

DEPRESCRIPCIÓN: ¿QUÉ, CÓMO Y CUÁNDO?



DEPRESCRIPCIÓN DE FÁRMACOS NO
RELACIONADOS CON EL SISTEMA NERVIOSO.

BARRERAS Y FACILITADORES EN LA
IMPLEMENTACIÓN DE LA DEPRESCRIPCIÓN

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PPI: BALANCE BENEFICIO-RIESGO DESFAVORABLE



- STOPP/START
- BEERS
- PRISCUS
- STOPP-PaI
- LESS-CHRON

- ✓ INHIBIDORES DE LA BOMBA DE PROTONES
- ✓ ANTI-OSTEOPOROSICOS (BIFOSFONATOS)
- ✓ ANTIDIABETICOS
- ✓ ANTIGOTOSOS (ALOPURINOL)
- ✓ ESTATINAS
- ✓ ANTI-HIPERTENSIVOS

- 
- ✓ ↓ BENEFICIO
 - ✓ ↑ RIESGO RAM

INHIBIDORES BOMBA PROTONES (IBP)



ERGE



4-8 SEMANAS



- ✓ DOSIS MINIMA
- ✓ A DEMANDA

MAYORÍA PACIENTES:

- ✓ NO RECAIDA

IBP A LARGO PLAZO:

- ✓ ERGE NO CONTROLADO
- ✓ ZOLLINGER-ELLISON
- ✓ FÁRMACOS GASTROLESIVOS
(ANTITROMBOTICOS, AINE...)

INHIBIDORES DE LA BOMBA DE PROTONES (IBP)

- ✓ IBP: FÁRMACOS SEGUROS
- ✓ RAM MÁS FRECUENTES DETECTADAS EN ECA (DOLOR CABEZA, DIARREA, NAUSEAS: 1-4%): NS vs PLACEBO
- ✓ AMPLIO USO / TRATAMIENTO LARGO PLAZO:
 - RAM MENOS COMUNES
 - MÁS GRAVES

DUE TO REDUCED OR MODIFIED ABSORPTION OF NUTRIENTS

- Vitamin B12 deficiency,
- Increased fracture risk (several metabolic pathways likely involved),
- Decreased magnesium absorption,
- Iron deficiency

DUE TO ALTERED PH OF THE GASTRIC CONTENTS

- Increased enteric infections (including Clostridioides difficile),
- Increased risk of community and hospital acquired pneumonia,
- Increased development of fundic gland polyps

DUE TO SPECIFIC CHEMICAL CHARACTERISTICS OF THE PPI MOLECULE (IDIOSYNCRATIC)

- Acute interstitial nephritis and possibly other kidney disease.
- Interference with bio-availability or metabolism of other medications
- Thrombocytopenia (case reports only)
- Rhabdomyolysis (case reports only)

**Agencia Española de Medicamentos y Productos Sanitarios
AEMPS**

**RIESGO DE HIPOMAGNESEMIA ASOCIADO A LOS
MEDICAMENTOS INHIBIDORES DE LA BOMBA DE
PROTONES (IBP)**

Fecha de publicación: 23 de diciembre de 2011

- ✓ REEVALUAR NECESIDAD DE CONTINUAR BIFOSFONATOS
- ✓ 5 AÑOS SI BUENA RESPUESTA:
 - T-score ≥ -2.5
 - NO: FRACTURA RECIENTE

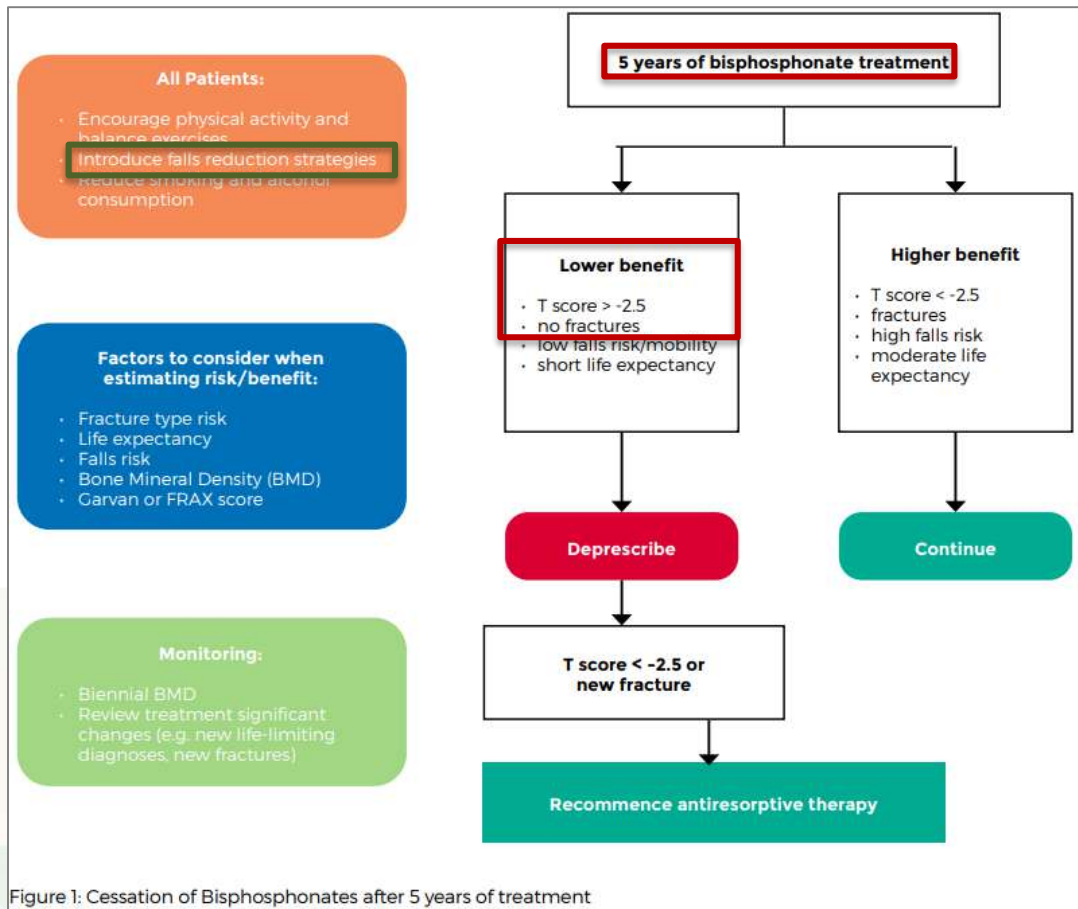


Figure 1: Cessation of Bisphosphonates after 5 years of treatment

✓ ESTUDIO FLEX: “EFECTO LEGADO” DE ALENDRONATO

✓ PACIENTES CON:

➤ OSTEOPOROSIS

➤ BIFOSFONATO 5 AÑOS

➤ BAJO RIESGO FRACTURA



BIFOSFONATO
DURANTE 5 AÑOS

✓ NO DIFERENCIA EN RIESGO FRACTURA NO VERTEBRAL

FRAX[®] Fracture Risk Assessment Tool

Home
Calculation Tool
▼ Paper Charts
FAQ
References
CE Mark
English ▼

Calculation Tool

Please answer the questions below to calculate the ten year probability of fracture with BMD.

Country: Australia Name/ID: [About the risk factors](#)

Questionnaire:

- Age (between 40 and 90 years) or Date of Birth
 Age: Date of Birth: Y: M: D:
- Sex: Male Female
- Weight (kg):
- Height (cm):
- Previous Fracture: No Yes
- Parent Fractured Hip: No Yes
- Current Smoking: No Yes
- Glucocorticoids: No Yes
- Rheumatoid arthritis: No Yes
- Secondary osteoporosis: No Yes
- Alcohol 3 or more units/day: No Yes
- Femoral neck BMD (g/cm²):
 Select BMD:

BMI: 31.2
 The ten year probability of fracture (%)

without BMD	
Major osteoporotic	24
Hip Fracture	17

Height Conversion

Inches ➔ cm

00372593

Individuals with fracture risk assessed since 1st June 2011

- ✓ >20%: ELEVADO
- ✓ 10-20%: MEDIO
- ✓ <10%: BAJO

RIESGO FRACTURA
(FRAX)

REACCIONES ADVERSAS:

✓ GASTROINTESTINALES

- ✓ DOLOR ABDOMINAL
- ✓ DISPEPSIA
- ✓ REGURGITACION



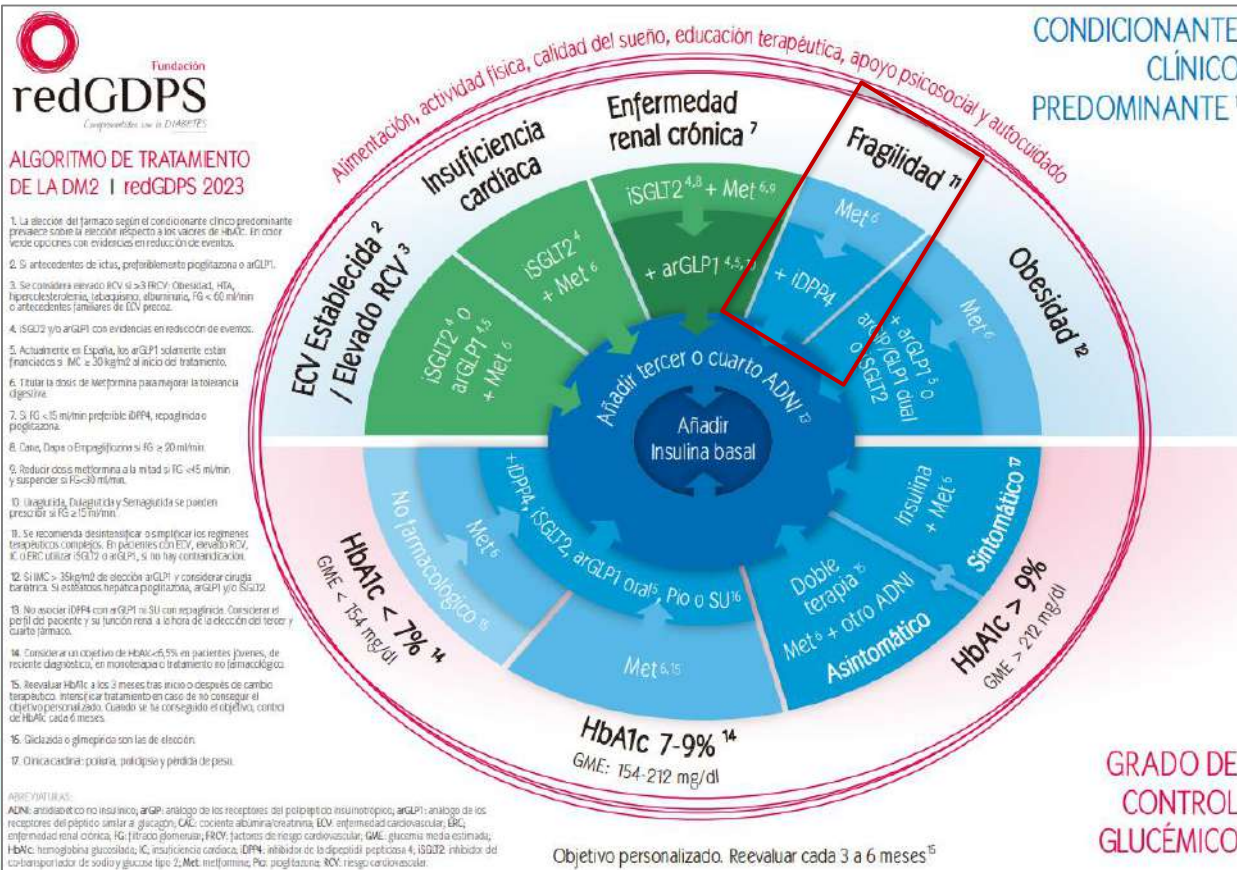
30 MINUTOS POST-
BIFOSFONATO

✓ FRACTURAS ATÍPICAS FEMORALES: TRATAMIENTOS PROLONGADOS

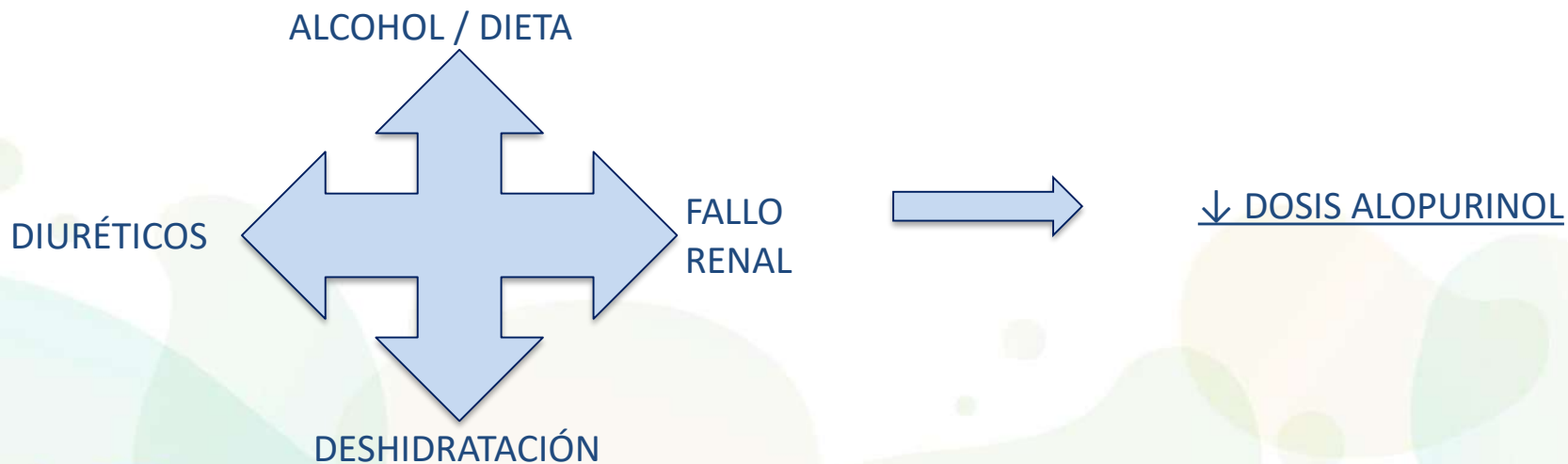
✓ OSTEONECROSIS MANDIBULAR – PROCEDIMIENTOS DENTALES INVASIVOS



- ✓ HbA1C <7% => ↑ MORBI-MORTALIDAD
- ✓ OBEJTIVO TRATAMIENTO:
 - EVITAR HIPOGLUCEMIA
 - EVITAR HIPERGLUCEMIA SINTOMATICA
- ✓ SIMPLIFICAR REGIMENES COMPLEJOS
- ✓ CONTROL HbA1C MENOS ESTRICTO (8%; 8,5%???)
- ✓ EVITAR MEDICAMENTOS ↑ RIESGO HIPOGLUCEMIA:
 - ✓ SULFONILUREAS VIDA MEDIA LARGA (EJ:
GLIMENCLAMIDA, GLIMEPIRIDA)
 - ✓ INSULINAS ACCION CORTA



- ✓ NO ATAQUES GOTA ULTIMO AÑO
- ✓ BAJO RIESGO RECAIDA – FACTORES RIESGO:



REACCIONES ADVERSAS:

- ✓ ALOPURINOL: USUALMENTE BIEN TOLERADO
- ✓ DERMATOLÓGICAS: RASH, PRURITO...
- ✓ ALELO HLAB5801



100X

- ✓ STEVENS-JOHNSON
- ✓ SINDROME DRESS
- ✓ NECROLISIS EPIDERMICA TOXICA

PREVENCIÓN SECUNDARIA EVENTOS CV:

- ✓ CORONARIOS
- ✓ CEREBROVASCULARES
- ✓ ARTERIOPATIA PERIFÉRICA

EDAD (AÑOS)	NNT
65-75	16-43 (5 AÑOS)
> 75	11-23 (3-5 AÑOS)

PREVENCIÓN

PRIMARIA



REF	PATIENTS/ CHARACTERISTICS/ TREATMENT/ AGE RANGE	ELDERLY SUBGROUP	RESULTS IN ELDERLY SUBGROUP (ENDPOINT; RATE (TREATMENT VS PLACEBO); ARR; NNT; STATISTICAL SIGNIFICANCE)
PROSPER ^a	3239/ no previous vascular disease/ Pravastatin/ 70-82	100%	Fatal CHD, MI, Stroke; 11.4% vs 12.1% p=0.19 NS
AFCAPS ^b	6605/ no previous cardiac or vascular disease, no hyperlipidaemia/ Lovastatin/ 45-73	3180 (males over 57, Females over 65)	MI/USACD; 4.9% vs 7.0% NS
ASCOT-LLA ^c	10305/hypertension + 3 or more other CVD risk factors/ Atorvastatin/ 40-79	6570 >60 yo	MI, fatal CHD; 2.2% vs 3.4%; ARR 1.2% over 3.2 years; Annualise NNT 275; p= 0.0027
CARDS ^d	3249/T2DM, no previous CVD, +1 or more CVD risk factors/Atorvastatin/ 40-75	1129; >= 65yo	ACS, Stroke; 7.2% vs 11.9%; ARR 3.9% over 3.9 years; Annualise NNT 100; p= <0.05
JUPITER ^e	17802/no hyperlipidaemia, no CVD, elevated hsCRP / Rosuvastatin/ 60-71	5695; 70-97yo	MI, Stroke, USA, CVD death; 1.22% vs 1.99%; ARR 0.77%; Annualise NNT 130; p= < 0.001
MEGA ^f	7832/ hypercholesterolaemia, no prior CVD/40-70	1814; >= 65yo	CHD; 0.48% vs 0.72%; NS Mortality; 0.52% vs 0.73%; NS Stroke; 0.25% vs 0.58%; ARR 0.33%; Annualise NNT 303; p= < 0.05
HOPE-3 ^g	12705/1 or more CV risk factors/Rosuvastatin/ >=55	6350; >= 65.3yo	MI, Stroke, CV death; 4.9% vs 6.4%; ARR 1.5% over 5.6 years; Annualise NNT 378; p= <0.05
ALLHAT-LLT ^h	2867/ hypertension, no CVD/ >=65	726; >75	All-cause mortality; 18.52% vs 24.53% p=0.07 NS

Table 1: Statin primary prevention studies in the elderly

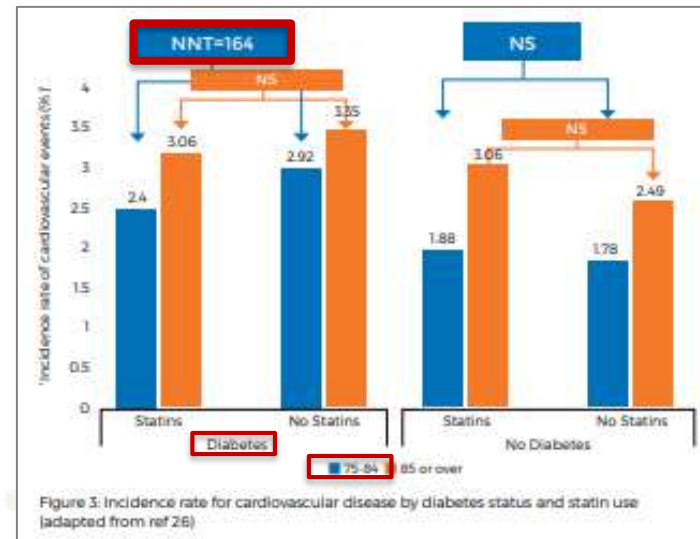


Figure 3: Incidence rate for cardiovascular disease by diabetes status and statin use (adapted from ref 28)

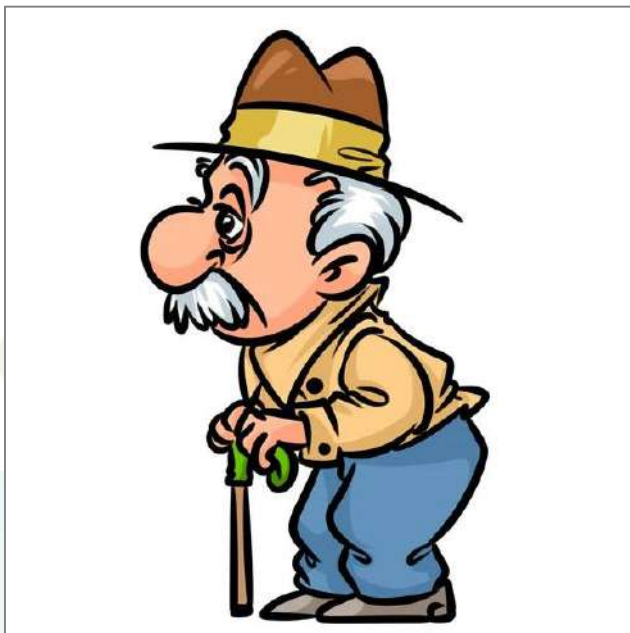
EFFECTOS ADVERSOS

- ✓ MÁS FRECUENTE: MIALGIAS (AUTO-REPORT)
- ✓ MIOPATÍA / RABDOMIOLISIS: MENOS FRECUENTES
- ✓ DOSIS DEPENDIENTES
- ✓ INTERACCIONES (POLIMEDICADOS) – CYP3A4 (SIMVASTATINA)

- ✓ HIPOTENSION → COMPLICACIONES
- ✓ ↑ MORBI-MORTALIDAD
- ✓ CONTROL TA: MENOS INTENSIVO



CAIDAS



MENOR BENEFICIO:

- ✓ >85 AÑOS: DUDOSO BENEFICIO
- ✓ ANTI-HTA ACCION CENTRAL

MAYOR RIESGO:

- ✓ FRAGILES
- ✓ ALTO RIESGO CAIDAS (HIPOTENSION ORTOSTATICA)

MODIFICACION EN ESTILO DE VIDA:

- ✓ PERDIDA PESO
- ✓ RESTRICCION SAL, AZUCAR, ALCOHOL...

FÁRMACOS	PRINCIPALES RAM
DIURÉTICOS (TIAZIDAS, DE ASA)	HIPO-Na; HIPO-K, HIPO-Mg (IBP) GOTA (TIAZIDAS)
DIURETICOS AHORRADORES DE K	HIPER-K
BETA-BLOQUEANTES	BRADICARDIA; BLOQUEO A-V
IECA / ARA-II	HIPER-K TOS; ANGIOEDEMA (IECA)
ANTAGONISTAS Ca No-DHP	BLOQUEO A-V
ANTAGONISTAS Ca DHP	EDEMA PERIFÉRICO

DEPRESCRIBICION – BARRERAS/FACILITADORES

PRINCIPALES RAZONES DEPRESCRIPCIÓN:

- ✓ REDUCIR DAÑOS EFECTOS ADVERSOS
- ✓ BENEFICIO MÍNIMO MEDICACIÓN

FACILITADORES:

- ✓ FORMACIÓN ESPECIFICA DEPRESCRIPCION
- ✓ ALERTAS FARMACEUTICO EN HCE

BARRERAS:

- ✓ FALTA DE TIEMPO
- ✓ PRESCRIPCION OTROS PROFESIONALES
- ✓ RESISTENCIA PACIENTE/FAMILIA



FACA
FUNDACIÓN ESPAÑOLA
DE CALIDAD ASISTENCIAL

Journal of Healthcare Quality Research

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JHQR

ORIGINAL

¿Qué opinan los médicos de atención primaria sobre la deprescripción?

E. Valverde Bilbao^{a,*}, A. Mendizabal Olaizola^a, D. Mandaluniz Elgezabal^b, I. Alcorta Mitxelena^c, K. Fernández Otaolea^d y M.E. Alkiza Eizagirre^c

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Rapid **EVIDENCE** *Reports*

**Deprescribing Medications:
Barriers and Enablers**

Sarah Mackey, Stephen Bornstein

May 2020

Summary Table: Barriers and Enablers to Deprescribing Medications

Table 3 below provides readers with a quick summary of the key findings that are outlined in detail in the sections above.

Table 3: Summary of key findings

Level	Barriers	Enablers
Patient-level	<ul style="list-style-type: none"> Attitudes and perspectives about the consequences of <i>not</i> taking medications Lack of knowledge about medications/ medication management Influence of patient characteristics 	<ul style="list-style-type: none"> Attitudes and perspectives about the consequences of taking medications Positive, trusting patient-prescriber relationships Improved knowledge and understanding of their medications and of deprescribing Influence of patient characteristics
Provider-level	<ul style="list-style-type: none"> Perspectives and concerns about negative outcomes of deprescribing patient medications Concerns about negative consequences for inter-professional relationships Limitations of knowledge, skills or experience 	<ul style="list-style-type: none"> Perspectives and concerns about negative outcomes of continuing patient medications Positive and trusting provider-patient relationships Improving provider knowledge, skills and experience
System-level	<ul style="list-style-type: none"> Lack of multidisciplinary coordination and communication Lack of time or funding required for consultation Lack of other practical supports at the system-level 	<ul style="list-style-type: none"> Access to professional or technical support System-level knowledge and skills improvement Support for system-level cultural and attitudinal changes

FÁRMACO	CUANDO DEPRESCRIBIR	COMO DEPRESCRIBIR
IBP	ERGE (4-8 SEMANAS)	<u>GRADUAL</u> (50% semanal)
BIFOSFONATOS	5 AÑOS	NO GRADUAL
ANTIDIABETICOS	HIPOGLUCEMIA	NO GRADUAL MONITORIZAR GLUCEMIAS
ALOPURINOL	NO ATAQUES GOTA > 12 MESES	NO GRADUAL MONITORIZAR NIVELES URATO
ESTATINAS	PREVENCION PRIMARIA	NO GRADUAL
ANTI-HIPERTENSIVOS	FRAGILIDAD RIESGO CAIDAS	“DE UNO EN UNO” GRADUAL - <u>BETABLOQUEANTES</u> : SI - RESTO: RECOMENDABLE

- Delgado-Silveira E. et al. Prescripción inapropiada de medicamentos en los pacientes mayores: los criterios STOPP/START. Rev Esp Geriatr Gerontol. 2009;44(5):273–279. DOI: [10.1016/j.regg.2009.03.017](https://doi.org/10.1016/j.regg.2009.03.017)
- Boletines TaperMD. <https://tapermd.com/>
- FRAX® Herramienta de Evaluación de Riesgo de Fractura. <https://frax.shef.ac.uk/FRAX/tool.aspx?lang=sp>
- Algoritmo de tratamiento de la DM2, de la redGDPS 2023. <https://www.redgdps.org/algoritmo-tratamiento-de-la-dm2-2023>
- Valverde-Bilbao E. et al. ¿Qué opinan los médicos de atención primaria sobre la deprescripción?. J. healthc. qual. res. 2020;35(2):87---93. <https://doi.org/10.1016/j.jhqr.2019.11.001>
- Mackey, S., & Bornstein, S. (2020). Deprescribing Medications: Barriers and Enablers. https://www.mun.ca/nlcahr/media/production/memorial/administrative/nl-centre-for-applied-health-research/media-library/chrsp/RER_Deprescribing_May_2020.pdf

- TaperMD: <https://tapermd.com/>
- Deprescribing.org: <https://deprescribing.org/>
- MedStopper: <https://medstopper.com/>
- CheckTheMeds: <https://www.checkthemeds.com/>
- ChronicPharma: <https://chronic-pharma.com/>



Gracias por su atención

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