



# "Microbiota" del Rinofaringe

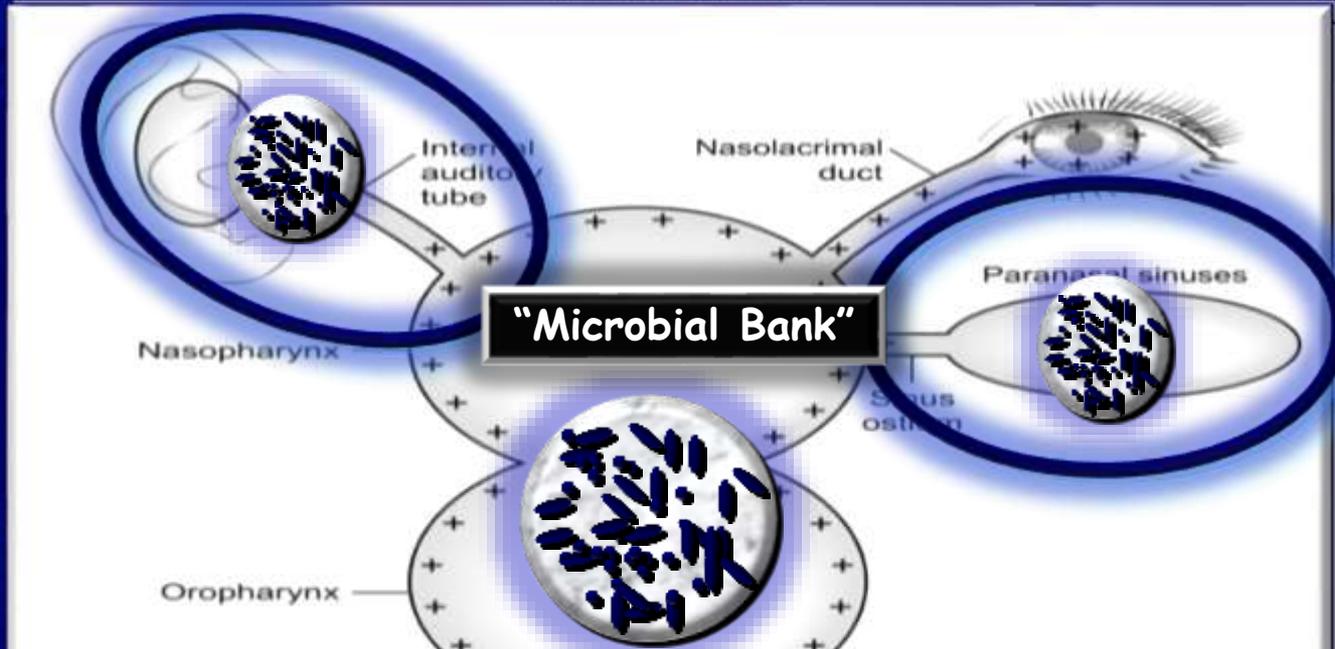
## Indigenous Microflora and Innate Immunity of the Head and Neck

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Implicato nella patogenesi delle  
rino-sinusiti, rino-otiti, rino-bronchiti

Raccomandazione

# MICROBIOTA NASALE

Il **Microbiota Nasale (VAS)** include oltre 700 microorganismi che:

1. occupano **specifiche nicchie**
2. **competono con altri batteri**
  - *per nutrienti*
  - *per spazio*

Mantenendo l'equilibrio microbico



# RINO-SINUSITE Anteriore: Blocco del COM

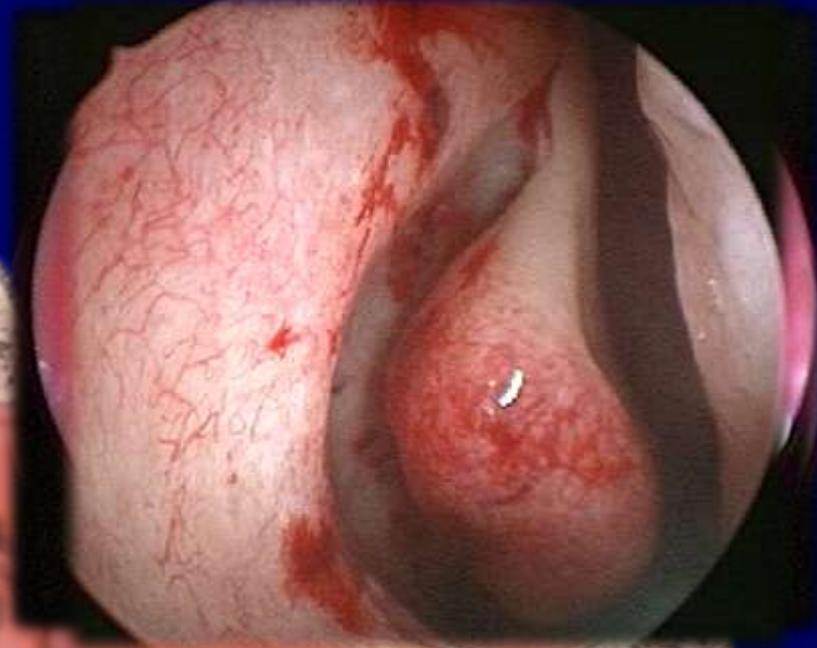
Frontale

Etmoide ant.

~~Complesso Osteomeatale~~

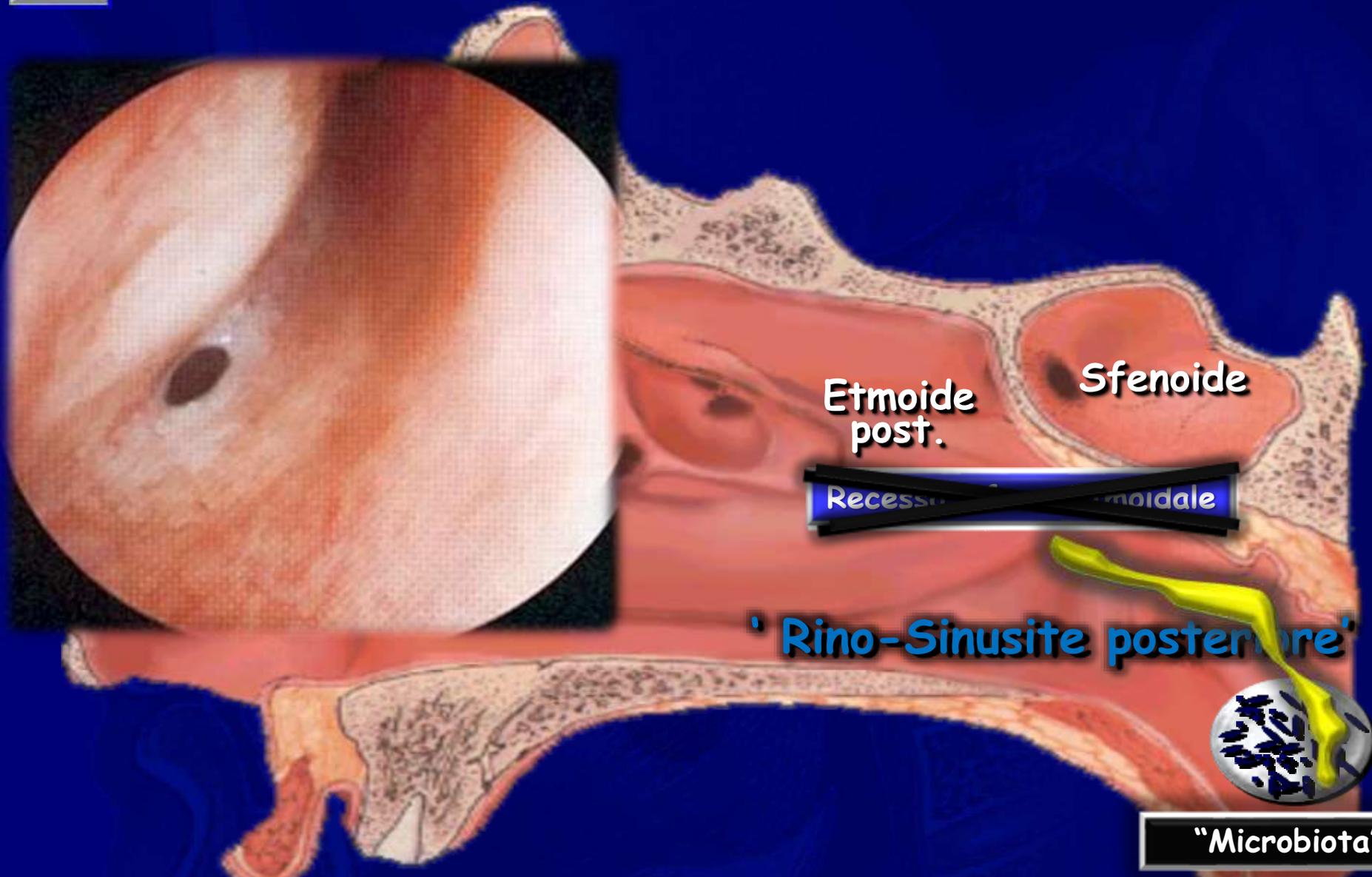
Masillare

**'Rino-Sinusite anteriore'**



"Microbiota"

# RINO-SINUSITE Posteriore: Blocco del RSE



Etmoide post.

Sfenoide

~~Recesso sferoide~~

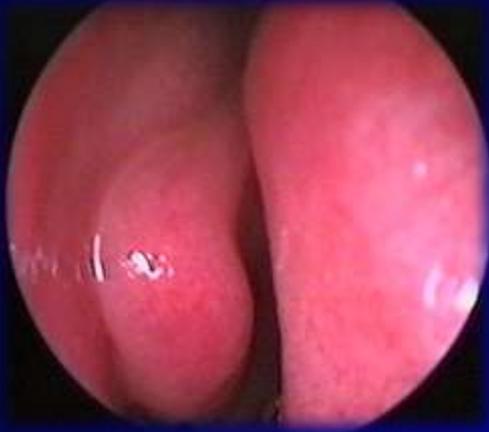
'Rino-Sinusite posteriore'

"Microbiota"



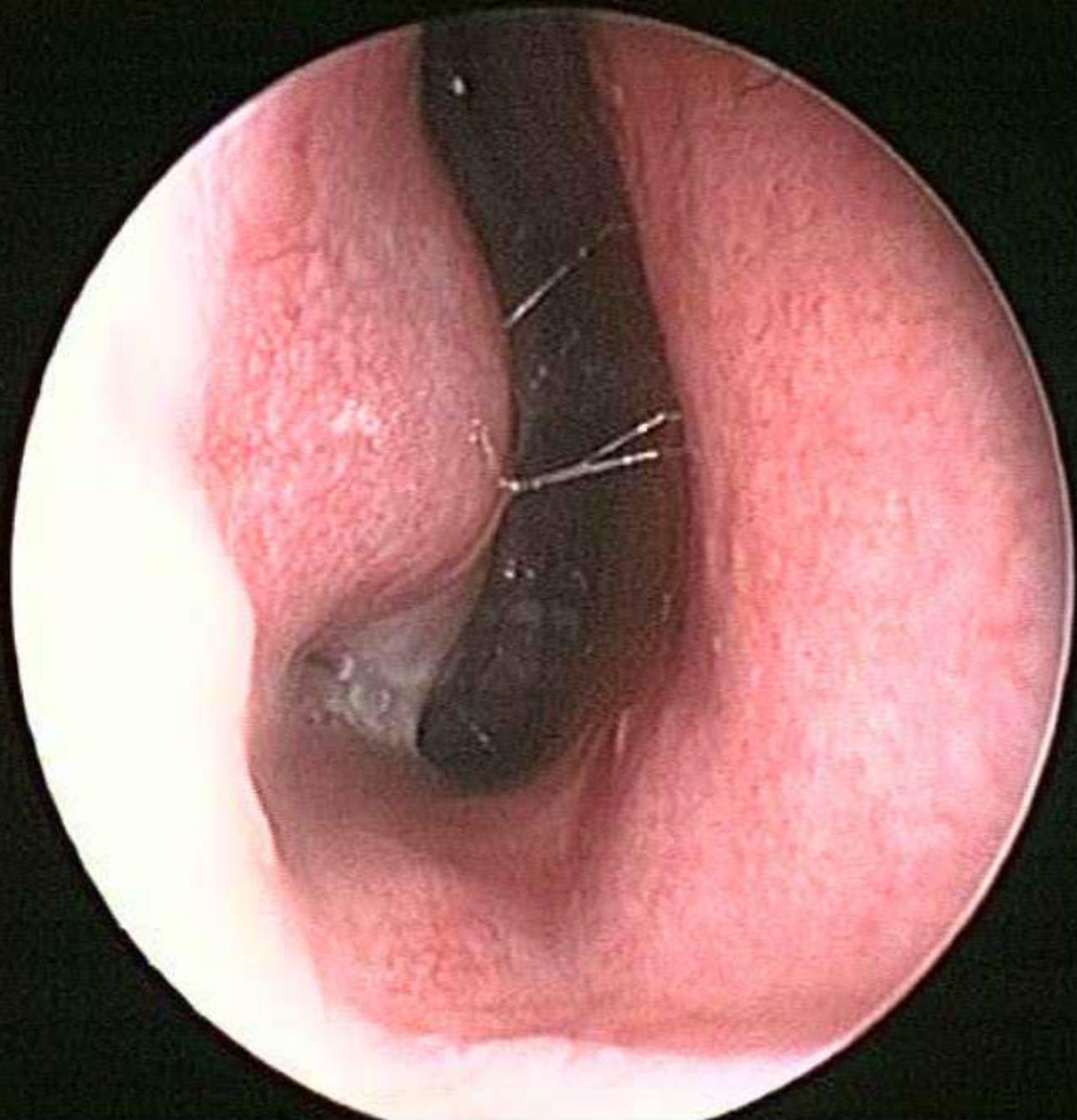
# Raccomandazione

- Il blocco del **COM** causa la **Rino-Sinusite Anteriore**.



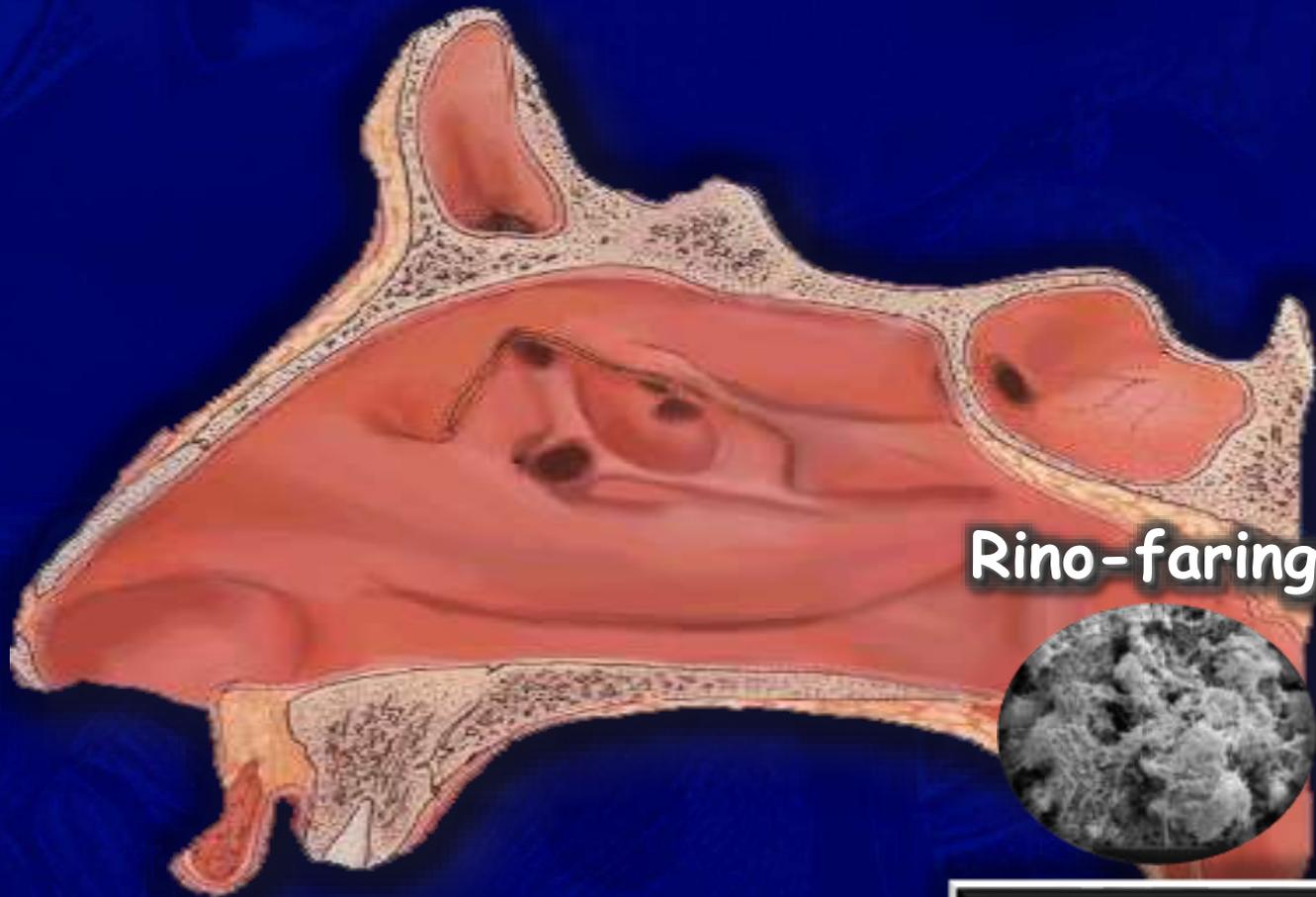
- Il blocco del **RSE** causa la **Rino-Sinusite Posteriore**.



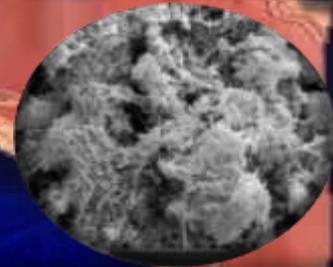




# Rinofaringe: sede del 'Biofilm Batterici'



Rino-faringe



"Biofilm Batterici"



# Biofilms and Chronic Infections

Randall D. Wolcott, MD Garth D. Ehrlich, PhD

*JAMA*.299 (22): 2682-2684, 2008.

Numerosi Studi dimostrano che i

## "*BIOFILMS BATTERICI*"

sono implicati in *infezioni ricorrenti* delle V.A.S.

- Modalità strategica di sopravvivenza batterica
- 1<sup>a</sup> causa di infezioni batteriche ricorrenti (80%)

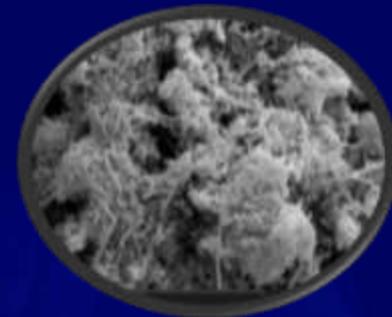
*National Institute of Health degli U.S.A, 1998*



Literature Review

## Eradicating Chronic Ear, Nose, and Throat Infections: A Systematically Conducted Literature Review of Advances in Biofilm Treatment

Marzo 2011



AMERICAN ACADEMY OF  
OTOLARYNGOLOGY-  
HEAD AND NECK SURGERY

FOUNDATION

Una revisione sistematica  
di tutta la letteratura mondiale in campo ORL

... ed eseguita da uno dei team più autorevoli  
di ricerca clinica sui biofilm

### JAMES C. POST, MD

Faculty Title

- Professor, Otolaryngology, Temple University School of Medicine
- Professor, Otolaryngology-Head and Neck Surgery, Drexel University College of Medicine

Specialty

Otolaryngology

Area(s) of Expertise

- Ear and Nose and Throat Conditions
- Ear Infections (Otitis Media)
- Hearing Loss
- Otolaryngology (Ear Nose & Throat)
- Pediatric ENT
- Sleep Apnea

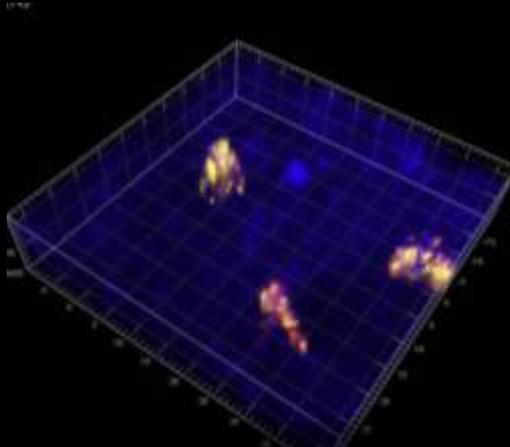
### Corresponding Author:

Angelia Smith, MD, c/o Christopher Post, MD, Allegheny General Hospital,  
320 East North Street, Pittsburgh, PA 15212

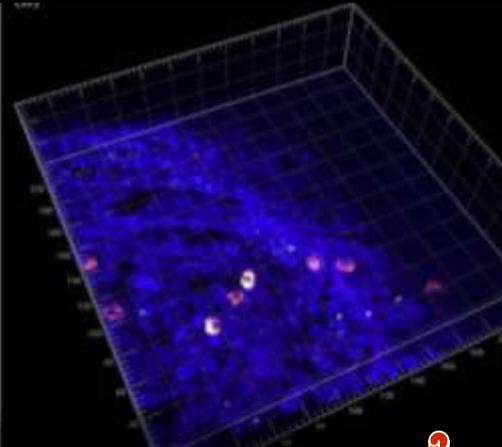
Email: [emailangelia@gmail.com](mailto:emailangelia@gmail.com)

CLSM images of NP specimens showing clusters of bacterial pathogens using FISH

H. influenzae

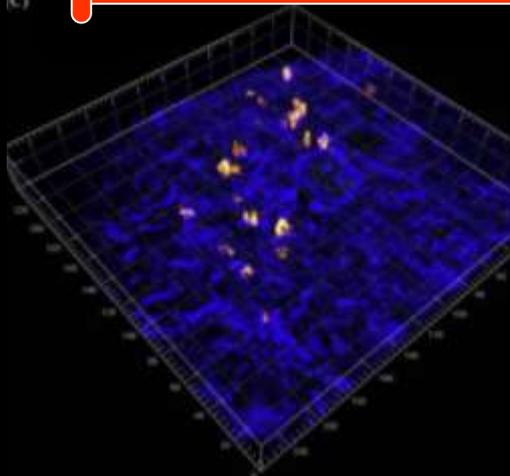


S. aureus

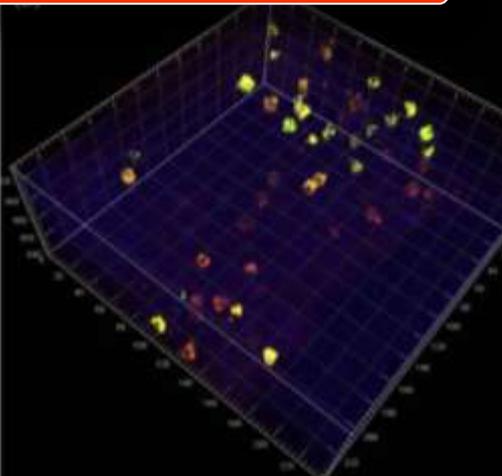


Poker Infernale

S. pneumoniae



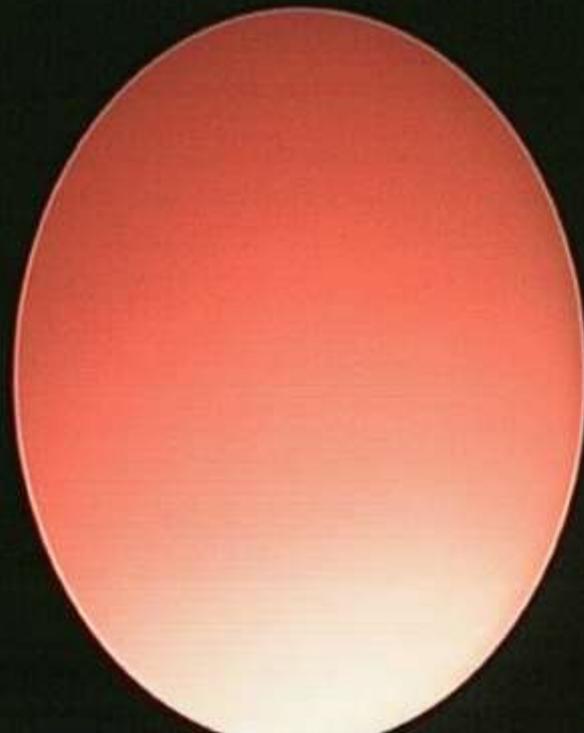
M. catarrhalis



# NELLE INFEZIONI RICORRENTI V.A.S.

Biofilm batterici  
sono presenti  
sulla *superficie* del **RINOFARINGE**

Pazienti pediatrici  
con infezioni ricorrenti



Pazienti pediatrici  
con apnee ostruttive  
notturne



**4° GRADO**



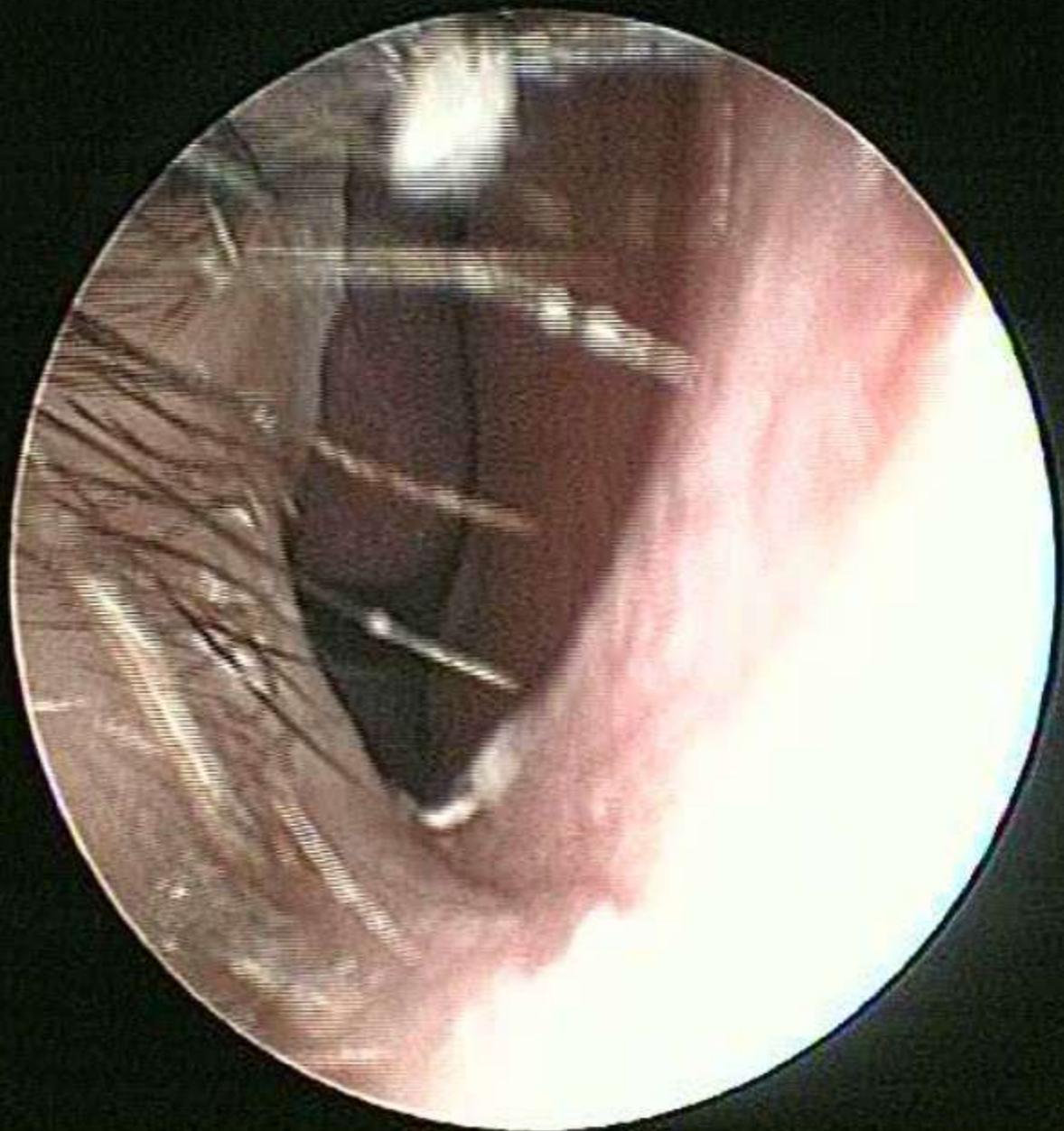
Se i biofilm batterici  
non vengono rimossi dal

## RINOFARINGE

- o **CONTRASTATI** l'infezione è destinata a  
**RECIDIVARE!!!**

**Raccomandazione Forte**

LEAD MCMP/MJPLG Lncoder [2.0] Lval

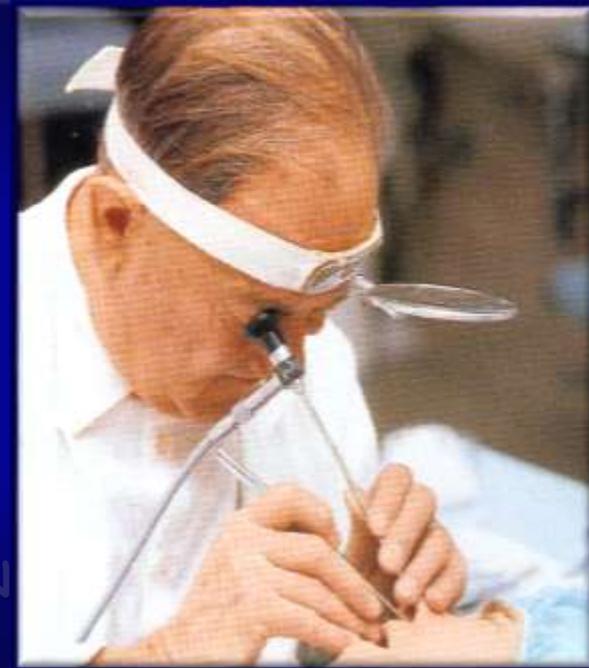


LEAD MCMP/MJPEG Decoder [2.0] Eval



# MODERNO APPROCCIO DIAGNOSTICO

- **ESAME FIBRO-ENDOSCOPICO**
- TAMPONE ESSUDATO V.A.S.
- CITOLOGIA NASALE
- TRASPORTO MUCO-CILIARE
- TESTS ALLERGOMETRICI
- STUDIO RESISTENZE AL FLUSSO AEREO
- DIAGNOSTICA RADIOLOGICA PER IMMAGIN



Messerklinger



# Rinoscopia Anteriore Tradizionale



**PRONTO?**

**"O- Totò - Rhinus Speculatum"**

**di**

**Attilio Varricchio**



# FIBRO-ENDOSCOPIA delle V.A.S.



**Home Message**



# I.R.R. delle VAS

Si bloccano VENTILAZIONE e CLEARANCE

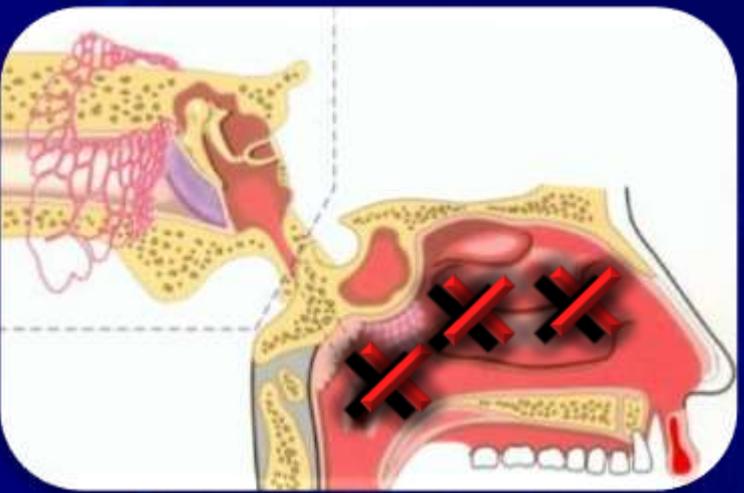
CONGESTIONA \*



INFIAMMA\*

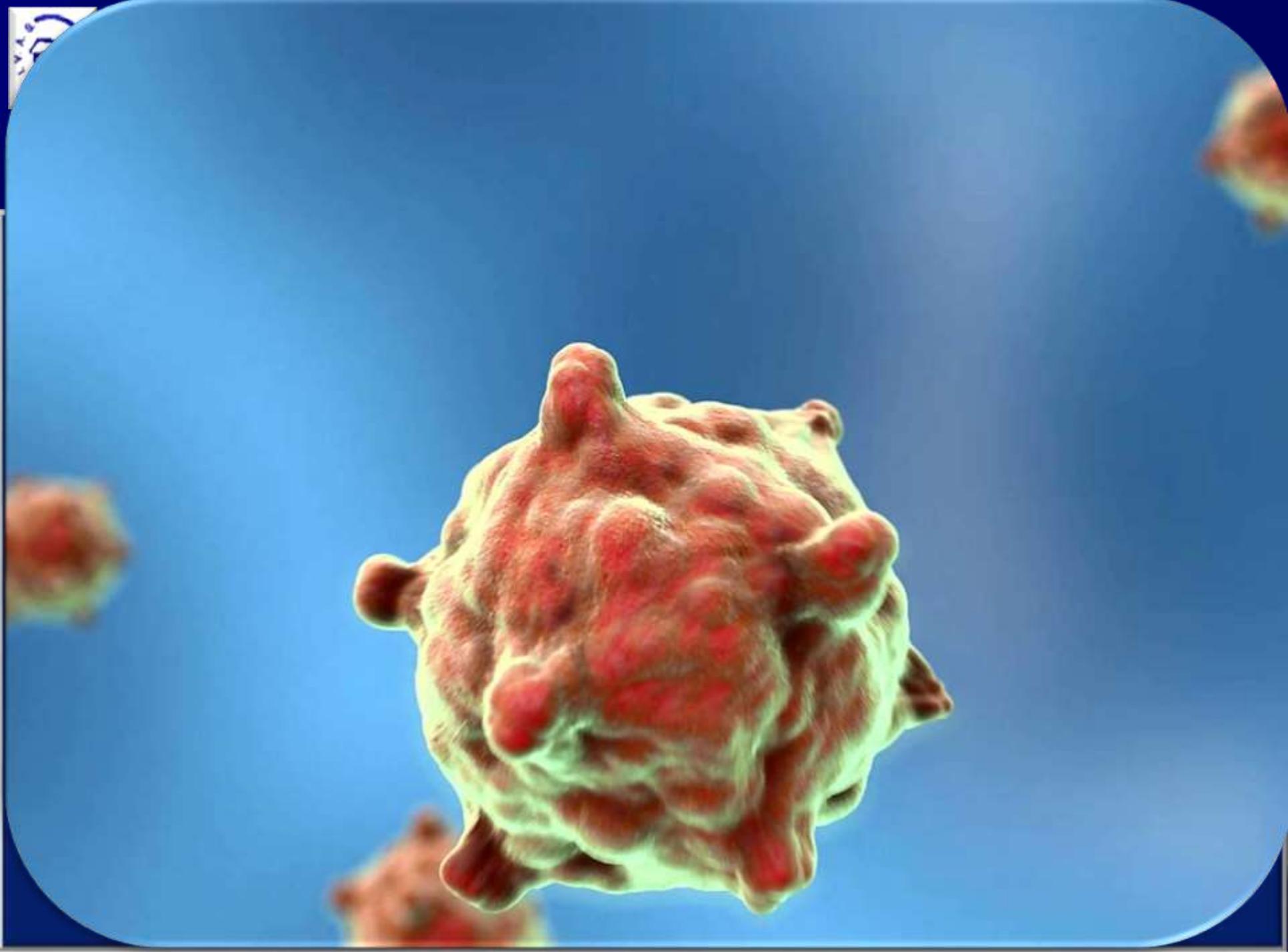


INFETTA\*



IL NASO si

\*Itzhak Brook et al. Laryngoscope, 2004





# TERAPIA INALATORIA DELLE V.A.S.

## PUNTI CRITICI



**INDICAZIONI**

**TECNICHE**

**FARMACI**



INDICAZIONI



1. Si integra ottimamente con le **terapie sistemiche**.
2. È indicata in tutte le **flogosi acute, croniche riacutizzate e ricorrenti del distretto Rino-Sinuso-Faringeo**.



# TERAPIA INALATORIA DELLE V.A.S.

## PUNTI CRITICI



INDICAZIONI

TECNICHE

FARMACI



Lavaggio  
(Irrigazione)

e

Aerosol

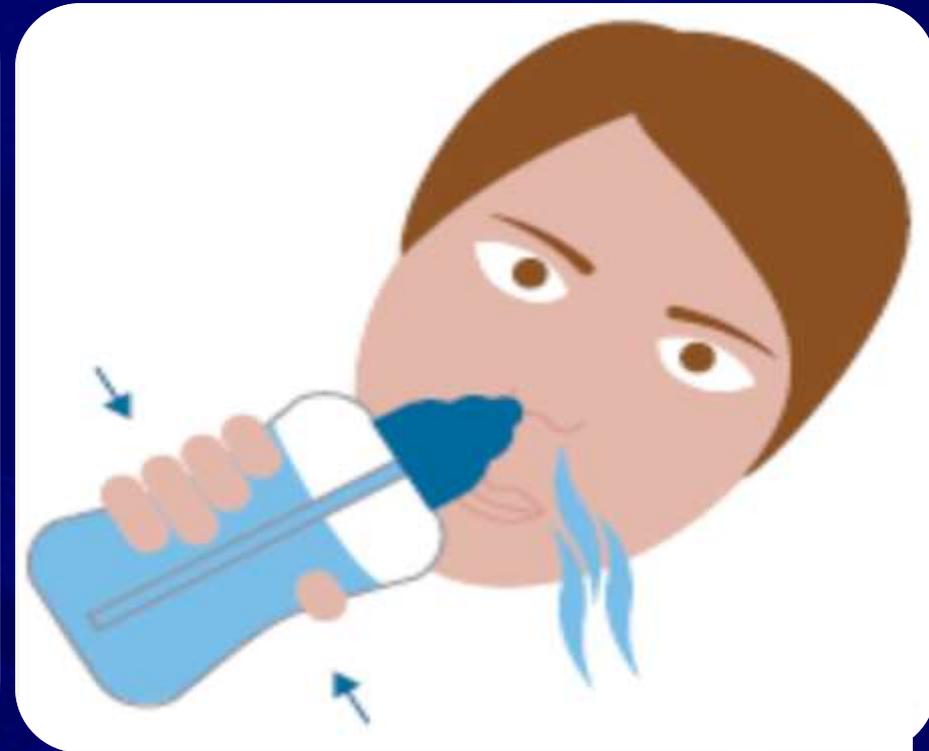
NON

**SONO LA STESSA COSA!!!**

**MITO da SFATARE**

Qualitative aspects of nasal irrigation use by patients with chronic sinus disease in a multimethod study.

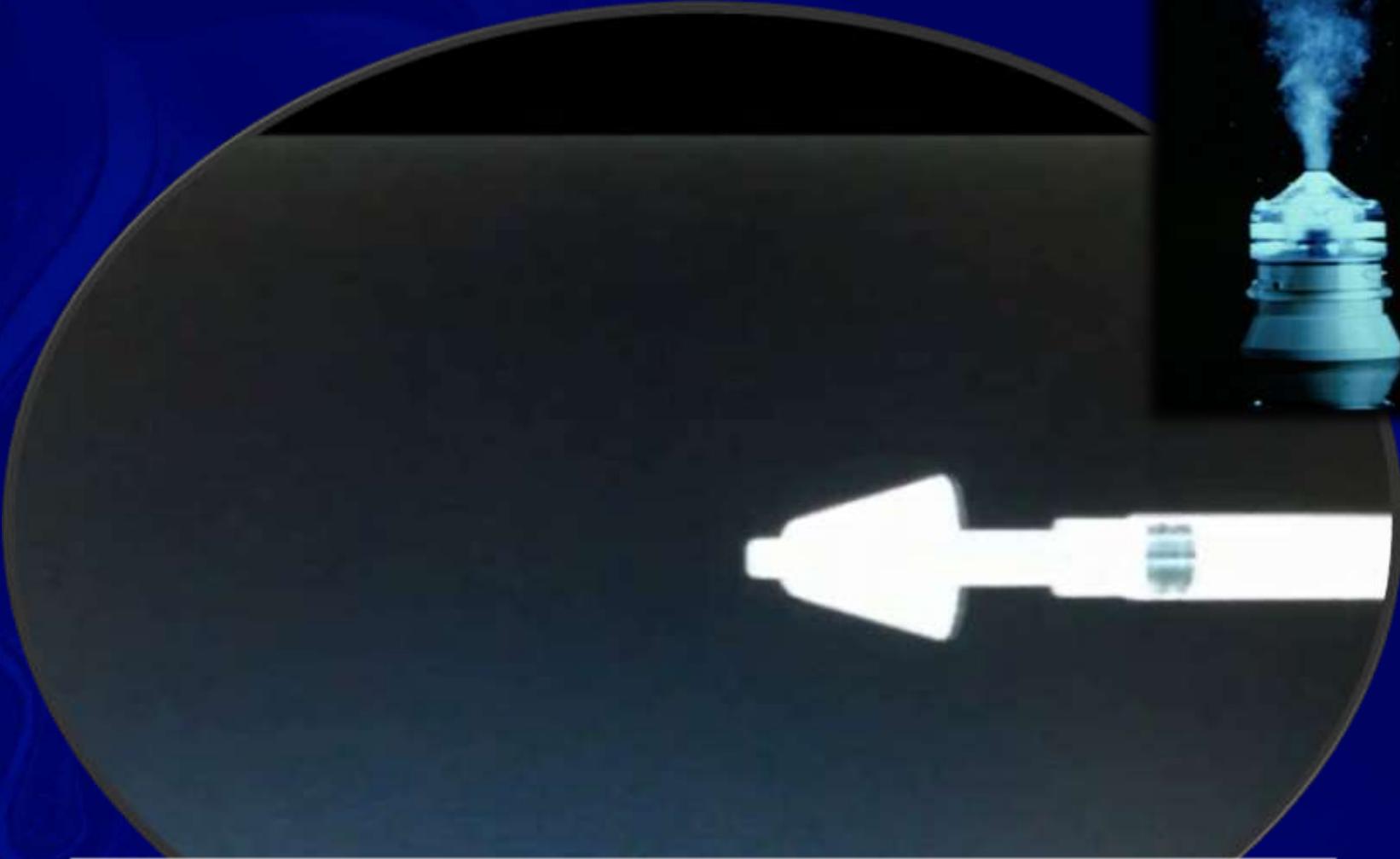
*Rabago D, Ann Fam Med. 2006;4:295-301.*



**IRRIGAZIONE:**

non cambia l'aspetto fisico della soluzione

'Lava'



**AEROSOL:**  
Trasforma il liquido in bolle che si disperdono  
'Medica'



## RACCOMANDAZIONE

- **L'IRRIGAZIONE** lava.



- **L'AERO-SOL** medica.

