SIMA 23

Σι-μα Ιητηρ(ιατρός) Μινωϊκή Κρήτη

1ο ΠΟΛΥΘΕΜΑΤΙΚΟ ΣΥΝΕΔΡΙΟ ΙΑΤΡΙΚΟΥ ΣΥΛΛΟΓΟΥ ΗΡΑΚΛΕΙΟΥ

Ξενοδοχείο Aquila Atlantis

03,04 & 05.11.2023

Λοιμώξεις αναπνευστικού σε ασθενείς με χρόνιες πνευμονοπάθειες

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Πνευμονολογική κλινική ΠΑΓΝΗ

Λοιμώξεις ανώτερου αναπνευστικού

- Κοινό κρυολόγημα
- Φαρυγγοαμυγδαλίτιδα
- Οξεία Ρινοκολπίτιδα
- Οξεία επιγλωττίτιδα
- Λαρυγγίτιδα
- Οξεία μέση πυώδης ωτίτιδα

Λοιμώξεις κατώτερου αναπνευστικού

- Βρογχίτιδα
- Βρογχιολίτιδα
- Πνευμονία

Λοιμώξεις ανώτερου αναπνευστικού

- Most upper respiratory infections are *of viral etiology*.

- *Epiglottitis and laryngotracheitis* are exceptions with severe cases likely caused by *Haemophilus influenzae* type b.

- *Bacterial pharyngitis* is often caused by Streptococcus pyogenes

Virus	Estimated frequency (%)
Rhinoviruses	30-50
Coronaviruses	10-15
Influenza virus	5-10
RSV	5
Parainfluenza	5
Adenoviruses	<5
Enteroviruses	<5
Bacteria	Unknown
Unknown	20-25

Heikkinen T, Jarvinen A.
The common cold. Lancet 2003;361:51.

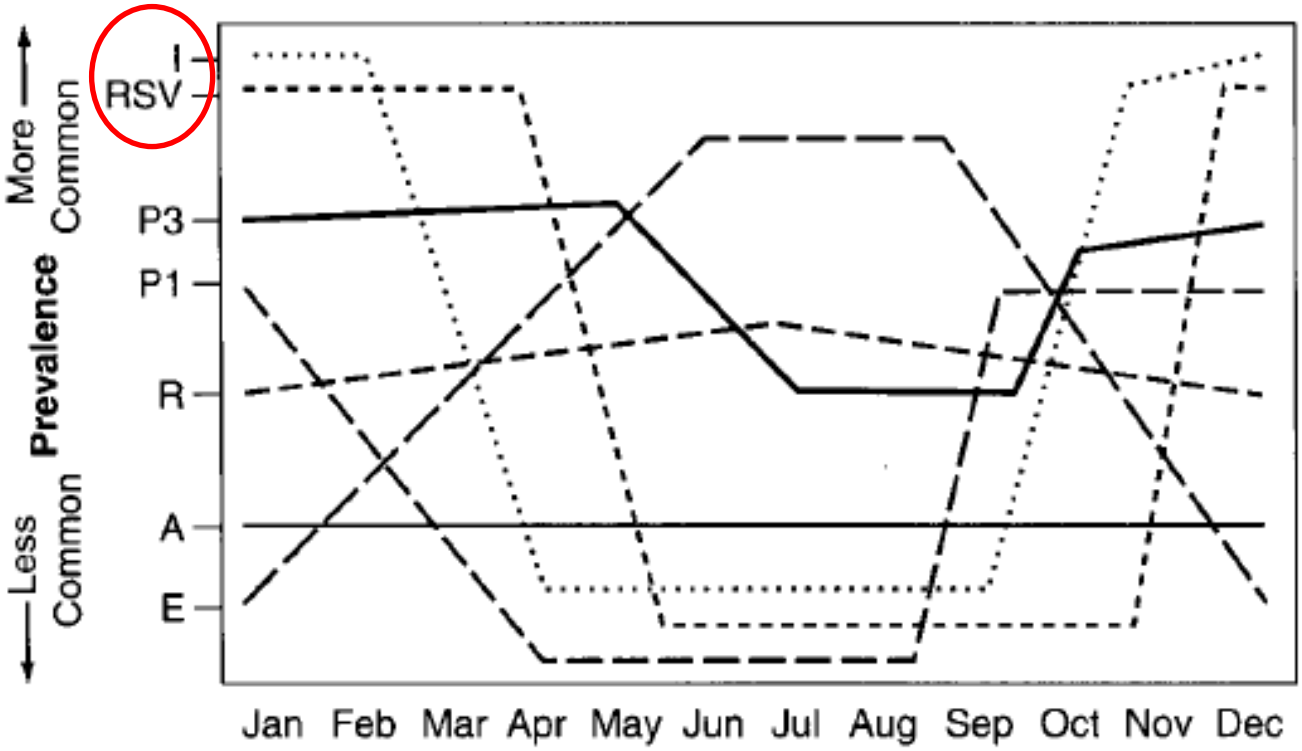


Figure 1. Seasonal prevalence of common cold viruses. I = influenza; RSV = respiratory syncytial virus; P3 = parainfluenza type 3; P1 = parainfluenza type 1; R = rhinovirus; A = adenovirus; E = enterovirus.

Kirkpatrick GL.
The common cold. Prim Care 1996;23:657.

Κοινό κρυολόγημα

- 200 viruses are related to the common cold
- Viruses with a seasonal incidence (**influenza and parainfluenza) have a more systemic symptomatology.**
- **Adenoviruses and enteroviruses** produce a spectrum of illnesses that overlap with the common cold, with more characteristic findings than pharyngitis and lower respiratory infections.

Κοινό κρυολόγημα

- Transmission is easy from human to human.
- The incubation period varies is usually between 1 and 3 days
- Infectiousness is highest during days 2-3 of the symptoms.

Turner RB. Epidemiology, pathogenesis and treatment of the common cold.
Ann Allergy Asthma Immunol 1997;78:531

Συμπτώματα	Κοινό κρυολόγημα	Γρίπη
Πυρετός	Σπάνια στους ενήλικες και στα μεγαλύτερα παιδιά. Μπορεί όμως να είναι υψηλός (έως και 39° C) στα βρέφη και τα μικρά παιδιά.	Συνήθως υψηλός πυρετός, από 38,5°C μέχρι και 40°C, που συνήθως διαρκεί 3-4 ημέρες.
Πονοκέφαλος	Σπάνια υπάρχει	Απότομη έναρξη. Μπορεί να είναι έντονος
Μυϊκοί πόνοι	Μέτριας βαρύτητας	Συνήθως έντονοι
Αίσθημα κόπωσης	Μέτριας βαρύτητας	Συχνά έντονο. Μπορεί να διαρκέσει δύο ή και περισσότερες εβδομάδες
Έντονη εξάντληση	Όχι	Αιφνίδια έναρξη. Μπορεί να είναι πολύ έντονη
Καταρροή	Συχνά	Μερικές φορές
Φτάρνισμα	Συχνά	Μερικές φορές
Πονόλαιμος	Συχνά	Μερικές φορές
Βήχας	Μέτριας βαρύτητας παροξυσμικός βήχας	Συνήθως έντονος βήχας

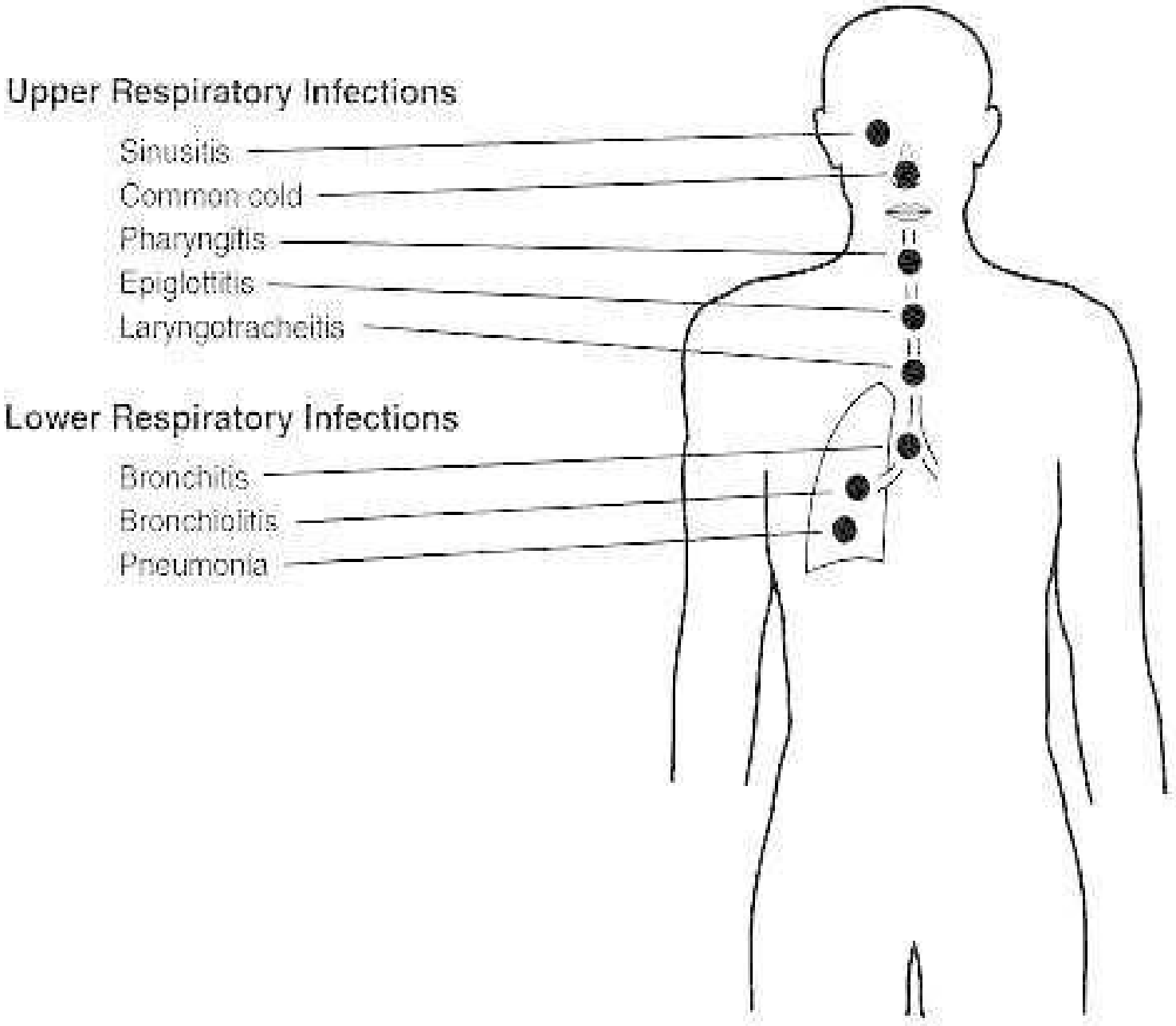
ΥΠΟΥΡΓΕΙΟ ΥΓΕΙΑΣ & ΚΟΙΝΩΝΙΚΗΣ ΑΛΛΗΛΕΓΓΥΗΣ
ΚΕΝΤΡΟ ΕΛΕΓΧΟΥ & ΠΡΟΛΗΨΗΣ ΝΟΣΗΜΑΤΩΝ (ΚΕ.ΕΛ.Π.ΝΟ.)

Which Patients With Suspected or Confirmed Influenza Should Be Treated With Antivirals?

18. Clinicians should start antiviral treatment as soon as possible for adults and children with documented or suspected influenza, irrespective of influenza vaccination history, who meet the following criteria:
    - Persons of any age who are hospitalized with influenza, regardless of illness duration prior to hospitalization *(A-II)*.
    - Outpatients of any age with severe or progressive illness, regardless of illness duration *(A-III)*.
    - Outpatients who are at high risk of complications from influenza, including those with chronic medical conditions and immunocompromised patients *(A-II)*.
    - Children younger than 2 years and adults ≥65 years *(A-III)*.
    - Pregnant women and those within 2 weeks postpartum *(A-III)*.

Λοιμώξεις κατώτερου αναπνευστικού

- **Causative agents of lower respiratory infections are *viral or bacterial.***
- **Viruses cause most cases of bronchitis and bronchiolitis.**
- **In community-acquired pneumonias, the most common bacterial agent is *Streptococcus pneumoniae*.**
- **Atypical pneumonias are cause by such agents as *Mycoplasma pneumoniae, Chlamydia spp, Legionella, Coxiella burnetti* and viruses.**
- **Nosocomial pneumonias and pneumonias in immunosuppressed patients have protean etiology with gram-negative organisms and staphylococci as predominant organisms.**


Upper Respiratory Infections
Sinusitis
Common cold
Pharyngitis
Epiglottitis
Laryngotracheitis
Lower Respiratory Infections
Bronchitis
Bronchiolitis
Pneumonia

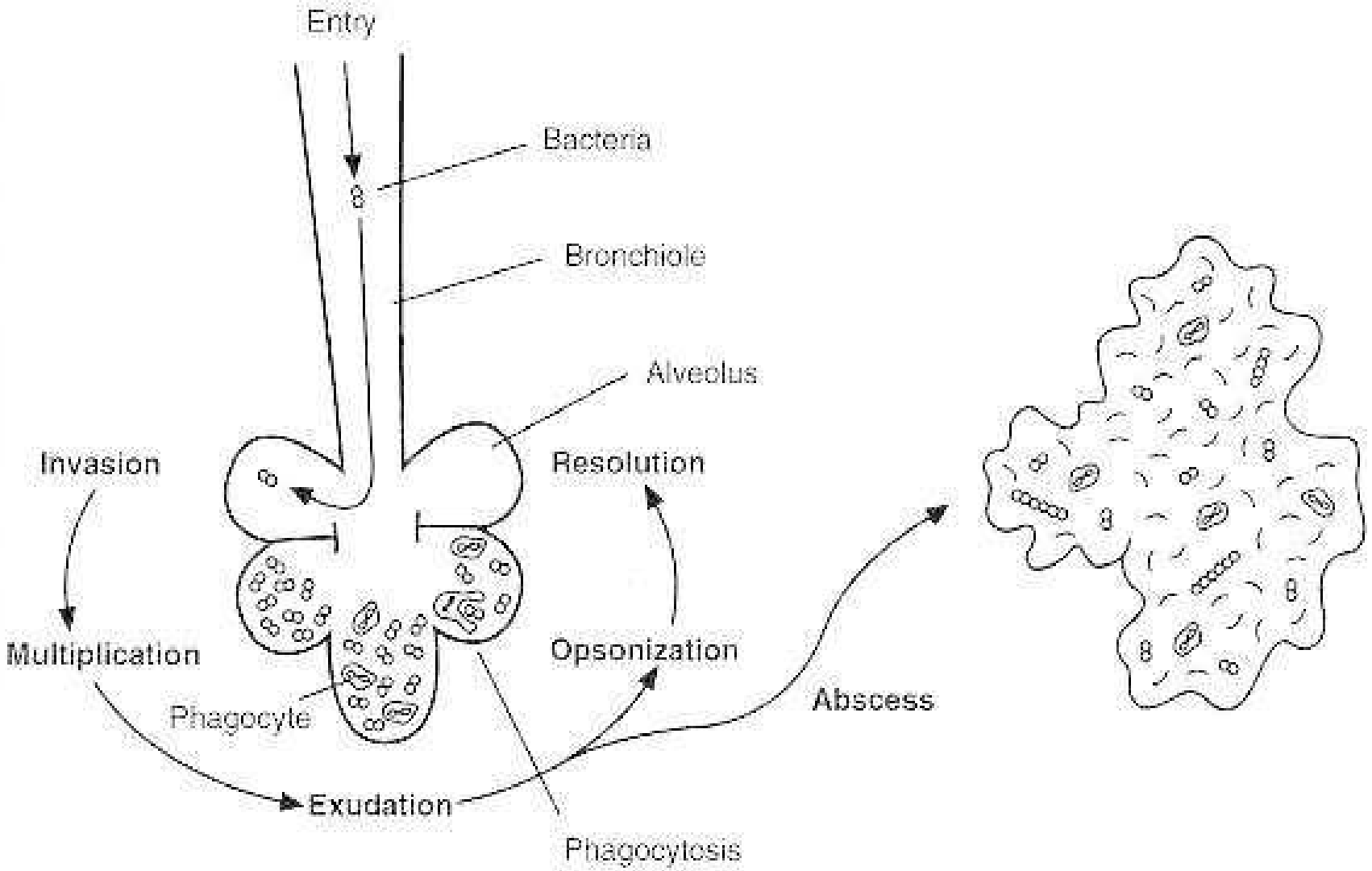

Entry
Bacteria
Bronchiole
Alveolus
Invasion
Resolution
Multiplication
Opsonization
Phagocyte
Abscess
Exudation
Phagocytosis

TABLE 93-1 Common Agents of Respiratory Infections

Clinical Illness	Bacteria	Viruses	Fungi	Other
Common cold (rhinitis, coryza)	Rare	Rhinoviruses Coronavirus Parainfluenza viruses Adenoviruses Respiratory syncytial virus Influenza viruses	Rare	Rare
Pharyngitis and tonsillitis (tonsillopharyngitis)	Group A β-hemolytic streptococci *Corynebacterium diphtheriae* *Neisseria gonorrhoeae* *Mycoplasma pneumoniae* *Mycoplasma hominis* (type 1) Mixed anaerobes	Adenoviruses Coxsackieviruses A Influenza viruses Rhinovirus, coronavirus Parainfluenza viruses Epstein-Barr virus, cytomegalovirus Herpes simplex virus	*Candida albicans*	Rare
Epiglottitis and laryngotracheitis (croup)	*Haemophilus influenzae* type b *Corynebacterium diphtheriae*	Respiratory syncytial virus Parainfluenza viruses	Rare	Rare
Bronchitis and bronchiolitis	*Haemophilus influenzae* *Streptococcus pneumoniae* *Mycoplasma pneumoniae*	Parainfluenza viruses Respiratory syncytial virus Adenoviruses Herpes simplex virus	Rare	Rare
Pneumonia	*Streptococcus pneumoniae* *Staphylococcus aureus* *Streptococcus pyogenes* *Haemophilus influenzae* *Klebsiella pneumoniae* *Escherichia coli* *Pseudomonas aeruginosa* *Mycoplasma pneumoniae* *Legionella spp* Anaerobic bacteria *Mycobacterium tuberculosis* and other *Mycoplasma spp* *Coxiella burnetii* *Chlamydia psittaci* *Chlamydia trachomatis* *Chlamydia pneumoniae*	Adenoviruses Parainfluenza viruses Respiratory syncytial virus Influenza viruses Varicella-zoster virus Measles virus Cytomegalovirus Herpes simplex virus Hantavirus (Muerto Canyon)	*Histoplasma capsulatum* *Blastomyces dermitidis* *Paracoccidioides brasiliensis* *Coccidioides immitis* *Candida albicans* *Filobasidiella (Cryptococcus) neoformans* *Aspergillus fumigatus* and other *Aspergillus spp*	*Pneumocystis carinii*

Baron S, editor. Medical Microbiology. 4th edition. Galveston (TX):

Table 1. 2007 Infectious Diseases Society of America/American Thoracic Society Criteria for Defining Severe Community-acquired Pneumonia

Valid… criter…	…inor
Mi…	
H…	
H…	
N…	
(…	
U…	
I…	
T…	
H…	
Hypotension requiring aggressive fluid resuscitation	
Major criteria	
Septic shock with need for vasopressors	
Respiratory failure requiring mechanical ventilation	

*Due to infection alone (i.e., not chemotherapy induced).

Intensive Care Med (2023) 49:615–632
https://doi.org/10.1007/s00134-023-07033-8

GUIDELINES

ERS/ESICM/ESCMID/ALAT guidelines for the management of severe community-acquired pneumonia

Ignacio Martin-Loeches[1,2,3,4*], Antoni Torres[3,4], Blin Nagavci[5], Stefano Aliberti[6,7], Massimo Antonelli[8], Matteo Bassetti[9], Lieuwe D. Bos[10], James D. Chalmers[11], Lennie Derde[12], Jan de Waele[13], Jose Garnacho-Montero[14], Marin Kollef[15], Carlos M. Luna[16], Rosario Menendez[17], Michael S. Niederman[17], Dmitry Ponomarev[18,19], Marcos I. Restrepo[20], David Rigau[21], Marcus J. Schultz[10,22,23], Emmanuel Weiss[24], Tobias Welte[25] and Richard Wunderink[26]

Table 1. 2007 Infectious Diseases Society of America/American Thoracic Society Criteria for Defining Severe Community-acquired Pneumonia

Validated definition includes either one major criterion or three or more minor criteria
Minor criteria
Respiratory rate ≥ 30 breaths/min
Pa_{O2}/Fi_{O2} ratio ≤ 250
Multilobar infiltrates
Confusion/disorientation
Uremia (blood urea nitrogen level ≥ 20 mg/dl)
Leukopenia* (white blood cell count < 4,000 cells/μl)
Thrombocytopenia (platelet count < 100,000/μl)
Hypothermia (core temperature < 36°C)
Hypotension requiring aggressive fluid resuscitation
Major criteria
Septic shock with need for vasopressors
Respiratory failure requiring mechanical ventilation

*Due to infection alone (i.e., not chemotherapy induced).

ATS

Table 3. Initial Treatment Strategies for Outpatients with Community-acquired Pneumonia

	Standard Regimen
No comorbidities or risk factors for MRSA or *Pseudomonas aeruginosa*[*]	Amoxicillin or
	doxycycline or
	macrolide (if local pneumococcal resistance is <25%)[†]
With comorbidities[‡]	Combination therapy with
	amoxicillin/clavulanate or cephalosporin
	AND
	macrolide or doxycycline[§]
	OR
	monotherapy with respiratory fluoroquinolone[‖]

Table 4. Initial Treatment Strategies for Inpatients with Community-acquired Pneumonia by Level of Severity and Risk for Drug Resistance

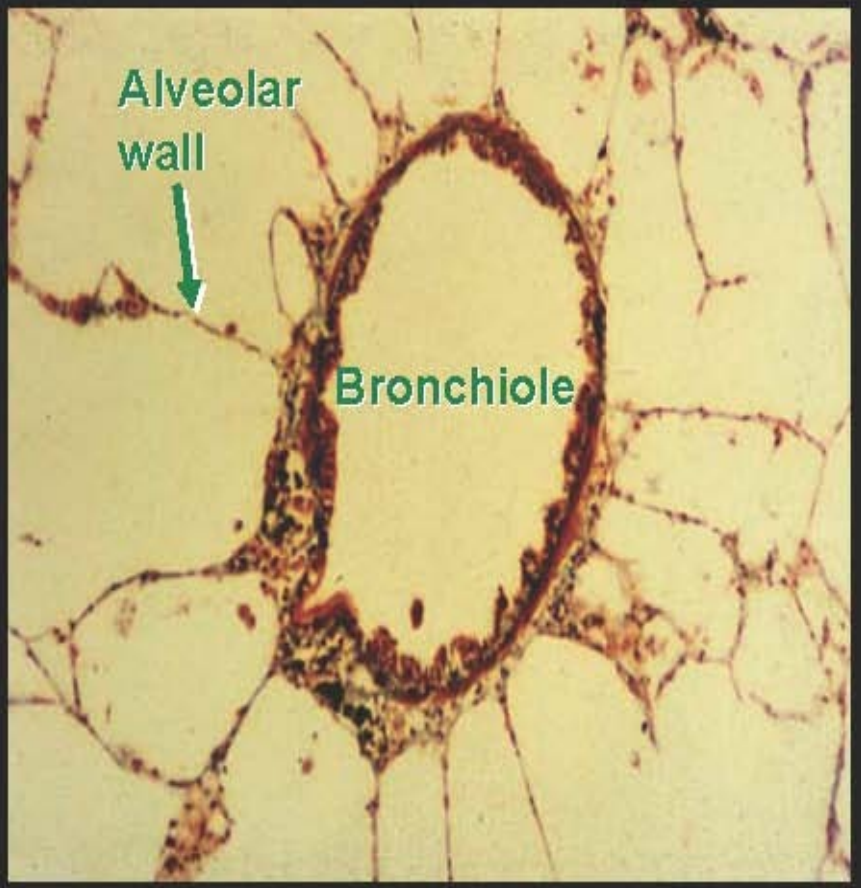
	Standard Regimen	Prior Respiratory Isolation of MRSA	Prior Respiratory Isolation of *Pseudomonas aeruginosa*	Recent Hospitalization and Parenteral Antibiotics and Locally Validated Risk Factors for MRSA	Recent Hospitalization and Parenteral Antibiotics and Locally Validated Risk Factors for *P. aeruginosa*
Nonsevere inpatient pneumonia*	β-Lactam + macrolide† or respiratory fluroquinolone‡	Add MRSA coverage§ and obtain cultures/nasal PCR to allow deescalation or confirmation of need for continued therapy	Add coverage for *P. aeruginosa*‖ and obtain cultures to allow deescalation or confirmation of need for continued therapy	Obtain cultures but withhold MRSA coverage unless culture results are positive. If rapid nasal PCR is available, withhold additional empiric therapy against MRSA if rapid testing is negative or add coverage if PCR is positive and obtain cultures	Obtain cultures but initiate coverage for *P. aeruginosa* only if culture results are positive
Severe inpatient pneumonia*	β-Lactam + macrolide† or β-lactam + fluroquinolone‡	Add MRSA coverage§ and obtain cultures/nasal PCR to allow deescalation or confirmation of need for continued therapy	Add coverage for *P. aeruginosa*‖ and obtain cultures to allow deescalation or confirmation of need for continued therapy	Add MRSA coverage§ and obtain nasal PCR and cultures to allow deescalation or confirmation of need for continued therapy	Add coverage for *P. aeruginosa*‖ and obtain cultures to allow deescalation or confirmation of need for conti...

COPD DEFINITION

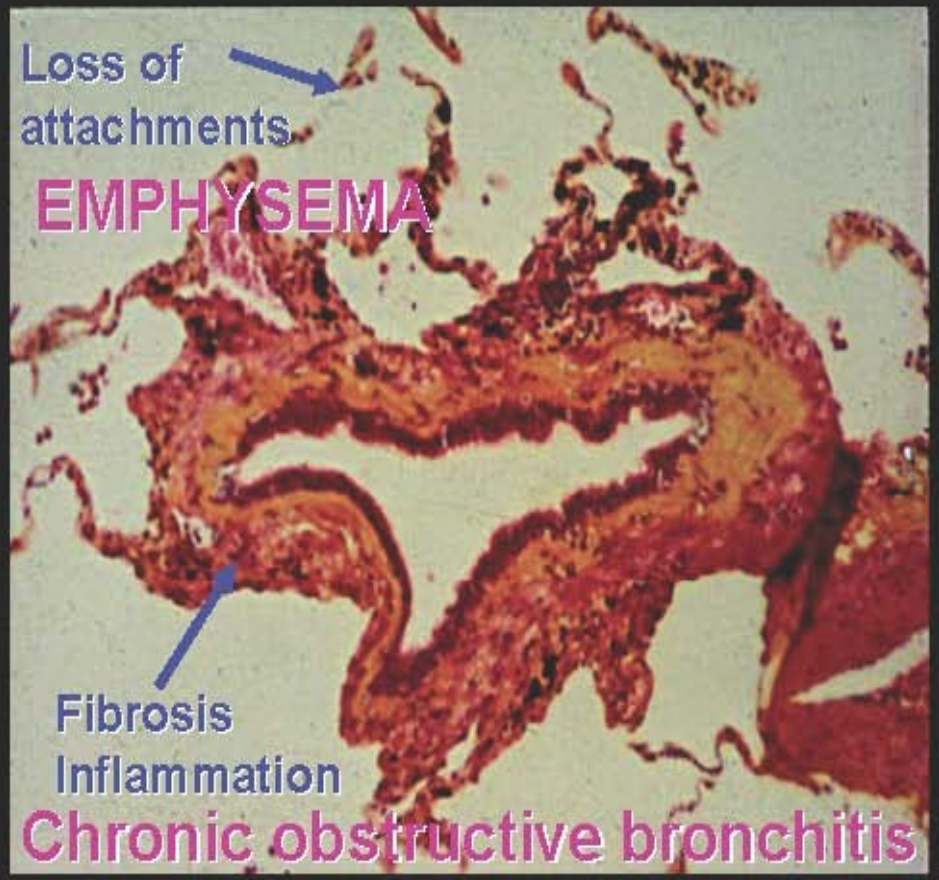
- “heterogeneous lung condition characterized by chronic respiratory symptoms (dyspnea, cough, expectoration, exacerbations) due to abnormalities of the airways (bronchitis, bronchiolitis) and/or alveoli (emphysema) that cause persistent, often progressive, airflow obstruction”

PATHOLOGY OF COPD

Peripheral lung

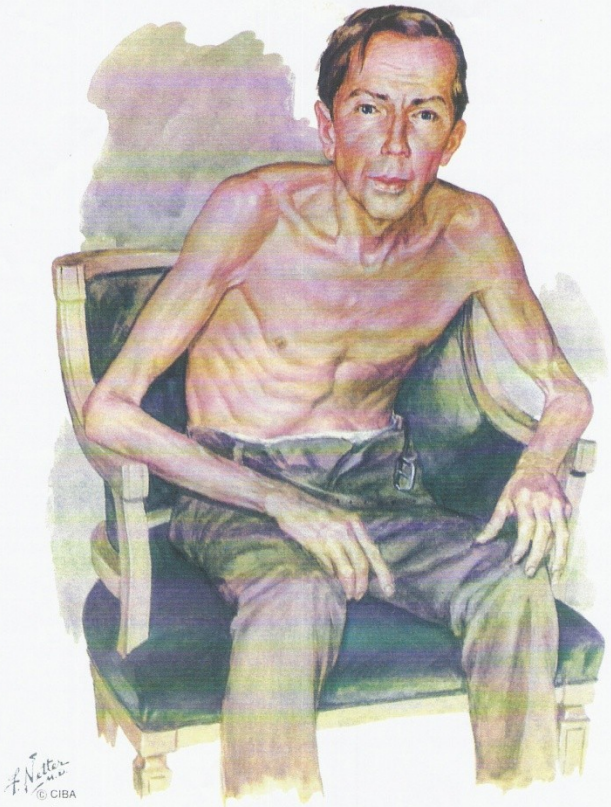


Normal



COPD

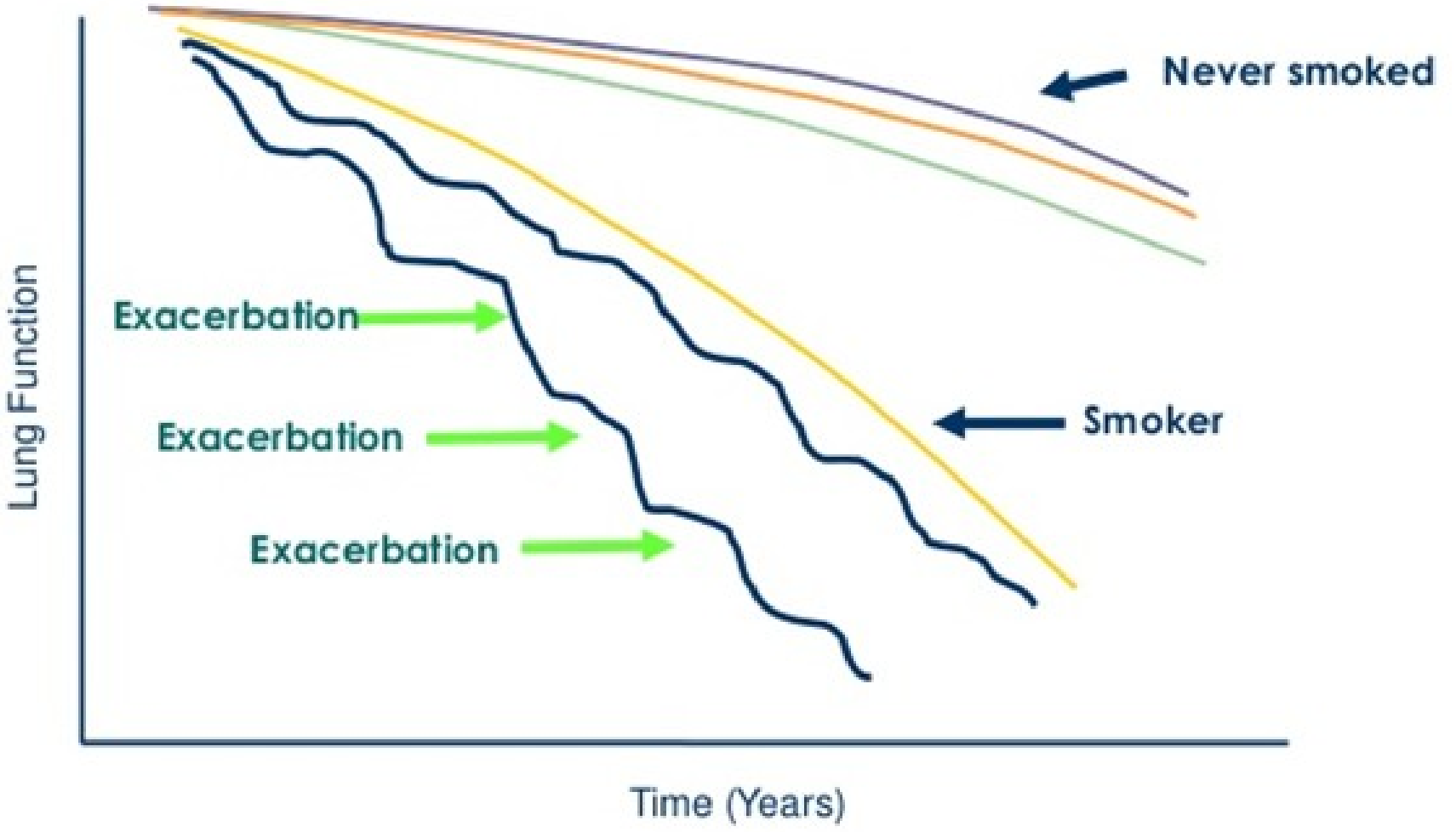
Dr Manuel Cosio



Εικόνα 12.11. Τύπος I (pink puffer).

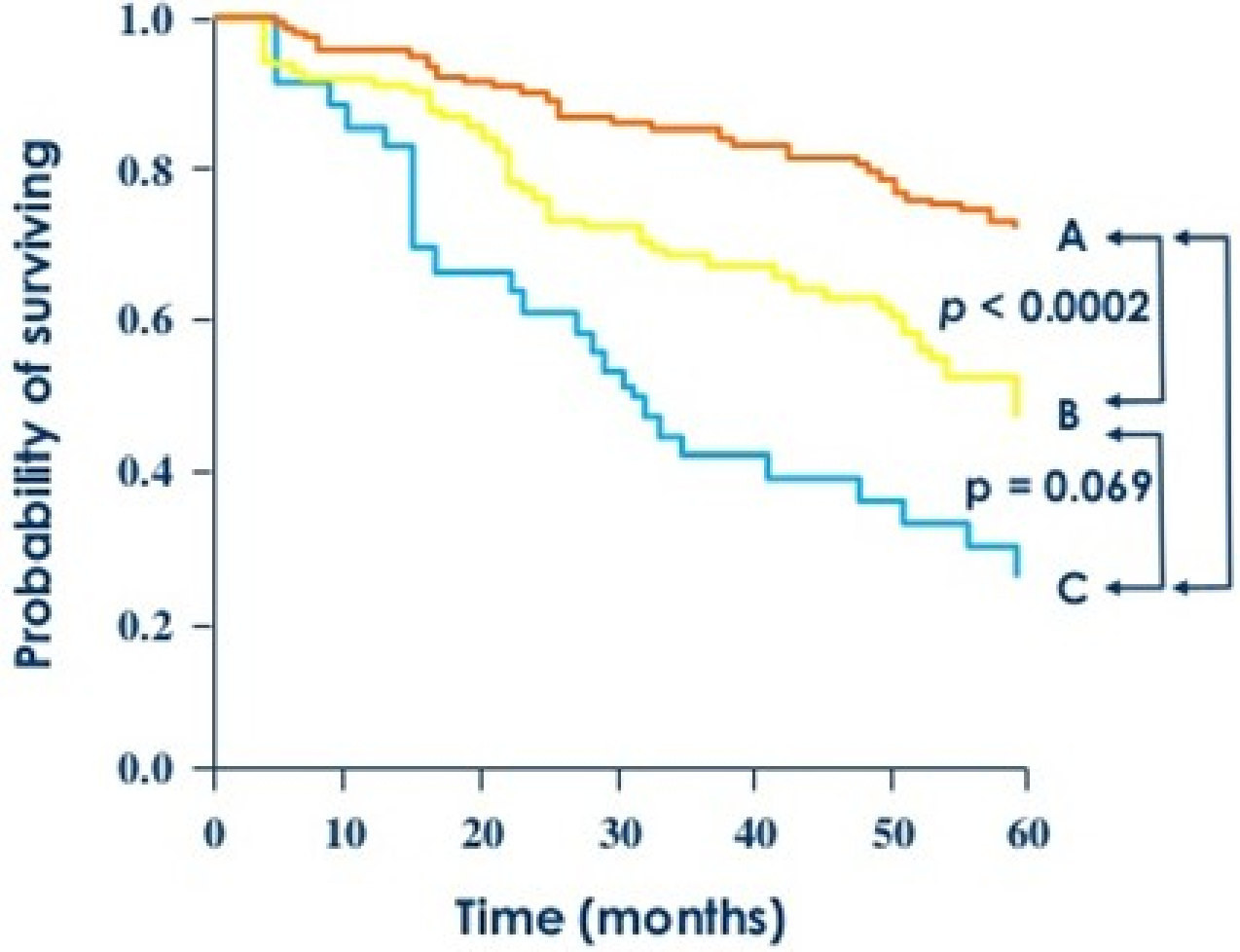
Εικόνα 12.12. Τύπος II (blue bloater).

Frequent Exacerbations Lead to Declining Lung Function



Fletcher C. Br Med J. 1977

Frequent exacerbations are associated with increased mortality

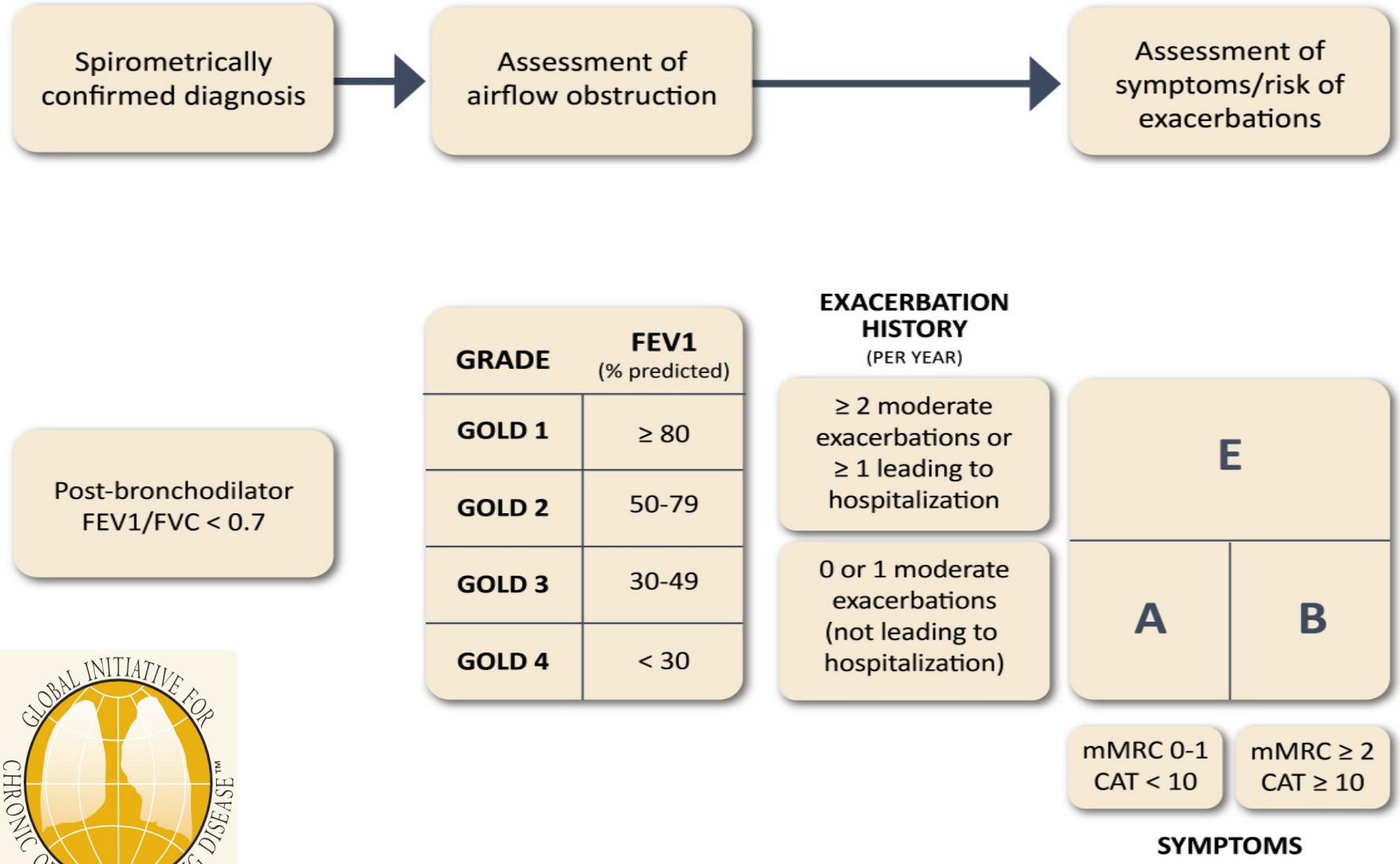


A = No exacerbations B = 1-2 exacerbations C = 3 or more exacerbations

Soler-Cataluna J.J. et al. Thorax 2005;60:925-931.

GOLD ABE Assessment Tool

Figure 2.3



COPD exacerbation

- GOLD 2023 has adopted the recent consensus Rome proposal), which defines ECOPD as:

- **"an event characterized by dyspnea and/or cough and sputum that worsen over<14 days,** which may be accompanied **bytachypnea** and/or **tachycardia** and is often associated with **increased local and systemic inflammation** **caused** **by airway infection**, pollution, or other insult to the ai

Exacerbation of COPD

Πίνακας 1. Λοιμώδεις παράγοντες που προκαλούν παρόξυνση ΧΑΠ.

ΑΘΗΝΑ 2015

Λοιμώδεις παράγοντες	Παθογόνος μικροοργανισμός
Ιοί (30%-50%)	*Influenza A και B* *Parainfluenza 1, 2 και 3* *Rhinovirus* *Coronavirus* *Adenovirus* *Respiratory Syncytial Virus (RSV)*
Άτυπα (ενδοκυττάρια) παθογόνα (5%-10%)	*Chlamydophila pneumoniae* *Mycoplasma pneumoniae*
Βακτήρια (40%-50%)	*Haemophilus influenzae (στελέχη που δεν τυποποιούνται)* *Haemophilus parainfluenzae* *Streptococcus pneumoniae* *Moraxella catarrhalis* *Pseudomonas aeruginosa* *Εντεροβακτηριακά (Klebsiella pneumoniae)*

Eur Respir J 2010; 35: 1209–1215
DOI: 10.1183/09031936.00081409

PERSPECTIVE

Infection as a comorbidity of COPD

TABLE 1 Bacterial pathogens implicated in acute and chronic infections in chronic obstructive pulmonary disease

Microbe	Role in exacerbations	Role in stable disease
Bacteria		
Haemophilus influenzae	20–30% of exacerbations	Major pathogen
Streptococcus pneumoniae	10–15% of exacerbations	Minor role
Moraxella catarrhalis	10–15% of exacerbations	Minor role
Pseudomonas aeruginosa	5–10% of exacerbations, prevalent in advanced disease	Likely important in advanced disease
Enterobacteriaceae	Isolated in advanced disease, pathogenic significance undefined	Undefined
Haemophilus haemolyticus	Isolated frequently, unlikely cause	Unlikely
Haemophilus parainfluenzae	Isolated frequently, unlikely cause	Unlikely
Staphylococcus aureus	Isolated infrequently, unlikely cause	Unlikely
Atypical bacteria		
Chlamydophila pneumoniae	3–5% of exacerbations	Commonly detected, pathogenic significance undefined
Mycoplasma pneumoniae	1–2% of exacerbations	Unlikely

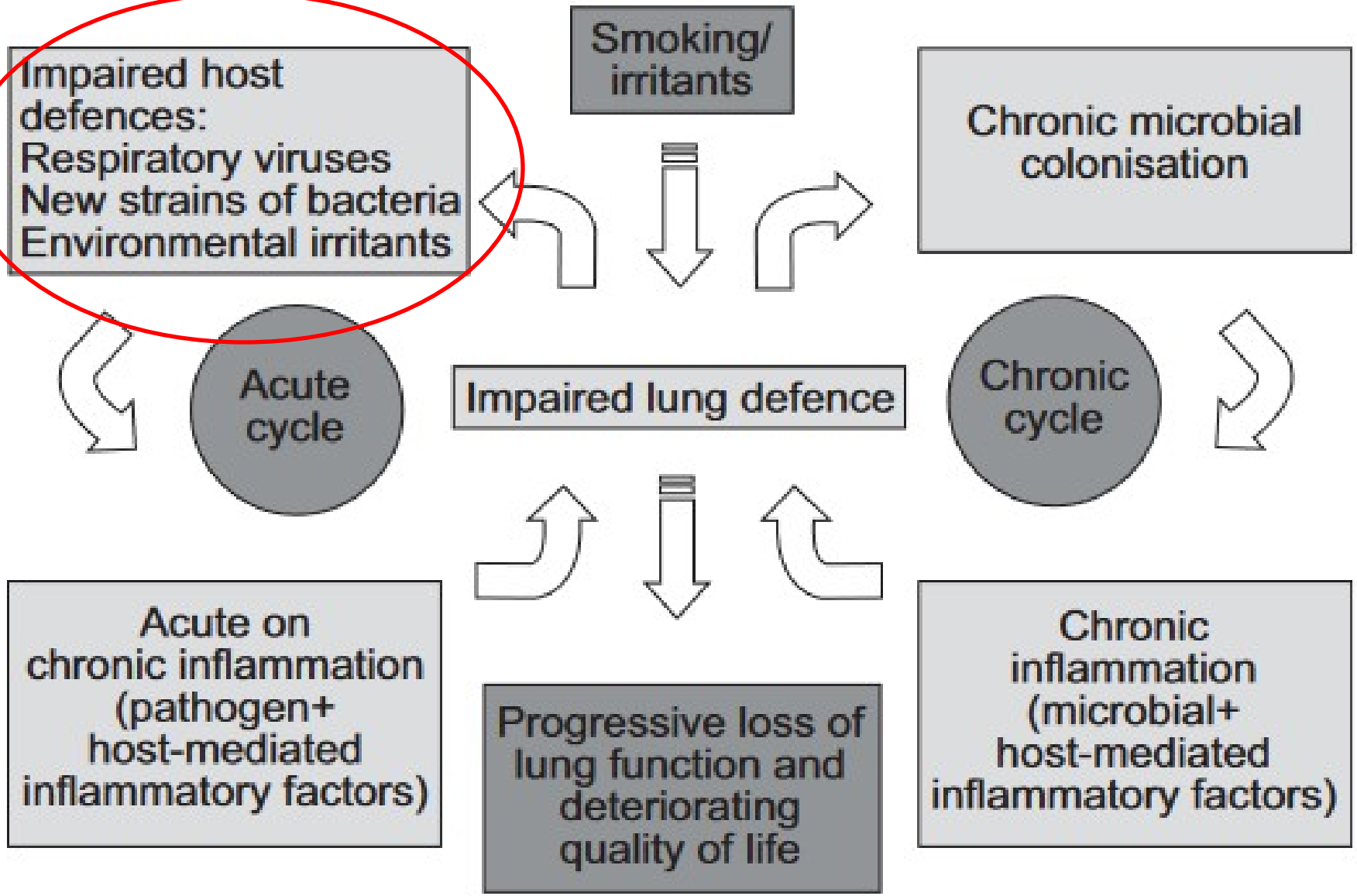


FIGURE 1. Two distinct infection cycles in chronic obstructive pulmonary disease.

Eur Respir J 2010; 35: 1209–1215
DOI: 10.1183/09031936.00081409

PERSPECTIVE

Infection as a comorbidity of COPD

COMMUNITY-ACQUIRED PNEUMONIA IN COPD

- **A major cause of hospitalisation and a common cause of death , community-acquired pneumonia (CAP) is most commonly seen in individuals who smoke cigarettes and/or have COPD** .
- the **pneumococcus** still remains predominant, an increased incidence of **H. influenzae** and occasionally **M. catarrhalis** is seen.
- **The presence of very severe COPD with concomitant bronchiectasis** and repeated courses of antibiotics predisposes these patients to pneumonia caused by **P. aeruginosa**

ANTIBIOTICS AND ECOPD

- **Antibiotics should be given** to patients with ECOPD who have **increased sputum volume and sputum purulence and most of those requiring mechanical ventilation**

- **The recommended length of antibiotic therapy is 5–7 days**

- **The choice of antibiotic** empirical treatment is an **aminopenicillin with clavulanic acid, macrolide, tetracycline, or, in selected patients, quinolone.**

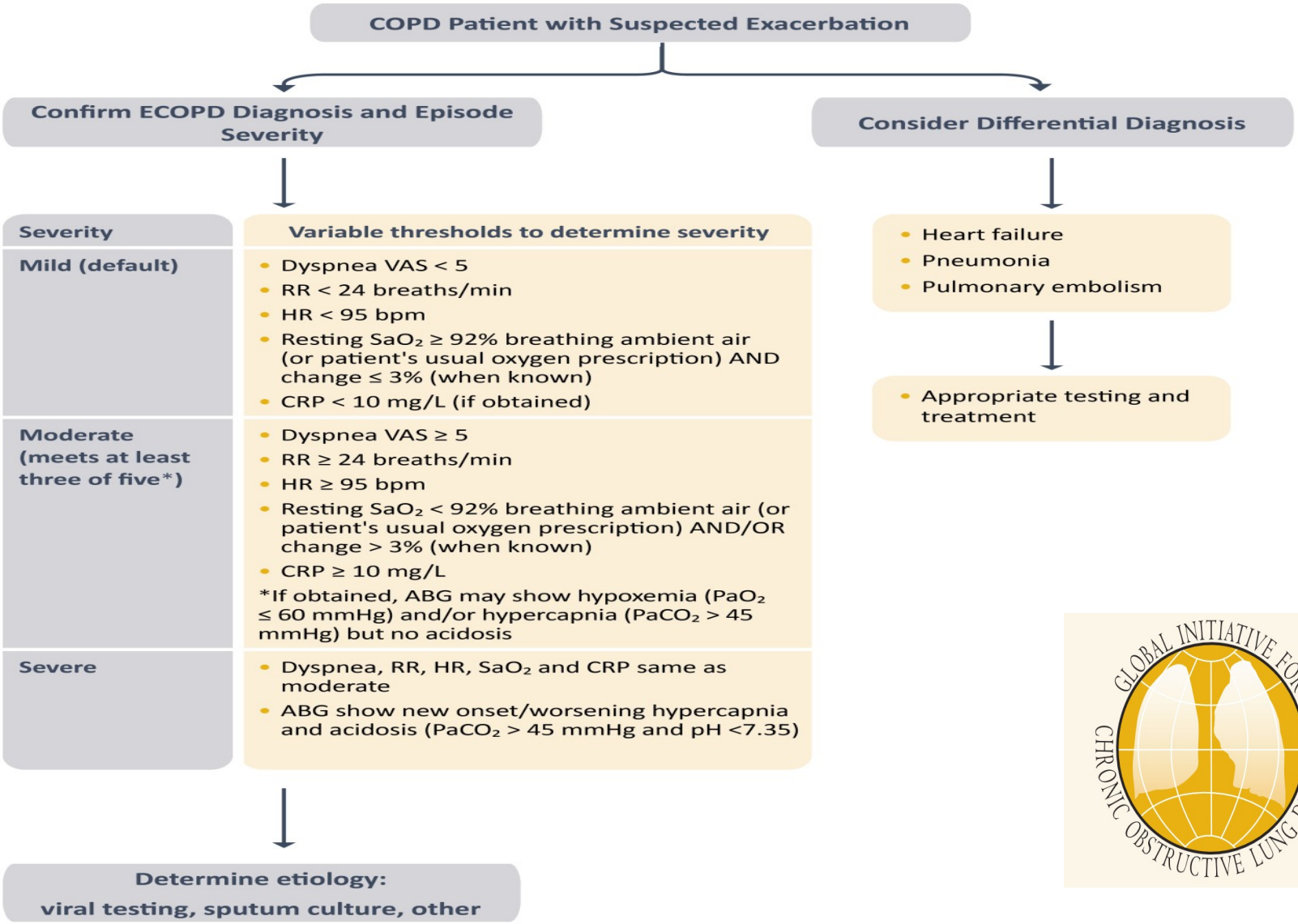
- **In patients with frequent exacerbations, severe airflow obstruction and/or exacerbations requiring mechanical ventilation, cultures from sputum or other materials from the lung should be performed, as gram-negativebacteria (e.g.,Pseudomonas species)** or resistant pathogens that are not sensitive to the above-mentioned antibiotics may be present.

COPD exacerbation and Corticosteroids

- **Systemic corticoids** in COPD exacerbations improve lung function, oxygenation, and risk of early relapse, and reduce treatment failures and length of hospitalization
- **A dose of 40 mg prednisone**-equivalent per day for 5 days is recommended . ***Longer courses increase the risk of pneumonia and mortality***
- **Therapy with oral prednisolone** is equally effective to intravenous administration
- **Nebulized budesonide may be a suitable alternative to systemic corticosteroids in some patients**
- Recent studies suggest that glucocorticoids may be less efficacious to treat COPD exacerbations in patients with lower blood eosinophil levels

Classification of the Severity of COPD Exacerbations

Figure 5.1



Adapted from: The ROME Proposal, Celli et al. (2021) Am J Respir Crit Care Med. 204(11): 1251-8. Abbreviations: VAS visual analog dyspnea scale; RR respiratory rate; HR heart rate; SaO_2 oxygen saturation; CRP C-reactive protein; ABG arterial blood gases; PaO_2 Arterial pressure of oxygen.

Management of Severe but not Life-threatening Exacerbations*

Table 5.4

- **Assess severity of symptoms, blood gases, chest radiograph**
- **Administer supplemental oxygen therapy, obtain serial arterial blood gas, venous blood gas and pulse oximetry measurements**
- **Bronchodilators:**
  - Increase doses and/or frequency of short-acting bronchodilators
  - Combine short-acting beta$_2$-agonists and anticholinergics
  - Consider use of long-acting bronchodilators when patient becomes stable
  - Use spacers or air-driven nebulizers when appropriate
- **Consider oral corticosteroids**
- **Consider antibiotics (oral) when signs of bacterial infection are present**
- **Consider noninvasive mechanical ventilation (NIV)**
- **At all times:**
  - Monitor fluid balance
  - Consider subcutaneous heparin or low molecular weight heparin for thromboembolism prophylaxis
  - Identify and treat associated conditions (e.g., heart failure, arrhythmias, pulmonary embolism etc.)

*Local resources need to be considered

Potential Indications for Hospitalization Assessment*

Table 5.3

- Severe symptoms such as sudden worsening of resting dyspnea, high respiratory rate, decreased oxygen saturation, confusion, drowsiness
- Acute respiratory failure
- Onset of new physical signs (e.g., cyanosis, peripheral edema)
- Failure of an exacerbation to respond to initial medical management
- Presence of serious comorbidities (e.g., heart failure, newly occurring arrhythmias, etc.)
- Insufficient home support

*Local resources need to be considered

Key Points for the Management of Stable COPD During COVID-19 Pandemic

Table 7.1

Protective Strategies	• Follow basic infection control measures • Wear a face covering • Consider shielding/sheltering-in-place • Have the COVID-19 vaccinations in line with national recommendations
Investigations	• Only essential spirometry at times of high prevalence of COVID-19
Pharmacotherapy	• Ensure adequate supplies of medications • Continue unchanged including ICS
Non-pharmacological Therapy	• Ensure annual influenza vaccination • Maintain physical activity

Vaccines in copd

- **Vaccination against influenza** can reduce serious illness and death in COPD by ~50%. Vaccines containing cold or live inactivated viruses are recommended, as they are more effective in elderly patients with COPD.

- **Pneumococcal polysaccharide vaccine** is recommended for COPD patients 65 years and older.

- This vaccine has been shown to reduce the incidence of community-acquired pneumonia in COPD patients younger than age 65 with an FEV1 < 40% predicted.

- **Vaccination against COVID-19**

DEFINITION OF ASTHMA

- Asthma is a heterogeneous disease, usually characterized by chronic airway inflammation.

- It is defined by the history of respiratory symptoms, such as wheeze, shortness of breath, chest tightness and cough, that vary over time and in intensity, together with variable expiratory airflow limitation

ASTHMA AND INFECTIONS

- **Respiratory viruses were detected in 34% of the asthma** patients experiencing an acute exacerbation.

- The patients infected with these viruses had more prominent and persistent cough symptoms,

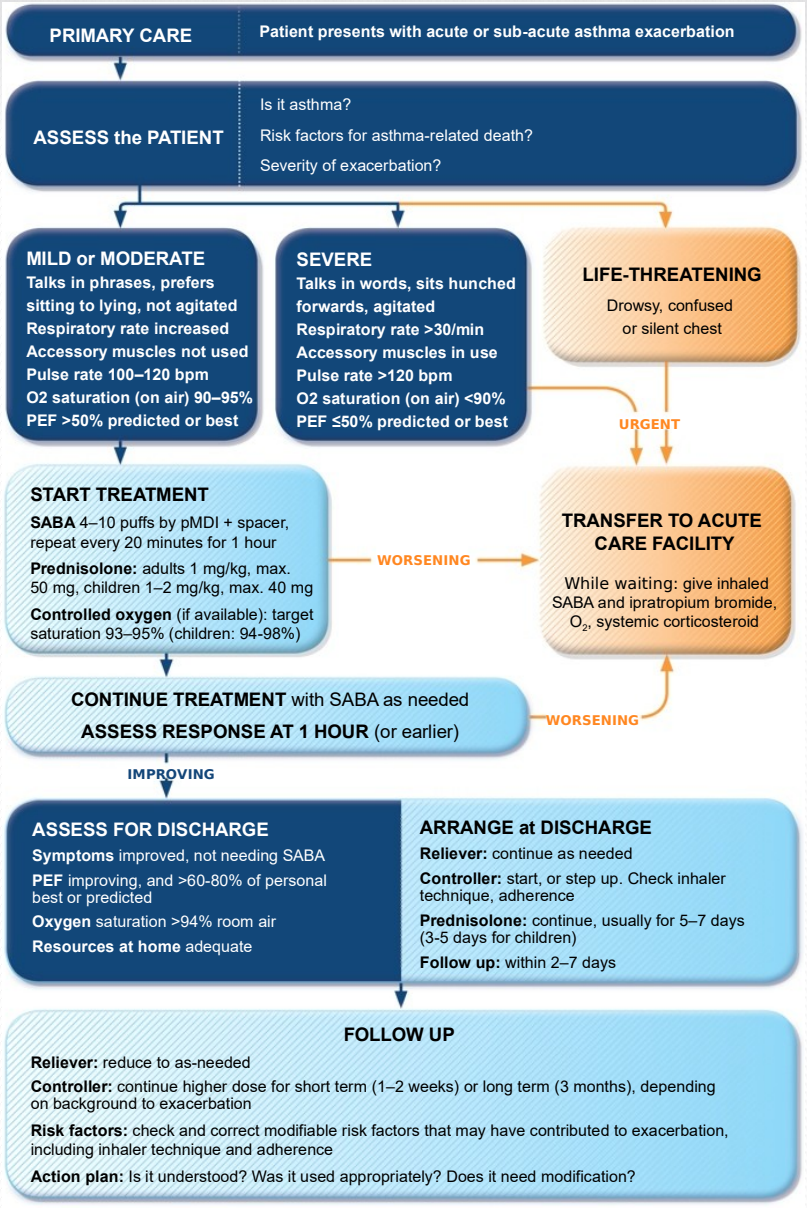
2016

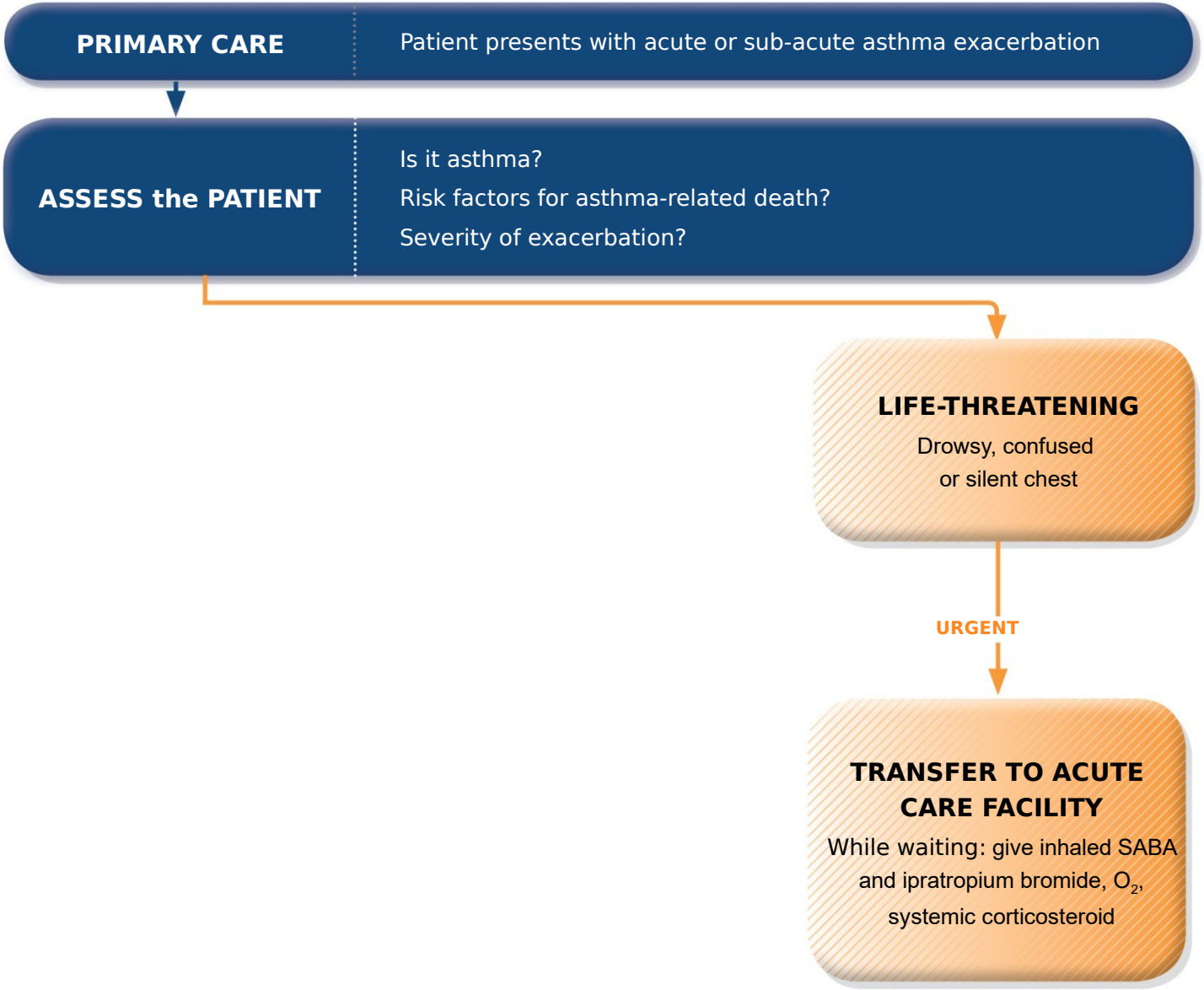
Original Article

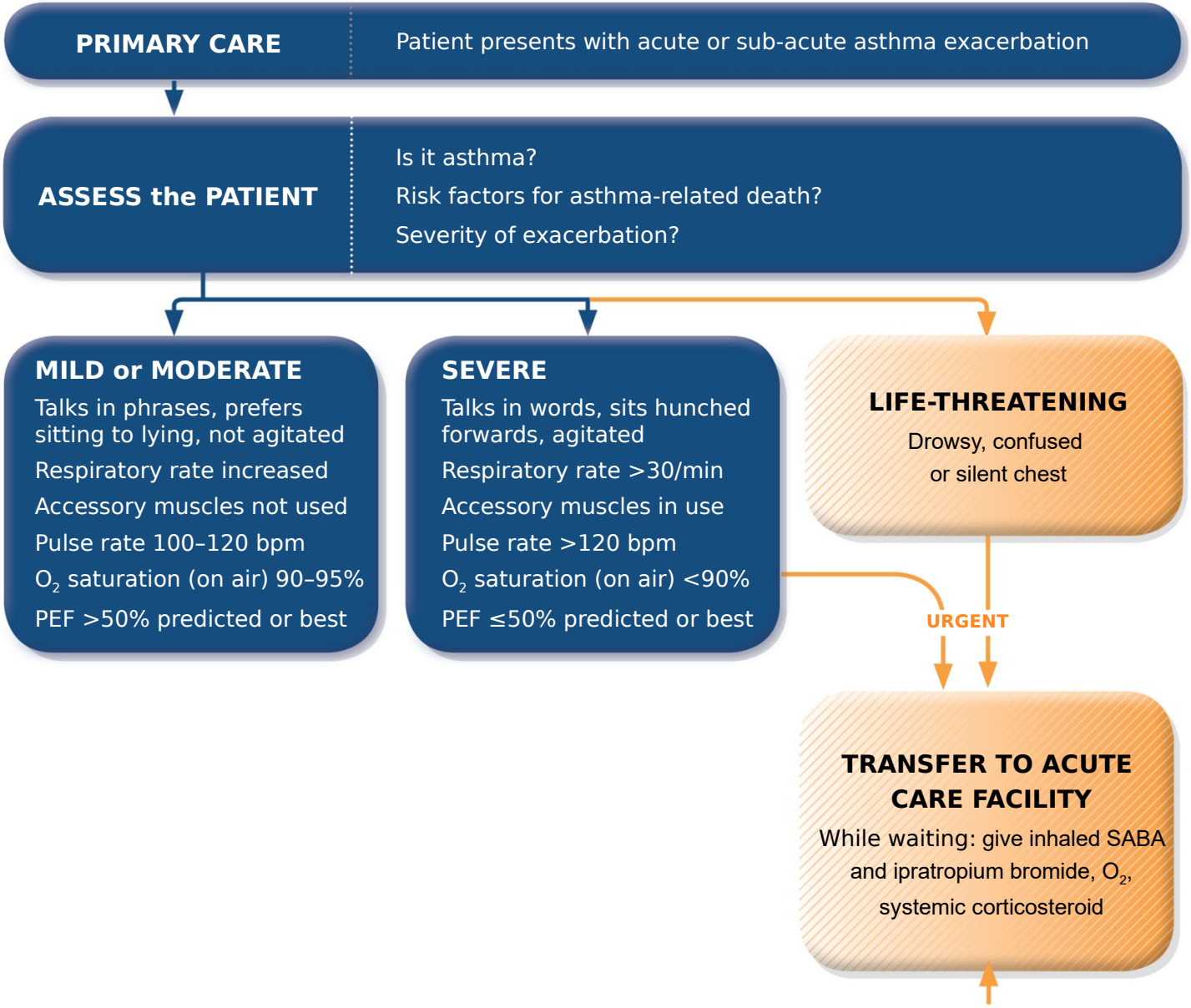
Impact of viral infection on acute exacerbation of asthma in out-patient clinics: a prospective study

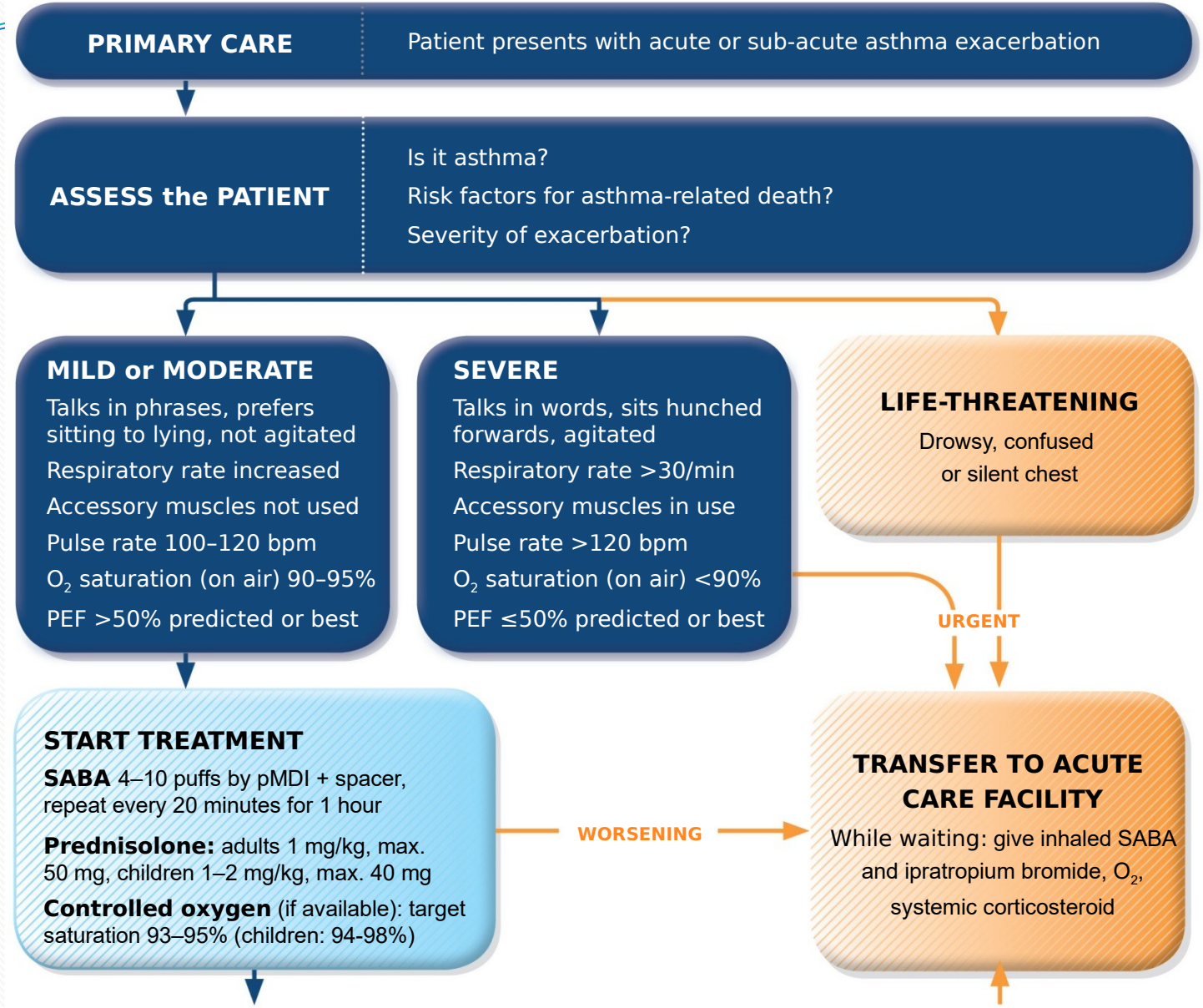
Hua Liao[1], Zifeng Yang[2], Chunguang Yang[2], Yan Tang[2], Shengming Liu[1], Wenda Guan[2], Rongchang Chen[2]

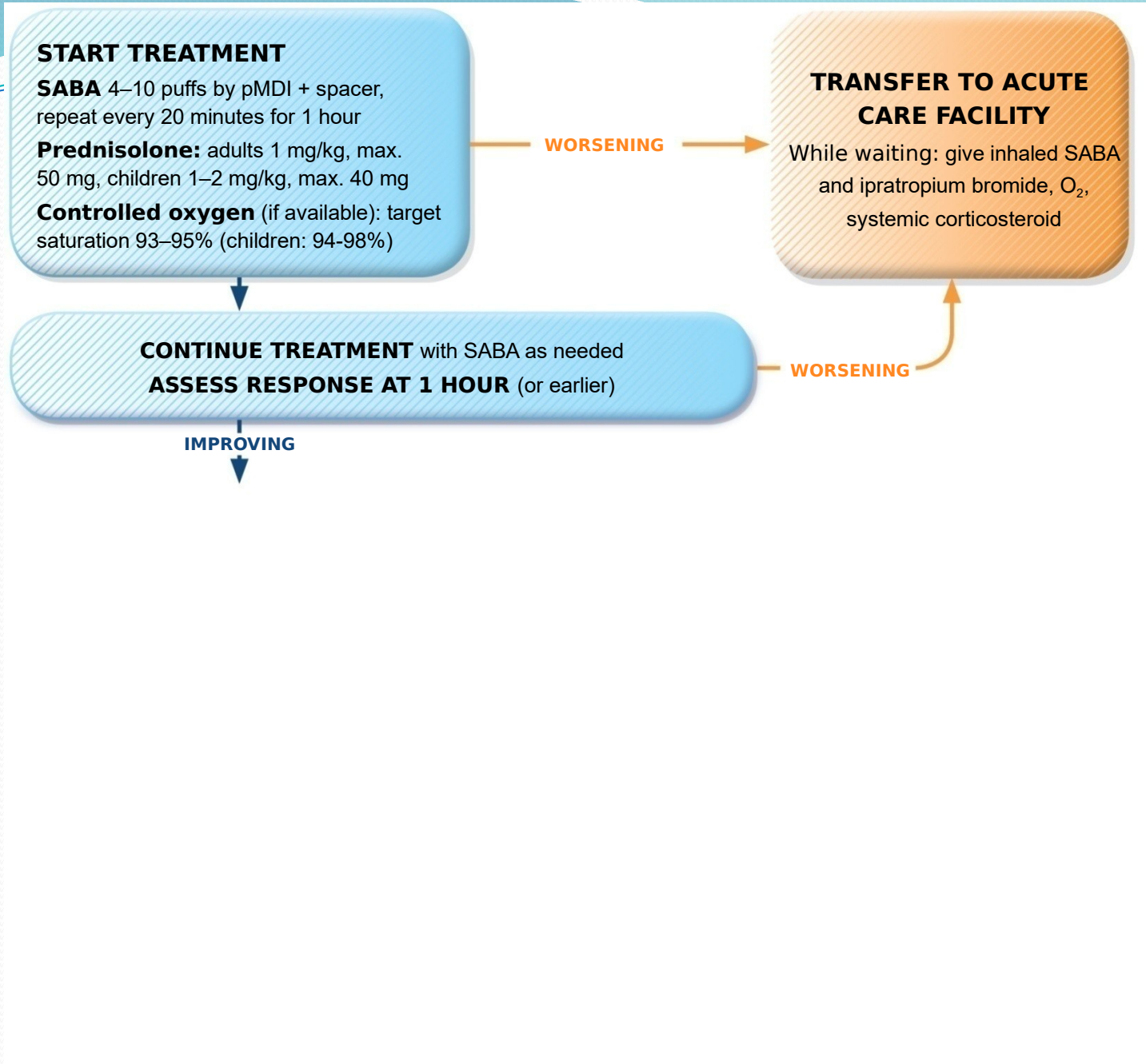
Managing exacerbations in primary care

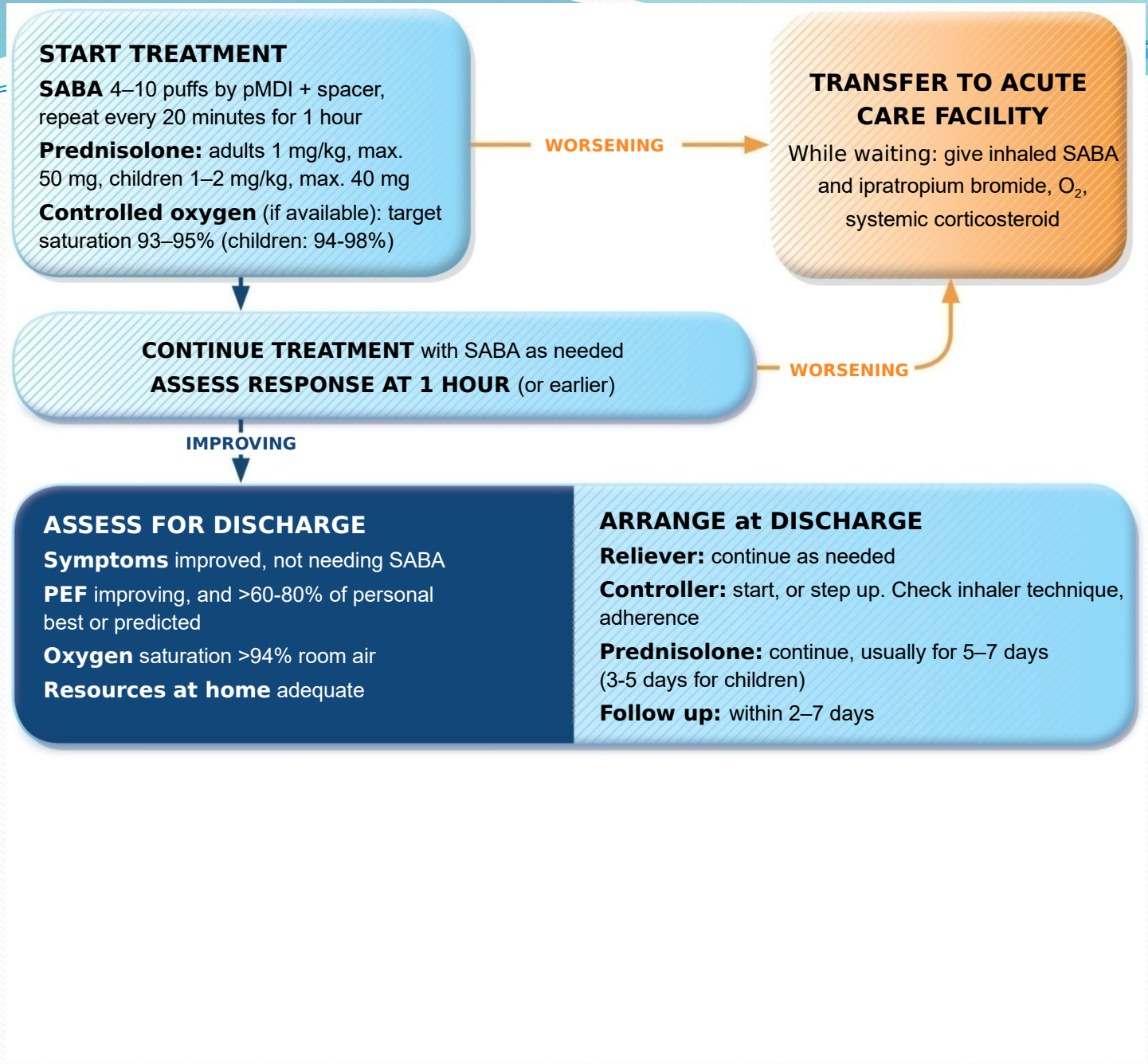


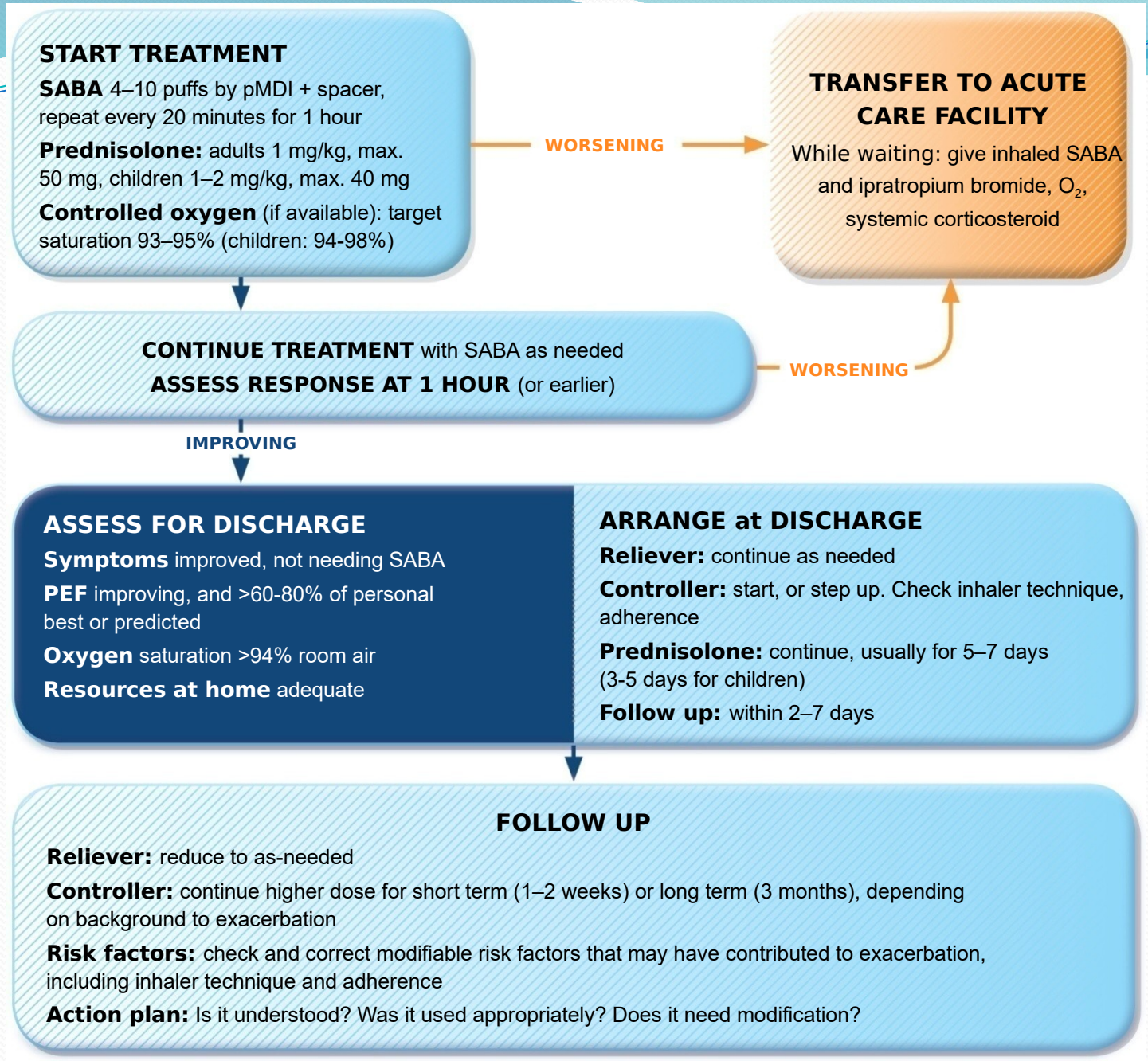












Denholm *et al. Respiratory Research* (2020) 21:4
https://doi.org/10.1186/s12931-019-1233-5

Respiratory Research

RESEARCH Open Access

Use of antibiotics and asthma medication for acute lower respiratory tract infections in people with and without asthma: retrospective cohort study

Rachel Denholm[1*], Esther T. van der Werf[1,2] and Alastair D. Hay[1]

- There were 127,976 ALRTIs reported among **110,418** patients during the study period, of whom **17,952 (16%)** had asthma.

Respectively, **81 and 79% of patients with and without asthma received antibiotics,** and **41 and 15% asthma medication.**

Denholm et al. Respiratory Research (2020) 21:4
https://doi.org/10.1186/s12931-019-1233-5

Respiratory Research

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Use of antibiotics and asthma medication for acute lower respiratory tract infections in people with and without asthma: retrospective cohort study

Rachel Denholm[1*], Esther T. van der Werf[1,2] and Alastair D. Hay[1]

Conclusion

- **We have demonstrated high-use of antibiotics and asthma** medication for the treatment of ALRTI in patients without asthma,

- Further research is urgently needed to inform optimum use of both antibiotics and asthma medication for patients with ALRTI.

ASTHMA MANAGEMENT DURING THE COVID-19 PANDEMIC

- **Advise patients with asthma to continue** taking their prescribed **asthma medications, particularly inhaled corticosteroid (ICS) medications, and oral corticosteroids (OCS) if prescribed**

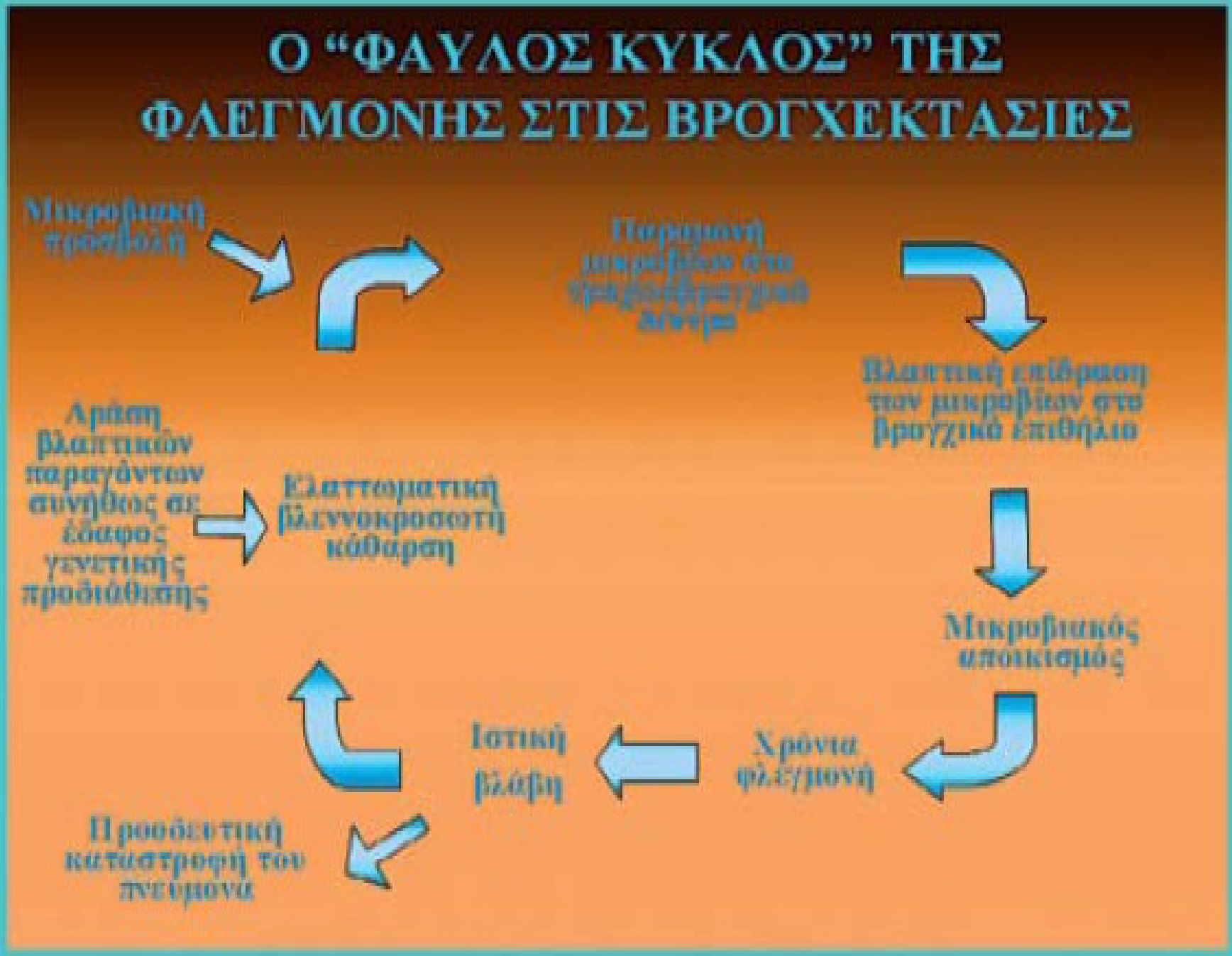
- Where possible, **avoid using nebulizers** due to the risk of transmitting infection to healthcare workers and other patients

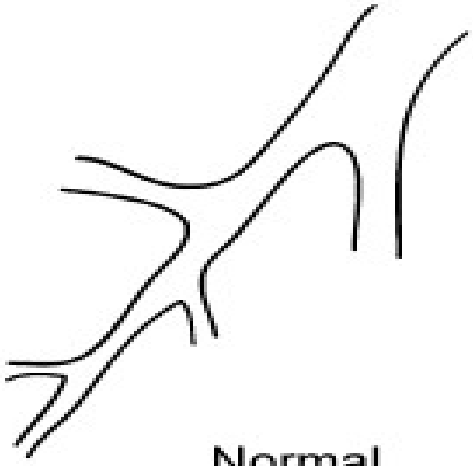
- **Avoid spirometry** in patients with confirmed/suspected COVID-19

Ορισμός Βρογχεκτασίες

- είναι χρόνια, φλεγμονώδης, ετερογενής, πάθηση που χαρακτηρίζεται από οριστική διάταση των βρόγχων και βρογχιολίων και πάχυνση των τοιχωμάτων τους, απότοκη δομικών αλλοιώσεων των τοιχωμάτων τους και του παρακείμενου πνευμονικού παρεγχύματος που τα συγκρατούν.

- Χαρακτηρίζονται από την υπερβολική παραγωγή παθολογικής συστάσεως τραχειοβρογχικών εκκρίσεων, που κινητοποιούν ένα φαύλο κύκλο βρογχικών λοιμώξεων και ουδετεροφιλικής φλεγμονής.


Ο "ΦΑΥΛΟΣ ΚΥΚΛΟΣ" ΤΗΣ ΦΛΕΓΜΟΝΗΣ ΣΤΙΣ ΒΡΟΓΧΕΚΤΑΣΙΕΣ
Μικροβιακή προσβολή
Παραμονή μικροβίων στο αναπνευστικό δένδρο
Βλαπτική επίδραση των μικροβίων στο βρογχικό επιθήλιο
Μικροβιακός αποικισμός
Χρόνια φλεγμονή
Ιστική βλάβη
Προοδευτική καταστροφή του πνεύμονα
Άρση βλαπτικών παραγόντων σε έδαφος γενετικής προδιάθεσης
Ελαττωματική βλεννοκροσσωτή κάθαρση



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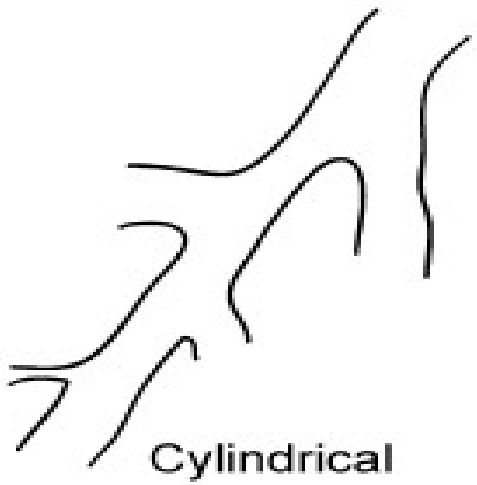
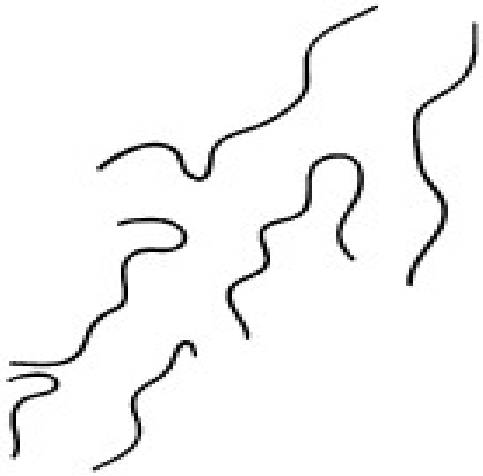
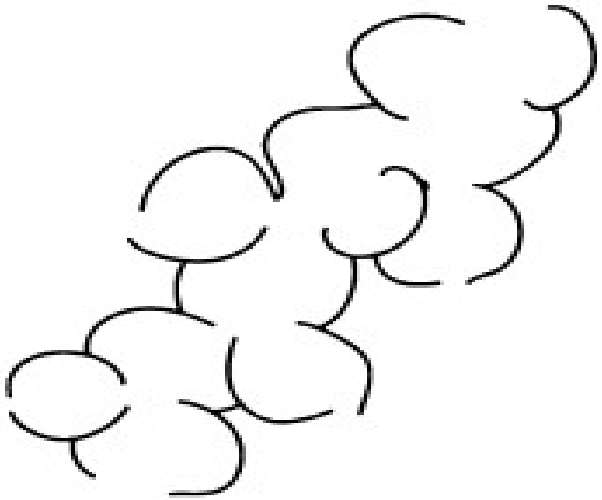


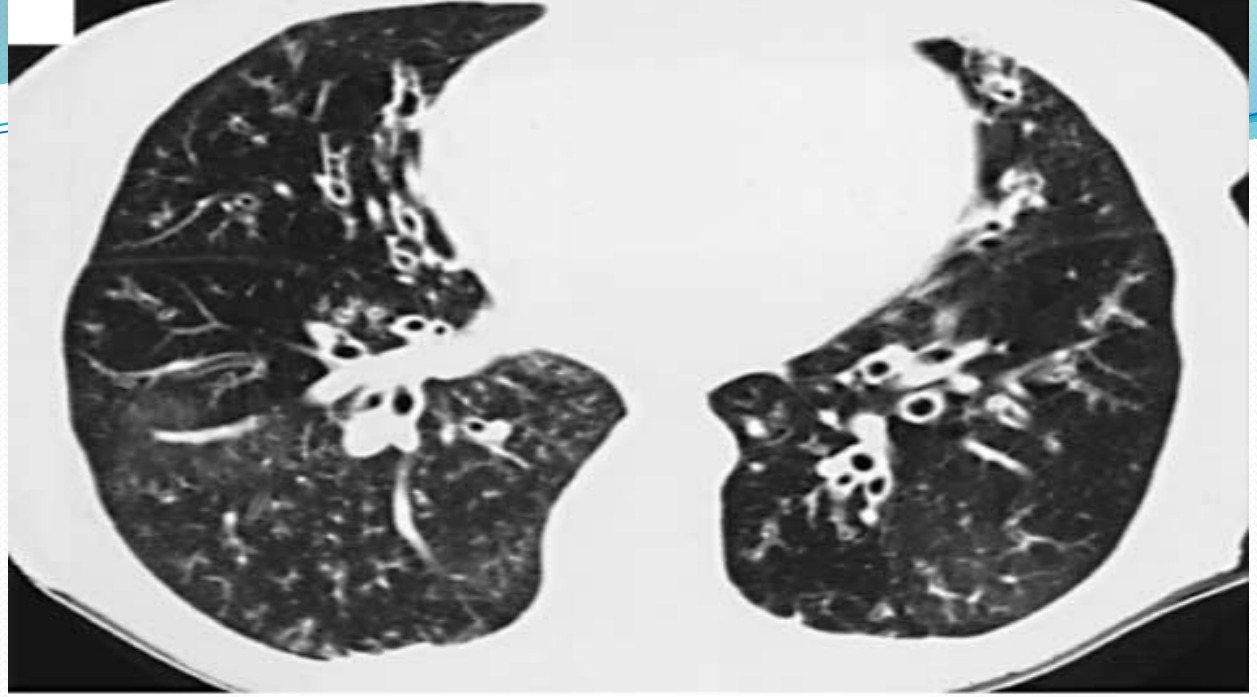
Cylindrical

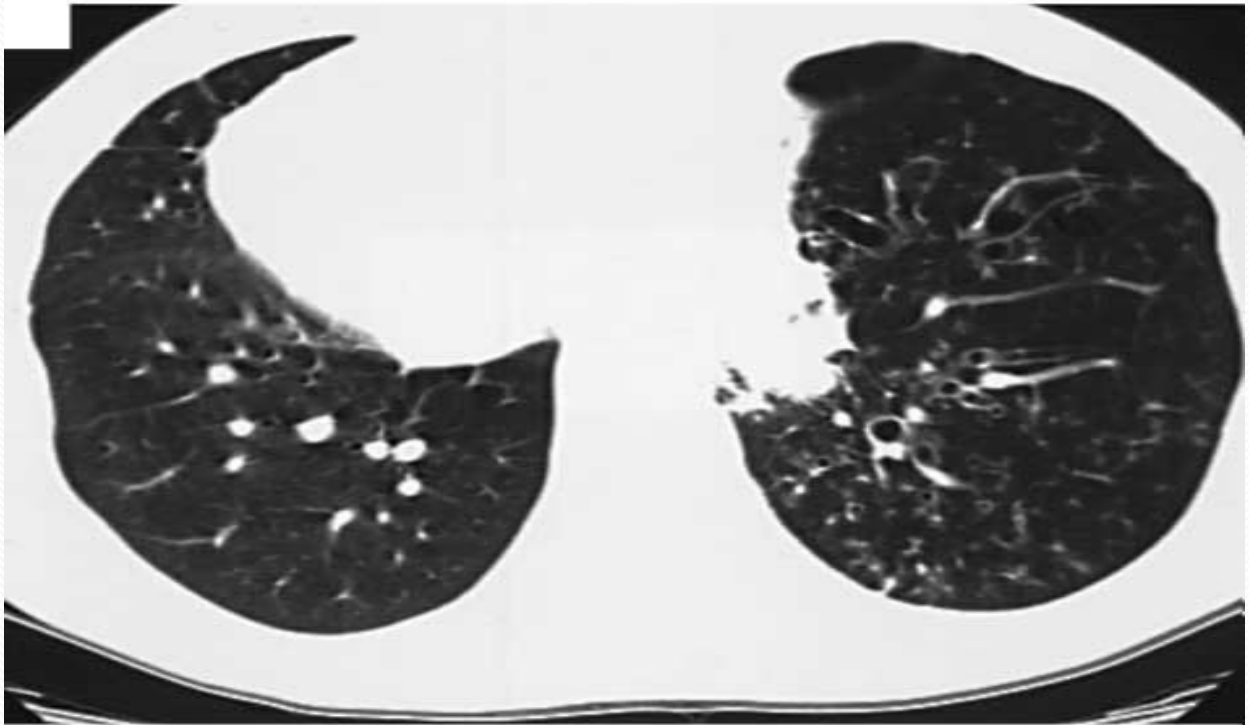


Varicose



Cystic





Η **κλινική εικόνα** διακρίνεται από ευρεία ετερογένεια, ακόμη και μεταξύ περιπτώσεων ίδιας αιτιολογίας:

- βήχας και βλεννοπυώδη απόχρεμψη που χρονολογείται από μακρού (μήνες/έτη)
- αιμόπτυση, λόγω δομικών αλλοιώσεων των τοιχωμάτων των αεραγωγών, στις περιόδους των οξέων λοιμώξεων,
- Δύσπνοια,
- Πλευροδυνία,
- συριγμός,
- πυρετός,
- αδυναμία, κόπωση, εξάντληση και απώλεια βάρους

•Σπανιότερα, περιγράφονται επεισόδια αιμοπτύσεως, με ή χωρίς απόχρεμψη (ξηρές βρογχεκτασίες)

Box 5 Assessment of patients with exacerbations of bronchiectasis

Adults

Outpatients

- History.
- Clinical examination.
- Sputum for culture (preferably prior to commencement of antibiotics).
- Review of previous sputum microbiology.

Inpatients

- History.
- Clinical examination.
- Oxygen saturation on air.
- Arterial blood gases if indicated.
- ECG if indicated.
- Chest x-ray.
- Sputum for culture (preferably prior to commencement of antibiotics).
- Blood culture if pyrexial $\geq$38°C.
- Full blood count, urea and electrolytes and liver function tests.
- Erythrocyte sedimentation rate or C-reactive protein (may be useful for diagnosing and monitoring exacerbations).
- Review of previous sputum microbiology.
- If feasible, 24 h sputum weight or volume.

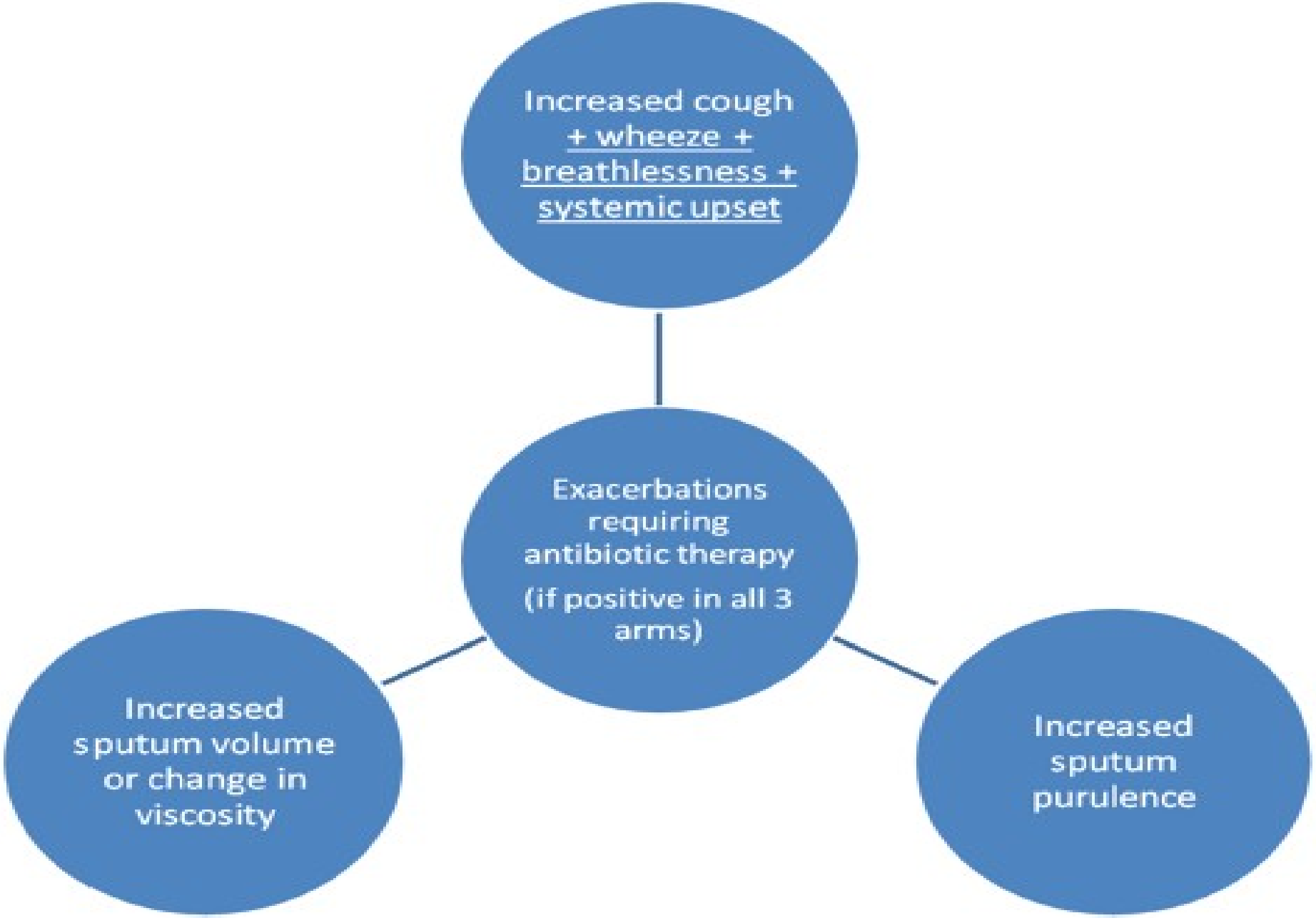


Figure 2 Definition of an exacerbation needing antibiotic therapy.

Common organisms associated with acute exacerbation of bronchiectasis and suggested antimicrobial agents

(A) Adults

Organism	Recommended first-line treatment	Length of treatment	Recommended second-line treatment	Length of treatment
Streptococcus pneumoniae	Amoxicillin 500 mg tds	14 days	Clarithromycin 500 mg bd	14 days
Haemophilus influenzae (β-lactamase negative)	Amoxicillin 500 mg tds Amoxicillin 1 g tds Amoxicillin 3 g bd	14 days 14 days 14 days	Clarithromycin 500 mg bd or ciprofloxacin 500 mg bd or ceftriaxone 2 g od (IV)	14 days
Haemophilus influenzae (β-lactamase positive)	Co-amoxiclav 625 mg tds	14 days	Clarithromycin 500 mg bd or ciprofloxacin 500 mg bd or ceftriaxone 2 g od (IV)	14 days
Moraxella catarrhalis	Co-amoxiclav 625 mg tds	14 days	Ciprofloxacin 500 mg bd	14 days
Staphylococcus aureus (MSSA)	Flucloxacillin 500 mg qds	14 days	Clarithromycin 500 mg bd	14 days
Staphylococcus aureus (MRSA): oral preparations	<50 kg: Rifampicin 450 mg od + trimethoprim 200 mg bd	14 days	<50 kg: Rifampicin 450 mg od + doxycycline 200 mg od	14 days
	>50 kg:Rifampicin 600 mg + trimethoprim 200 mg bd		>50 kg: Rifampicin 600 mg + doxycycline 200 mg od	14 days
			Third-line: Linezolid 600 mg bd	14 days
Staphylococcus aureus (MRSA): intravenous preparations	Vancomycin 1 g bd* (monitor serum levels and adjust dose accordingly) or teicoplanin 400 mg od	14 days	Linezolid 600 mg bd	14 days
Coliforms (eg, *Klebsiella*, enterobacter)	Oral ciprofloxacin 500 mg bd	14 days	Intravenous ceftriaxone 2 g od	14 days
Pseudomonas aeruginosa	Oral ciprofloxacin 500 mg bd (750 mg bd in more severe infections)	14 days	Monotherapy: Intravenous ceftazidime 2 g tds or tazocin 4.5 g tds or aztreonam 2 g tds or meropenem 2 g tds	14 days
			Combination therapy: The above can be combined with gentamicin or tobramycin or colistin 2 MU tds (<60 kg, 50 000–75 000 units/kg daily in 3 divided doses)	14 days

SIMA 23

Σι-μα Ιητηρ(ιατρός) Μινωϊκή Κρήτη

Ευχαριστώ για την προσοχή σας

1ο ΠΟΛΥΘΕΜΑΤΙΚΟ ΣΥΝΕΔΡΙΟ
ΙΑΤΡΙΚΟΥ ΣΥΛΛΟΓΟΥ ΗΡΑΚΛΕΙΟΥ

Ξενοδοχείο Aquila Atlantis

03,04 & 05.11.2023