja Otero García-Ramos,[8] Dolores Pérez Jaraíz,[9] and Luis Ignacio Devesa Otero[10]

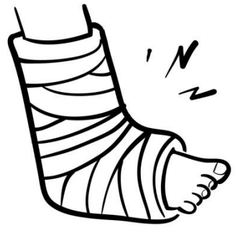
Women's Health Reports
Volume 6.1, 2025
DOI: 10.1089/whr.2024.0073
Accepted October 30, 2024

Factores de riesgo transitorios

Profilaxis de ETV en situaciones de riesgo

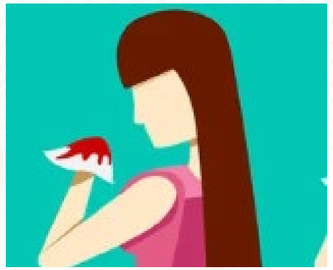
El tratamiento con AHC puede durar AÑOS, por lo que no es asumible realizar profilaxis de ETV durante TODO ese TIEMPO.

Evaluación “dinámica” del riesgo de ETV:
cuando se sume **OTRO FACTOR,** realizar **PROFILAXIS de ETV** si el riesgo es alto



Speed V et al. Venous thromboembolism and women's health. Br J Haematol. 2018 Nov;183(3):346-363. doi: 10.1111/bjh.15608.
Watson HG, Baglin TP. Guidelines on travel-related venous thrombosis. Br J Haematol. 2011 Jan;152(1):31-4. doi: 10.1111/j.1365-2141.2010.08408.x.

Importancia de detección precoz de los síntomas de ETV



	Pregnancy	Postpartum	Contraceptives
Signs and symptoms	38	50	350
Dyspnea	33 (87%)*	38 (78%)	244 (70%)
Chest pain	23 (61%)*	38 (76%)	267 (78%)
Haemoptysis	1 (2.6%)	3 (6.1%)	34 (10%)
Syncope	5 (13%)	3 (6.0%)	40 (12%)
Systolic blood pressure <100 mm Hg	5 (13%)	2 (4.0%)	33 (9.4%)
Heart rate >100 beats per minute	11 (29%)	18 (36%)	127 (36%)
Mean $SatO_2$ levels (%)	93 ± 7.7	96 ± 3.2	95 ± 3.6
Sat O_2 levels <90%	1 (2.9%)	1 (2.9%)	4 (1.7%)

Blanco-Molina et al. VTE in pregnancy, postpartum or under contraceptives Thrombosis and Haemostasis 103.2/2010

Box 4: Women using combined hormonal contraception: key indications for medical review

Key symptoms that should prompt women to seek urgent medical review

- Calf pain, swelling and/or redness
- Chest pain and/or breathlessness and/or coughing up blood
- Loss of motor or sensory function

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Resumen: Anticoncepción Hormonal y ETV

- El factor de riesgo (FR) más importante para desarrollar una ETV en la mujer en edad fértil es el Tratamiento Hormonal.
- Es necesario identificar los FR de trombosis en las mujeres que vayan a iniciar un Anticonceptivo Hormonal.
- La realización de una historia clínica y el uso de un *checklist* son métodos eficaces para detectar los FR.
- Los FR van a condicionar la elección de anticonceptivo.
- Las mujeres que usan AH deben ser revisadas periódicamente para una reevaluación de los FR stentes y para detectar la aparición de FR nuevos (permanentes o transitorios).

ujeres consumidoras de AH combinada deben de conocer los síntomas de la embolia de pulmón y rombosis venosa profunda para un diagnóstico precoz de la ETV e inicio del tratamiento agulante.