Control del asma

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Dr Miguel Angel Ruiz Castellanos Centro de Salud San Blas. Alicante

Control del asma

1. Manejo del asma basado en el control

- 2. Manejo de la exacerbación asmática
- 3. Técnicas de inhalación



1. Definición

"El asma es un <u>síndrome</u> que incluye diversos <u>fenotipos clínicos</u>, que comparten <u>manifestaciones clínicas similares</u>, pero de <u>etiologías probablemente diferentes</u>"

Gema 2015

2. Diagnóstico

Patrón característico de síntomas respiratorios

Episodios recurrentes de sibilantes, tos, dificultad respiratoria u opresión torácica



- Empeoran por la noche o a primera hora de la mañana
- Varían a lo largo del tiempo y en su intensidad
- Desencadenantes: infecciones virales, ejercicio, alérgenos, cambios de T^a, risa, irritantes (tabaco, olores intensos...)

2. Diagnóstico

Patrón característico de síntomas respiratorios

Obstrucción bronquial reversible

- Historia personal de atopia
- Historia de asma en familiar de 1º
- Estudio alergológico positivo (prick o IgE específica)

2. Diagnóstico

Obstr

Patrón característico de síntomas respiratorios

Diagnóstico diferencial

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- Estu
- Estuc eosinò
- Estudio a metacolina..)

Dificultad diagnóstica en el preescolar

Gravedad del asma

	Severity		Problematic severe Very severe Severe	
Intermittent	Mild	Moderate		
Mild Intermittent	<	Persistent		

Útil en la **evaluación inicial** para iniciar tratamiento.

Grado de control

Uso durante el seguimiento

Control



• Gravedad del asma

	Episódica ocasional	Episódica frecuente	Persistente moderada	Persistente grave
Episodios	De pocas horas o días de duración, < de 1 cada 10-12 semanas	< de 1 cada 5-6 semanas	> de 1 episodio cada 4–5 semanas	Frecuentes
	Máximo 4-5 crisis/año	Máximo 6-8 crisis/año		
Síntomas intercrisis	Asintomático, con buena tolerancia al ejercicio	Asintomática	Leves	Frecuentes
Sibilancias	-	Con esfuerzos intensos	Con esfuerzos moderados	Con esfuerzos mínimos
Síntomas nocturnos	-	-	≤ 2 noches por semana	> 2 noches por semana
Medicación de rescate	-	-	≤ 3 días por semana	> 3 días por semana
Función pulmonar • FEV1 • Variabilidad PEF	>80% <20%	>80% <20%	>70% - <80% >20% - <30%	<70% >30%

Clasificación según la gravedad del asma (GEMA 2015)



• Grado de control

	NIVEL DE CONTROL				
		Completo	Bueno	Parcial	No controlado
CONTROL ACTUAL	Síntomas diarios	Ninguno	≤ 2/sem	> 2/sem	Continuos
	Síntomas nocturnos/ despertares	Ninguno	≤ 1/mes	>1/mes	Semanal
	Necesidad de medicación de rescate	Ninguno	≤ 2/sem	> 2/sem	Diario
	Limitación de actividad	Ninguna	Ninguna	Alguna	Extrema
	FEV1, PEF (niños > 5 años)	> 80%	> 80%	60-80%	< 60%
RIESGO FUTURO	Exacerbaciones/año	0	1	2	> 2
	Efectos adversos de la medicación	Ninguno	Ninguno	Variable	Variable

Clasificación según el grado de control del asma (ICON 2012)

• Grado de control

	NIVEL 1 E CONTROL				
		Completo	Bueno	Parcial	No controlado
CONTROL ACTUAL	Síntomas diarios	Ninguno	≤ 2/sem	> 2/sem	Continuos
	Síntomas nocturnos/ despertares	Ninguno	≤ 1/mes	>1/mes	semanal
	Necesidad de medicación de rescate	Ninguno	≤ 2/sem	> 2/sem	diaria
	Limitación de actividad	Ninguna	Ninguna	Alguna	Extrema
	FEV1, PEF (niños > 5 años)	> 80%	> 80%	60-80%	< 60%
RIESGO FUTURO	Exacerbaciones/año	0	1	2	> 2
	Efectos adversos de la medicación	Ninguno	Ninguno	Variable	Variable

Clasificación según el grado de control del asma (ICON 2012)

Grado de control

¿Tos, sibilancias o disnea > 2 veces/sem?

TVEL DE CONTROL

¿ Síntomas o despertares nocturnos > 1 vez/mes?

¿Necesidad de medicación de recate > 2 veces/sem noctu no (exclusión de medicación antes del ejercicio)



Síntomas diario

años)

RIESGO

FUTURO

es de

de

Exacerbaciones año

la medicación

- Fcos de mantenimiento o "controladores"
 - Tratamiento antiinflamatorio
 - De uso diario durante periodos prolongados
- Fcos aliviadores o "de rescate"
 - Tratamiento de la broncoconstricción
 - Se utilizan a demanda

- Corticoides inhalados
- Tratamiento de 1º línea en el control del asma
- Mejor respuesta en los niños mayores y en los preescolares con factores de atopia
- Budesonida y Propionato de fluticasona los más usados
- Dosis: según la clasificación inicial del asma o el grado de control. Repartido en dos dosis.

- Dosis baja: 100–200 mcg/día
- Dosis que no se ha asociado a efectos adversos clínicos

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al consensus on (ICON) pediatric asthma

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Sociedad Española de Inmunología Clínica, Alergolo y Asma Pediátrica

Sociedad Española de Farmacia Familiar y

Sociedad Española de Médicos de Atenció

GUÍA ESPAÑOLA PARA EL MANEJO DEL ASMA

 os¹, H. Arakawa², K.-H. Carlsen³, A. Custovic⁴, J. Gen⁵, R. Lemanske⁶, Aäkelä⁸, G. Roberts⁹, G. Wong¹⁰, H. Zar¹¹, C. A. Akdis¹², L. B. Bacharier¹³, van Bever¹⁵, J. de Blic¹⁶, A. Boner¹⁷, W. Burks¹⁸, T. B. Casale¹⁹ guez²⁰, Y. Z. Chen²¹, Y. M. El-Gamal²², M. L. Everard²³, T. Frischer²⁴, M. Geller²⁵, Goh²⁷, T. W. Guilbert²⁶, G. Hedlin²⁹, P. W. Heymann³⁰, S. J. Hong³¹, L. Huang³³, D. J. Jackson³⁴, J. C. de Jongste³⁵, O. Kalayci³⁶, N. Ait-Khaled³⁷, S. Kling³⁸, P. Kuna³⁶, S. Lau⁴⁰, D. K. Ledford⁴¹, S. I. Lee⁴², A. H. Liu⁵, R. F. Lockey⁴⁴, N. Resconvensers⁵⁶

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GLOBAL STRATEGY FOR

ТНМР

NITIATIN

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- Corticoides inhalados
- No demostrado su efectividad durante las recaídas. Evitar su uso. Zeiger RS. NEJM 2011
- Efectos secundarios (poco frecuentes):
 - Locales (disfonía o muguet). Revisar técnica.
 - Sistémicos:
 - Supresión eje hipotalámico- hipofisario-adrenal. CI altas dosis prolongado
 - Talla 1 cm menor en la edad adulta. CS dosis medias. Kelly HW. NEJM 2012

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 - Locales (disfonía
 - Sistémicos:
 - potalámico- hipofisario-adrenal. CI altas - Supre Jado
 - menor en la edad adulta. CS dosis medias. Kelly TM 2012

- Antileucotrienos
- Antagonista de los R de leucotrienos: Montelukast
- Menos eficaz que los CI en monoterapia.
- Asociado a CI, efecto antiinflamatorio complementario
- Efectos secundarios escasos: cefalea y molestias digestivas

- Antileucotrienos
- Utilidad:
 - Si no hay respuesta inicial a los CI
 - Dificultad en la administración de CI
 - Preescolares con Asma inducida por virus
 - Broncoespasmo inducido por ejercicio







- B2 de acción prolongada (LABA)
- Formoterol y Salmeterol
- Efecto broncodilatador de larga duración y efecto broncoprotector
- Fármacos ahorradores de corticoides
- Riesgo pequeño pero significativo de exacerbaciones y muerte en monoterapia.
- Administrar siempre combinado con CI

- B2 de acción prolongada (LABA)
- Uso en > de 5 años (preferible > 12 años_{GINA}
 2014). No estudios de eficacia y seguridad en niños pequeños.
- Salmeterol/fluticasona y formoterol/ budesonida en un mismo dispositivo.

- Otros tratamientos
- Cromonas y antihistamínicos. No demostrada su eficacia.
- Macrólidos: evidencia insuficiente para recomendar su uso
- Teofilina: asma grave no controlado. Asociado a otros fármacos. No recomendable en niños

- Otros tratamientos
- Corticoides orales: Uso en el asma grave no controlado. Mínima dosis eficaz. Retirada paulatina.
- Ac monoclonales anti-E: Omalizumab. Su unión a IgE reduce la cantidad de IgE libre disponible para desencadenar la reacción alérgica. Uso hospitalario. Asma grave no controlado.

- Objetivo del tratamiento del asma
- Plan terapeútico integral
- Escalones terapeúticos
- Estrategia de control del asma

• Objetivo del tratamiento del asma



- Mantener unos niveles de actividad normal
- Con la mínima mediación posible

de función pulmonar
Evitar los efectos adversos del tratamiento

- Plan terapeútico integral
 - 1. Educación del paciente y su familia
 - 2. Instauración de tratamiento controlador del asma
 - 3. Consultas periódicas de seguimiento y evaluación del control.
 - 4. Valoración del empleo de inmunoterapia

Plan terapeútico integral

1. Educación del paciente y su familia

- 2. In Parte importante en el manejo del asma
 - de Intercomunicación entre primaria y especializada
- 3. Cc Mejora el control de la enfermedad y mayor autonomía para el paciente e١
- 4. Vc
 Información sobre su enfermedad
 - Habilidades básicas para el manejo

- Plan terapeútico integral
 - Información básica sobre el asma
 - Información sobre los fármacos controladores y de rescate
 - Adiestramiento en el reconocimiento de los síntomas de agravamiento
 - Importancia de la adherencia al tratamiento prescrito
 - Enseñanza de la técnica de los dispositivos de inhalación
 - Medidas de evitación de desencadenantes alérgicos y factores ambientales que pueden empeorar el asma
 - <u>Plan de acción por escrito</u>: tratamiento habitual y acciones a realizar en caso de deterioro clínico.

- Plan terapeútico integral
 - 1. Educación del paciente y su familia
 - 2. Instauración de tratamiento controlador del asma, en función de la gravedad.
 - 3. Consultas periódicas de seguimiento y evaluación del control.
 - 4. Valoración del empleo de inmunoterapia

- 5. Manejo del asma basado en el control
- Plan terapeútico in sin ral
 - 1. Educación del por ente y
 - 2. Instauración de trainiento collador del asma

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- 3. Consultas periódicas de seguimiento y evaluación del control.
- 4. Valoración del empleo de inmunoterapia



- Plan terapeútico integral
 - 1. Educación del paciente
 - 2. Instauración de tratami

del asma

- Asma alérgica bien controlada
- Niveles bajos o medios de tratamiento <mark>de seguimiento y</mark>
- Alérgeno clínicamente relevante

4. Valoración del empleo de inmunoterapia

5. Manejo del asma basado en Allergy RUBOWEAN ADVISION OF ALLERGY el control POSITION PAPE • Escalones terapeutic Gereda D V Solar (1000) Pediatric asthma Gereda D V Solar (1000) Pediatric asthma N. G. Papadopoulos¹, H. Arakawa², K.-H. Carlsen³, A. Custovic⁴, J. Ger⁵, R. Lemanske⁶, P. Le Sourd⁷, M. Mäkelä⁸, G. Roberts², G. Wong¹⁰, H. Zar¹¹, C. A. Akdis¹², U.B. Bacharier C. Gereda D V Solar (1000) Pediatric asthma Gereda D V Solar (1000) Pediatric asthma International consensus on (ICON) pediatric asthma Gereda", D. Y. Bo²⁷, T. W. Gulbert²⁸, G. Hedlin²⁹, P. W. Heymann³⁰, S. J. Hong", E. M. Hossny³², J. L. Huang³³, D. J. Jackson³⁴, J. C. de Jongste³⁵, O. Kalayo²⁶, N. Ait-Khaled³⁷, S. Kling³⁸, P. Kuna³⁸, S. Lau⁴⁰, D. K. Ledford⁴¹, S. I. Lee⁵², A. H. Liu⁴³, R. F. Lockey⁴⁴, K. Lødrup-Carlsen⁴⁵, J. Lotvall⁴⁶, A. Morikawa⁴⁷, A. Nieto⁵⁸, H. Paramesh⁴⁹, R. Pawankar⁵⁰, P. Pohunek⁵¹, J. Pongracic⁵², D. Price⁵³, C. Robertson⁵⁴, N. Rossenvasser⁵⁶, P. D. Sly⁵⁷, R. Stein⁵⁶, S. Stick⁵⁹, S. Szefler⁶⁰, L. M. Taussig⁶¹, E. Valovirta⁶², P. Vichyanond⁶³, D. Wallace⁶⁴, E. Weinberg⁶⁶, G. Wennergren⁶⁶, J. Wildhaber⁶⁷ & R. S. Zeiger⁶⁸ del asma (ICON 2015) Department of Allergy, 2nd Pediatric Clinic, University of Athens, Athens, Greece; "Department of Pediatrics, Graduate School of Medicine, Gunma University, Gunma, Japan; ³Department of Pediatrics, Oslo University Hospital, Oslo, Norway; ⁴Respiratory Research Group, University Hospital of South Manchester NHS Foundation Trust, Manchester, UK: ⁵Department of Pediatrics, University of Wisconsin Medical School, Madison, WI, USA; "Division of Pediatric Allergy, Immunology, and Rheumatology, University of Wisconsin School of Medicine and Public Health, Madison, WL USA: 7School of Pediatrics and Child Health, University of Western Australia, Princess Margaret Hospital, Perth, WA, Australia; "Pediatric Unit, Helsinki University Central Hospital, Helsinki, Finland; "Academic Unit of Human Development and Health, Southampton University Hospital NHS Trust, Southampton, UK; 10 Department of Pediatrics, Chinese University of Hong Kong, Sha Tin, Hong Kong, SAR, China; 11 Department of Pediatrics and Child Health, Red Cross War Memorial Children's Hospital, University of Cape Town, Cape Town, South Africa; ¹²Swiss Institute of Allergy and Asthma Research (SIAF), Davos, Switzerland; ¹³Division Omalizumab + OCSStep 5 eliever (SABA) Step 3-4 4x ICS • 2-4x ICS + LABA • 2-4x ICS + LTRA • 2-4x ICS + Theophylline No precisa tratamiento controlador 2x ICS ICS + LABA ICS + LTRA Step 2 ICS + Theophylline SABA a demanda ICS LTRA Step 1 (Cromone, Theophylline) Ñ Escalón O Step 0 (no controller therapy Faculty of Medicine, Siriraj Hospital, Bangkok, Thailand; ⁶⁴Nova Southeastern University, Ft Lauderdale, FL, USA; ⁶⁵Allergy Unit, Red Cross Children's Hospital, University of Cape Town, Cape Town, South Africa; **Department of Pediatrica, University of Gothenburg, Gothenburg, Sweden; "Department of Respiratory Medicine, University Children's Hospital, Zurich, Switzerland; "Department of Allergy, Kaiser Permanente Southern California, San Diego, CA, USA

5. Manejo del asma basado en Allergy RUBOWEAN ADVISION OF ALLERGY el control POSITION PAPE

• Escalones terapeútic de la contra de la co del asma (ICON 2015)

Step 1

Step 0

CI a dosis bajas de elección

Escalón 1

ARLT si no hay respuesta inicial a CI, dificultad en la adminstración o asma inducida por virus.

 Geredari, D.Y., Boh²⁷, J. W. Gullbert²⁵, G. Hedlh²⁷, P. W. Heymann³⁵, S. J. Hong⁷,
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International consensus on (ICON) pediatric asthma

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5. Manejo del asma basado en el control Allergy RUBOWEAN ADVISION OF ALLERGY POSITION PAPE

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Escalón 5 + OCS Step 5 Step 3-4 4x ICS • 2-4x ICS + LABA • 2-4x ICS + LTRA • 2-4x ICS + Theophylline Corticoides orales a dosis bajas 2x ICS • ICS + LABA ICS + LTRA Step 2 ICS + Theophylline Omalizumab - > 6 años **TCS** LTRA n1 (Cromone, Theophylline) - Asma alérgica

OLED U

(no controller therapy

Faculty of Medicine, Siriraj Hospital, Bangkok, Thailand; ⁶⁴Nova Southeastern University, Ft Lauderdale, FL, USA; ⁶⁵Allergy Unit, Red Cross Children's Hospital, University of Cape Town, Cape Town, South Africa; **Department of Pediatrica, University of Gothenburg, Gothenburg, Sweden; "Department of Respiratory Medicine, University Children's Hospital, Zurich, Switzerland; "Department of Allergy, Kaiser Permanente Southern California, San Diego, CA, USA

eliever (SABA)

Ñ

Omalizumab

• Estrategias de control del asma



Control no alcanzado en 1-3 meses

Omalizumab + OCS Step 5 BA Step 3–4 4x ICS • 2-4x ICS ABA • 2-4x ICS + LT 2-4x ICS + Theophylline SA IC₉ ICS + L 2x ICS ABA Step 2 θL ICS + Theophylline eliev **TCS** LTRA Step 1 romone, Theophylline) (no controller the Step 0

 Subir de escalón
 Opción alternativa dentro del mismo

International consensus on (ICON) pediatric asthma

Pediatrics, Unit of Allergy and Respiratory Medicine, University of Padova, stitute, National University Hospital, National University Health System, ublique des Höpitaux de Paris, Service de Pneumologie et Allergologie ty of Verona, Verona, Italy; ¹⁹Division of Allergy and Immunology, im, NC, USA; 19 Division of Allergy and Immunology, Department of edicine, Pontificia Universidad Catolica de Chile, Santiago, Chile; 21 Capital unology Unit, Ain Shams University, Cairo, Egypt; 23Department of k, Sheffield, UK; 24 University Children's Hospital Vienna, Vienna, Austria Department of Allergy and Immunology, Clinica Ricardo Palma, Lima, Peru; core, Singapore; ²⁸School of Medicine and Public Health, University of pital, Karolinska University Hospital, Stockholm, Sweden; ³⁰Asthma and /A, USA; ³¹Department of Pediatrics, Childhood Asthma Atopy Center, Asan Korea; ³²Pediatric Allergy and Immunology Unit, Children's Hospital, Ain d Rheumatology, Department of Pediatrics, Chang Gung Children's Hospital nsin School of Medicine and Public Health, Madison, WI, USA; Sophia Children's Hospital, Rotterdam, The Netherlands; ³⁶Pediatric Allergy e University School of Medicine, Ankara, Turkey; 37 International Union Igiers, Algeria; ³⁸Department of Paediatrics & Child Health, Tygerberg Africa; ³⁰Second Department of Medicine, Barlicki University Hospital, ric Pneumology and Immunology, Charité Medical University Berlin, Berlin, Florida, Tampa, FL, USA; 42 Department of Pediatrics, Environmental Health nkwan University, Seoul, Korea; 43National Jewish Health and University of ion of Allergy/Immunology, University of South Florida, Tampa, FL, USA; University Hospital, Oslo, Norwsy: 40Krefting Research Centre, University of), Gunma University, Maebashi, Gunma, Japan; 48 Pediatric Allergy Unit, enter and Hospital, Bangalore, India; ⁵⁰Division of Allergy & Immunology, ⁵¹Department of Pediatrics, University Hospital Motol, Charles University. ildren's Memorial Hospital, Chicago, IL, USA; ⁵³Primary Care Respiratory Children's Hospital Melbourne, Melbourne, Vic., Australia; 55 Division of ildren's Mercy Hospital, Kansas City, MO, USA; ⁶⁷Queensland Children's ane, Old, Australia; 58 Pediatric Pulmonary Service, Hospital São Lucas, artment of Respiratory Medicine, Princess Margaret Hospital for Children ish Health, Denver, CO, USA; ⁶¹Office of the Provost, University of Denver, J of Turku, Turku, Finland; 63 International Affairs and Centers for Excellence,

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rtment of Allergy, 🖵 Pedia

a University, Gunma, Japan; rsity Hospital of South Mand Medical School, Madison, WI, USA Medicine and Public Health, Madis

Hospital, Perth, WA, Australia; *P Development and Health, Souther Hong Kong, Sha Tin, Hong Kong, S University of Cape Town, Cape To



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5. Manejo del asma basado en Allergy RUDOWEAN ADVENTIAL OF ALLEROY el control

Estrategias de contre d

Control no alcanzado en 1-3 meses



POSITION PAPE

International consensus on (ICON) pediatric asthma

 M. Burks¹⁸, T. B. Casale¹⁹,
 M. L. Everard²³, T. Frischer²⁴, M. Geller²⁵,
 W. Heymann³⁰, S. J. Hong³¹,
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 S. Kling³⁸, P. Kuna³⁶, S. Lau⁴⁰, D. K. Ledford⁴¹, S. I. Lee⁴², A. H. Liu⁴³, R. F. Lockey⁴⁴,
 K. Lodrup-Carlsen⁴⁵, J. Lötvall⁴⁷, A. Morikawa⁴⁷, A. Nieto⁴⁶, H. Paramesh⁴⁷, R. Pawankar⁵⁰,
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Omalizumab

Pediatrics, Unit of Allergy and Respiratory Medicine, University of Padova, stitute, National University Hospital, National University Health System,

- Iniciar tto de control si no llevaba
- Aumentar la dosis de CI 4 sem y volver a la dosis previa
- Aumentar CI y dejar mínimo 3 m, si el asma no controlada

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Guni Univ Med Hosp

Dev

Estrategias de contration de co

Buen control durante 3 meses, valorar reducir tratamiento



- 50% cada 2-3 meses

International consensus on (ICON) pediatric asthma

- Mínima dosis de CI para un buen control
- Suspender si libre de síntomas
 6–12 m
- Elección del momento apropiado

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eliev

Minos, "Second Department of Medionie, Bankot University Hospital, artic Pneumology and Immunology, Charth Medioai University Bartin, Flerinka, Tampa, FL, USA; "Department of Pediatrics, Environmental Health nkwan University, Seoul, Kores; "National Jewish Health and University of ion of Allergylammunology, University of South Florida, Tampa, FL, USA; University Hospital, Osio, Norvey; "Skrefing Research Center, University of 6, Ganna University, Macashi, Gurma, Japan; "Brodiatric Allergy Unit, Jenter and Hospital, Bengalore, India; "Division of Allergy & Immunology, c "Department of Pediatrics, University Hospital Motol, Charles University, Identra's Memorial Hospital, Chicago, IL, USA; "Drimary Care Respiratory I Children's Morey Hospital, Xansas City, MO, USA; "Duenatand Children's anen, Old, Australis, "Brediatric Pulmonary Service, Hospital Sko Lucas, sertment of Respiratory, Medice, Princess Margaret Hospital for Children's anten, Old, Australis, "Brediatrice, Princess Margaret Hospital for Children's anten, Old, Australis, "Brediatrice, Princess Margaret Hospital for Children, ish Health, Darver, CO, USA; "Oliversity Hospital for Children, ish Health, Darver, CO, USA; "Oliversity and Darver, y of Turka, University, Tohometariand Alfress and Centers for Excellence, Anter Stransford Patters Stransford, MD, USA; "Dueses for Excellence, and Turka, University, Tohometariand Alfress and Centers for Excellence, Marka Stransford, Marka Stransford, MD, USA; "Dueses for Excellence, Marka Stransford, Marka Stransford, MD, USA;" Children for Stransford, Marka Stransford, Marka Marka Marka Marka Marka Marka Marka and Marka and Marka and Marka Marka

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• Estrategias de control del asma

Valoración de la gravedad del asma en función del tratamiento que precise para su control (GINA 2014)



- Episodios de asma/sibilantes recurrentes son frecuentes en el preescolar
- Desencadenados por infecciones respiratorias
- Pronóstico a medio-largo plazo incierto
- No buenos factores predictivos para determinar sibilancias transitorias o persistentes



 GINA 2014. Propone un patrón de síntomas durante las infecciones víricas en < 5 años, que hace más probable el desarrollo de sibilancias persistentes

> LOBAL STRATEGY FOR ANAGEMENT AND PREVENTION

> > © 2014 Global Initiative for Asthma



• GINA 2014



100% •••• Proporción de niños con sibilancias inducidas por virus que 100% encajan en estos patrones de síntomas Proporción de niños con sibilancias inducidas por virus en los que es probable que se diagnostique asma o que respondan a un tratamiento de control regular, según el patrón de síntomas PATRÓN DE SÍNTOMAS (puede cambiar a lo largo del tiempo) Síntomas (tos, Síntomas (tos, Síntomas (tos, sibilancias, sibilancias, respiración sibilancias, respiración respiración pesada) de pesada) de <10 días pesada) de >10 días >10 días durante durante infecciones de durante infecciones de infecciones de vías vías respiratorias altas vías respiratorias altas respiratorias altas 2-3 episodios al año >3 episodios al año, o >3 episodios al año, o episodios graves y/o episodios graves y/o empeoramiento nocturno empeoramiento nocturno • Entre los episodios, Entre los episodios, el Sin síntomas entre el niño puede tener de niño tiene tos, sibilancias los episodios manera ocasional tos, o respiración pesada sibilancias o respiración durante el juego o al reír pesada Atopia o antecedentes familiares de asma

• GINA 2014



100% •••• Proporción de niños con sibilancias inducidas por virus que 100% encajan en estos patrones de síntomas Proporción de niños con sibilancias inducidas por virus en los que es probable que se diagnostique asma o que respondan a un tratamiento de control regular, según el patrón de síntomas Crisis prolongadas IAS tiempo) o graves Síntomas (tos, Síntomas (tos. Síntomas (tos, sibilancias, sibila respiración pesada) de pesa >3 episodios al año >10 días durante dura infecciones de vías vías respiratorias altas respiratorias altas vías respiratorias altas 2-3 e >3 episodios al año, o Intercrisis con episodios graves y/o empeoramiento nocturno síntomas urno ntre los episodios. el Sin s ño tiene tos, sibilancias los espiración pesada AF 1º de ASMA ión ante el iuego o al reí d pesada Ato a o antecedente **ATOPIA** famineres de asma

- ERS 2014. 2 Fenotipos
 - Asma inducido por virus
 - Asma inducido por desencadenantes múltiple.^{Correspondence: P.L.P. Brand, Princess Amalia Children's Centre, Isala Hospital, PO Box 10400, 8000 GK}

Classification and pharmacological treatment of preschool wheezing: changes since 2008

Cui L. I. Bend'i, Don André Eanst Eber⁴, Erol A. Gaillard⁵, Luis Galei Munder, Guilla H. Sin', John Henderson⁶, Claudia E. Kuehni⁹, etc. J.F.H. Merkus, 550m Proceiden¹¹, Arunas Valiulis¹², Göran Wennergren¹³

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significant new evidence has become available on the classification and management of preschool wheezing disorders. In this report, an international consensus group reviews this new evidence and proposes some modifications to the recommendations made in 2008. Specifically, the consensus group acknowledges that wheeze patterns in young children vary over time and with treatment, rendering the distinction between episodic viral wheeze and multiple-trigger wheeze unclear in many patients. Inhaled corticosteroids remain first-line treatment for multiple-trigger wheeze, but may also be considered in patients with episodic viral wheeze with frequent or severe episodes, or when the clinician suspects that interval symptoms are being under reported. Any controller therapy should be viewed as a treatment trial, with scheduled close followup to monitor treatment effect. The group recommends discontinuing treatment if there is no benefit and taking favourable natural history into account when making decisions about long-term therapy. Oral corticosteroids are not indicated in mild-to-moderate acute wheeze episodes and should be reserved for severe exacerbations in hospitalised patients. Future research should focus on better clinical and genetic markers, as well as biomarkers, of disease severity.



• ERS 2014. 2 Fenotipos

– Asma inducido por virus

- Crisis en contexto de IRS
- Intercrisis asintomática
- Pedominio de inflamación neutrofílica
- Respuesta a Montelukast

Classification and pharmacological treatment of preschool wheezing: changes since 2008

Ful L. I. Bend'i, D. a Codrig East Eber⁴, Erol A. Gaillard⁵, Luis Ga ci - Murubst. Guilla Hellin⁷, John Henderson⁸, Claudia E. Kuehni⁹, etc. J.F. M. Nerkus, Scient PererSen¹¹, Arunas Valiulis¹², Göran Wennergren¹³ and Aprice Purch¹⁴.

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sear Grom, Dept of intection, infinding and Land Community Medicine. University of Bristol, London, UK. "Dept of Pediatrics, Division of hildren's Hospital, University of Murcia, Murcia, t for Allergy Research, Karolinska Institutet, Queen Silva Children's Hospital, Gothenburg, ity of Bern, Bern, Switzerland. "University of Kolding, Demark. "Winnib University Clinic of

entre, Isala Hospital, PO Box 10400, 8000 GK

iratory Society Task Force report in 2008, ation and management of preschool wheezing eviews this new evidence and proposes some ically, the consensus group acknowledges that treatment, rendering the distinction between many patients. Inhaled corticosteroids remain be considered in patients with episodic viral n suspects that interval symptoms are being a treatment trial, with scheduled close followontinuing treatment if there is no benefit and ng decisions about long-term therapy. Oral

corticosteroids are not indicated in mild-to-moderate acute wheeze episodes and should be reserved for severe exacerbations in hospitalised patients. Future research should focus on better clinical and genetic markers, as well as biomarkers, of disease severity.



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• ERS 2014. 2 Fenotipos

– Asma inducido por virus

- Crisis en contexto de IRS
- Intercirisis asintomáticas
- Pedominio de inflamación neutrofílica
- Respuesta a Montelukast
- Asma inducido por

desencadenantes múltiplestin http://www.skyzf

- Crisis en con IRS
- Síntomas con la risa, llanto, ejercicio...
- Mejor respuesta a los CI
- Mayor probabilidad de persistencia

Classification and pharmacological treatment of preschool wheezing: changes since 2008

> Prod'a, Dro Codic Eanst Eber⁴, Erol A. Gaillard⁵, i - Mindpa Guilla hStin?, John Henderson®, Claudia E. Kuehni², M. Nerkus - SSan Asergen'i, Arunas Valiulis¹2, Göran Wennergren¹3 avg. Bush¹4

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controsteroids are not indicated in mild-to-moderate acute wheeze episodes and should be reserved for severe exacerbations in hospitalised patients. Future research should focus on better clinical and genetic markers, as well as biomarkers, of disease severity.



- Tratamiento:
 - Respuesta variable
 - No modifica la evolución internation la evolución de la enfermedad

Classification and pl treatment of presch changes since 2008

Paul L.P. Brand^{1,2}, Daan Caudri³, Eri uis Garcia-Marcos⁶. Gunilla Hedlin¹ Merkus¹⁰, Soren Peders

- Elección: Corticoides inhigher of the second available on the classification and management of preschool wheeling of the indication of the second available on the classification and management of preschool wheeling of the indication of the second available on the classification and management of preschool wheeling of the indication of the second available on the classification and management of preschool wheeling of the indication of the second available on the classification and management of preschool wheeling of the indication of the second available on the classification and management of preschool wheeling of the indication of the second available on the classification and management of preschool wheeling of the indication of the second available on the classification and management of preschool wheeling of the indication of the second available on the classification and management of preschool wheeling of the indication of the second available on the classification and management of preschool wheeling of the indication of the second available on the classification and management of preschool wheeling of the indication of the second available on the classification and management of preschool wheeling of the indication of the second available on the classification and management of preschool wheeling of the indication of the second available on the classification and management of preschool wheeling of the indication of the second available on the classification and management of preschool wheeling of the indication of the second available on the classification of the second available on the second available on the classification of the second available on the classification of the second available on the classification of the second Asma inducida por virus CI y montelukast al mismorial midde net in midde of the future of the fu
- Descartar otras enfermedades ante falta de respuesta al tratamiento
- Valorar retirada a los 2-3 meses. Evolución favorable en este grupo de edad

 Preferible Broncoespasmo inducido por ejercicio (no es causa de asma, si no desencadenante)



- Se inicia a partir de los 6-8 min, con máxima intensidad a los 10 min y normalización en 1 hora
- Síntoma:
 - Indicativo de asma no controlado
 - Único equivalente de asma
 - Expresión de otras patologías:
 - Baja forma física
 - Alteraciones de vías aéreas superiores (disfunción de cuerdas vocales)
 - Enfermedades del parénquima pulmonar
 - Alteraciones cardiacas o vasculares

- Recomendaciones:
 - Favorecer el deporte de manera regular
 - Deportes que alternan periodos de ejercicio con descanso se toleran mejor (raqueta, lucha, gimnasia, golf, voleibol, béisbol, natación...)
 - Preferible un deporte que le guste
 - Ejercicios de calentamiento y estiramiento previos
 - Recintos cubiertos
 - Evitar climatología adversa (frío, viento, lluvia..)
 - Llevar siempre medicación de rescate



- Si tolera casi siempre bien el ejercicio:
 SABA cuando presente síntomas
- Si presenta síntomas habitualmente:
 SABA 15 min antes del ejercicio
- Si precisa SABA con frecuencia o Asma no controlado
 - Iniciar tto control con CI o Montelukast (si BIE como único síntoma)
 - Subir un escalón en el control del asma



DOS INHALACIONES EN LA MAÑANA, DOS POR LA NOCHE Y SANTO REMEDIO

