Dirigido a: Pediatras, Médicos de Familia, Residentes de Pediatría y M. Familia y Profesionales Sanitarios interesados.

Sede: Aula Dr. Andreu Urra del RICOMS.

Día y hora: Jueves (salvo inauguración miércoles). 20,30-22,30h

Inscripciones: Gratuitas, on- line a través del Departamento de Docencia y Formación Continuada: docencia@comsevilla.es

Aval Científico de la Sociedad de Pediatría de Andalucía Occidental y Extremadura (SPAOYEX)

Aval Científico de la Sociedad Española de Pediatría Extrahospitalaria y Atención Primaria (SEPEAP)

Aval científico de la Asociación Andaluza de Pediatras de Atención Primaria (AAPAP)

Se solicitará Acreditación a la Agencia de Calidad Sanitaria de Andalucía, como Actividades Formativas (Sesiones de actualización) independientes.

II CURSO DE FORMACIÓN CONTINUADA EN PEDIATRÍA DR. JOSÉ DEL POZO MACHUCA

Organizan:

Real e Ilustre Colegio Oficial de Médicos de Sevilla (RICOMS)
Sociedad Española de Pediatría Extrahospitalaria y Atención Primaria (SEPEAP)
Sociedad de Pediatría de Andalucía Occidental y Extremadura (SPAOYEX)
Asociación de Pediatras de Atención Primaria de Andalucía (AAPAP)
Instituto Hispalense de Pediatría (IHP)

Coordinan:

Carmen Blanco Negredo. Pediatra
Vocal de Atención Primaria RICOMS
Dr. Alfonso Carmona Martínez. Pediatra
Vicepresidente 1º RICOMS

CURSO DE FORMACIÓN CONTINUADA EN PEDIATRÍA DR. JOSÉ DEL POZO MACHUCA

SESIÓN DE ACTUALIZACIÓN : "NUEVAS EVIDENCIAS EN ORL PEDIÁTRICA"

Ponente: Dr. Hugo Galera Ruíz
ORL. Profesor Titular de Otorrinolaringología. H.U. V. Macarena. Universidad de Sevilla.

Moderador: Dr. Cristobal Coronel Rodríguez
Pediatra A.P. Distrito Sanitario Sevilla. Secretario Nacional SEPEAP.

Solicitada Acreditación a la ACSA

Jueves, 14 de diciembre de 2017
20.30 horas.
Aula Dr. Andreu Urra

R.I.C.O.M.S.
Avda. de la Borbolla, nº47
41013—Sevilla

NUEVAS EVIDENCIAS EN ORL

Dr. Hugo Galera Ruiz

INTRODUCCIÓN

Medicina basada en la evidencia

- A. Cochrane (1972), D. Sacket (1992)

- **Cambio de paradigma**

- Medicaciones, tecnología, conocimiento,…

- Metaanalisis, revisiones sistemáticas y ensayos clínicos controlados

- Herramienta: **guía de práctica clínica**

RECOMENDACIONES

Table 2. Guideline Definitions for Evidence-Based Statements

Statement	Definition
Strong recommendation	A strong recommendation means the benefits of the recommended approach clearly exceed the harms (or that the harms clearly exceed the benefits in the case of a strong negative recommendation) and that the quality of the supporting evidence is excellent (Grade A or B).[a] In some clearly identified circumstances, strong recommendations may be made based on lesser evidence when high-quality evidence is impossible to obtain and the anticipated benefits strongly outweigh the harms.
Recommendation	A recommendation means the benefits exceed the harms (or that the harms exceed the benefits in the case of a negative recommendation), but the quality of evidence is not as strong (Grade B or C).[a] In some clearly identified circumstances, recommendations may be made based on lesser evidence when high-quality evidence is impossible to obtain and the anticipated benefits outweigh the harms.
Option	An option means that either the quality of evidence that exists is suspect (Grade D)[a] or that well-done studies (Grade A, B, or C)[a] show little clear advantage to one approach versus another.
No recommendation	No recommendation means there is both a lack of pertinent evidence (Grade D)[a] and an unclear balance between benefits and harms.

[a]See Table 3 for definition of evidence grades.

Evidence Quality	Preponderance of Benefit or Harm	Balance of Benefit and Harm
A. Well designed RCTs or diagnostic studies on relevant population	Strong Recommendation	Option
B. RCTs or diagnostic studies with minor limitations; overwhelmingly consistent evidence from observational studies	Recommendation	
C. Observational studies (case-control and cohort design)		
D. Expert opinion, case reports, reasoning from first principles	Option	No Rec
X. Exceptional situations in which validating studies cannot be performed and there is a clear preponderance of benefit or harm	Strong Recommendation / Recommendation	

INTRODUCCIÓN

International Journal of Pediatric Otorhinolaryngology 88 (2016) 54–62

Contents lists available at ScienceDirect

International Journal of Pediatric Otorhinolaryngology

journal homepage: http://www.ijporlonline.com/

Case Report

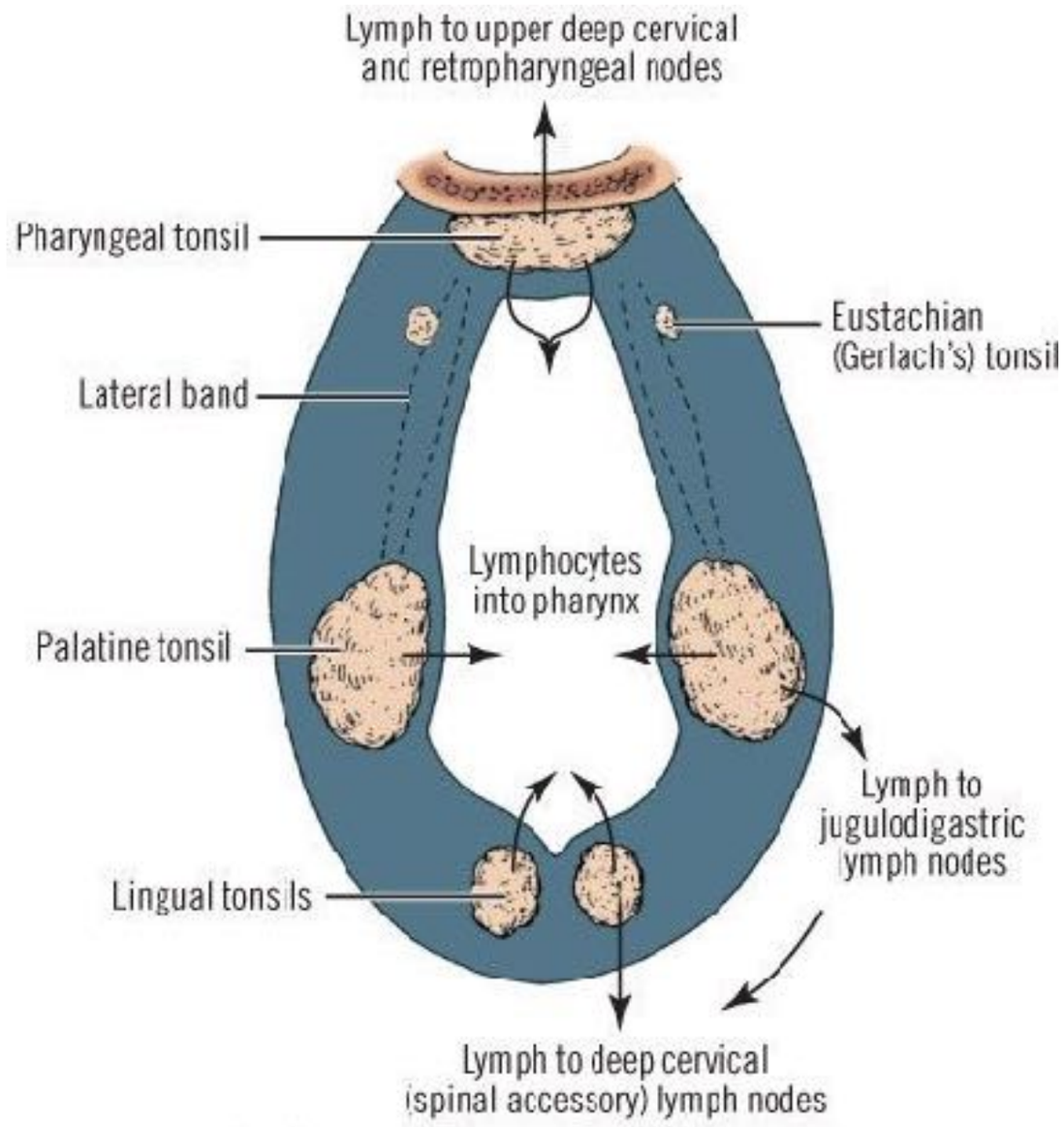
Nasopharyngeal radium irradiation: The lessons of history

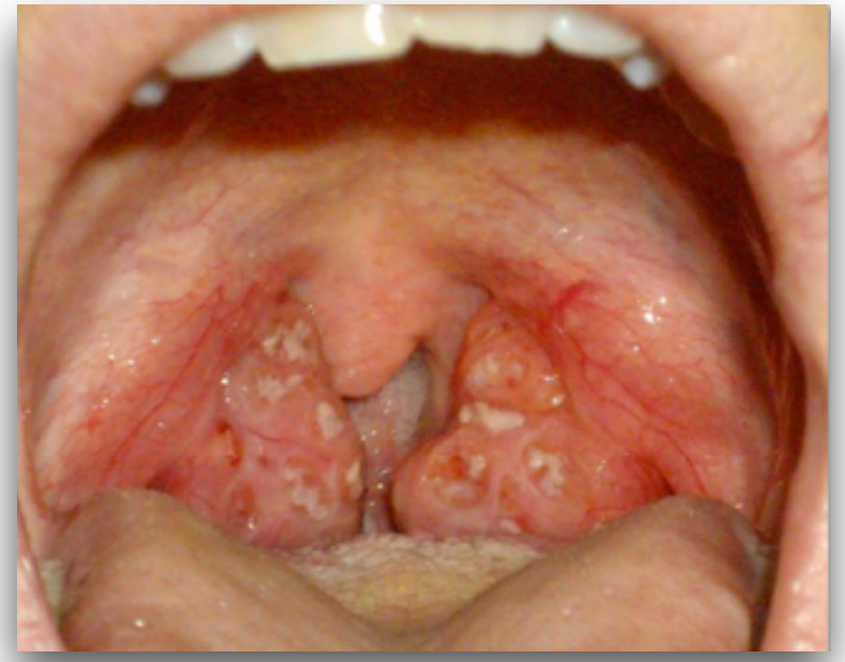
Kees Graamans

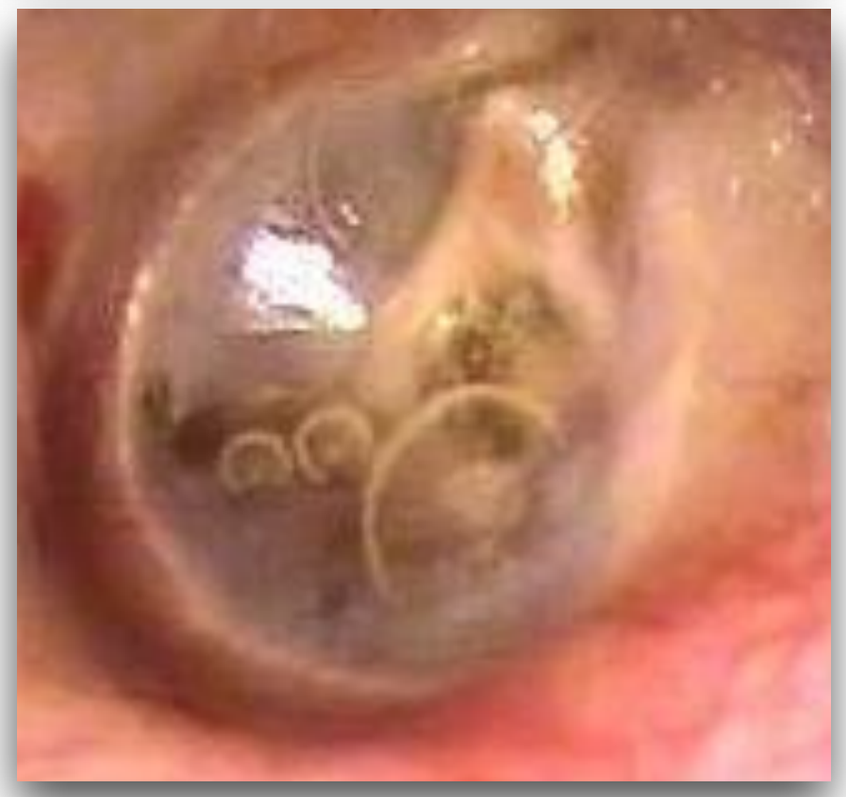
Otorhinolaryngology, Head and Neck Surgery, Dominicuslaan 7, 6523 LT Nijmegen, The Netherlands

- Irradiaciones con radio del cavum (S. Crowe 1926)
- 1945-1981: 24.000 niños con patología adenoides
- 1958: comunicación inducción de neoplasias malignas

ANILLO DE WALDEYER





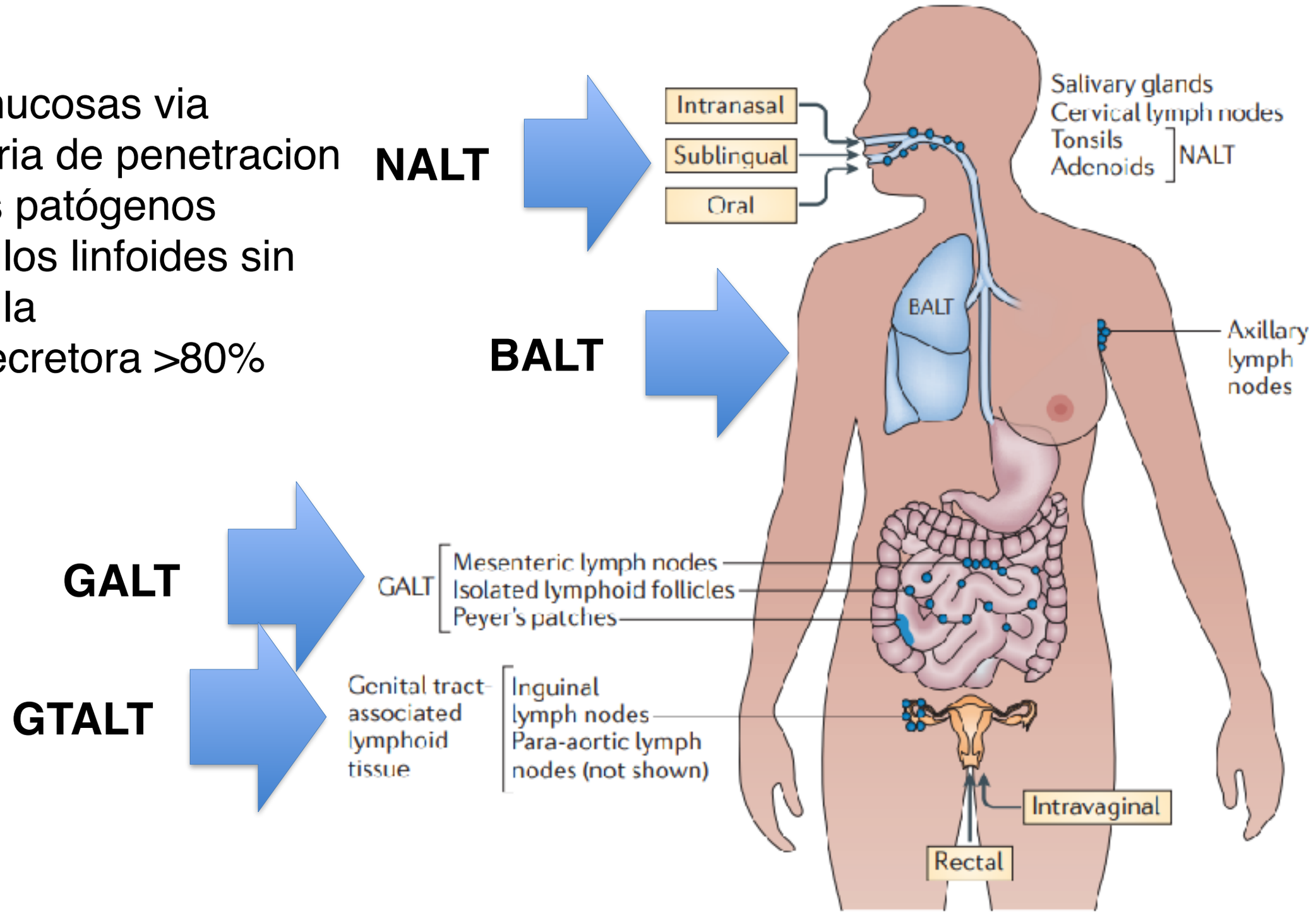


- Identificación de antígenos
- Síntesis de inmunoglobulinas
- Involución a partir de los 7 años

MUCOSA ASSOCIATED LYMPHOID TISSUE (MALT)

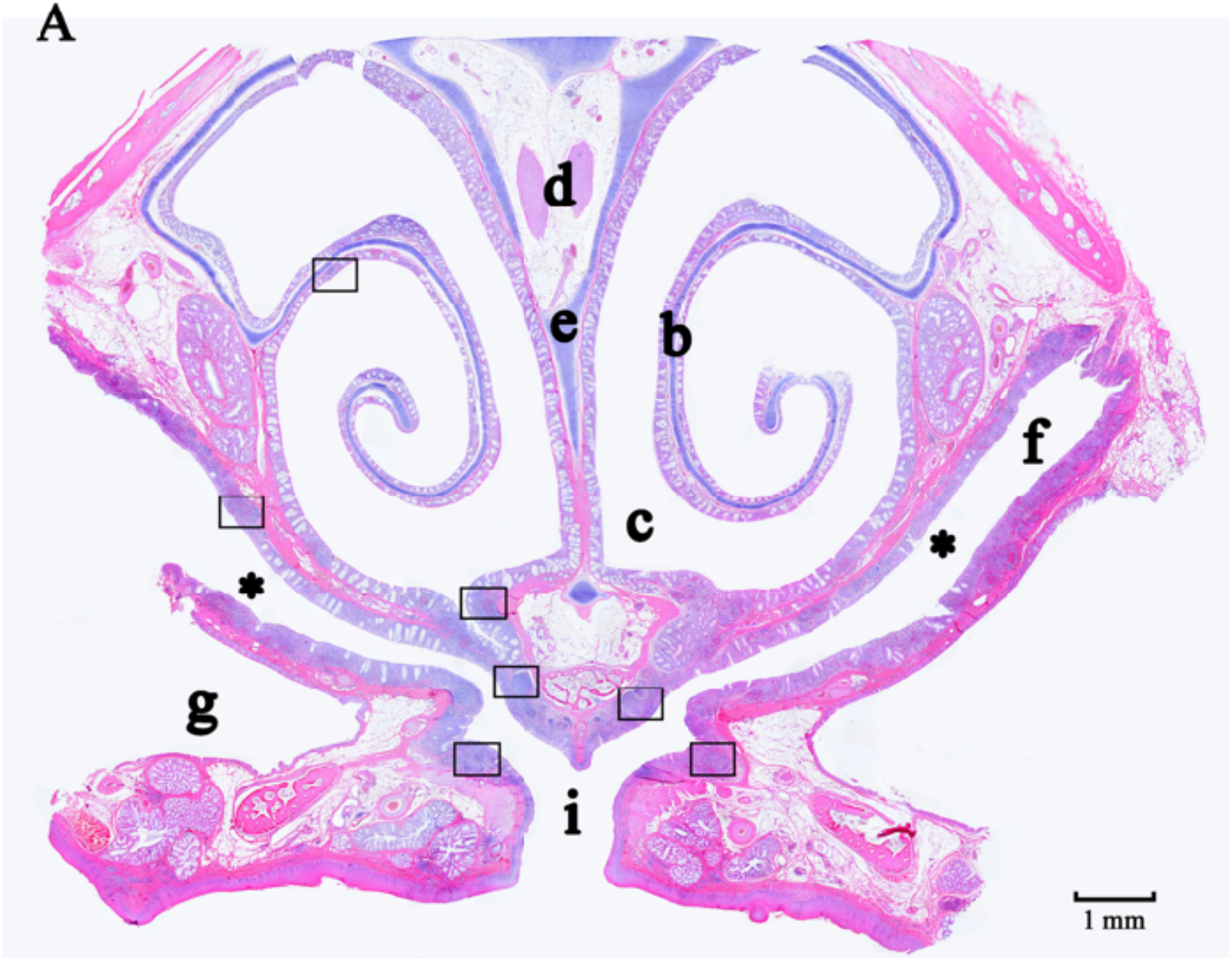
Mucosas: 400 M²

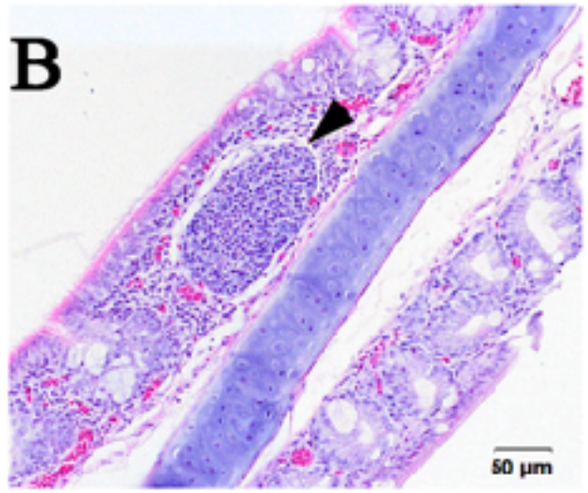
- Las mucosas via primaria de penetracion de los patógenos
- Foliculos linfoides sin capsula
- IgA secretora >80%

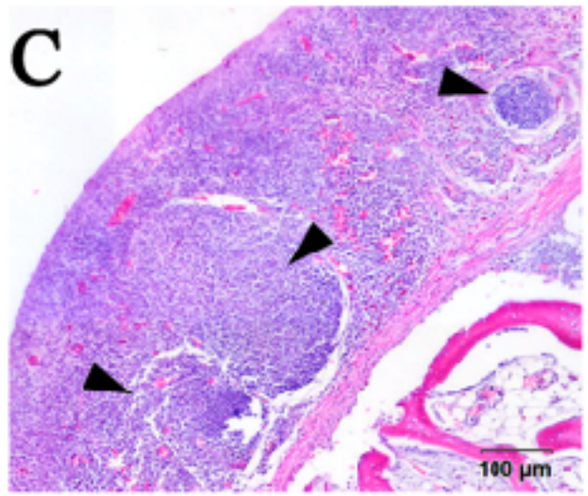


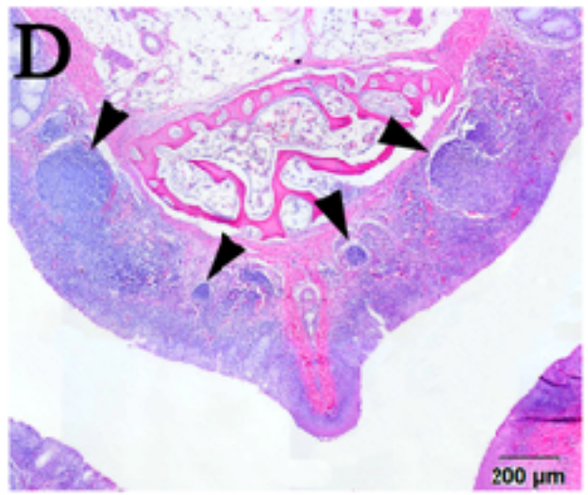
Lycke *Nat Rev Immunol. 2012*

NALT





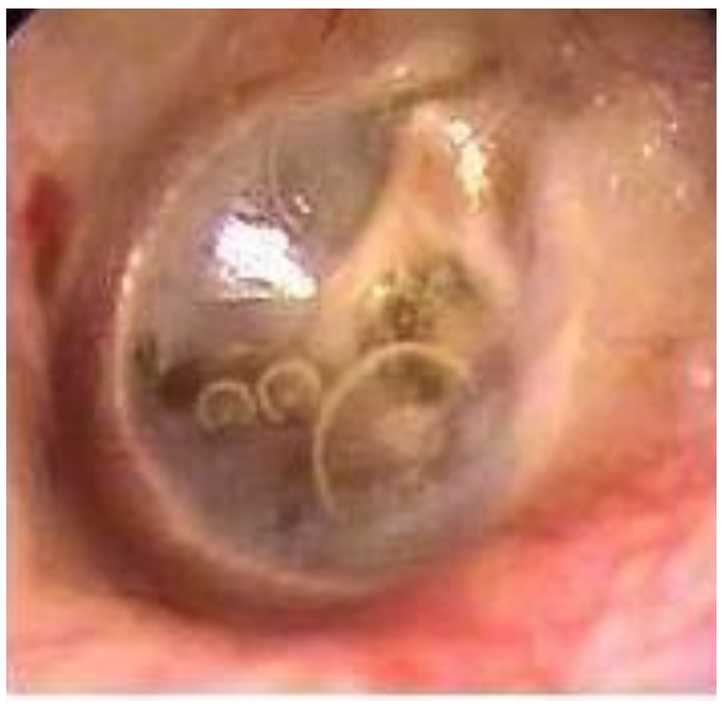




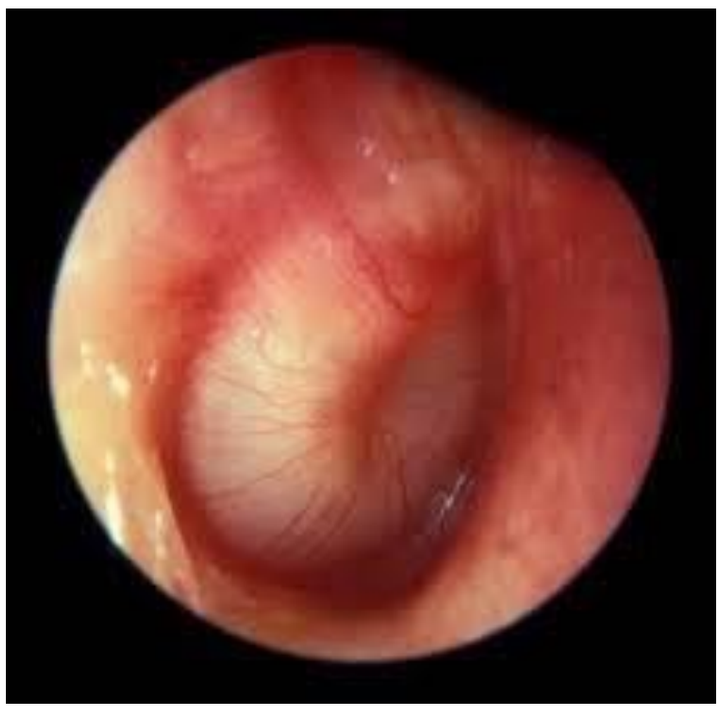
OTITIS MEDIA (OM)

Se sabe...

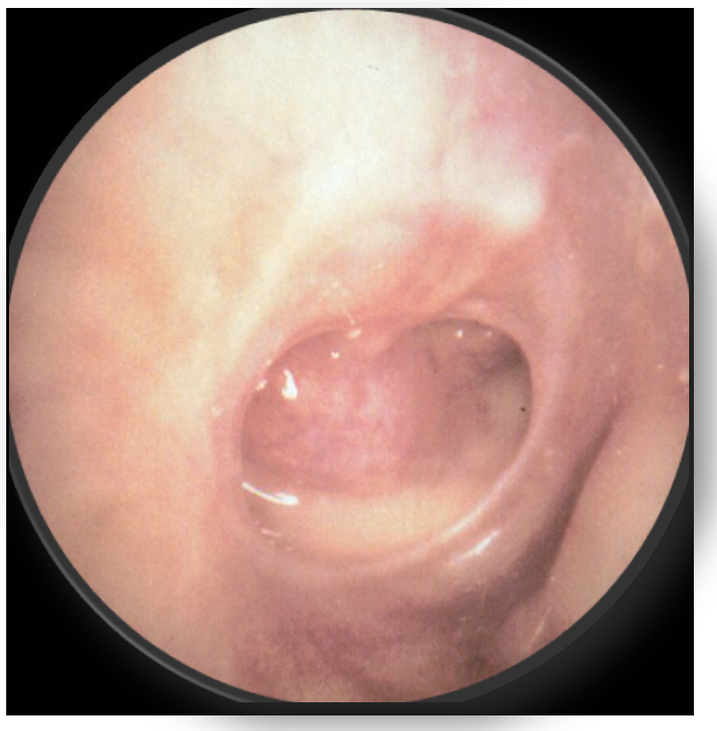
- Es la principal causa de visitas al sistema sanitario, prescripciones antibióticas y de indicación quirúrgica
- Sus complicaciones y secuelas son importantes causas de perdida auditiva prevenible



OM secretora



OM aguda



OMC supurada

OM SECRETORA (OMS)

AMERICAN ACADEMY OF OTOLARYNGOLOGY–HEAD AND NECK SURGERY FOUNDATION

Executive Summary

Otolaryngology–Head and Neck Surgery
2016, Vol. 154(2) 201–214

DOI: 10.1177/0194599815624407
http://otojournal.org
SAGE

Clinical Practice Guideline: Otitis Media with Effusion Executive Summary (Update)

Richard M. Rosenfeld, MD, MPH[1], Jennifer J. Shin, MD, SM[2], Seth R. Schwartz, MD, MPH[3], Robyn Coggins, MFA[4], Lisa Gagnon, MSN, CPNP[5], Jesse M. Hackell, MD[6], David Hoelting, MD[7], Lisa L. Hunter, PhD[8], Ann W. Kummer, PhD, CCC-SLP[8], Spencer C. Payne, MD[9], Dennis S. Poe, MD, PhD[10], Maria Veling, MD[11], Peter M. Vila, MD, MSPH[12], Sandra A. Walsh[13], and Maureen D. Corrigan[14]

- **Revisa la GPC de 2004**
- **4GPCs, 4RSs, 49 ECCs**

OMS

Table 3. Summary of Guideline Key Action Statements.

Statement	Action	Strength
1a. Pneumatic otoscopy	The clinician should document the presence of middle ear effusion with pneumatic otoscopy when diagnosing OME in a child.	Strong recommendation
1b. Pneumatic otoscopy	The clinician should perform pneumatic otoscopy to assess for OME in a child with otalgia, hearing loss, or both.	Strong recommendation
2. Tympanometry	Clinicians should obtain tympanometry in children with suspected OME for whom the diagnosis is uncertain after performing (or attempting) pneumatic otoscopy.	Strong recommendation
3. Failed newborn hearing screen	Clinicians should document in the medical record counseling of parents of infants with OME who fail a newborn hearing screen regarding the importance of follow-up to ensure that hearing is normal when OME resolves and to exclude an underlying sensorineural hearing loss.	Recommendation
4a. Identifying at-risk children	Clinicians should determine if a child with OME is at increased risk for speech, language, or learning problems from middle ear effusion because of baseline sensory, physical, cognitive, or behavioral factors (**Table 2**).	Recommendation
4b. Evaluating at-risk children	Clinicians should evaluate at-risk children (**Table 2**) for OME at the time of diagnosis of an at-risk condition and at 12 to 18 mo of age (if diagnosed as being at risk prior to this time).	Recommendation
5. Screening healthy children	Clinicians should *not* routinely screen children for OME who are not at risk (**Table 2**) and do not have symptoms that may be attributable to OME, such as hearing difficulties, balance (vestibular) problems, poor school performance, behavioral problems, or ear discomfort.	Recommendation (against)
6. Patient education	Clinicians should educate families of children with OME regarding the natural history of OME, need for follow-up, and the possible sequelae.	Recommendation
7. Watchful waiting	Clinicians should manage the child with OME who is not at risk with watchful waiting for 3 mo from the date of effusion onset (if known) or 3 mo from the date of diagnosis (if onset is unknown).	Strong recommendation
8a. Steroids	Clinicians should recommend against using intranasal steroids or systemic steroids for treating OME.	Strong recommendation (against)
8b. Antibiotics	Clinicians should recommend against using systemic antibiotics for treating OME.	Strong recommendation (against)
8c. Antihistamines or decongestants	Clinicians should recommend against using antihistamines, decongestants, or both for treating OME.	Strong recommendation (against)
9. Hearing test	Clinicians should obtain an age-appropriate hearing test if OME persists for ≥3 mo *OR* for OME of any duration in an at-risk child.	Recommendation
10. Speech and language	Clinicians should counsel families of children with bilateral OME and documented hearing loss about the potential impact on speech and language development.	Recommendation
11. Surveillance of chronic OME	Clinicians should reevaluate, at 3- to 6-mo intervals, children with chronic OME until the effusion is no longer present, significant hearing loss is identified, or structural abnormalities of the eardrum or middle ear are suspected.	Recommendation
12a. Surgery for children <4 y old	Clinicians should recommend tympanostomy tubes when surgery is performed for OME in a *child less than 4 years old*; adenoidectomy should not be performed unless a distinct indication (eg, nasal obstruction, chronic adenoiditis) exists other than OME.	Recommendation
12b. Surgery for children ≥4 y old	Clinicians should recommend tympanostomy tubes, adenoidectomy, or both when surgery is performed for OME in a *child 4 years old or older.*	Recommendation
13. Outcome assessment	When managing a child with OME, clinicians should document in the medical record resolution of OME, improved hearing, or improved quality of life.	Recommendation

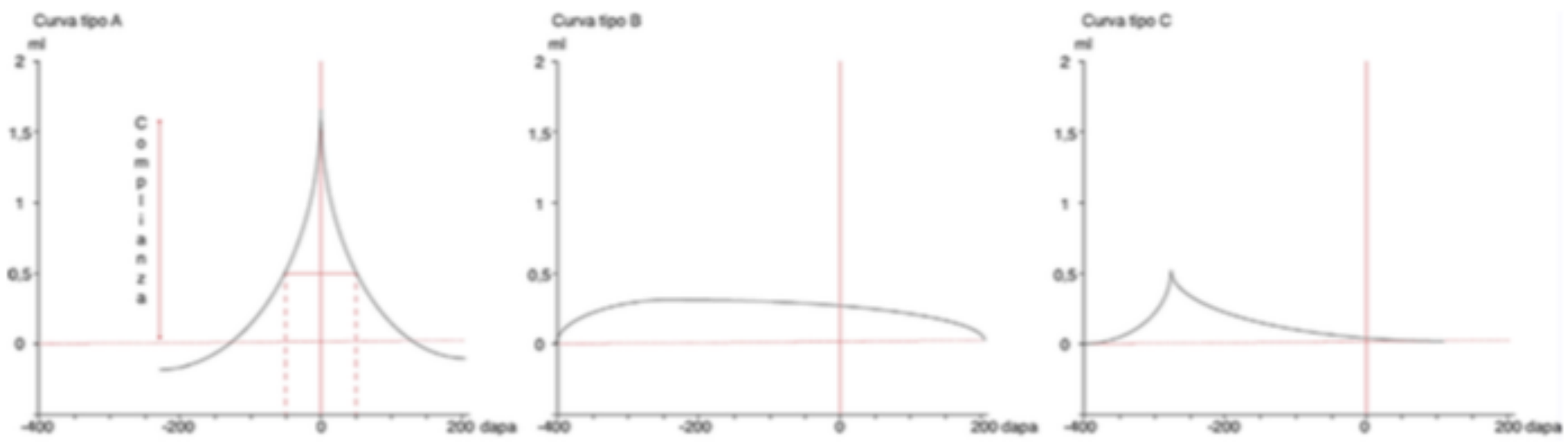
OTOSCOPIA NEUMÁTICA

- El clínico ha de realizar otoscopia neumática en niños con otalgia y/o hipoacusia y documentar la presencia de OME mediante este metodo

- E. Siegle (1864)
- “Resulta sorprendente la poca utilización que hace de ella el Pediatra en nuestro medio” (SEPEAP)

TIMPANOMETRÍA

- El clínico ha de solicitar timpanometría en pacientes pediátricos con sospecha de OME para quienes el diagnóstico continue siendo incierto tras la realización de la otoscopia neumática



TIMPANOMETRÍA

informa
healthcare

Original Article

International Journal of Audiology 2006; 45:417–427

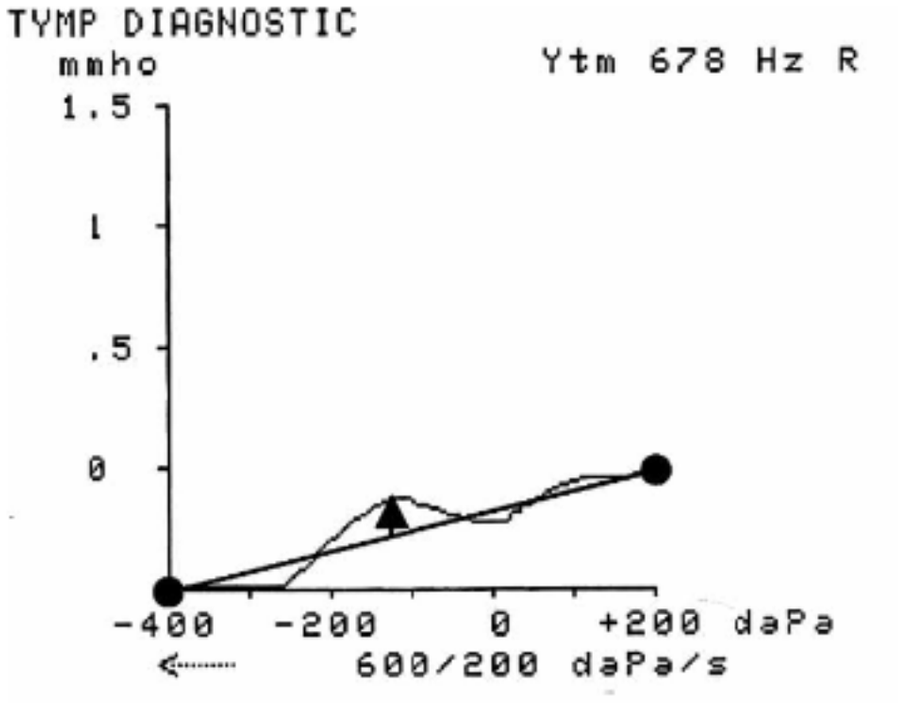
Margaret Baldwin

Audiology Department, Whipps Cross University NHS Trust, London, UK

Key Words
Impedance audiometry
Middle ear
Neonates
Tympanometry

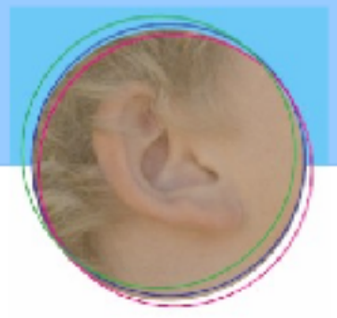
Choice of probe tone and classification of trace patterns in tympanometry undertaken in early infancy

Selección de la sonda de prueba y clasificación de la curva de timpanometría en la infancia temprana



II Taller

de **Otoscopia pediátrica:**



De la teoría a la práctica

Guadalajara, 28 de **septiembre** de 2012
16:00 -21:00 h

Aula de formación del Centro de Salud Manantiales
C/ Julian Besteiro, 41
19004 Guadalajara

PROGRAMA

16:00-16:50 h Bienvenida y presentación del taller. Anatomofisiología de la audición: Conceptos y revisión.
16:50-17:40 h Cómo realizar una otoscopia pediátrica. Bases y fundamentos.
17:40-18:20 h Ejercicios prácticos de otoscopia pediátrica: otoscopia neumática y videotoscopia. En dos grupos de 10 asistentes.
18:30-19:10 h Otitis secretoria y exploración de la audición. Bases y fundamentos.
19:10-19:50 h Práctica de timpanometría: ejercicios prácticos. En dos grupos de 10 asistentes.
19:50-20:50 h. Consenso sobre otitis media aguda y otitis secretoria.
20:50-20:00 h Evaluación y despedida del curso.

NIÑOS A RIESGO

- El clínico debe identificar si niños con OME estan a un riesgo elevado para desarrollar trastornos del habla, lenguaje o aprendizaje como consecuencia de la OME o de presentar otros problemas sensoriales, fisicos, cognitivos o comportamentales

Otras sorderas de base
Espectro autista
Retraso del habla y del lenguaje
Trastorno generalizado del desarrollo
Malformaciones craneofaciales
Síndromes con alteraciones cognitivas o del habla y lenguaje
Ceguera

WATCHFUL WAITING

- **El clínico debe manejar al niño con OMS que no este a riesgo con WW desde el comienzo del proceso o el diagnóstico de la OMS**

MEDICACIONES

- **El clínico debe recomendar no utilizar CINs o corticoides, sistémicos en el tratamiento de la OMS**

- **El clínico debe recomendar no utilizar antibióticos sistémicos en el tratamiento de la OMS**

- **El clínico debe recomendar no utilizar antihistamínicos y/o descongestionantes en el tratamiento de la OMS**

MEDICACIONES

Acta Otorrinolaringol Esp. 2017;xxx(xx):xxx–xxx

SEORL CCC

Acta Otorrinolaringológica Española

www.elsevier.es/otorrino

ARTÍCULO DE REVISIÓN

Diagnoístico y tratamiento de la otitis media secretora infantil: recomendaciones CODEPEH☆

Faustino Núñez-Batalla[a,*], Carmen Jáudenes-Casaubón[b], Jose Miguel Sequí-Canet[b], Ana Vivanco-Allende[b] y Jose Zubicaray-Ugarteche[b]

[a] *Presidente de la CODEPEH (Comisión para la detección precoz de la hipoacusia)*
[b] *Vocales de la CODEPEH*

Recibido el 5 de julio de 2017; aceptado el 7 de julio de 2017

- La vacunación antineumocócica no previene la OMS

- El tratamiento antisecretor no mejora la OMS en pacientes afectos de RGE

Early release, published at www.cmaj.ca on July 27, 2015. Subject to revision.

CMAJ RESEARCH

Effect of nasal balloon autoinflation in children with otitis media with effusion in primary care: an open randomized controlled trial

Ian Williamson MD, Jane Vennik MRes, Anthony Harnden MBChB MSc, Merryn Voysey MBiostat, Rafael Perera DPhil, Sadie Kelly PhD, Guiqing Yao PhD, James Raftery PhD, David Mant MBChB MA, Paul Little MD

CMAJ Podcasts: author interview at soundcloud.com/cmajpodcasts/141608-res

See also www.cmaj.ca/lookup/doi/10.1503/cmaj.150527

Abstract

Background: Otitis media with effusion is a common problem that lacks an evidence-based nonsurgical treatment option. We assessed the clinical effectiveness of treatment with a nasal balloon device in a primary care setting.

Methods: We conducted an open, pragmatic randomized controlled trial set in 43 family practices in the United Kingdom. Children aged 4–11 years with a recent history of ear symptoms and otitis media with effusion in 1 or both ears, confirmed by tympanometry, were allocated to receive either autoinflation 3 times daily for 1–3 months plus usual care or usual care alone. Clearance of middle-ear fluid at 1 and 3 months was assessed by experts masked to allocation.

Results: Of 320 children enrolled, those receiving autoinflation were more likely than controls to have normal tympanograms at 1 month (47.3% [62/131] v. 35.6% [47/132]; adjusted relative risk [RR] 1.36, 95% confidence interval [CI] 0.99 to 1.88) and at 3 months (49.6% [62/125] v. 38.3% [46/120]; adjusted RR 1.37, 95% CI 1.03 to 1.83; number needed to treat = 9). Autoinflation produced greater improvements in ear-related quality of life (adjusted between-group difference in change from baseline in OMQ-14 [an ear-related measure of quality of life] score −0.42, 95% CI −0.63 to −0.22). Compliance was 89% at 1 month and 80% at 3 months. Adverse events were mild, infrequent and comparable between groups.

Interpretation: Autoinflation in children aged 4–11 years with otitis media with effusion is feasible in primary care and effective both in clearing effusions and improving symptoms and ear-related child and parent quality of life. Trial registration: ISRCTN, No. 55208702.

Competing interests: None declared.

This article has been peer reviewed.

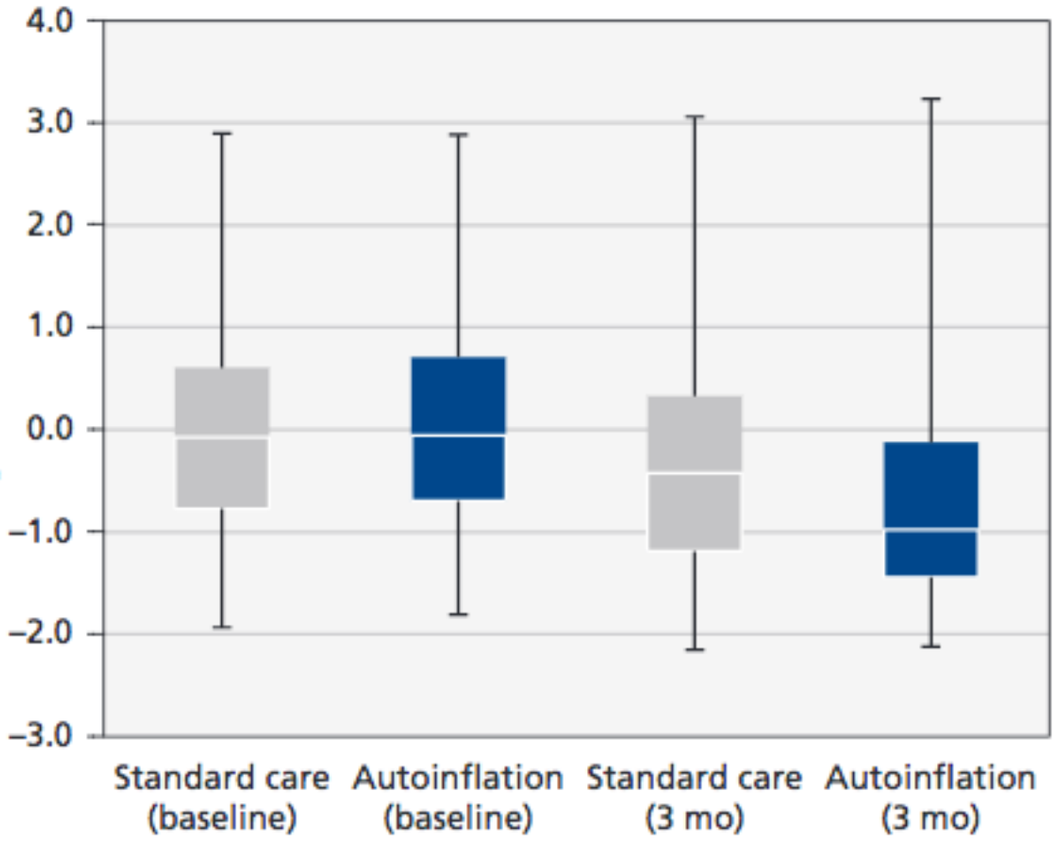
Accepted: June 10, 2015
Online: July 27, 2015

Correspondence to:
Ian Williamson,
igw@soton.ac.uk

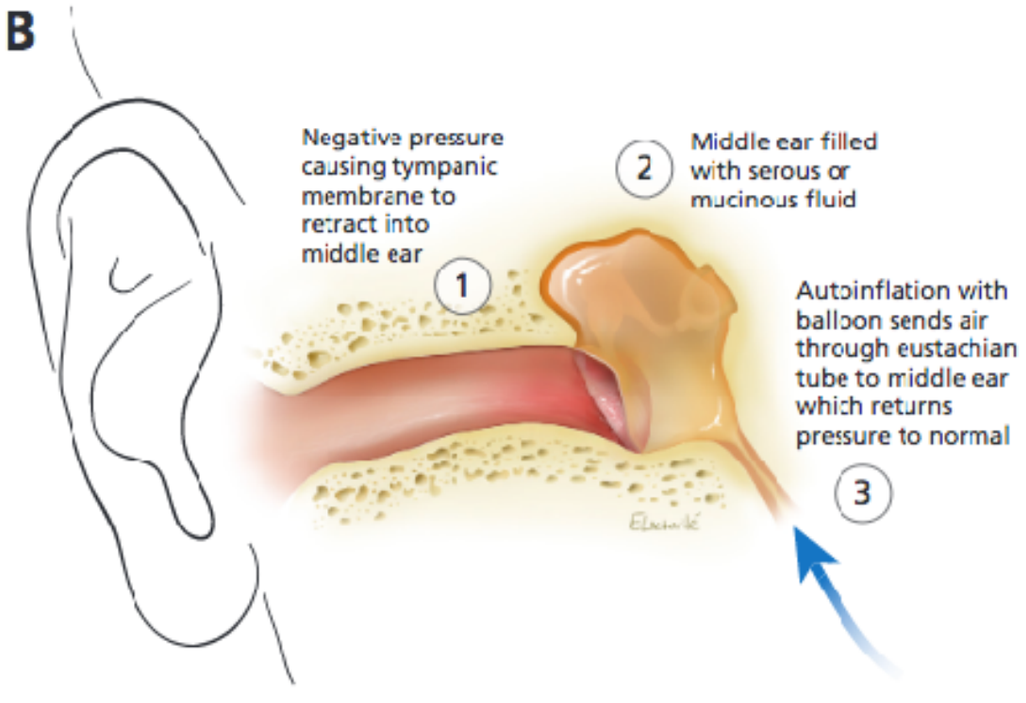
CMAJ 2015. DOI:10.1503/cmaj.141608

OTOVENT

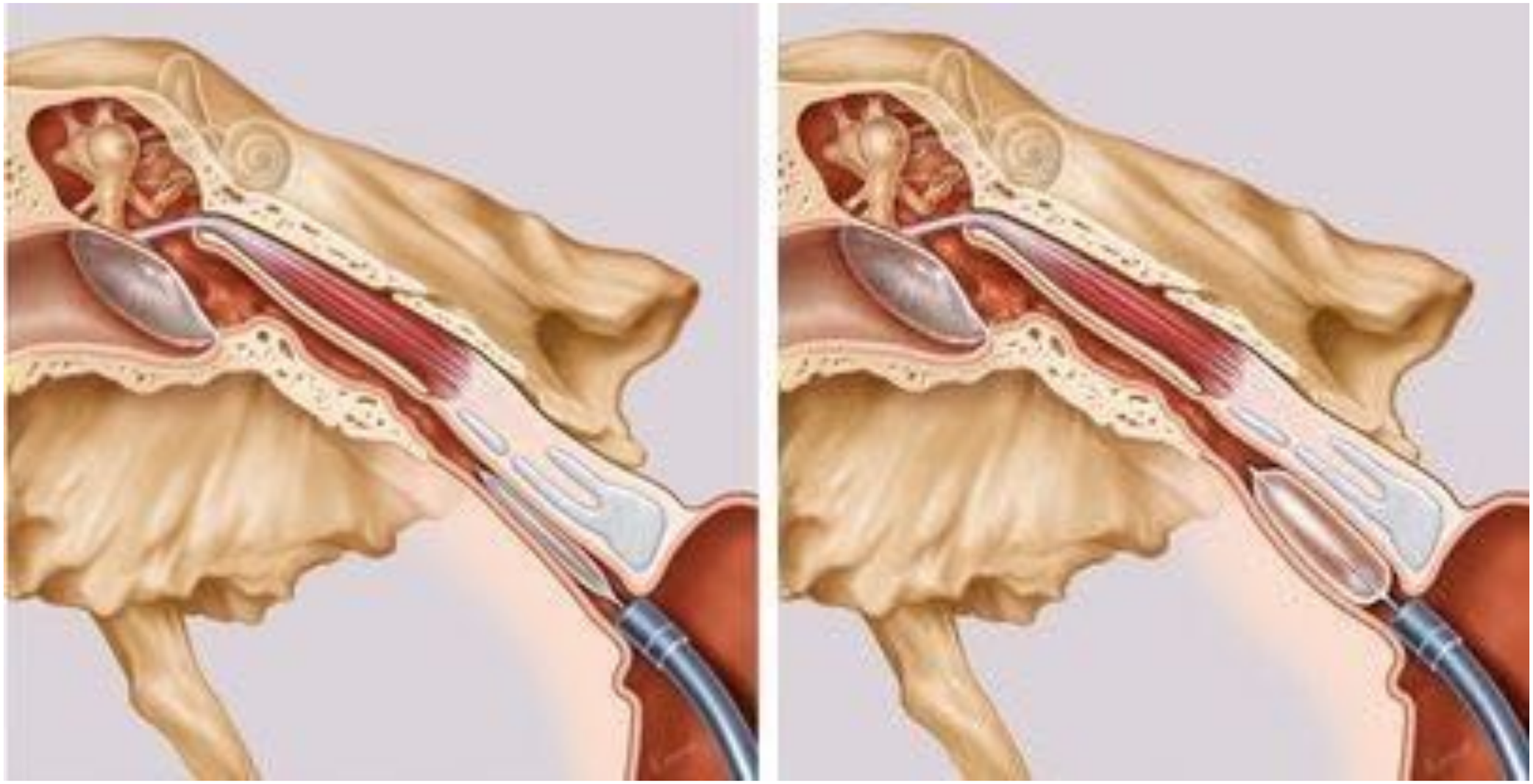
A


4.0
3.0
2.0
1.0
0.0
−1.0
−2.0
−3.0
OMQ-14 total score
Standard care (baseline)
Autoinflation (baseline)
Standard care (3 mo)
Autoinflation (3 mo)

B


Negative pressure causing tympanic membrane to retract into middle ear
1
2
Middle ear filled with serous or mucinous fluid
Autoinflation with balloon sends air through eustachian tube to middle ear which returns pressure to normal
3

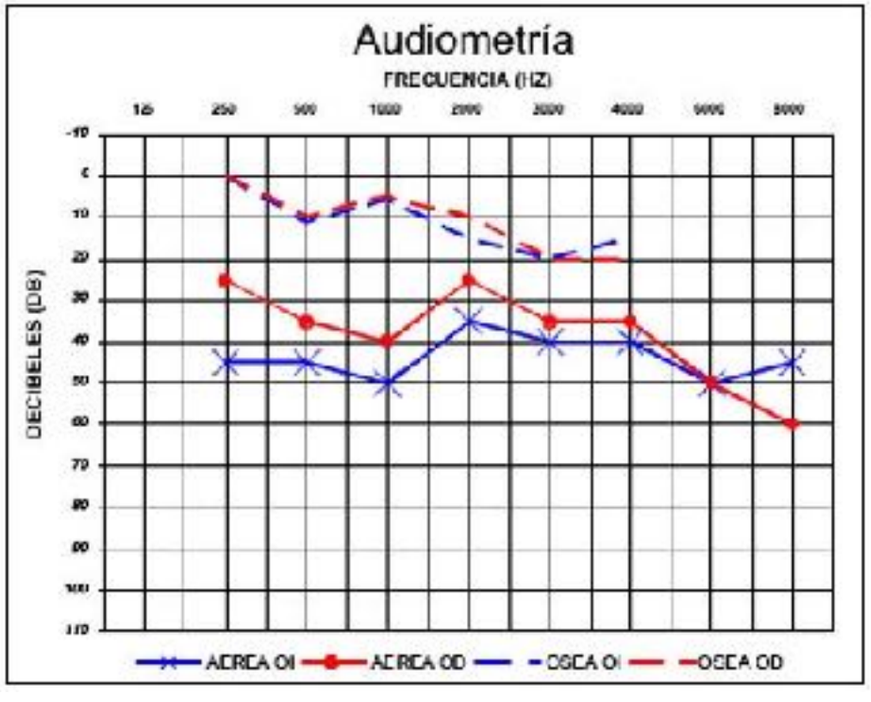
DILATACIÓN DE LA TROMPA DE EUSTAQUIO



- **No existen estudios científicos con la suficiente evidencia para efecuar una recomendación a favor ni en contra**

PRUEBA DE AUDICIÓN

- El clínico debe obtener una prueba de audición si la OMS persiste >3 meses o si el niño esta a riesgo



SEGUIMIENTO

- El clínico debe seguir al paciente con OMS crónica durante 3-6 meses hasta que la secreción haya desaparecido, no presente problemas auditivos o no existan anormalidades estructurales del timpano o en el oido medio

CIRUGÍA

- **<4 años: DTTs y adenoidectomía si existe hipertrofia adenoidea**

- **>4 años: DTTs + adenoidectomía**

ADENOIDECTOMIA

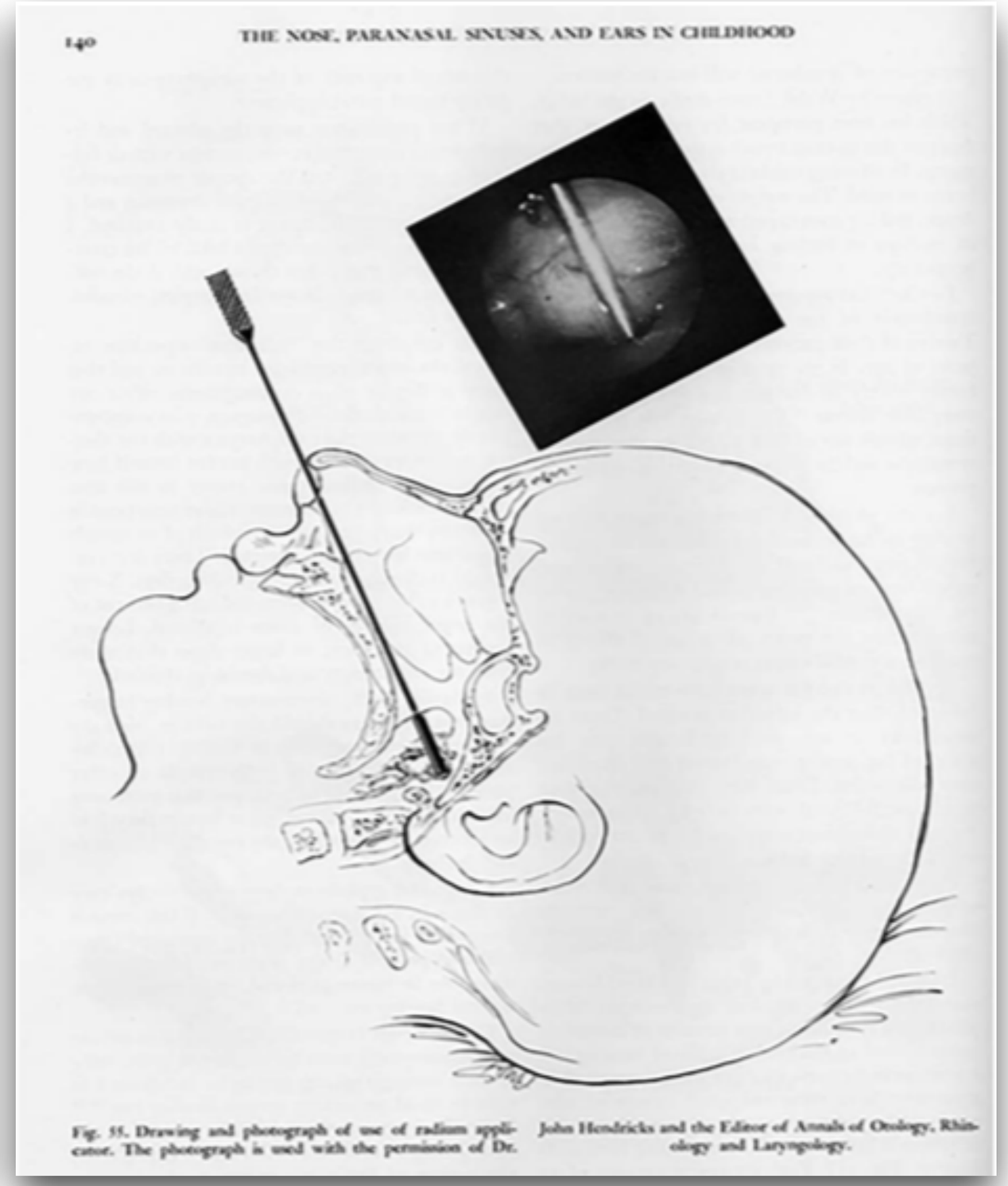
Se sabe...

- Es el tercer procedimiento quirúrgico ambulatorio más frecuente en niños en los EEUU tras la Miringotomía y colocación de DTTs y la adenoamigdalectomía

- Indicaciones: SAOS, obstrucción nasal, OMC, hipertrofia adenoidea y adenoiditis crónica

- La mayoría de las intervenciones se practican entre los 2 y 5 años

ADENOIDECTOMIA



140 THE NOSE, PARANASAL SINUSES AND EARS IN CHILDHOOD

Fig. 55. Drawing and photograph of use of radium applicator. The photograph is used with the permission of Dr. John Hendricks and the Editor of Annals of Otology, Rhinology and Laryngology.

The Laryngoscope

Comparison of Pediatric Adenoidectomy Techniques

Phayvanh P. Sjogren, MD; Andrew J. Thomas, MD; Benjamin N. Hunter, MD; James Butterfield, BS; Craig Gale, MS; Jeremy D. Meier, MD

Objectives: Evaluate the effects of electrocautery, microdebrider, and coblation techniques on outpatient pediatric adenoidectomy costs and complications.

Study Design: Observational retrospective cohort study.

Methods: An observational cohort study was performed in a multihospital network using a standardized accounting system. Children < 18 years of age who underwent outpatient adenoidectomy were included from January 2008 to September 2015. Cases with additional procedures were excluded. The cohorts were divided into children who underwent electrocautery, microdebrider, or coblator adenoidectomy. Data regarding costs, postoperative complications, and revision surgeries were analyzed.

Results: A total of 1,065 cases of adenoidectomy were performed with electrocautery (34.9%), microdebrider (26.1%), and coblation (39.0%). There was an increased after direct cost associated with the microdebrider, $833 (standard deviation [SD] $363) and the coblator, $797 (SD $262) compared to the electrocautery, $597 (SD $361) ($P < 0.0001$). There was a greater overall operating room (OR) time associated with use of the microdebrider (mean 28.7, SD 11.0 minutes) compared with both the electrocautery (mean 24.7, SD 8.1 minutes) and coblator (mean 26.2, SD 9.8 minutes) ($P < 0.0001$). No significant difference was found with regard to complication rates. The incidence of repeat adenoidectomies was significantly greater for microdebrider (9.7%) compared to electrocautery (2.7%; $P = 0.0002$) and coblator (5.3%; $P = 0.0336$) techniques.

Conclusion: These results suggest that adenoidectomy with electrocautery is significantly less expensive than microdebrider and coblator, with no differences in complication rates or surgical times among the techniques. Microdebrider adenoidectomy was associated with a longer overall OR time and a higher rate of adenoid regrowth, requiring revision surgery.

Key Words: Adenoidectomy, time, cost, complications.

Level of Evidence: 4.

***Laryngoscope*, 00:000–000, 2017**

- **El curetaje con electrocaustia es la técnica mas coste efectiva**

DRENAJES TRANSTIMPÁNICOS (DTTs)

AMERICAN ACADEMY OF OTOLARYNGOLOGY–HEAD AND NECK SURGERY FOUNDATION

Invited Article

Otolaryngology–
Head and Neck Surgery
149(1) 8–16

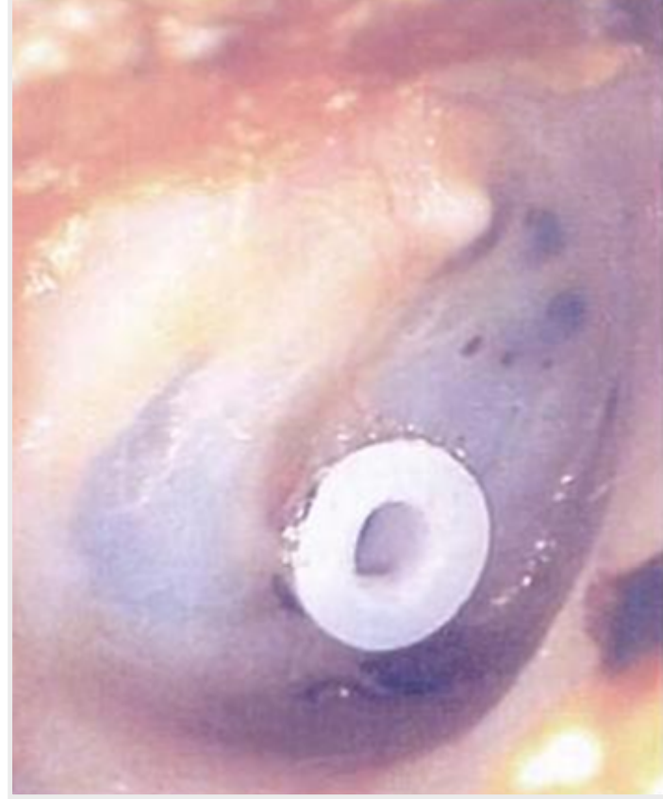
DOI: 10.1177/0194599813490141
http://otojournal.org
SAGE

Clinical Practice Guideline: Tympanostomy Tubes in Children—Executive Summary

Richard M. Rosenfeld, MD, MPH[1], Seth R. Schwartz, MD, MPH[2], Melissa A. Pynnonen, MD, MSc[3], David E. Tunkel, MD[4], Heather M. Hussey, MPH[5], Jeffrey S. Fichera, PA-C[6], Alison M. Grimes, AuD[7], Jesse M. Hackell, MD, FAAP[8], Melody F. Harrison, PhD[9], Helen Haskell, MA[10], David S. Haynes, MD[11], Tae W. Kim, MD[12], Denis C. Lafreniere, MD[13], Katie LeBlanc, MTS, MA[14], Wendy L. Mackey, APRN, BC[15], James L. Netterville, MD[16], Mary E. Pipan, MD[17], Nikhila P. Raol, MD[18], and Kenneth G. Schellhase, MD, MPH[19]

DTTs

Indicaciones



- **OME crónica bilateral con problemas auditivos**

- OME crónica sintomática uni o bilateral que incluye alteraciones del equilibrio, pobre desarrollo escolar, problemas comportamentales, malestar de oido y disminución de la calidad de vida

- **OMA de repetición sobre OME crónica**

DTTs

Supuración

- Incidencia: 1 episodio (52%), recidivante (12%) y persistente (4%)

- Factores predictores: edad joven, OMAR, hermanos mayores, IRTSR

- **El clínico debe prescribir gotas antibióticas tópicas solamente, sin antibióticos sistémicos, para niños afectos de supuración aguda no complicada a través de la timpanostomia**

DTTs
Precauciones para el baño

- El clínico no debe recomendar precauciones ni profilaxis rutinaria para el baño como tapones para los oidos, bandas protectoras, evitar nadar o deportes acuáticos para niños intervenidos de DTTs

Clinical Infectious Diseases

MAJOR ARTICLE

Quinolone Ear Drops After Tympanostomy Tubes and the Risk of Eardrum Perforation: A Retrospective Cohort Study

Adel Alrwisan,[1,2] Patrick J. Antonelli,[3] and Almut G. Winterstein[1,4]

[1]Pharmaceutical Outcomes and Policy, College of Pharmacy, University of Florida, Gainesville; [2]Saudi Food and Drug Authority, Riyadh, Saudi Arabia; [3]Department of Otolaryngology, College of Medicine, and [4]Department of Epidemiology, College of Public Health and Health Professions and College of Medicine, University of Florida, Gainesville

Background. This study investigated whether quinolone ear drops, with or without corticosteroids, increase the risk of perforation requiring tympanoplasty following tympanostomy tube (TT) placement in children.

Methods. This was a retrospective cohort study using Medicaid encounter and pharmacy billing data from 29 US states between 1999 and 2006. Children <18 years old without predisposing factors for perforation during a 6-month look-back period entered the cohort after TT placement and first dispensing of antibiotic ear drops. Included ear drops were quinolones (ofloxacin, ciprofloxacin plus hydrocortisone, or ciprofloxacin plus dexamethasone) or neomycin plus hydrocortisone. Children were followed until end of 2006, end of Medicaid enrollment, or occurrence of study outcome. A Cox regression model, adjusted for age, sex, race/ethnicity, initial TT indication, reinsertion of TT, adenoidectomy, and number of ear drop prescriptions was used to compare the rate of perforation between quinolone and neomycin plus hydrocortisone ear drop–exposed children. Perforation was defined by its diagnosis code followed by a tympanoplasty code.

Results. A total of 96 595 children entered the study cohort. Patients exposed to quinolone ear drops had a higher risk of perforation, with an adjusted hazard ratio of 1.61 (95% confidence interval [CI], 1.15–2.26). The adjusted hazard ratios were 1.49 (95% CI, 1.05–2.09) for ofloxacin, 1.94 (95% CI, 1.32–2.85) for ciprofloxacin plus hydrocortisone, and 2.00 (95% CI, 1.18–3.41) for ciprofloxacin plus dexamethasone.

Conclusions. Exposure of children with TT to quinolone ear drops is associated with increased risk of perforations requiring tympanoplasty, which appears to be further exaggerated by corticosteroids. Clinicians should consider the risk of perforation and counsel patients/families accordingly when prescribing quinolone ear drops.

Keywords. tympanic membrane; perforation; tympanostomy tube; quinolone.

- **La exposición a gotas ATBs tópicas con quinolonas esta asociada a un mayor riesgo de perforaciones timpánicas que requieren timpanoplastia**

OM AGUDA

Guía de práctica clínica

- **Revisa la de 2004**
- **72 nuevos artículos**

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN™

Organizational Principles to Guide and Define the Child Health Care System and/or Improve the Health of all Children

CLINICAL PRACTICE GUIDELINE

The Diagnosis and Management of Acute Otitis Media

abstract

FREE

This evidence-based clinical practice guideline is a revision of the 2004 acute otitis media (AOM) guideline from the American Academy of Pediatrics (AAP) and American Academy of Family Physicians. It provides recommendations to primary care clinicians for the management of children from 6 months through 12 years of age with uncomplicated AOM.

In 2009, the AAP convened a committee composed of primary care physicians and experts in the fields of pediatrics, family practice, otolaryngology, epidemiology, infectious disease, emergency medicine, and guideline methodology. The subcommittee partnered with the Agency for Healthcare Research and Quality and the Southern California Evidence-Based Practice Center to develop a comprehensive review of the new literature related to AOM since the initial evidence report of 2000. The resulting evidence report and other sources of data were used to formulate the practice guideline recommendations.

The focus of this practice guideline is the appropriate diagnosis and initial treatment of a child presenting with AOM. The guideline provides a specific, stringent definition of AOM. It addresses pain management, initial observation versus antibiotic treatment, appropriate choices of antibiotic agents, and preventive measures. It also addresses recurrent AOM, which was not included in the 2004 guideline. Decisions were made on the basis of a systematic grading of the quality of evidence and benefit-harm relationships.

The practice guideline underwent comprehensive peer review before formal approval by the AAP.

This clinical practice guideline is not intended as a sole source of guidance in the management of children with AOM. Rather, it is intended to assist primary care clinicians by providing a framework for clinical decision-making. It is not intended to replace clinical judgment or establish a protocol for all children with this condition. These recommendations may not provide the only appropriate approach to the management of this problem. *Pediatrics* 2013;131:e964–e999

Allan S. Lieberthal, MD, FAAP, Aaron E. Carroll, MD, MS, FAAP, Tasnee Chonmaitree, MD, FAAP, Theodore G. Ganiats, MD, Alejandro Hoberman, MD, FAAP, Mary Anne Jackson, MD, FAAP, Mark D. Joffe, MD, FAAP, Donald T. Miller, MD, MPH, FAAP, Richard M. Rosenfeld, MD, MPH, FAAP, Xavier D. Sevilla, MD, FAAP, Richard H. Schwartz, MD, FAAP, Pauline A. Thomas, MD, FAAP, and David E. Tunkel, MD, FAAP, FACS

KEY WORDS

acute otitis media, otitis media, otoscopy, otitis media with effusion, watchful waiting, antibiotics, antibiotic prophylaxis, tympanostomy tube insertion, immunization, breastfeeding

ABBREVIATIONS

AAFP—American Academy of Family Physicians
AAP—American Academy of Pediatrics
AHRQ—Agency for Healthcare Research and Quality
AOM—acute otitis media
CI—confidence interval
FDA—US Food and Drug Administration
LAIV—live attenuated intranasal influenza vaccine
MEE—middle ear effusion
MIC—minimum inhibitory concentration
NNT—number needed to treat
OM—otitis media
OME—otitis media with effusion
OR—odds ratio
PCV7—heptavalent pneumococcal conjugate vaccine
PCV13—13-valent pneumococcal conjugate vaccine
RD—rate difference
SNAP—safety-net antibiotic prescription
TIV—trivalent inactivated influenza vaccine
TM—tympanic membrane
WASP—wait-and-see prescription

OM AGUDA (OMA)

Diagnóstico

- El clínico debe diagnosticar OMA en niños con abombamiento moderado severo de la membrana timpánica o supuración que no es debida a otitis externa

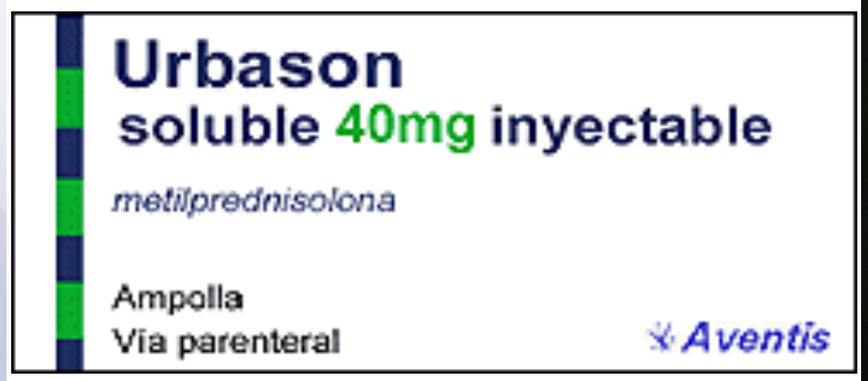
- El clínico debe diagnosticar OMA en niños con abombamiento leve y otalgia de <48 horas u manipulaciones del oido en el lactante

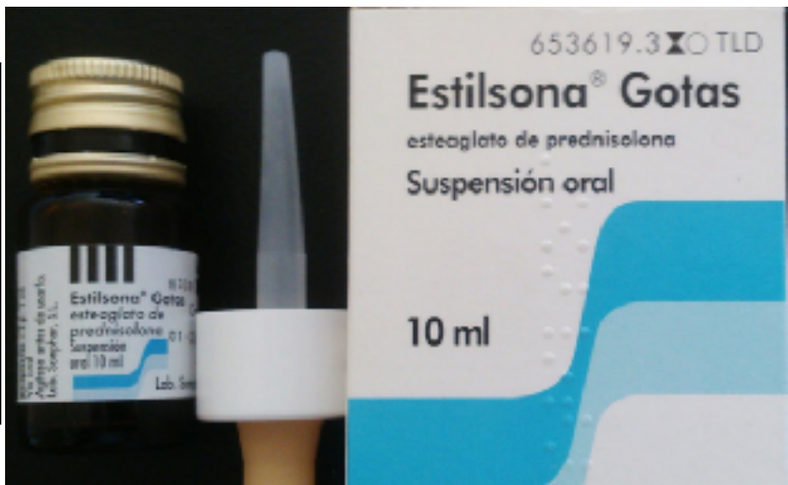
- El clínico no debe diagnosticar OMA en niños que no presentan secreción en el oido medio

OM AGUDA (OMA)

Analgesia

- El manejo de la OMA debe incluir una valoración del dolor y si este se encuentra presente, el clínico debe ofrecer tratamiento para reducirlo





OM AGUDA (OMA)

Antibioterapia

- **El clinico debe prescribir antibioterapia en niños >6 meses con OMA severa**

- El clinico debe prescribir antibioterapia en niños entre 6 meses y 23 meses de edad con OMA bilateral

- El clinico debe prescribir antibioterapia u ofrecer observación con seguimiento estrecho en niños con OMA no-severa unilateral y establecer las pautas para le mismo de manera consensuada con los padres

OM AGUDA (OMA)

Antibioterapia

- El clinico debe prescribir amoxicilina si esta indicada la antibioterapia y no la ha recibido en los últimos 30 dias, no as alérgico o no presenta conjuntivitis

- El clinico debe prescribir antibiótico con cobertura adicional para beta-lactamasas cuando el niño ha sido tratado con amoxicilina en los últimos 30 dias, presenta conjuntivos o OMAR

- El clinico debe revaluar al paciente si el cuidador refiere que ha no ha mejorado o ha empeorado tras 48-72 horas de tratamiento

OM AGUDA (OMA)

Prevención


- **El clinico debe recomendar la vacunación contra el neumococo a todos los niños de acuerdo al calendario vacunas reglamentario**

- El clinico debe recomendar la vacunación anual contra el v. influenza según el "*Advisory Commitee on Immunization Practices AAP and AAFP*"

- El clinico debe recomendar lactancia materna durante al menos 6 meses

- El clinico debe recomendar la evitación a la exposición del humo del tabaco

OTITIS MEDIA

Impacto de las GPCs

Acta Otorrinolaringol Esp. 2017;xxx(xx):xxx–xxx

SEORL CCC

Acta Otorrinolaringológica Española

www.elsevier.es/otorrino

ARTÍCULO DE REVISIÓN

Diagnoístico y tratamiento de la otitis media secretora infantil: recomendaciones CODEPEH☆

Faustino Núñez-Batalla[a,*], **Carmen Jáudenes-Casaubón**[b], **Jose Miguel Sequí-Canet**[b], **Ana Vivanco-Allende**[b] **y Jose Zubicaray-Ugarteche**[b]

[a] *Presidente de la CODEPEH (Comisión para la detección precoz de la hipoacusia)*
[b] *Vocales de la CODEPEH*

Recibido el 5 de julio de 2017; aceptado el 7 de julio de 2017

- Escasa utilización de otoscopia neumática
- Escasa petición de pruebas audiológicas
- Sobreprescripción antibiótica
- **Educación medica continuada**

OTITIS MEDIA

State of the Art Review

AMERICAN ACADEMY OF OTOLARYNGOLOGY–HEAD AND NECK SURGERY FOUNDATION

Otolaryngology–
Head and Neck Surgery
2017, Vol. 156(45) S88–S105

DOI: 10.1177/0194599816633697
http://otojournal.org
SAGE

Panel 7: Otitis Media: Treatment and Complications

Anne G. M. Schilder, MD, PhD[1,2], Tal Marom, MD[3], Mahmood F. Bhutta, DPhil, FRCS[4], Margaretha L. Casselbrant, MD, PhD[5], Harvey Coates, FRACS[6], Marie Gisselsson-Solén, MD, PhD[7], Amanda J. Hall, PhD[8], Paola Marchisio, MD[9], Aino Ruohola, MD, PhD[10], Roderick P. Venekamp, MD, PhD[2], and Ellen M. Mandel, MD[5]

- **OMA de repetición**
- **OMC supurada**

OMA DE REPETICIÓN

Se sabe...

- EVITAR EXPOSICIÓN A FACTORES DE RIESGO: guarderias, exposición al humo del tabaco

- Lactancia materna

- Inmunoprofilaxis activa mediante vacunación contra neumococo y virus influenza

- **No son efectivos los ttos. ATBs prolongados**

OM CRÓNICA SUPURADA

Se sabe...

- ¿Es posible nadar en piscinas clorinadas? ECC

- La cirugía esta indicada en niños para el cierre de la perforación si no lo hace por si sola tras 6-12 meses

- El tratamiento quirúrgico de elección es la timpanoplastia

OTITIS MEDIA

Complicaciones

State of the Art Review

AMERICAN ACADEMY OF OTOLARYNGOLOGY–HEAD AND NECK SURGERY FOUNDATION

Otolaryngology–
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2017, Vol. 156(4S) S88–S105

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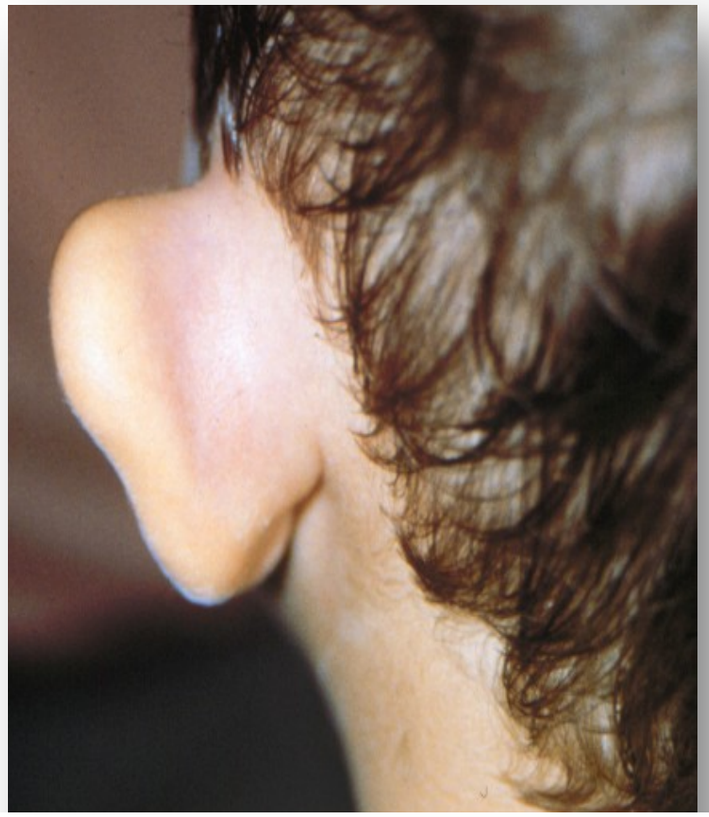
- **Mastoiditis**
- **Complicaciones intracraneales**

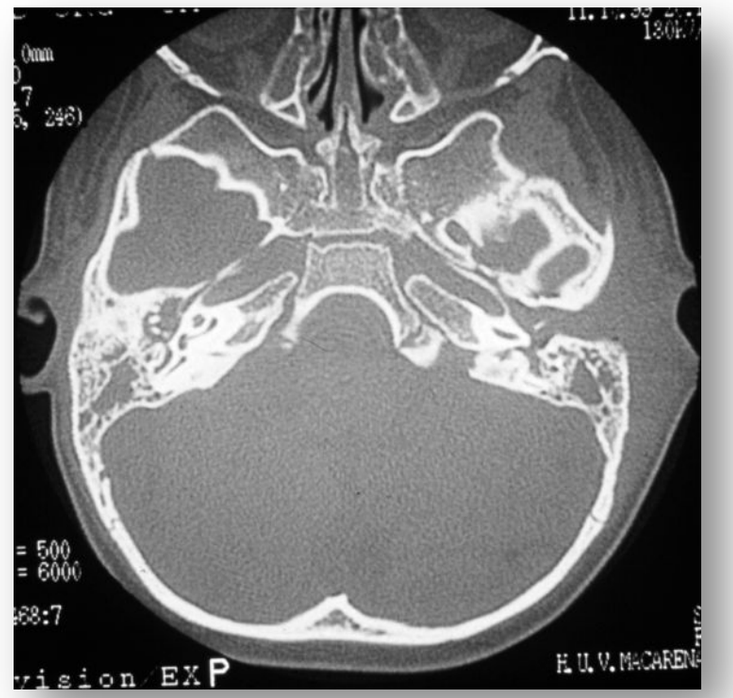
MASTOIDITIS AGUDA

- **Inflamación del periostio de la mastoides y celdillas aereas**

- La incidencia no ha variado

- El tto. previo con ATB parece no eliminar el riesgo de desarrollar mastoiditis





MASTOIDITIS AGUDA

- Con respecto al manejo hay un cambio de tendencia hacia el abordaje no quirúrgico y con ATB iv +/- miringotomia y colocación de DTT y/o aguja aspiración del absceso subperióstico

MASTOIDITIS AGUDA

The Laryngoscope
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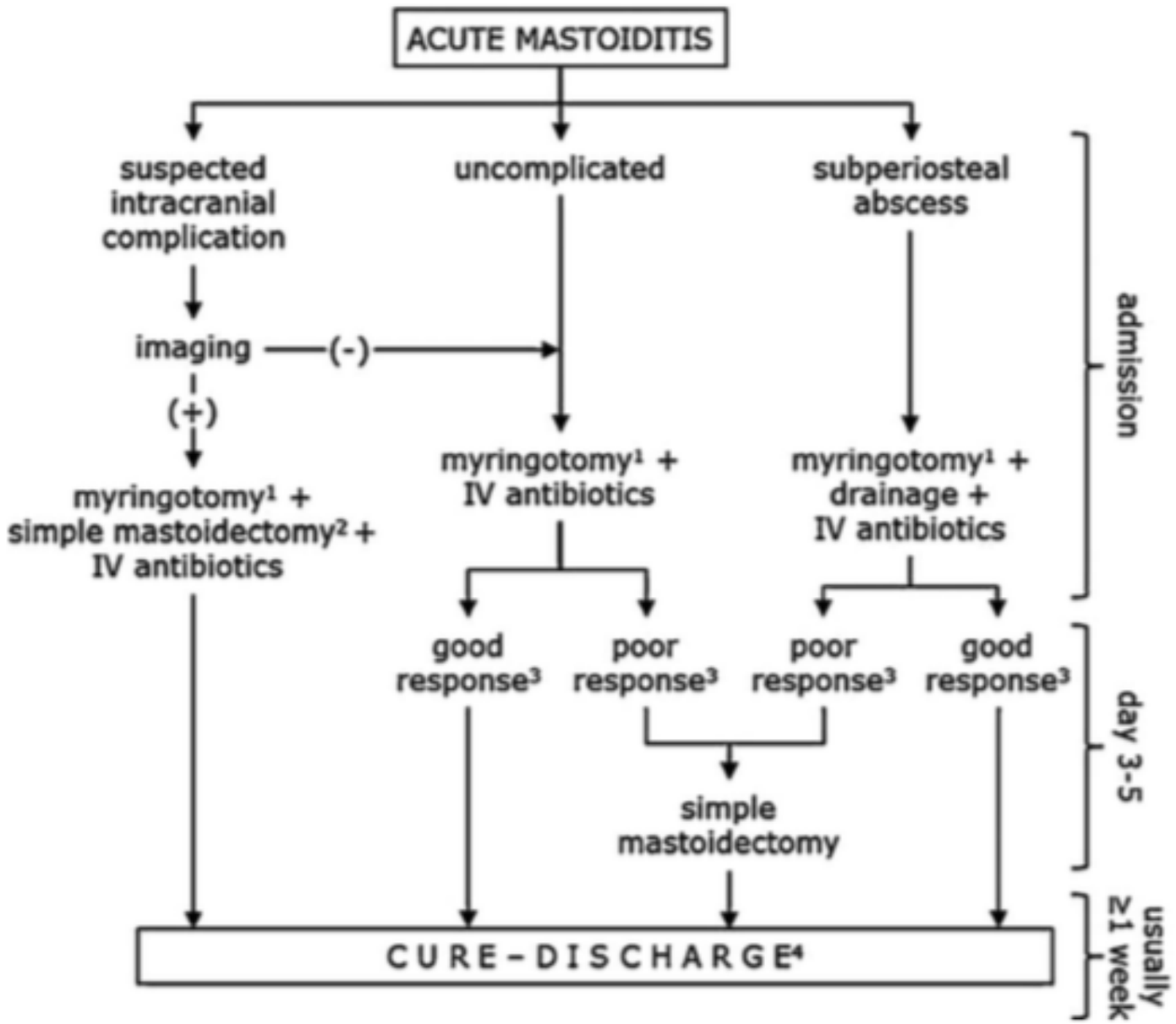
Best Practice

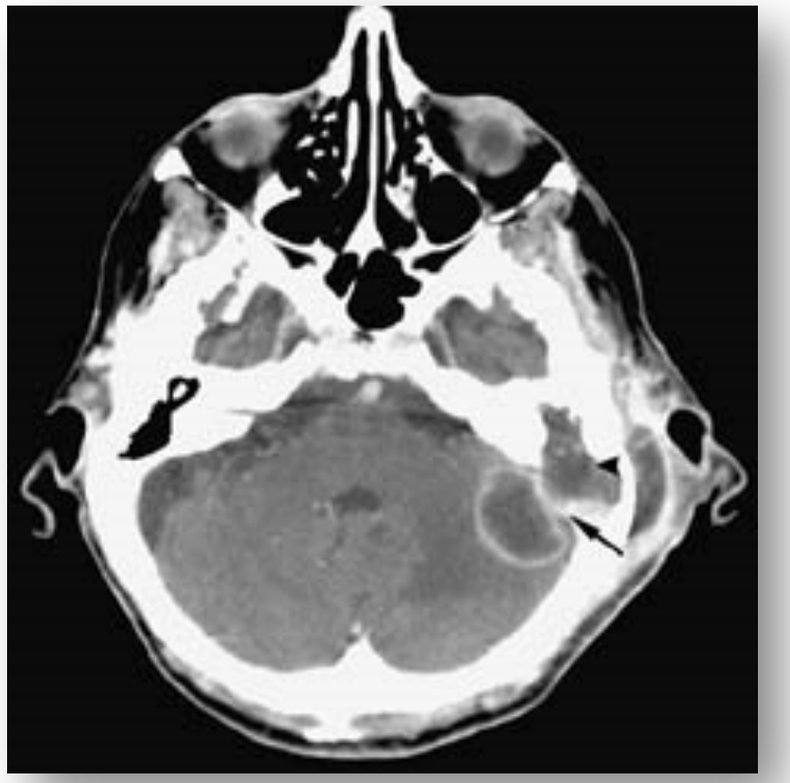
What Is the Best Practice for Acute Mastoiditis in Children?

Jason Chesney, DO; Angela Black, MD; Daniel Choo, MD



COMP. INTRACRANEALES

- El absceso cerebral es la más frecuente (1/1.000.000/año)
- TAC es aconsejable en mastoiditis aguda que no remite en 48-72 horas
- En la trombosis del seno lateral es aconsejable la anticoagulación siempre que no existan contraindicaciones para ello



VACUNAS POLIBACTERIANAS

- **Escasa evidencia**
- **Alta prescripción**

INMUNOMODULACIÓN BACTERIANA

ACTUALES ESTRATEGIAS PARA COMBATIR INFECCIONES

1) ATAQUE AL MICROORGANISMO: ANTIBIÓTICOS

2) AYUDA AL SISTEMA INMUNE: INMUNIZACIÓN

- Resistencias
- No frente a virus
- Biofilms
- Disbiosis
- Nefrotoxicidad, neurotoxicidad,…

ANTIBIÓTICOS

World Health Organization

REVIEWS OF INFECTIOUS DISEASES • VOL. 11, NUMBER 6 • NOVEMBER-DECEMBER 1989
 0162-0886/89/1106-0034$02.00

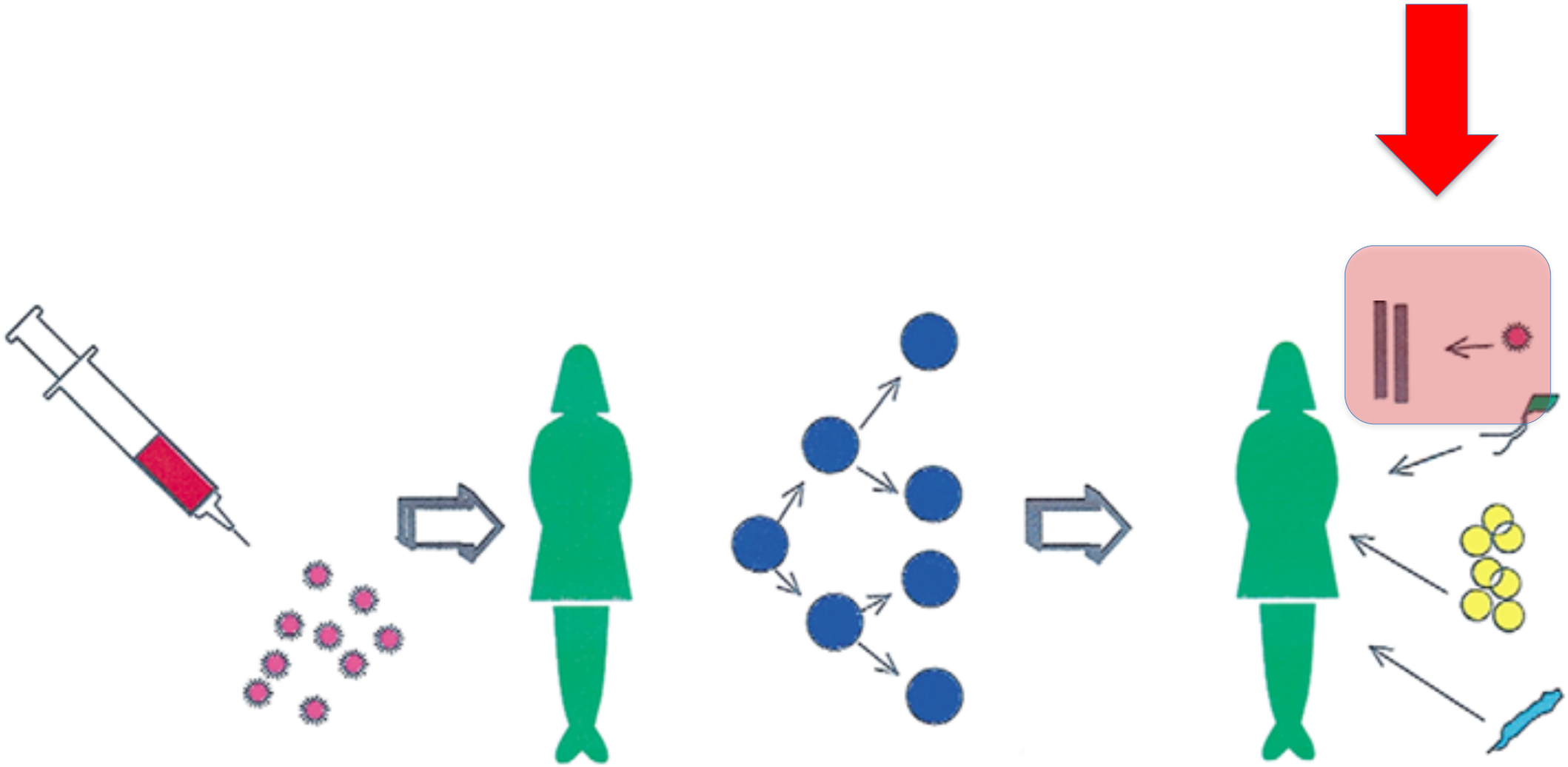
Vaccination Against Enteric Bacterial Diseases

David Hone* and Jim Hackett

From the Department of Microbiology, University of Adelaide; and Enterovax Limited, North Terrace, Adelaide, Australia

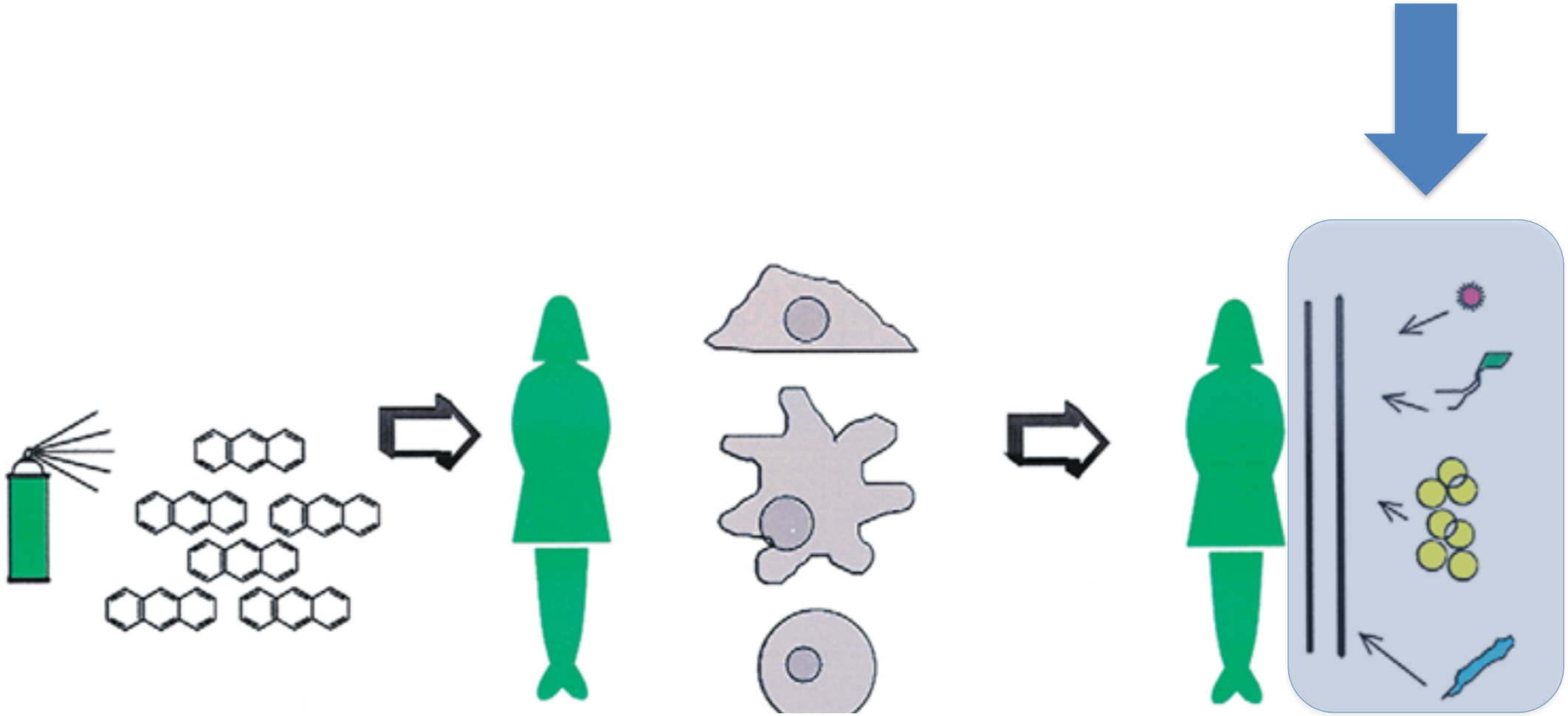
We review evidence that the systemic and mucosal immune systems of the body are compartmentalized. The development of immunity against an antigen at one mucosal surface may lead to the appearance of that immunity at other mucosal surfaces. In order to attain good protective immunity against a bacterial enteropathogen, it may be necessary to induce such immunity through the mucosal immune system of the gut. Earlier attempts to elicit protective immunity against bacterial enteropathogens by parenteral vaccination are reviewed. The modern approach involves oral administration of antigen. Such antigen may consist of killed bacteria or—more effectively—live, attenuated bacteria bearing antigens of interest. Such bacteria may be enteropathogens attenuated by mutation, either general or site-directed, or hybrid strains in which a bacterial carrier expresses an antigenic determinant of interest from cloned DNA. While good progress has been made in the comprehension of the requirements for effective vaccination against enteropathogenic bacteria, future work will produce more effective carrier strains than are currently available.

VACUNAS CONVENCIONALES



Hackett, C.; JACI (2003)

INMUNOMODULADORES



Hackett, C.; JACI (2003)

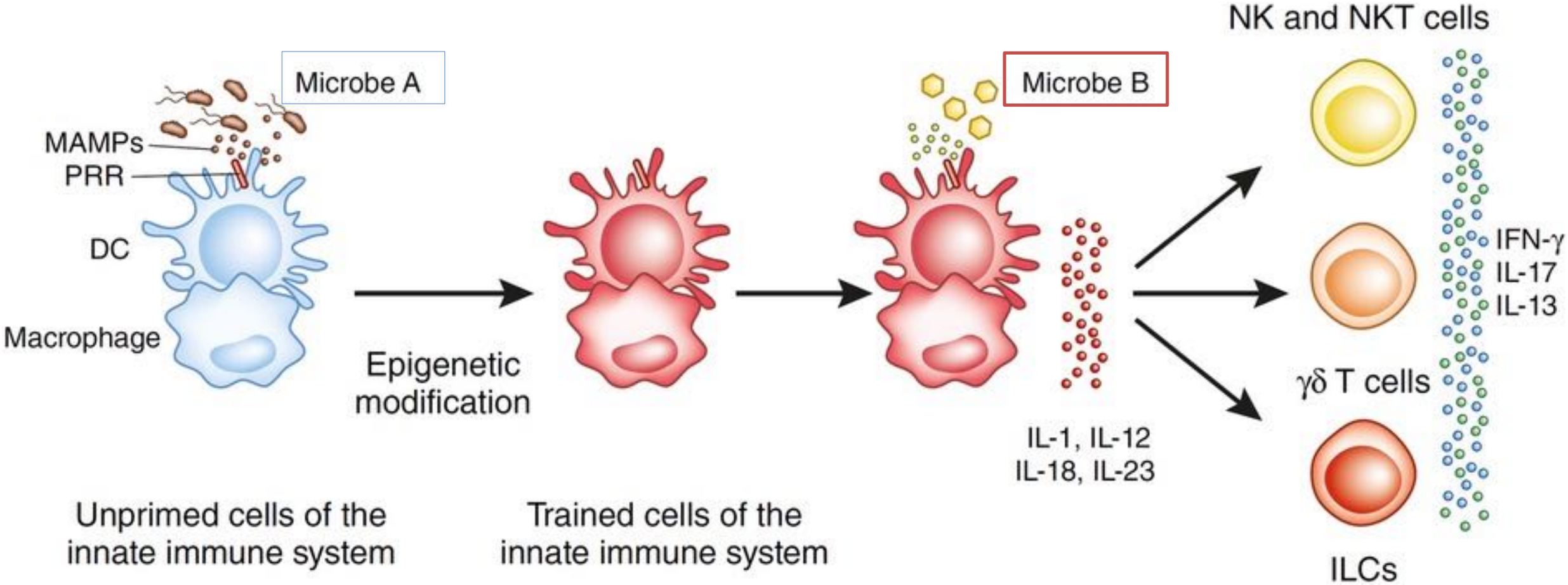
MEMORIA INMUNE

INMUNIDAD INNATA ENTRENADA

Reconoce patrones

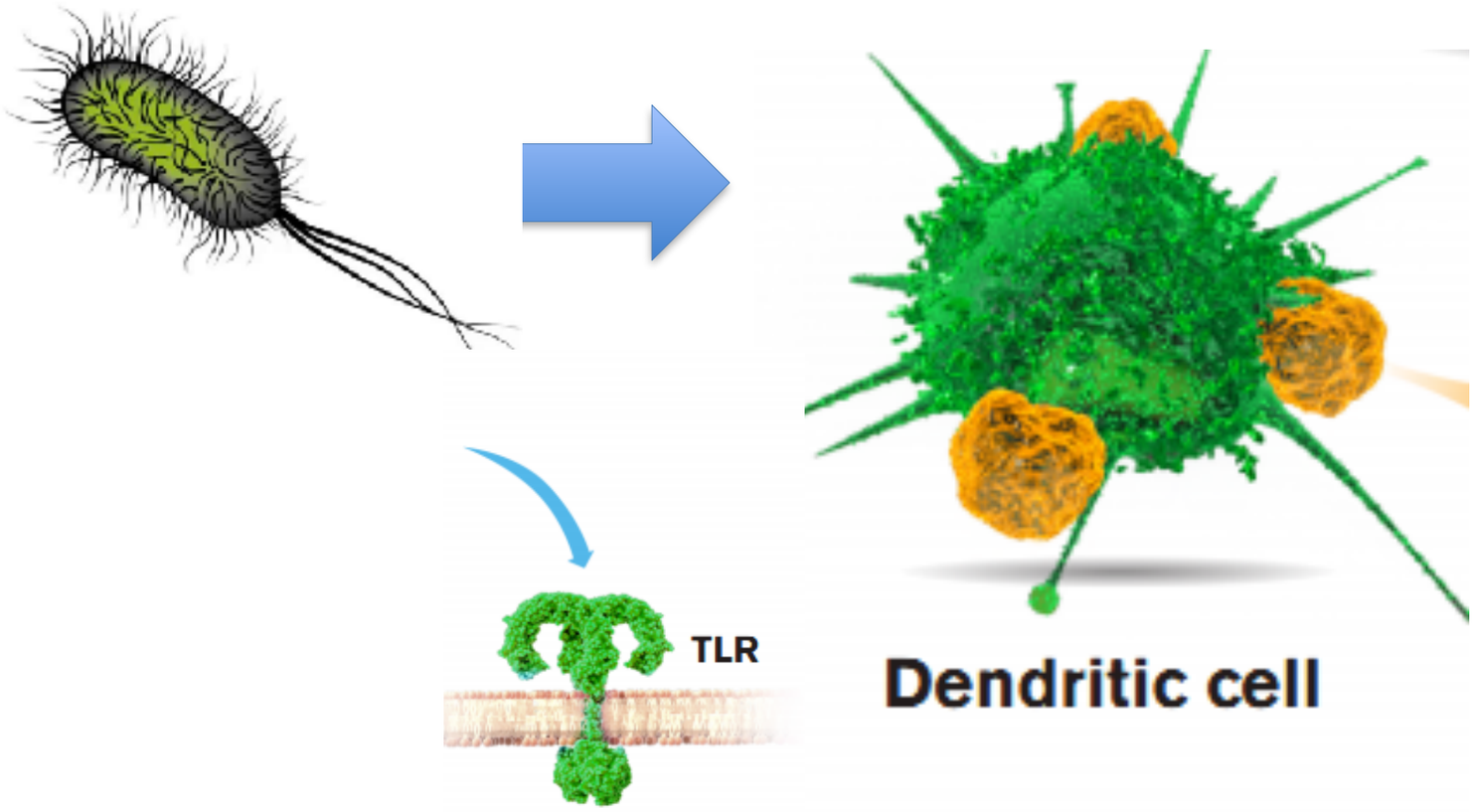
Respuesta más rápida y eficaz

MEMORIA DE LA INMUNIDAD INNATA



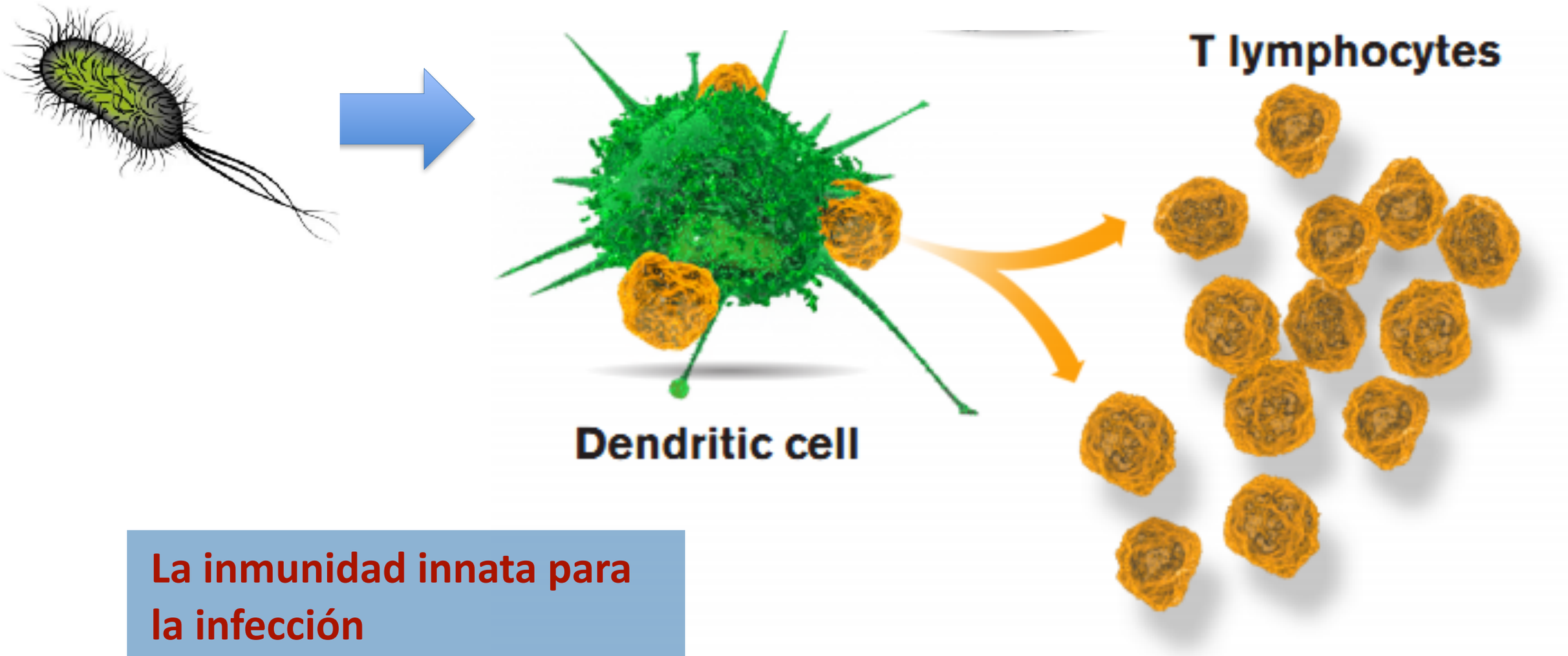
Netea et al.; Nature Immunol (2015)

LA CELULA DENDRÍTICA



La inmunidad innata para la infección

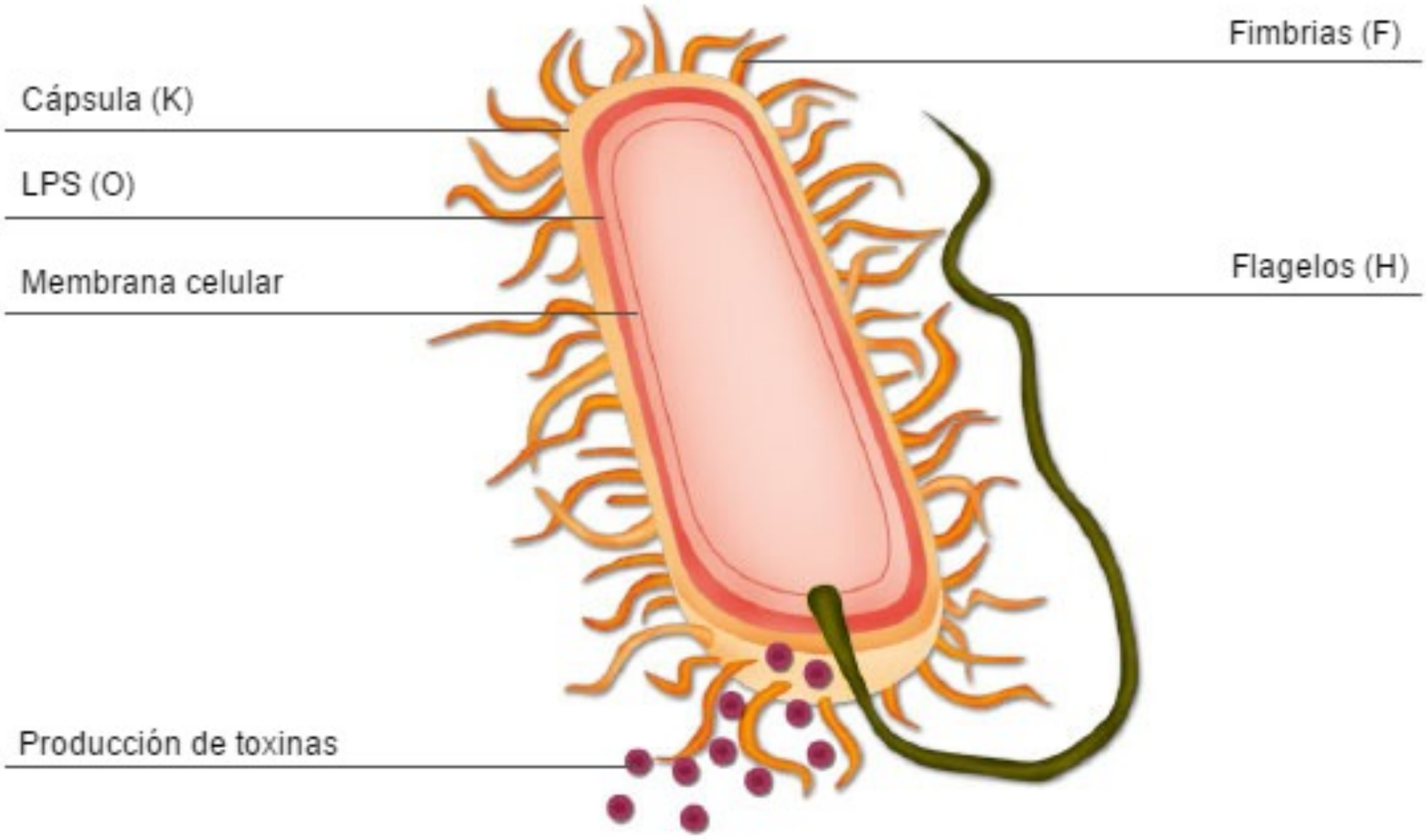
LA CÉLULA DENDRÍTICA



La inmunidad innata para la infección

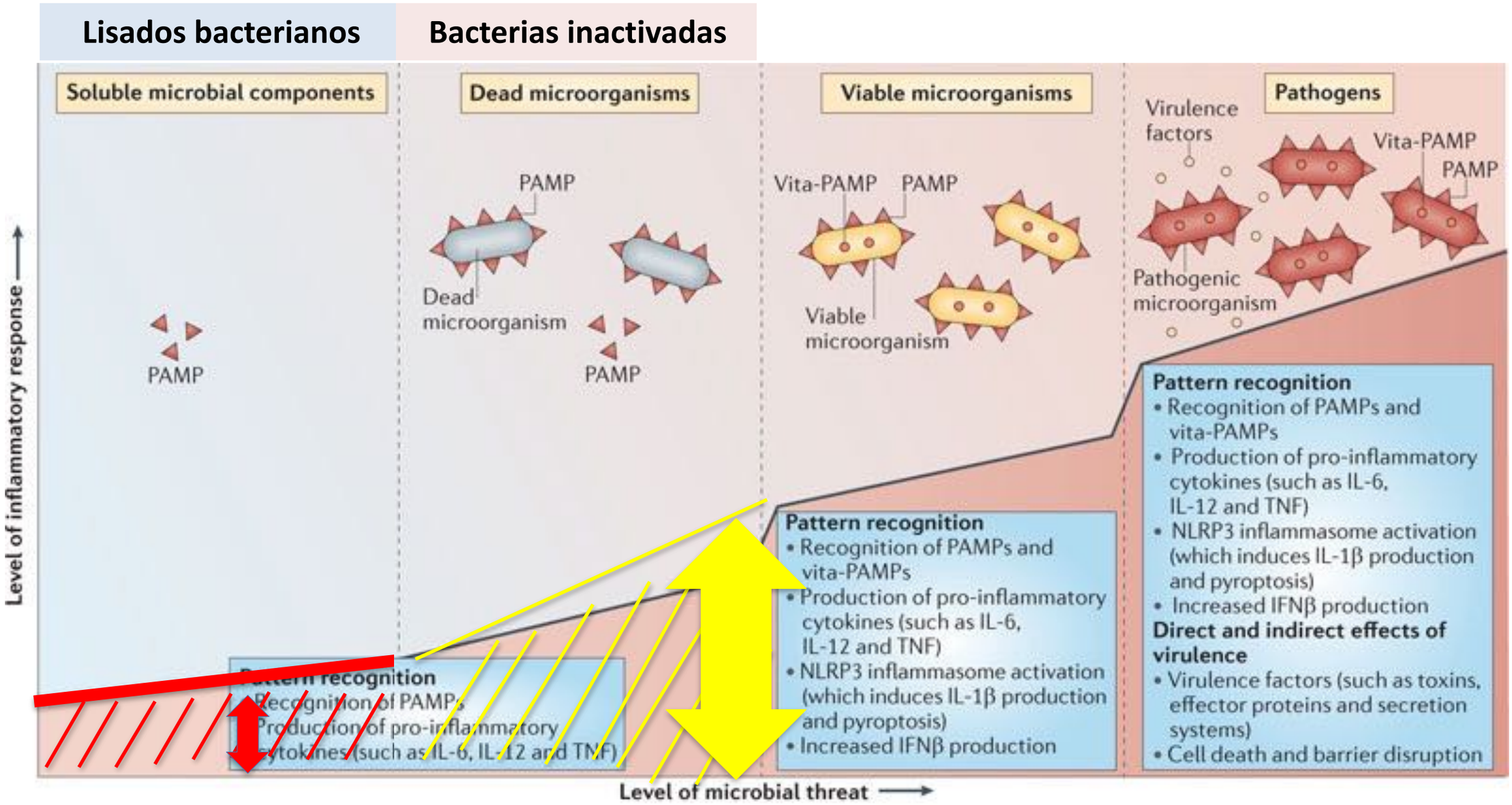
La inmunidad adaptativa elimina la infección

BACTERIAS


Fimbrias (F)
Cápsula (K)
LPS (O)
Membrana celular
Flagelos (H)
Producción de toxinas

BACTERIAS

ACTIVACIÓN DEL SISTEMA INMUNE



Blander et al.; Nat Rev Immunol (2012)

MUCOSA ORAL

Allergy 2008: 63: 720–727

DOI: 10.1111/j.1398-9995.2007.01611.x

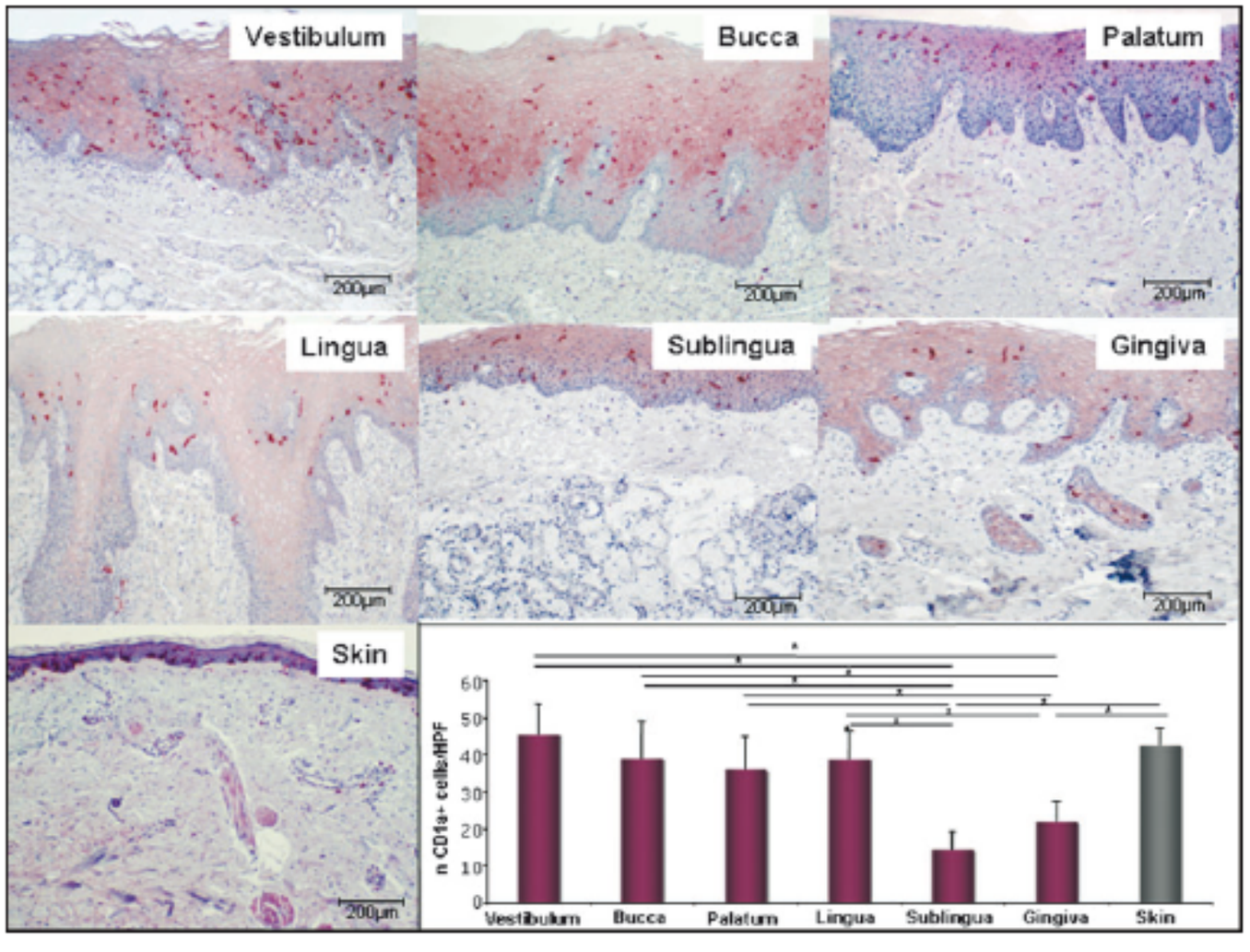
Original article

Distribution of Langerhans cells and mast cells within the human oral mucosa: new application sites of allergens in sublingual immunotherapy?

J.-P. Allam[1], G. Stojanovski[1], N. Friedrichs[2], W. Peng[1], T. Bieber[1], J. Wenzel[1], N. Novak[1]

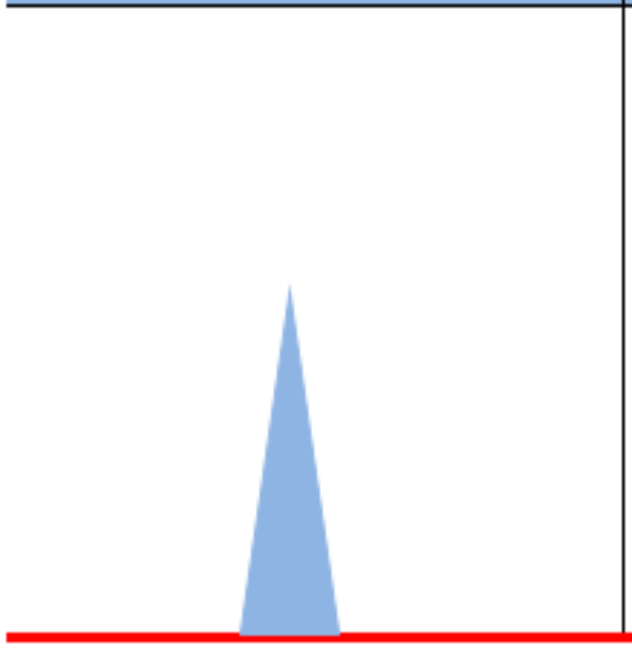
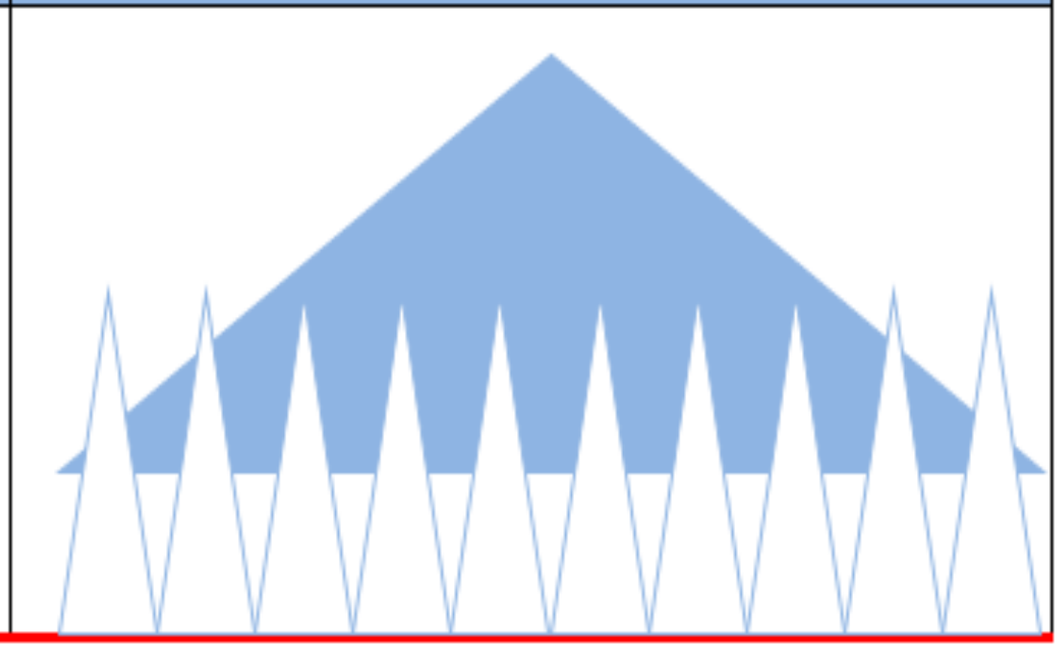
Departments of [1]Dermatology and Allergy, and [2]Pathology, University of Bonn, Bonn, Germany

ALTA DENSIDAD DE CÉLULAS PRESENTADORAS DE ANTÍGENO

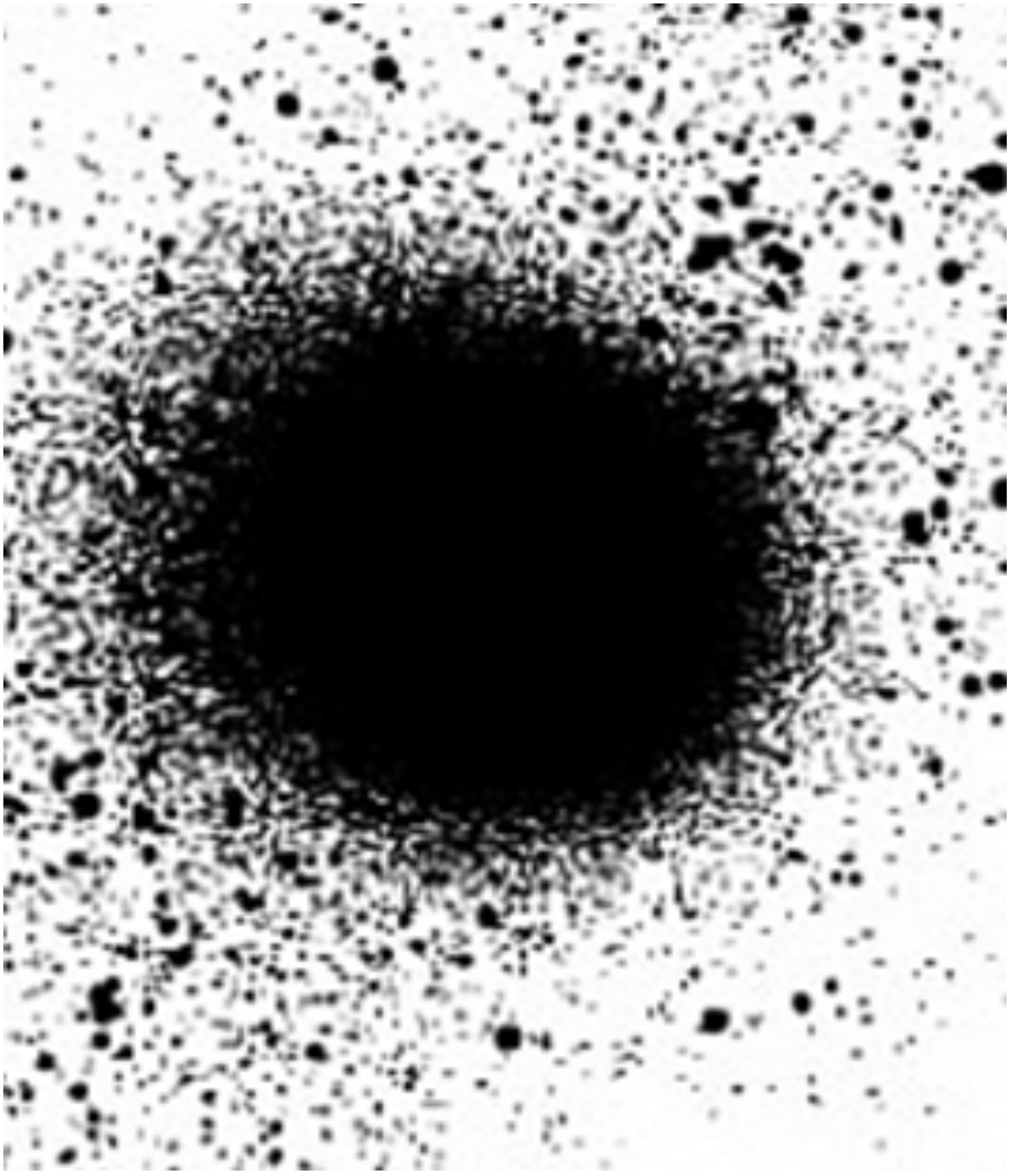


SPRAY

- Alcanza mayor área de mucosa oral
- Mayor captación por las células presentadoras de antígeno

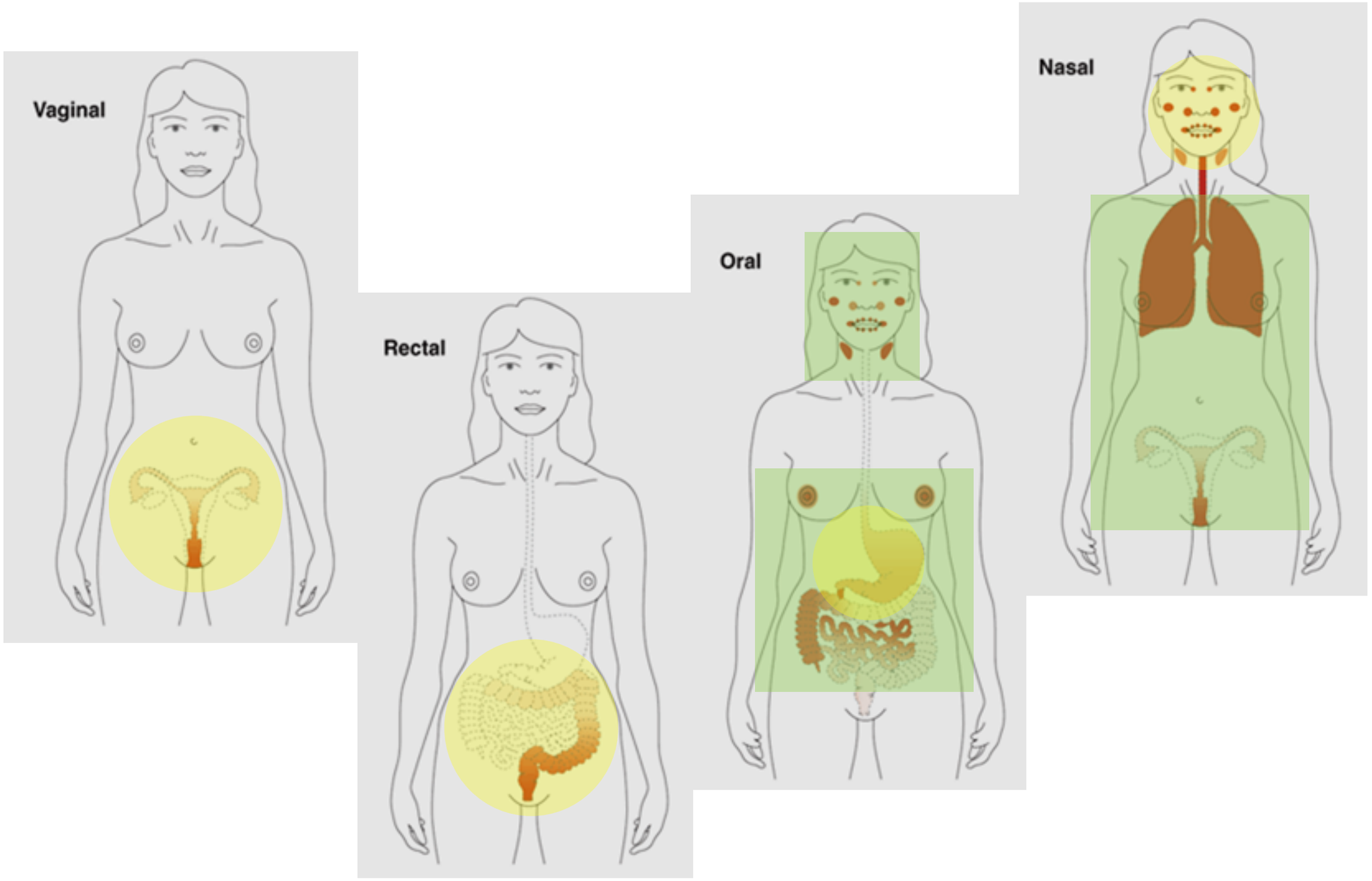
DROPS	SPRAY
	

SPRAY



APLICACIÓN

EFECTO SEGÚN LAS DISTINTAS LOCALIZACIONES



Holmgren et al.; Nat Med 2005

APLICACIÓN

Sublingual

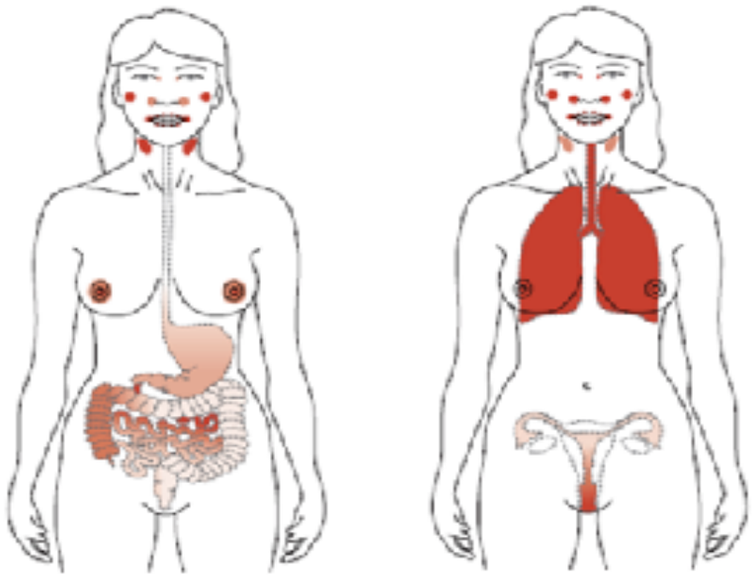


Table 1. Comparative anatomic dissemination of the mucosal SIgA antibody response after different routes of immunization

	Sublingual	Nasal	Oral
Upper respiratory	+++	+++	-
Lower respiratory	+++	+ to +++	-
Stomach	+/+++	-	+/+++
Small intestine	+++	-	+++
Colon	?	-	±
Rectum	?	-	±
Genital tract	+++	++	-
Blood	++	+++	+

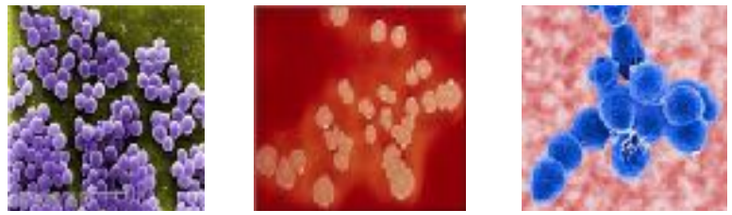
Çuruburu et al. Vaccine, 2007; Czerkinsky et al. Human Vaccines, 2011

COMPOSICIÓN

MV130

- **Bacterias enteras inactivadas**

  - ✓ *Staphylococcus aureus* (15%)
  - ✓ *Staphylococcus epidermidis* (15%)
  - ✓ *Streptococcus pneumoniae* (60%)



Bacterias Gram-positivas

  - ✓ *Klebsiella pneumoniae* (4%)
  - ✓ *Moraxella catarrhalis* (3%)
  - ✓ *Haemophilus influenza* (3%)

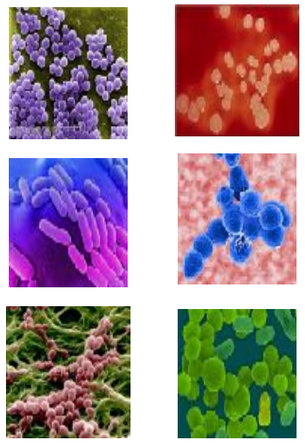
Bacterias Gram-negativas

- **Administración perlingual**

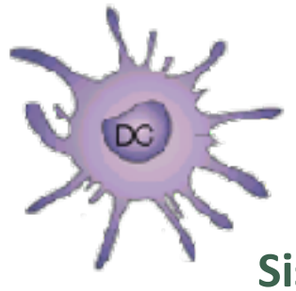
- **Excipientes**

ESTUDIOS IN VITRO

Hipotesis



Vacuna

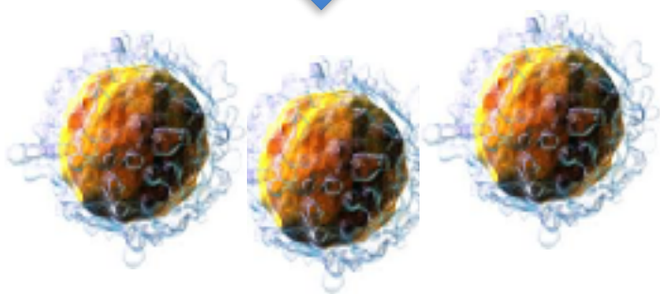


Célula dendrítica

Sistema inmune innato

1er paso

Proliferación



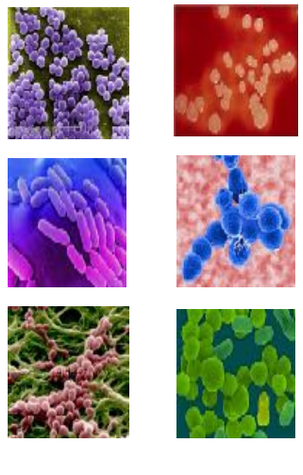
Linfocitos T

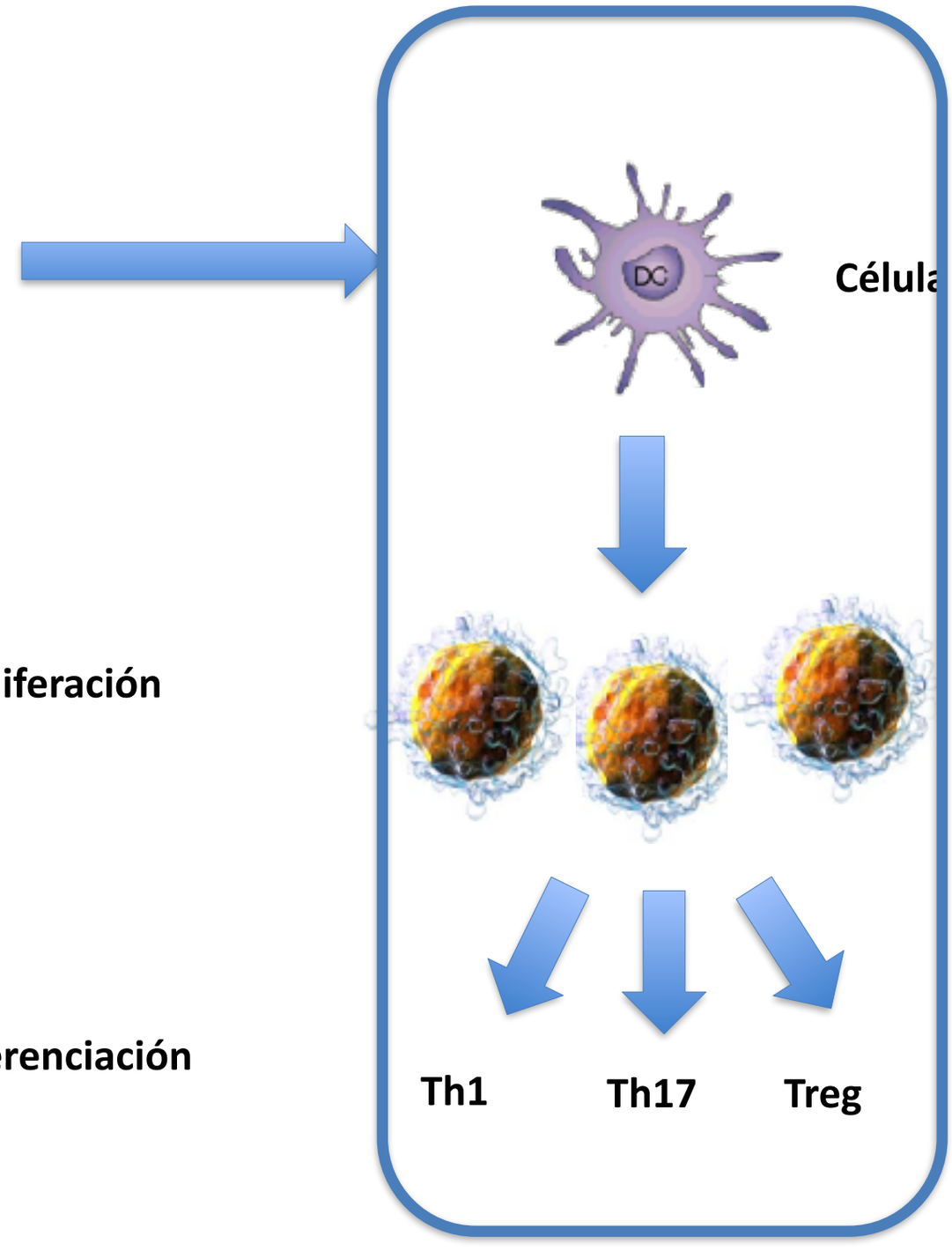
Diferenciación

Th1 **Th17** **Treg**

ESTUDIOS IN VITRO

Hipotesis





European Journal of Immunology

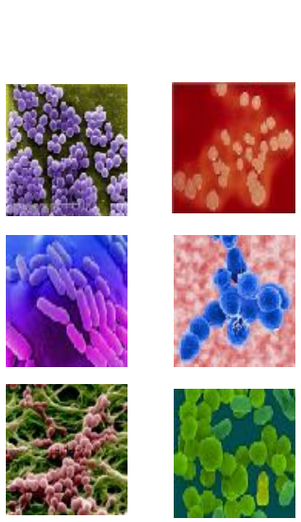
Immunomodulation and immune therapies

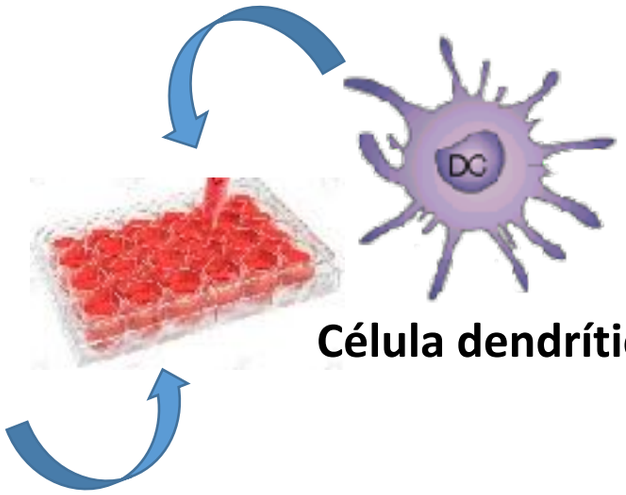
Research Article

Human dendritic cells activated with MV130 induce Th1, Th17 and IL-10 responses via RIPK2 and MyD88 signalling pathways

Cristina Cirauqui[1], Cristina Benito-Villalvilla[1], Silvia Sánchez-Ramón[2,3], Sofía Sirvent[1], Carmen M. Diez-Rivero[4], Laura Conejero[5], Paola Brandi[5], Lourdes Hernández-Cillero[2,6], Juliana Lucía Ochoa[2], Beatriz Pérez-Villamil[6], David Sancho[5], José Luis Subiza[2,3,4] and Oscar Palomares[1]

RESULTADOS





Célula dendrítica

Eur. J. Immunol. 2017. 0: 1–14 DOI: 10.1002/eji.201747024 Cristina Cirauqui et al.

European Journal of Immunology — Immunomodulation and immune therapies

Research Article

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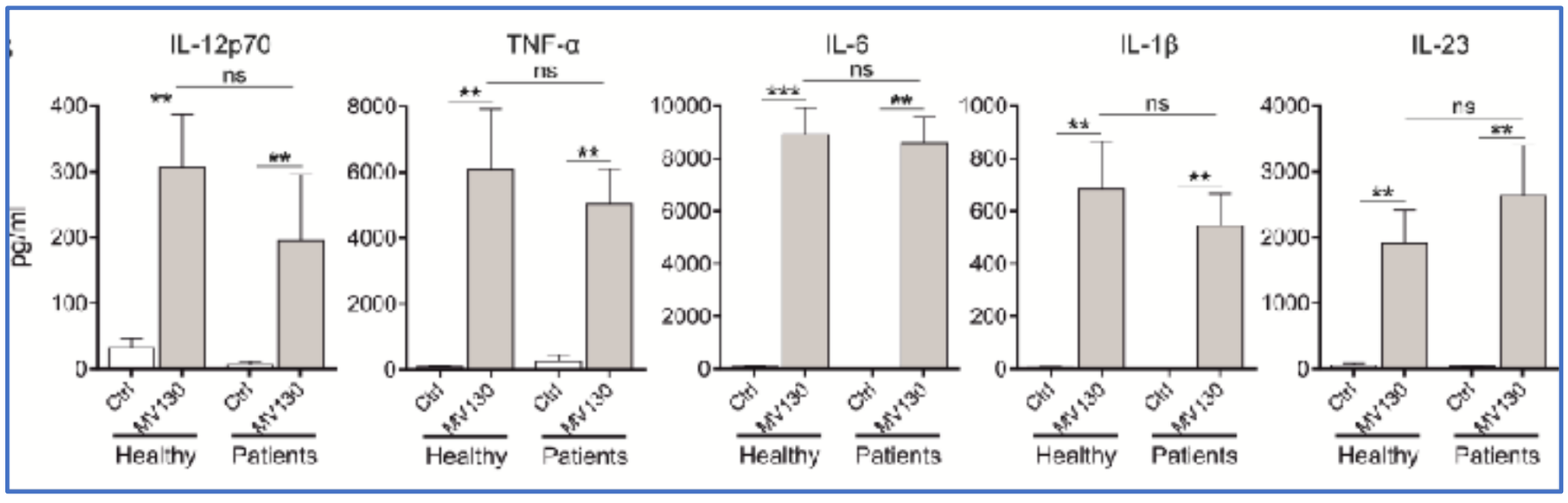
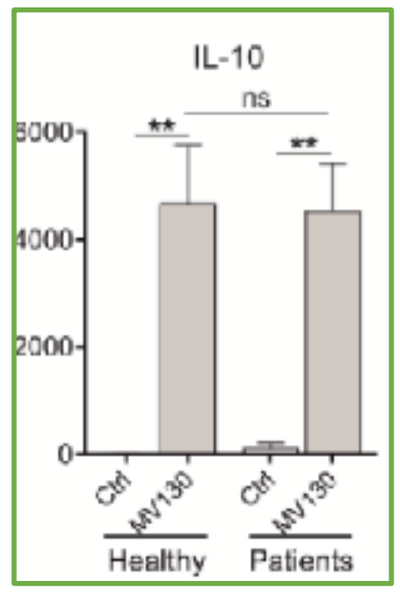
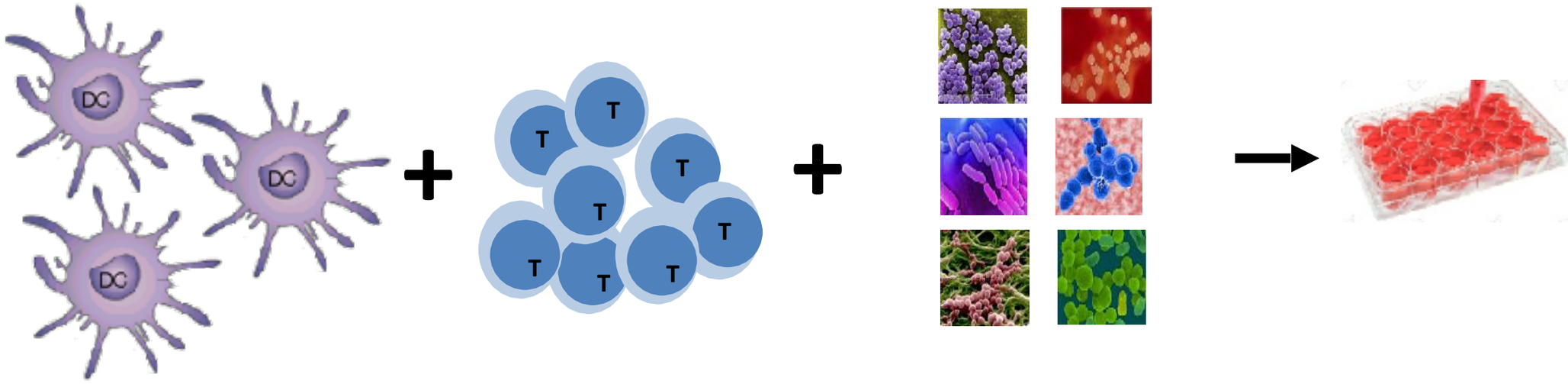
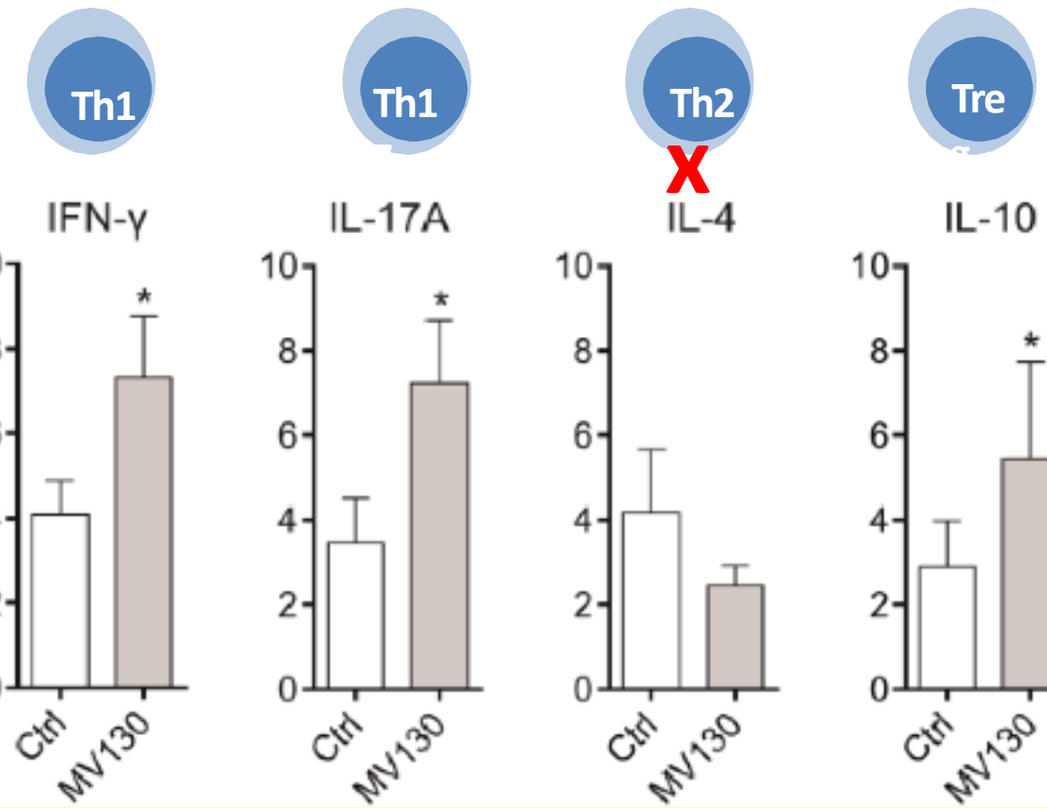




RESULTADOS





Th1 Protección contra patógenos intracelulares

Th1 Protección contra patógenos extracelulares

Tre Evita una respuesta immune excesiva

MV130 induce la diferenciación del linfocito T a Th1, Th17 y T regulador

Clinical & Experimental Immunology
The Journal of Translational Immunology

Clinical and Experimental Immunology ORIGINAL ARTICLE doi:10.1111/j.1365-2249.2011.04320.x

Sublingual therapeutic immunization with a polyvalent bacterial preparation in patients with recurrent respiratory infections: immunomodulatory effect on antigen-specific memory CD4+ T cells and impact on clinical outcome

D. Alecsandru, L. Valor, S. Sánchez-Ramón, J. Gil, J. Carbone, J. Navarro, J. J. Rodríguez, C. Rodríguez-Sainz and E. Fernández-Cruz

Clinical Immunology Unit, Immunology Department, Hospital General Universitario Gregorio Marañón, Departamento de Microbiología I, Universidad Complutense de Madrid, Spain

Summary

Recurrent respiratory tract infections (RRTIs) are common clinical conditions in individuals with alterations of the immune function. A prospective open pilot study in a cohort of patients with RRTIs has been performed to assess whether sublingual immunization with a polyvalent bacterial vaccine could exert an immunomodulatory effect on the antigen-specific immunological responses and have an impact on the clinical outcome. Seventeen patients with RRTIs were recruited. An oral polyvalent bacterial preparation (Bactek®) was administered to all patients daily for 6 months. Immunological assessment was performed at baseline and at the end of immunization. Immunological measurements included: T cell-specific proliferations of $CD3^+CD4^+$ and $CD3^+CD8^+$ to Bactek® antigens, total immunoglobulin levels, antibodies

MÉTODO

MV130

1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12

Vacunados virus gripe, neumococo, etc

Respuesta clínica a MV130

PACIENTE	DIAGNÓSTICO	CLÍNICA	Episodios Pre /año
1	Inf Resp Recurrentes	Neumonia	**3**
2	Hipogamma leve + Inf Resp Recurrentes	Faringoamigdalitis rec.+Bronquitis	**2**
3	Inf Resp Recurrentes	Faringoamigdalitis severas rec.	**8**
4	Conectivopatia indiferenciada.Inf Resp Rec.	Neumonía	**3**
5	Inf Resp Recurrentes	Bronquitis recurrentes.	**5**
6	Def Selectiva IgA. Inf. Resp. Recurrentes	Faringitis rec.	**8**
7	Inf. Vias Resp. Recurrentes	Otitis rec. Sinusitis rec.	**5**
8	Def. Sel IgG4. Inf. Vias Resp. Rec.	Neumonia	**2**
9	Inf. Vias Resp. Recurrentes	Faringoamigdalitis recurrente	**5**
10	EPOC. Hipogamma leve	Faringitis+Reagudizaciones frecuentes	**8**
		Neumonia	**2**
11	Hipogamma leve + Inf Resp Recurrentes	Bronquitis recurrente	**4**
12	Inf. Vias Resp. Recurrentes. Bronquiectasias	Faringoamigdalitis	**5**
		Neumonia	**2**
13	Inf Vías Resp Altas Rec	Bronquitis. Otitis. Sinusitis.	**5**
14	Tiroiditis Autoinmune. Inf. Vias Resp Rec.	Faringoamigdalitis	**6**
15	Def. Sel IgG4. Inf. Vias Resp. Rec.	Faringoamigdalitis rec. Otitis rec.	**5**
16	Hipogamma leve + Inf Resp Recurrentes	Bronquitis recurrente	**5**
17	Inf Vías Resp Altas Rec	Faringoamigdalitis rec.	**10**
		Herpes labial y nasal recurrente	**12**

Respuesta clínica a MV130

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17	Inf Vías Resp Altas Rec	Faringoamigdalitis rec.	**10**
		Herpes labial y nasal recurrente	**12**

Sublingual therapeutic immunotherapy with a polyvalent bacterial preparation in preschool children with recurrent respiratory tract infections

J. MARTÍ-GARRIDO[1], B. SELVA[1], M. NIETO[1], E. BARTOLL[1], A. MAZÓN[1], S. CALAFORRA[1], R. CALDERÓN[2], M.J. PALAU[2], A. NIETO[1], R. CABALLERO[2], M. GUZMÁN-FULCENCIO[2], M. TEJERA-ALHAMBRA[3], J.L. SUBIZA[3], E. FERNÁNDEZ-CALDAS[3] and M. CASANOVAS[3]
1 La Fe Hospital, Valencia, Spain
2 Manises Hospital, Valencia, Spain
3 Inmunotek, Madrid, Spain

In relation to this presentation, I declare the following , real or perceived conflicts of interests: R. Caballero, M. Tejera Alhambra, J.L. Subiza, E. Fernández Caldas and M. Casanovas work for INMUNOTEK, S.L.

#577

Randomized, double blind, placebo-controlled study (EudraCT No. 2012-002450- 24) (ClinicalTrials.gov NCT01734811)

AIM:
To assess the efficacy of immunotherapy with selected inactivated bacterial strains through the sublingual route in the prevention of wheezing attacks (WA) in infants and preschool children.

Definition of wheezing attack:
An acute wheezing attack was defined as an episode of progressively worsening short-ness of breath, coughing, wheezing and retraction, or any combination that lasted at least 6 hours without chest radiographic abnormalities

Primary endpoint:

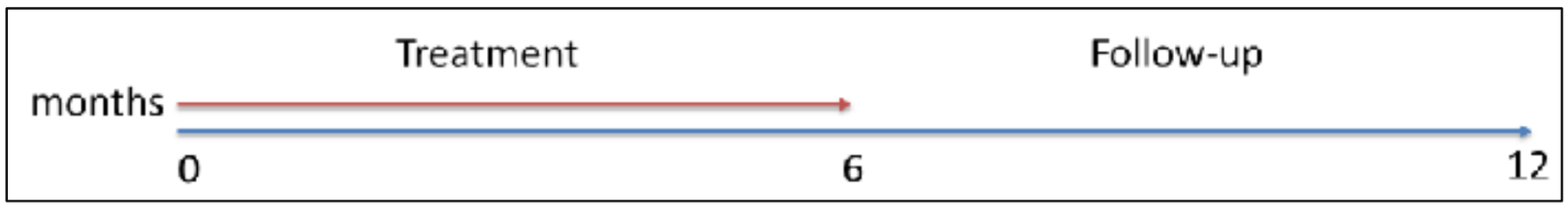
- Reduction of WA during the twelve months of the study.

Secondary endpoints:

- Reduction of symptoms and medication intake during WA.
- Reduced duration of WA.

Table 1. Demographical data.

	All	Active	Placebo
n	121	62	59
Age (median) months	24	24	24
Percentiles 25-75%	17.0-29.0	17.3-28.0	17.0-29.0
Range (months)	6.0-35.0	11.0-35.0	6.0-35.0
Boys	70	37	33
Girls	51	25	26



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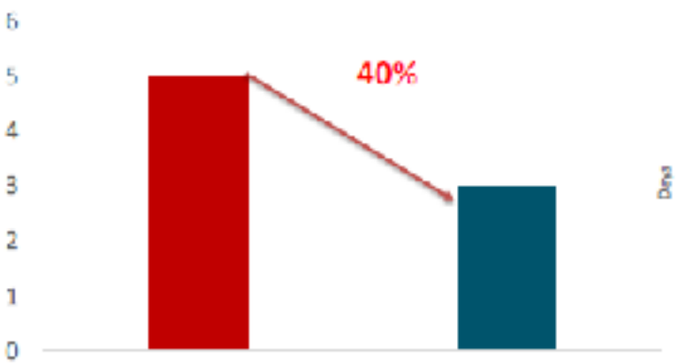
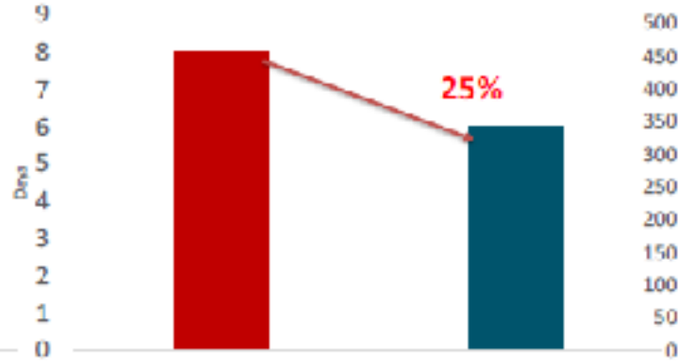
RESULTS

Wheezing attacks



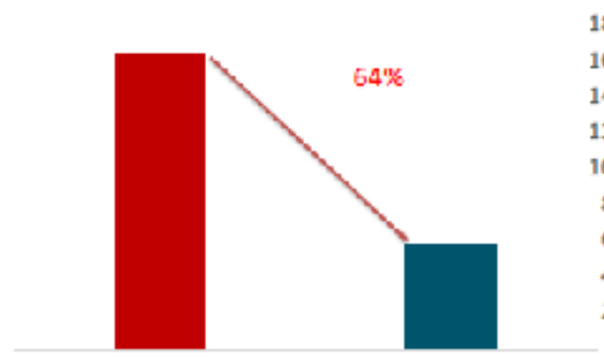
	Placebo	Active	P
Median	5	3	<0.0001
Percentiles 25-75%	3.0-7.0	2.0-4.0	

Duration of wheezing attacks



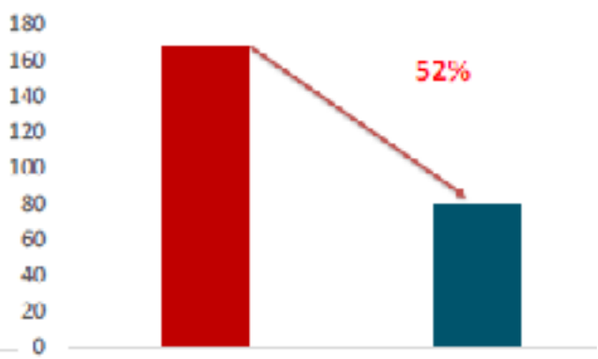
	Placebo	Active	P
Median	8	6	0.024
Percentiles 25-75%	6.0-11.0	4.0-9.5	

Medication during wheezing attacks



	Placebo	Active	P
Median	456	164	<0.0001
Percentiles 25-75%	205.5-765.8	43.5-311.5	

Symptoms during wheezing attacks



	Placebo	Active	P
Median	168	80	0.001
Percentiles 25-75%	91.8-251.3	19.5-154.5	

Safety: there was no side effect related to active treatment.
Side effects happened in 11 patients both in placebo and active group: mouth sores, vomiting, urticaria and convulsive crisis (1 patient from the placebo group).

CONCLUSIONS

Immunostimulation with these selected inactivated strains of bacteria is safe and can be successfully used in infants and preschool children in order to prevent recurrent wheezing attacks.

MV130

Posología

- Tratamiento en infecciones bronquiales y de vías respiratorias altas.
- Vacuna individualizada.
- Cuerpos enteros de bacterias inactivas.
- Vía de administración spray sublingual.

BACTEK B®

PAUTA CONVENCIONAL
Dosis máxima

COMPOSICION
Bacterias

INICIACION	MANTENIMIENTO	
		
(2x) DEL DÍA 1 AL 30	(2x) DEL DÍA 30 AL 60	(2x) DEL DÍA 60 AL 90
DOSIS DIARIA	**DOSIS DIARIA**	
1 Frasco de 6 mL (10^9 B/mL) Cada pulsación dispensa 0,1 mL Dos pulsaciones diarias. Duración del tratamiento (1 frasco): 1 mes.	2 Frascos de 6 mL (10^9 B/mL) Cada pulsación dispensa 0,1 mL Dos pulsaciones diarias. Duración del tratamiento (2 frascos): 2 meses.	

COMPOSICION

- *Moraxella catarrhalis*
- *Klebsiella pneumoniae*
- *Staphylococcus aureus*
- *Haemophilus influenzae*
- *Streptococcus pneumoniae*
- *Staphylococcus epidermidis*

CONCLUSIONES

- **Efecto inmunoestimulante**
- **Seguro (bacterias inactivadas)**
- **Rápidez de acción (desde el inicio del tto)**

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The role of adenotonsillectomy in the treatment of primary nocturnal enuresis in children: A systematic review

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Keywords
Nocturnal enuresis; Sleep apnea syndromes; Adenoidectomy; Tonsillectomy

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Available online xxx

Summary

Introduction
Primary nocturnal enuresis (PNE) is a challenging condition for physicians, patients and families. Although the etiology remains unclear, sleep-disordered breathing (SDB) and sleep apnea have been suggested to play an important role. Recent research has suggested a potential therapeutic benefit of adenotonsillectomy (T&A) and surgical management of upper airway obstruction in the treatment of PNE.

Objective
The aim was to conduct a systematic review of relevant literature to determine the effectiveness of T&A in treating children aged 2–19 years with PNE.

Study design
This was a systematic review using a comprehensive electronic search strategy that included PubMed, Embase, CINAHL, Cochrane Library, conference proceedings, and the gray literature up to July 2015. We included all studies of children aged 2–19 years with PNE and SDB who underwent T&A. The primary outcome was resolution of PNE following surgery. Observational studies and randomized trials were reviewed. Risk of bias assessment and meta-analyses of included studies were performed.

Results
We screened 3254 citations; following title and abstract screening, 42 studies were selected for full-text screening by two independent reviewers. We included 18 studies (890 patients) in our final analysis. All studies were observational and only one included a control group. Meta-analysis of proportions of all (18) studies revealed a pooled complete resolution rate of 51% (43–60%), with significant heterogeneity among studies (I^2 = 82.2%). Partial resolution was seen in 20% (14–27%), with similar heterogeneity to the complete resolution group. Sensitivity analysis including only studies with a low risk of bias and with patients ≥5 years (n = 244 patients) yielded a complete resolution rate of 43% (36–49%) with minimal heterogeneity (I^2 = 0%; figure).

Conclusion
In our systematic review, T&A resulted in improvement of nocturnal enuresis in more than 60% of patients, with complete resolution rates in excess of 50%. Findings were persistent on meta-analysis focused only on studies including older patients (≥5 years) and those with short follow-up after surgery (≤3 months), which imply a higher cure rate than would be expected based on natural history alone. The limitations of this review include the lack of controlled trials, the overall quality of the evidence reviewed and the heterogeneity between included studies. The role for systematic investigation and treatment of sleep disorders in patients with PNE should be scrutinized further, since a near 50% complete resolution rate for PNE may be expected with T&A in some settings.

- **La enuresis nocturna mejora en un 60% de los niños adenoamigdalectomizados para el tratamiento del SAHS**

GRACIAS POR SU ATENCIÓN