Congresso Regionale SIMEU Emilia Romagna 2017

ferrara 2017 SIMEU società italiana medicina d'emergenza-urgenza

TEAM WORKING IN EMERGENZA-URGENZA: DAL TERRITORIO ALLA MEDICINA D'URGENZA IN UN LAVORO DI EQUIPE MULTIPROFESSIONALE E MULTIDISCIPLINARE

Aula Magna Azienda Ospedaliero Universitaria di Ferrara, 12 maggio 2017

Rodolfo Ferrari

Medicina d'Urgenza e Pronto Soccorso
Policlinico Sant'Orsola – Malpighi
Azienda Ospedaliero – Universitaria di Bologna

Pump o Lung Failure?
Ventimask, CPAP o NIV?

In PS / shock room …

Utilizzo della Ventilazione Meccanica Noninvasiva per il trattamento dell'Insufficienza Respiratoria Acuta nel Dipartimento di Emergenza-Accettazione. Barboni E, et al. Linee guida SIMEU "NIMV nel DEA" 2005

CONCLUSIONI

<< … Anche in "emergenza" la NIMV non può rappresentare un "tentativo", ma parte di un piano terapeutico integrato, che non trascura ipotesi diagnostiche e prognostiche ragionate, l'ottimizzazione della terapia medica, la garanzia della continuità assistenziale attraverso il coinvolgimento di strutture e competenze specialistiche. >>

Prima sessione

QUANDO A CASA MANCA IL RESPIRO: approccio razionale nel pz con insufficienza respiratoria acuta dall'extra all'intra-ospedaliero

Moderatori: A. Fabbri (Forlì) , N. Binetti (AUSL Bologna Nord)

PUMP o LUNG FAILURE? Ventimask, CPAP o NIV?

(9.30-10.20)

- Di cosa parliamo: pump failure - lung failure 9:30-9:45

Sabrina Lupacciolu, Scuola Specializzazione Medicina Emergenza-Urgenza, Modena

- In extra ospedaliero…

Claudia Morselli, 118-PS-Medicina d'Urgenza, Imola 9:45-10:05

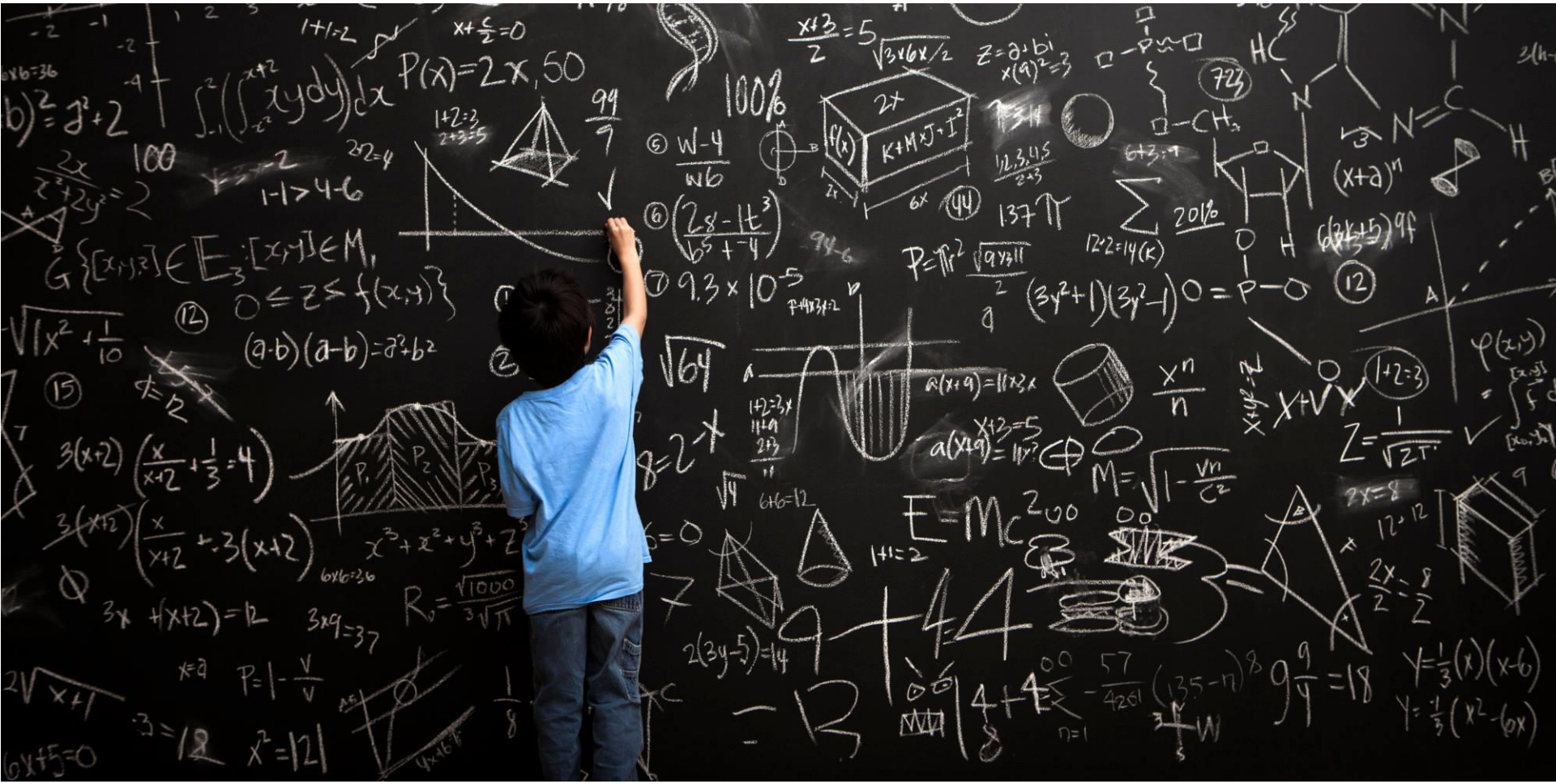
- In PS / Shock room…

Rodolfo Ferrari, PS- Medicina d'urgenza S. Orsola-Malpighi Bologna 10:05-10:25

- Competenze infermieristiche nella gestione paziente con dispnea acuta

In extra ospedaliero… - *Romano Guatteri, PS- 118 Reggio Emilia*- 10:25 – 10:40
In PS/shock room… - *Francesca Chierici, PS Ferrara* - 10:40-10:55

Discussione (relatori e moderatori) 10:55-11:10




学术讲座
时间：2013年12月6日 下午2:30
地点：汉川市人民医院学术报告厅
主讲人：Dr.Rodolfo
主讲内容：COPD急性发作的无创通气治疗
参加对象：临床各科室医务人员
继续教育学分：3分
汉川市人民医院科教科
2013年12月5日
北京
星期五
2013年12月06日
星期五
16时02分02秒

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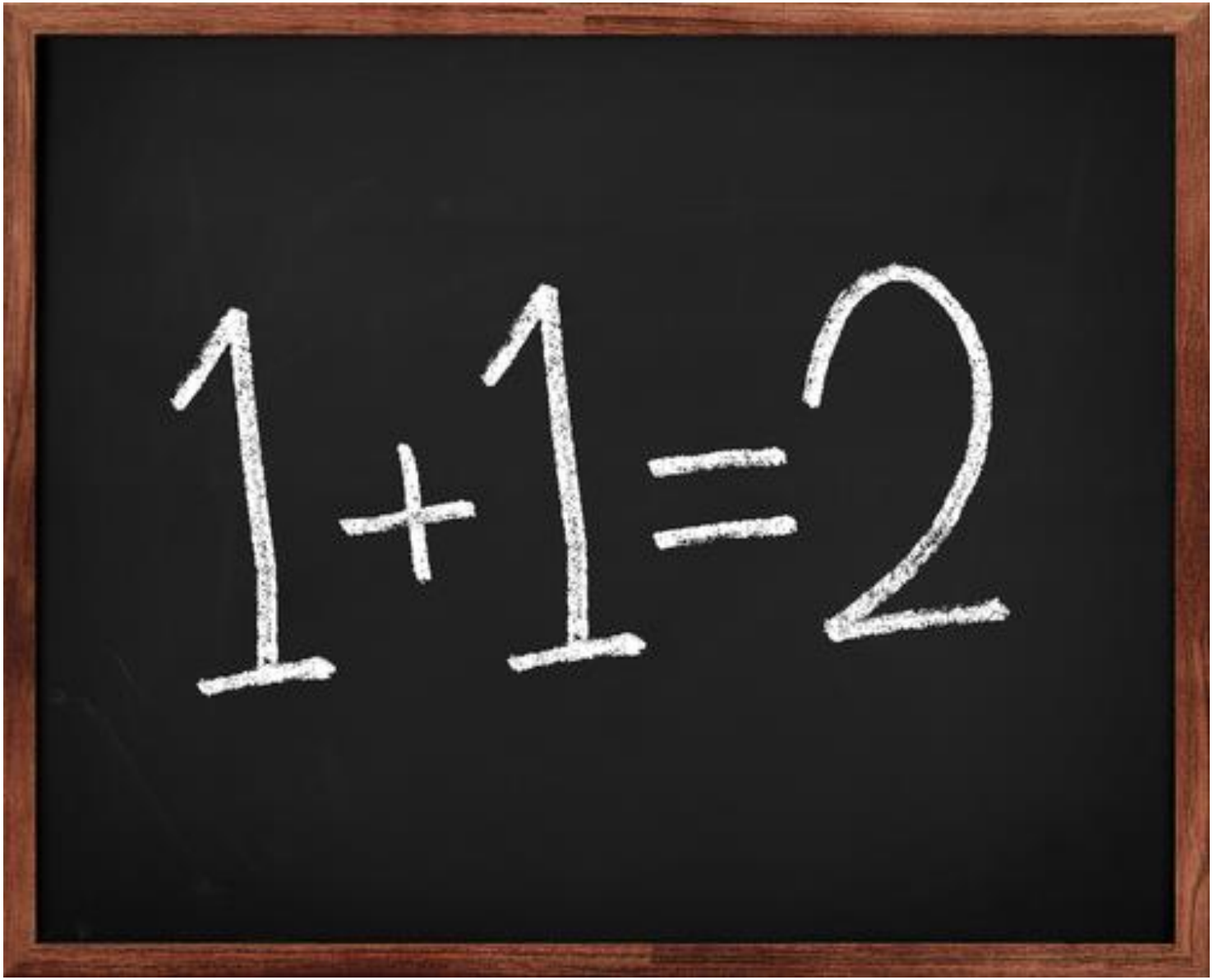
1+1=2


YOU ARE
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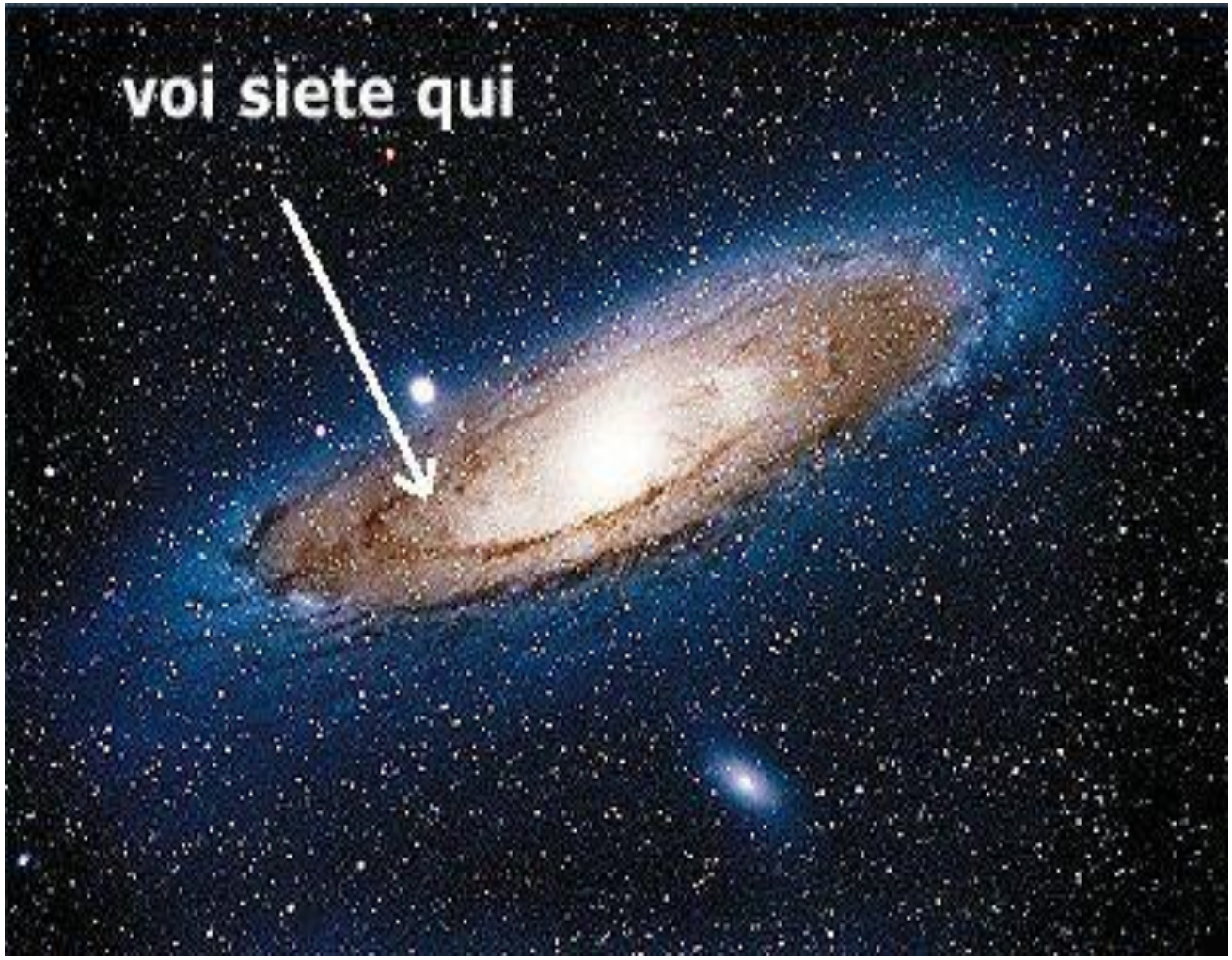
123


118
RegioneEmilia-Romagna


voi siete qui


AREA MALPIGHI
AREA S.ORSOLA
S. Lazzaro
Via Mazzini
P.ta Mazzini
Via Pelagi
Via Albertoni
Via
Ercolani
Viale
Via Massarenti
P.ta S. Vitale
Autostrade
Centro
Punti di accesso Pedonali al Policlinico
Punti di accesso Veicolari al Policlinico
Pronto Soccorso
Punto di Accettazione
U.R.P. Ufficio Relazioni con il Pubblico
Sportello Bancario
Bar
Edicola
Posto di Polizia
Fermata Bus
Parcheggio Coperto a pagamento

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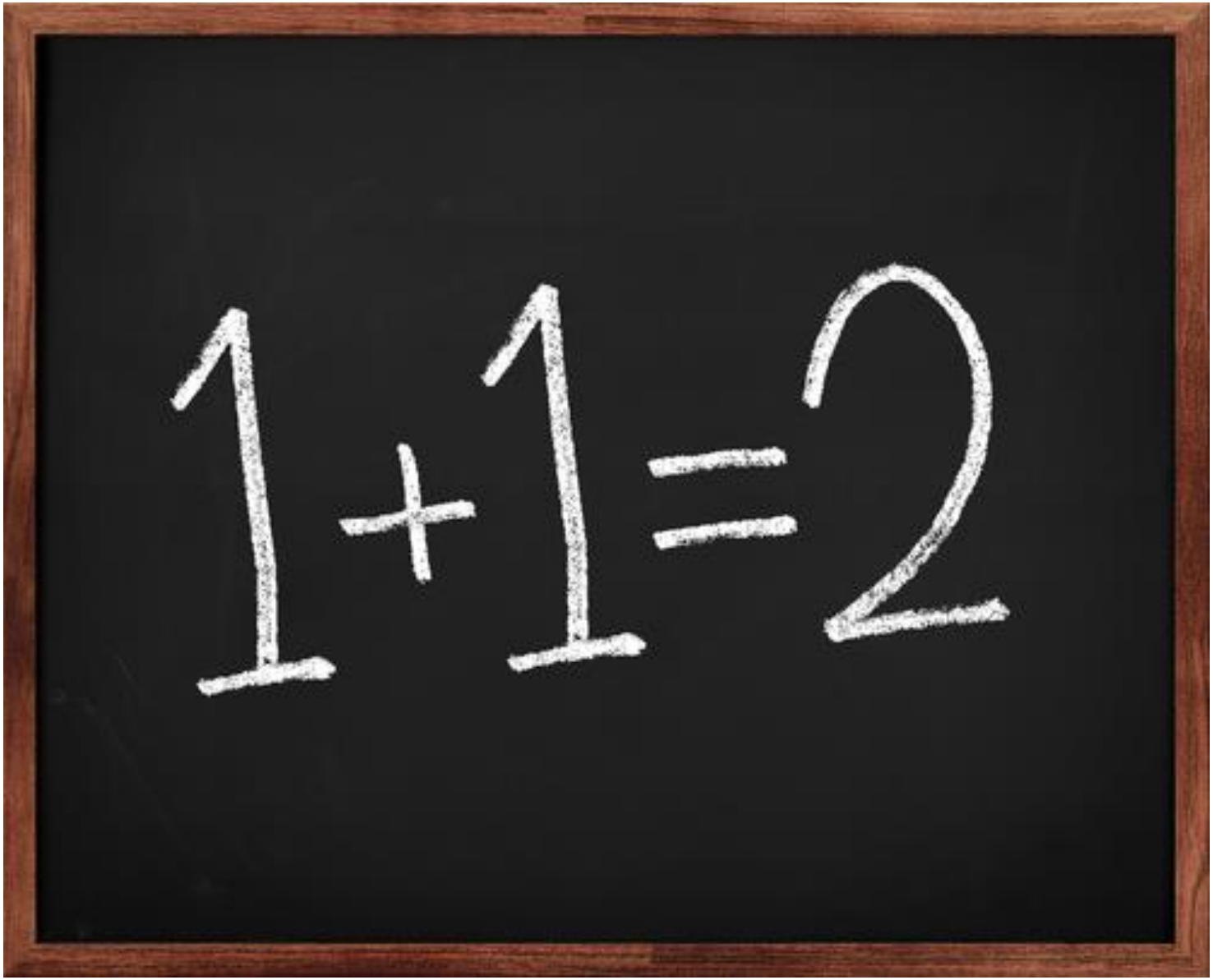

1+1=2

SpO_2

Respiratory rate, oxygen saturation and oxygen therapy

Clinical review required if saturation is outside target range. Observation frequency_____

Continuous oxygen / PRN / Not on oxygen therapy Target range: 88–92% 94–98% Other_____

Date	Example																				Date
Time	08.00																				Time
Respiratory rate	20																				Respiratory rate
Oxygen saturation %	94%																				Oxygen saturation %
Oxygen device or air	N																				Oxygen device or air
Oxygen flow rate l/min	4																				Oxygen flow rate l/min
Your initials*	LW																				Your initials*

*All changes to oxygen delivery systems must be initialled by a registered nurse or equivalent.

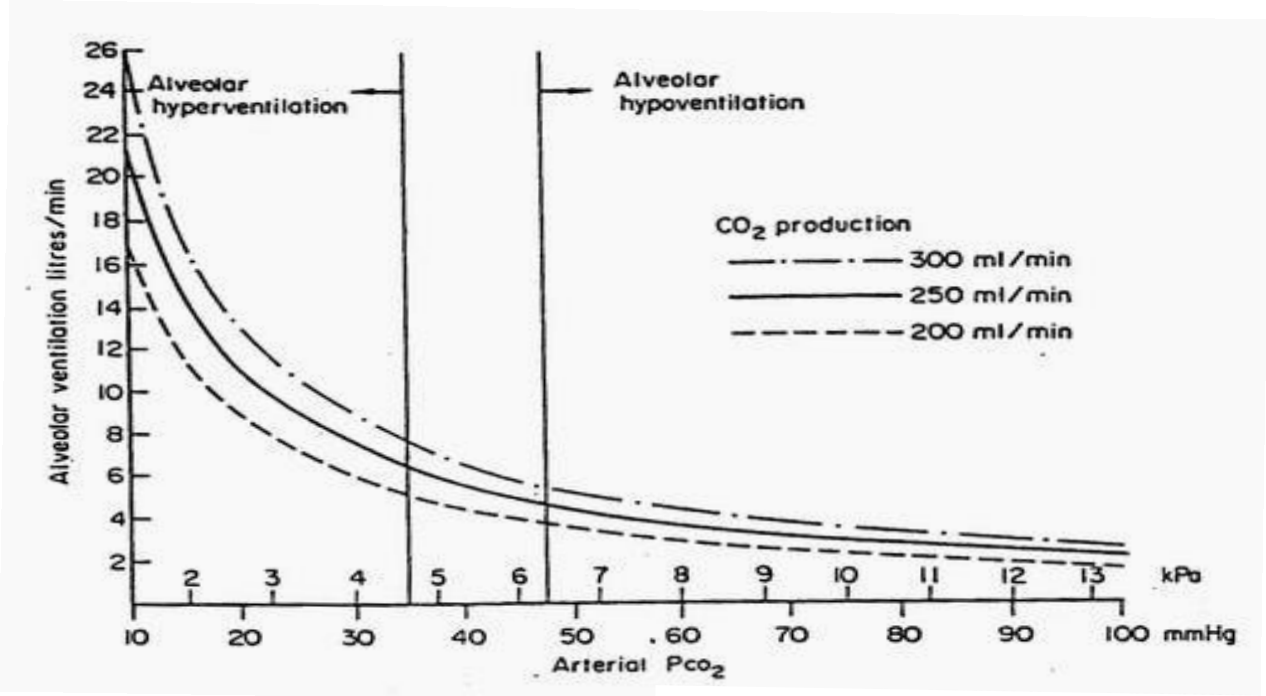
If the patient is medically stable and in the target range on two consecutive rounds, report to a registered nurse to consider weaning off oxygen.

*Codes for recording oxygen delivery on observation chart

A Air (not requiring oxygen, or weaning or on "PRN" oxygen)	H28 Humidified oxygen at 28% (also H35, H40, H60 for humidified oxygen at 35%, 40%, 60%)
N Nasal cannulae	RM Reservoir mask
SM Simple mask	TM Tracheostomy mask CP Patient on CPAP system NIV Patient on NIV system
V24 Venturi 24% V28 Ventri 28% V35 Venturi 35% V40 Venturi 40% V60 Venturi 60%	OTH Other device:_____ (specify which)

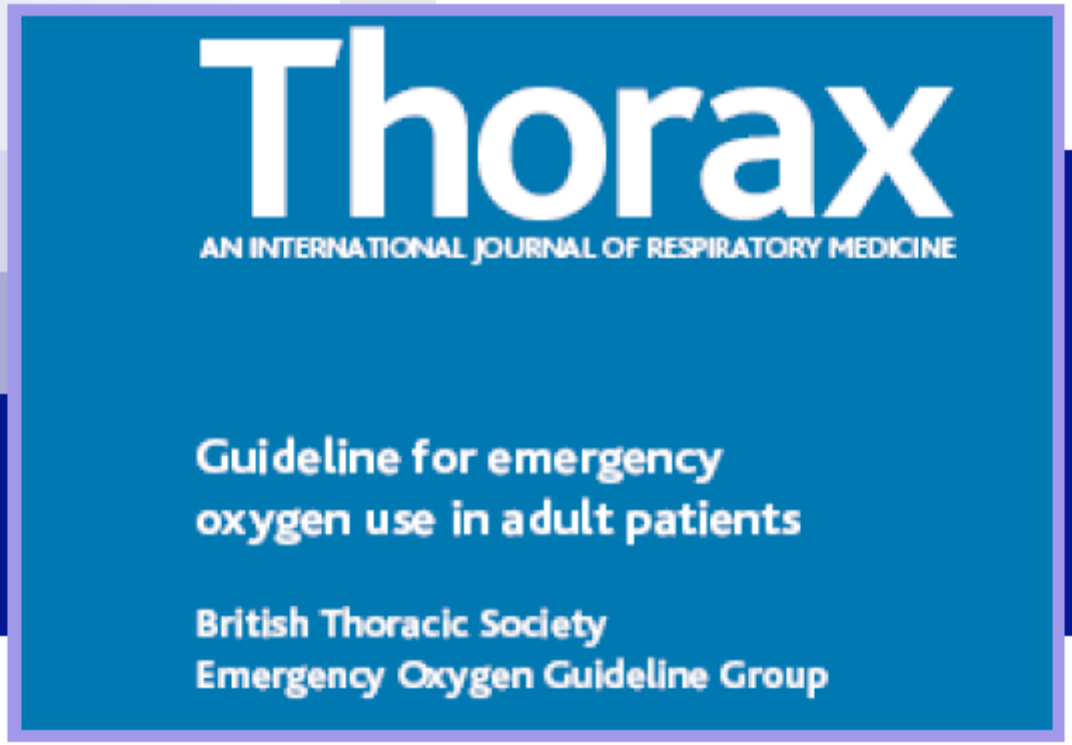
$PaCO_2$

Equazione della $PaCO_2$



$$PaCO_2 = \frac{\dot{V}CO_2}{\dot{V}A} \times K$$

VCO_2 → produzione CO_2
$VA = V_E - V_D$



Per la maggior parte degli argomenti trattati, non più di una “manciata” di studi osservazionali. Raccomandazioni di grado C (Studi caso-controllo o di coorte) o di grado D (opinione di esperti o singoli casi clinici)

Parachute use to prevent death and major trauma related to gravitational challenge: systematic review of randomised controlled trials

Gordon C S Smith, Jill P Pell

What is already known about this topic

Parachutes are widely used to prevent death and major injury after gravitational challenge

Parachute use is associated with adverse effects due to failure of the intervention and iatrogenic injury

Studies of free fall do not show 100% mortality

What this study adds

No randomised controlled trials of parachute use have been undertaken

The basis for parachute use is purely observational, and its apparent efficacy could potentially be explained by a "healthy cohort" effect

Individuals who insist that all interventions need to be validated by a randomised controlled trial need to come down to earth with a bump

BMJ 2003;327:1459–61

Abstract

Objectives To determine whether parachutes are effective in preventing major trauma related to gravitational challenge.

Design Systematic review of randomised controlled trials.

Data sources: Medline, Web of Science, Embase, and the Cochrane Library databases; appropriate internet sites and citation lists.

Study selection: Studies showing the effects of using a parachute during free fall.

Main outcome measure Death or major trauma, defined as an injury severity score > 15.

Results We were unable to identify any randomised controlled trials of parachute intervention.

Conclusions As with many interventions intended to prevent ill health, the effectiveness of parachutes has not been subjected to rigorous evaluation by using randomised controlled trials. Advocates of evidence based medicine have criticised the adoption of interventions evaluated by using only observational data. We think that everyone might benefit if the most radical protagonists of evidence based medicine organised and participated in a double blind, randomised, placebo controlled, crossover trial of the parachute.

Box 1: Medical emergencies where oxygen is likely to be required until patient is stable and within target saturation range[3]

Medical emergencies requiring high concentration oxygen in all cases

- Shock, sepsis, major trauma
- Cardiac arrest and during resuscitation
- Anaphylaxis
- Carbon monoxide or cyanide poisoning

Medical emergencies where patients are likely to need oxygen therapy (ranging from low to high concentration depending on disease severity), with target saturation range 94-98%

- Pneumonia
- Asthma
- Acute heart failure
- Pulmonary embolism

Medical emergencies where patients are likely to need controlled oxygen, with target saturation range 88-92%

- Acute exacerbation of chronic obstructive pulmonary disease (COPD)
- Acute illness in patients with cystic fibrosis
- Acute respiratory illness in patients with obesity hypoventilation syndrome or morbid obesity
- Acute respiratory illness in patients with chronic neuromuscular or musculoskeletal conditions

Box 2: Common medical emergencies for which oxygen was given routinely in the past but is now advised only if the patient is hypoxaemic[3]

- Myocardial infarction or unstable coronary artery syndrome
- Stroke
- Ongoing management of survivors of cardiac arrest with restored spontaneous circulation
- Sickle cell crisis or acute anaemia
- Obstetric emergencies
- Most poisonings (other than carbon monoxide or cyanide poisoning)
- Metabolic and renal disorders with tachypnoea due to acidosis (Kussmaul breathing)

Box 3: Devices for oxygen administration

- Reservoir mask (non-rebreathing mask) for critical illness or severe hypoxaemia (fig1⇓)
- Venturi mask for controlled oxygen therapy (especially for oxygen-sensitive patients) (figs 2⇓ and 3⇓)
- Nasal cannulas for most medium dose oxygen therapy (adjust flow to increase or decrease blood oxygen level) (fig 4⇓)
- Simple facemask—works in a similar manner to nasal cannulas, but most patients prefer nasal cannulas to masks, and some rebreathing may occur (fig 5⇓)
- Tracheostomy masks for "neck breathing" patients (fig 6⇓)

Box 4: Alternative methods to increase tissue oxygen delivery

- Safeguarding the airway
- Optimising circulating volume to maintain tissue perfusion
- Correcting severe anaemia
- Enhancing cardiac output
- Avoiding or reversing respiratory depressants such as benzodiazepines or opiates
- Increasing fraction of inspired oxygen (FIO_2) if the patient is hypoxaemic
- Establishing and treating the underlying cause of hypoxaemia (such as bronchospasm, heart failure)
- More specialised treatments, including non-invasive or invasive ventilation for seriously ill patients after assessment by senior clinicians

Tips for prescribers

- Advise patients not requiring oxygen and their families that oxygen was overused in the past and is not required in most circumstances unless the blood oxygen level is low, even if breathlessness is present
- Excessive oxygen therapy (hyperoxaemia) in seriously ill patients (such as survivors of cardiac arrest or those admitted to intensive care units), may be associated with increased mortality
- Aim for oxygen saturation of 94-98% for most patients and 88-92% for most patients at risk of hypercapnic respiratory failure (some hypercapnic patients may have a lower individualised target range based on previous blood gas results)
- Issue a personal "Oxygen Alert Card" and educational materials to patients with a history of hypercapnic respiratory failure to ensure that they are not endangered by excessive oxygen therapy[3]
- Prescribing oxygen to a target range is simple and safer than trying to prescribe a fixed "dose" of oxygen. The target range needs to be set just once for each patient, although the device and flow rate may need to be changed several times if the patient's condition changes. Document all such changes on the bedside observations chart alongside the oxygen saturation
- Allowing the clinicians who are administering oxygen to select the most appropriate device and flow rate while maintaining the patient within the desired saturation range enhances patient safety and patient comfort
- Ensure that bedside air outlets (which could be mistaken for an oxygen outlet in an emergency) are either removed, covered, or clearly labelled

⇑ $PaCO_2$

- **INSUFFICIENZA di POMPA**
- ↑VCO_2
- SHUNT (Va/Q=0)
- ↑ spazio-morto
- **Ipoventilazione alveolare**


BE ALERT!!
EXPECT THE
UNEXPECTED

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Ventimask, CPAP o NIV?

In PS / shock room …


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EMERGENCY ROOM
AMBULANCE


Lg
LINEA GUIDA

BTS guideline for emergency oxygen use in adult patients

B R O'Driscoll,[1] L S Howard,[2] A G Davison[3] on behalf of the British Thoracic Society

[1] Department of Respiratory Medicine, Salford Royal University Hospital, Salford, UK; [2] Hammersmith Hospital, Imperial College Healthcare NHS Trust, London, UK; [3] Southend University Hospital, Westcliff on Sea, Essex, UK

Correspondence to:
Dr B R O'Driscoll, Department of Respiratory Medicine, Salford Royal University Hospital, Stott Lane, Salford M6 8HD, UK;
ronan.o'driscoll@srft.nhs.uk

Received 11 June 2008
Accepted 11 June 2008

EXECUTIVE SUMMARY OF THE GUIDELINE

Philosophy of the guideline

- Oxygen is a treatment for hypoxaemia, not breathlessness. (Oxygen has not been shown to have any effect on the sensation of breathlessness in non-hypoxaemic patients.)
- The essence of this guideline can be summarised simply as a requirement for oxygen to be prescribed according to a target saturation range and for those who administer oxygen therapy to monitor the patient and keep within the target saturation range.
- The guideline suggests aiming to achieve normal or near-normal oxygen saturation for all acutely ill patients apart from those at risk of hypercapnic respiratory failure or those receiving terminal palliative care.

Monitoring and maintenance of target saturation

- Oxygen saturation and delivery system should be recorded on the patient's monitoring chart alongside the oximetry result.
- Oxygen delivery devices and flow rates should be adjusted to keep the oxygen saturation in the target range.
- Oxygen should be signed for on the drug chart on each drug round.

Weaning and discontinuation of oxygen therapy

- Oxygen should be reduced in stable patients with satisfactory oxygen saturation.
- Oxygen should be crossed off the drug chart once oxygen is discontinued.

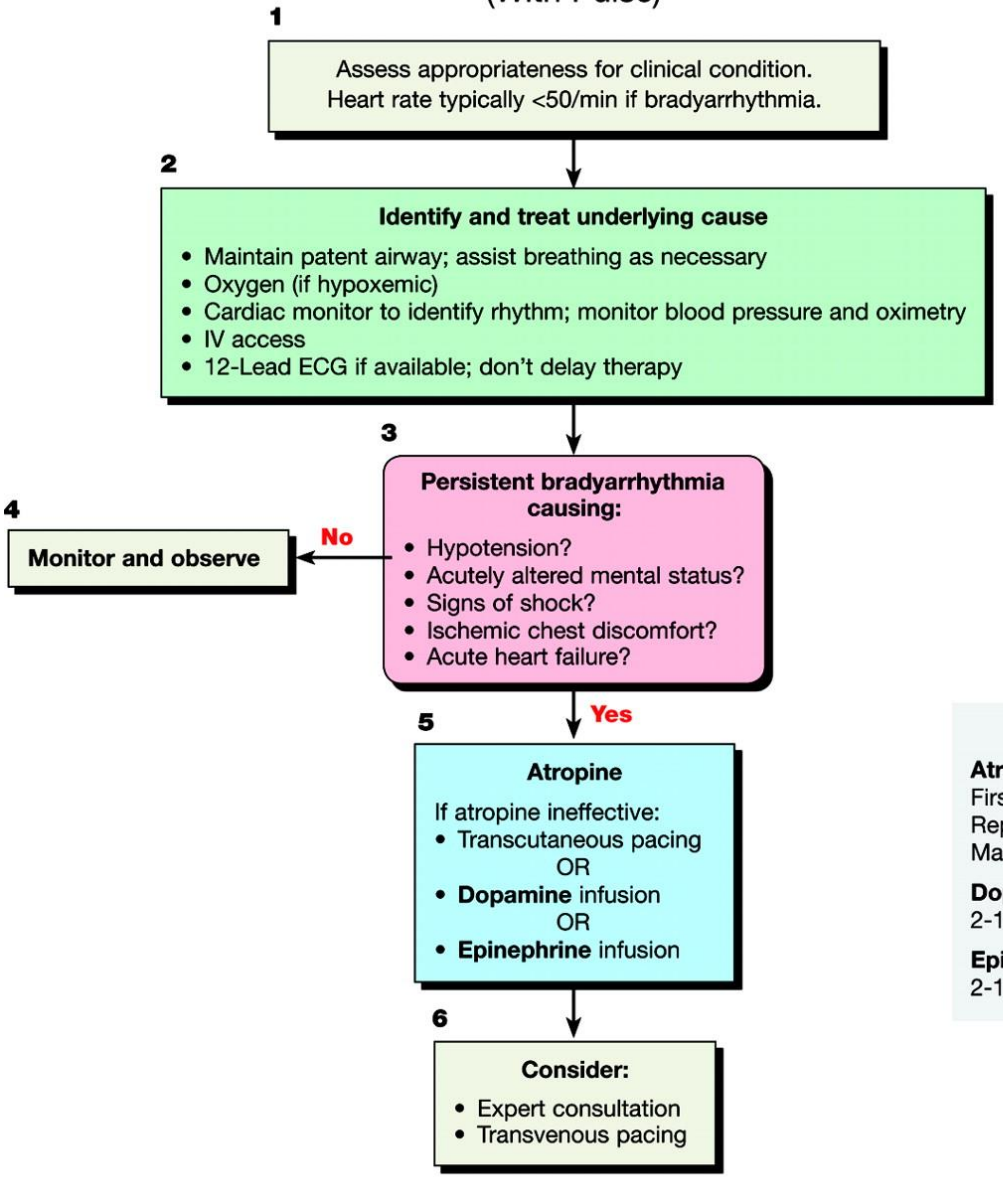
Oxygen is one of the most widely used drugs and is used across the whole range of specialities. The

Non c'è nulla di più difficile
di una linea

Pablo Picasso


Jimi Hendrix
if six were nine

Adult Bradycardia
(With Pulse)



Doses/Details

Atropine IV Dose:
First dose: 0.5 mg bolus
Repeat every 3-5 minutes
Maximum: 3 mg

Dopamine IV Infusion:
2-10 mcg/kg per minute

Epinephrine IV Infusion:
2-10 mcg per minute

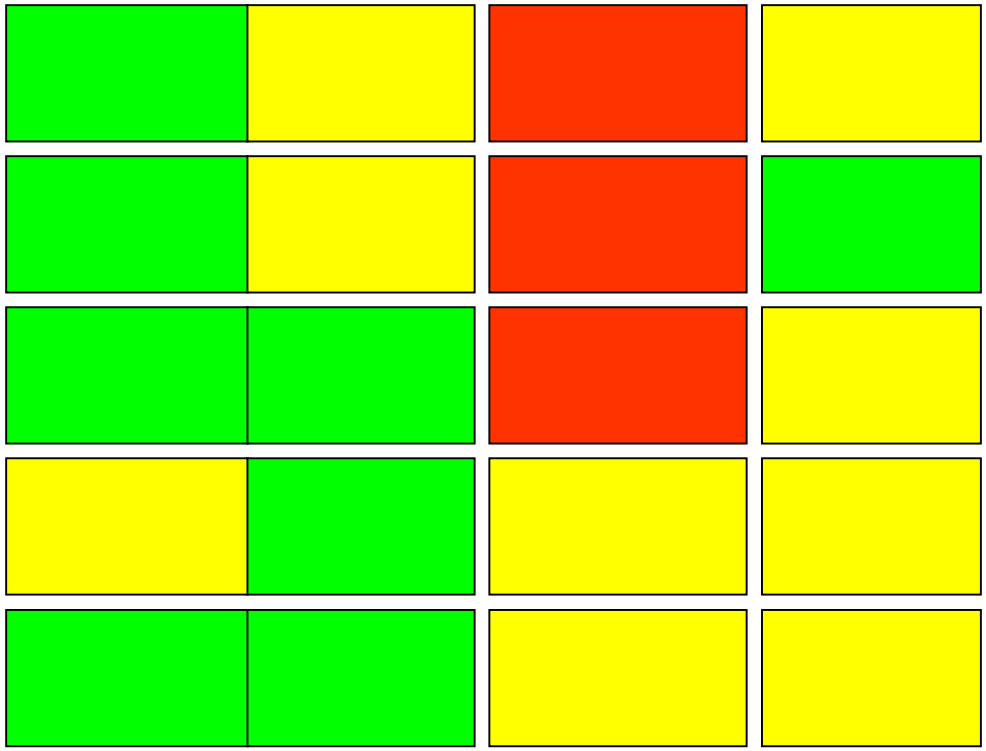
Circulation

Diagnostica differenziale e Trattamento della Dispnea Acuta in Pronto Soccorso

La NIV: dove ?

Lo schema del semaforo

	ICU	RICU/ /HDU	WARD	ER
Personale				
Sicurezza				
Monitoraggio				
Ventilatori + Presidii				
Esperienza e Familiarità				

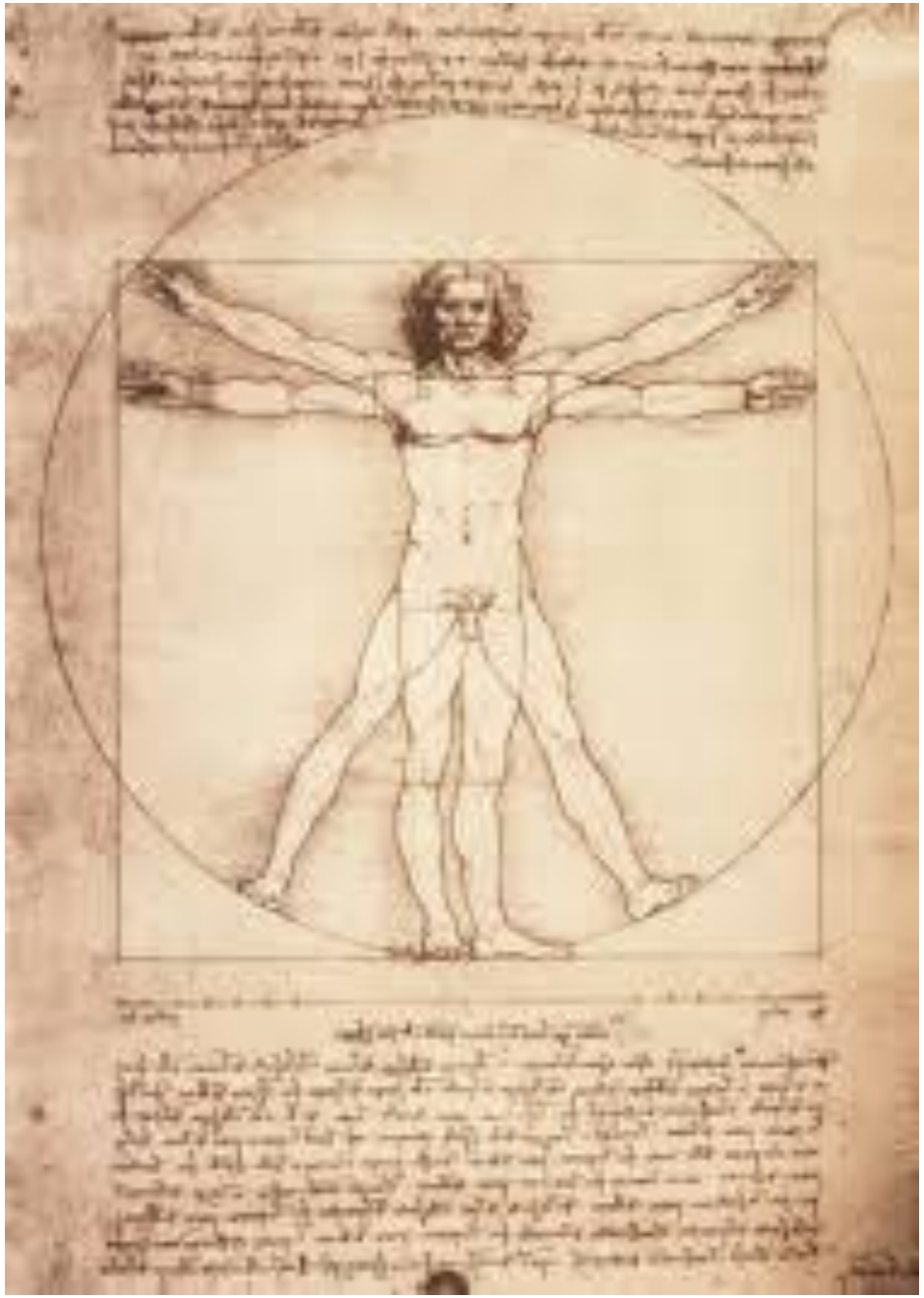


In PS / shock room

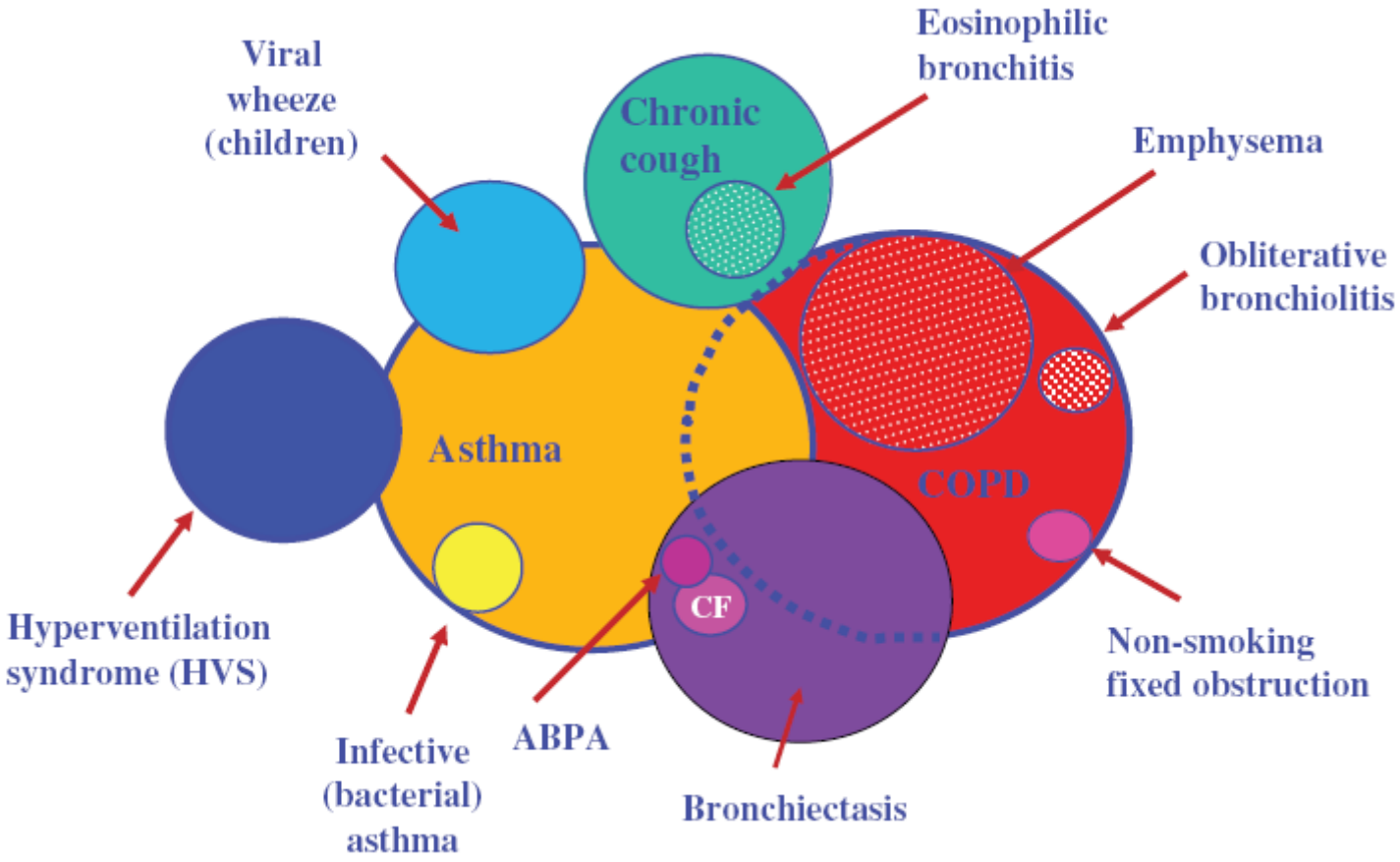
Non abbiamo la diagnosi

Non aspettiamo la diagnosi

Non possiamo fidarci della / affidarci alla letteratura scientifica medica




CARLO PONTI
ETTORE
SCOLA
NINO
MANFREDI
BRUTTI,
SPORCHI e CATTIVI



Overlap in disordered airway function
Wardlaw AJ, et al. CEA 2005

Exacerbation-like respiratory symptoms in individuals without chronic obstructive pulmonary disease: results from a population-based study

Tan WC, *et al*. *Thorax* 2014;**69**:709–717. doi:10.1136/thoraxjnl-2013-205048

ABSTRACT

Rationale Exacerbations of COPD are defined clinically by worsening of chronic respiratory symptoms. Chronic respiratory symptoms are common in the general population. There are no data on the frequency of exacerbation-like events in individuals without spirometric evidence of COPD.

Aims To determine the occurrence of 'exacerbation-like' events in individuals without airflow limitation, their associated risk factors, healthcare utilisation and social impacts.

Method We analysed the cross-sectional data from 5176 people aged 40 years and older who participated in a multisite, population-based study on lung health. The study cohort was stratified into spirometrically defined COPD (post-bronchodilator $FEV_1/FVC < 0.7$) and non-COPD (post bronchodilator $FEV_1/FVC \geq 0.7$ and without self-reported doctor diagnosis of airway diseases) subgroups and then into those with and without respiratory 'exacerbation-like' events in the past year.

Results Individuals without COPD had half the frequency of 'exacerbation-like' events compared with those with COPD. In the non-COPD group, the independent associations with 'exacerbations' included female gender, presence of wheezing, the use of respiratory medications and self-perceived poor health. In the non-COPD group, those with exacerbations were more likely than those without exacerbations to have poorer health-related quality of life (12-item Short-Form Health Survey), miss social activities (58.5% vs 18.8%), miss work for income (41.5% vs 17.3%) and miss housework (55.6% vs 16.5%), $p<0.01$ to <0.0001.

Conclusions Events similar to exacerbations of COPD can occur in individuals without COPD or asthma and are associated with significant health and socioeconomic outcomes. They increase the respiratory burden in the community and may contribute to the false-positive diagnosis of asthma or COPD.

CHEST

Factors Predictive of Airflow Obstruction Among Veterans With Presumed Empirical Diagnosis and Treatment of COPD

Bridget F. Collins, MD; Laura C. Feemster, MD; Seppo T. Rinne, MD, PhD; and David H. Au, MD

RESULTS: Among patients empirically treated for COPD (N = 3,209), 62% had AFO. Risk factors such as older age, prior smoking status, and underweight status were associated with AFO on spirometry. In contrast, comorbidities often associated with somatic symptoms were associated with absence of AFO and included congestive heart failure, depression, diabetes, obesity, and sleep apnea.

CONCLUSIONS: Comorbidities associated with somatic complaints of dyspnea were associated with a lower risk of having airflow limitations, suggesting that empirical diagnosis and treatment of COPD may lead to inappropriate treatment of individuals who do not have AFO.

CHEST 2015; 147(2):369-376

"All That Wheezes Is Not Asthma" (or COPD)!

David A. Kaminsky, MD, FCCP
Burlington, VT

This famous quote was made by Chevalier Jackson in the *Boston Medical Quarterly* in 1865.[1] At the time, Jackson, an otolaryngologist, was concerned about foreign body aspiration causing wheezing and being misdiagnosed as asthma. Today, this adage reminds us that there are many causes of wheezing and shortness of breath besides the common and classic diagnosis of asthma. Among

ANALYSIS

TOO MUCH MEDICINE

Chronic obstructive pulmonary disease: missed diagnosis versus misdiagnosis

Martin R Miller *professor of medicine*[1], Mark L Levy *general practitioner*[2]

[1]Institute of Occupational and Environmental Medicine, University of Birmingham, Birmingham B15 2TT, UK; [2]Harrow Clinical Commissioning Group, London, UK

Summary box

Clinical context—The prevalence and mortality of chronic obstructive pulmonary disease (COPD) is increasing globally

Diagnostic change—A new diagnostic threshold for airflow obstruction (FEV_1/FVC <0.7) was introduced in 2001 (GOLD). This contrasts with internationally agreed criteria using statistically defined lower limits of normal (LLN) for different populations

Rationale for change—The new diagnostic criterion was simple so could be easily implemented in non-specialist settings

Leap of faith—Treatment of people identified by GOLD criteria would reduce morbidity and mortality

Increase in disease—The new definition estimates COPD prevalence at 22% in those aged over 40 years in England and Wales compared with 13% using LLN criteria

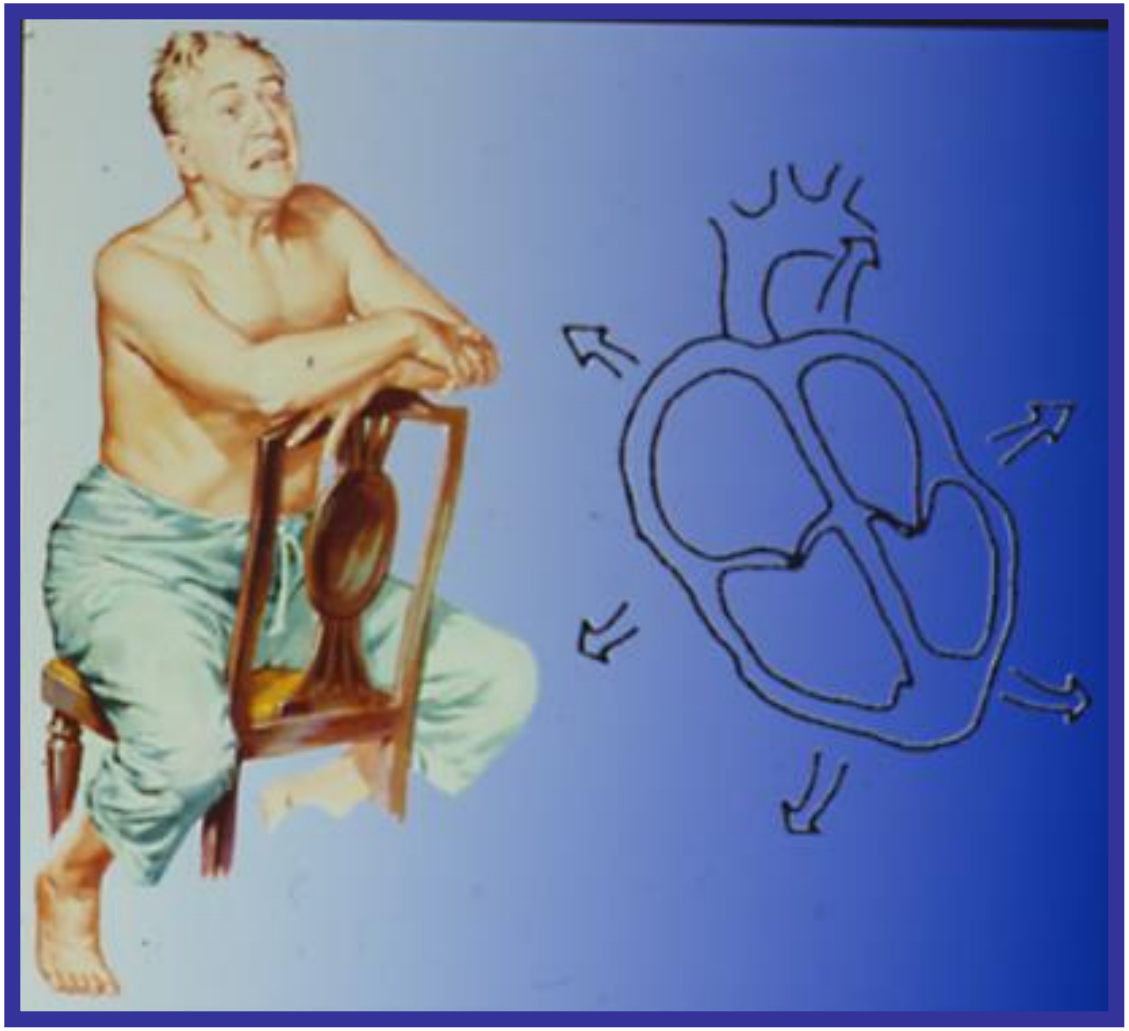
Evidence of misdiagnosis and missed diagnosis—Up to 13% of people thought to have COPD on GOLD criteria have been found to be misdiagnosed

Harms from misdiagnosis and missed diagnosis—Cardiovascular mortality is unexpectedly high among mildly breathless patients with GOLD diagnosed COPD

Limitations—Few studies have compared patient outcomes with GOLD and other criteria for diagnosing COPD

Conclusions—COPD management programmes and guidelines should adopt LLN criteria for defining airflow obstruction to avoid overdiagnosis in elderly people and missed diagnosis in younger patients

Edema Polmonare Acuto



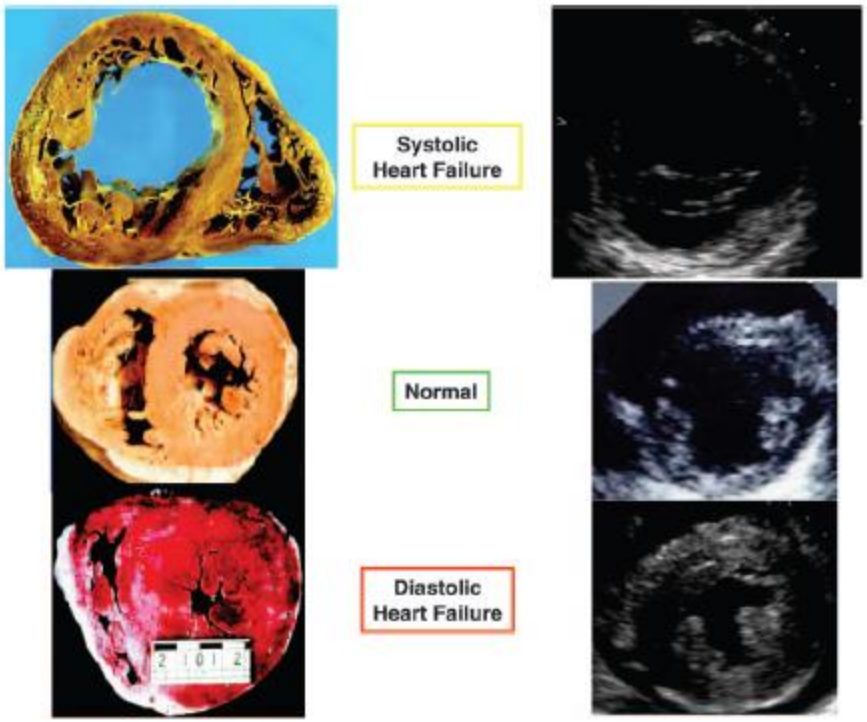


Figure 1. Autopsy (left) and echocardiographic (right) examples of the left ventricle imaged at the midventricular cross section in systolic heart failure (top), a normal heart (middle), and diastolic heart failure (bottom). Diastolic heart failure is characterized by a pattern of concentric LV remodeling with a normal or near-normal end-diastolic volume, increased wall thickness and mass, and a high ratio of mass to volume. By contrast, patients with systolic heart failure exhibit eccentric remodeling with an increased end-diastolic volume, little change in wall thickness, and a low ratio of mass to volume. (Cardiac specimen photographs courtesy of Dr Marvin Konstam. Reprinted from *Journal of Cardiac Failure*, volume 9, Konstam MA, "'Systolic and diastolic dysfunction' in heart failure? Time for a new paradigm," pp 1–3, Copyright 2003, with permission from Elsevier.)

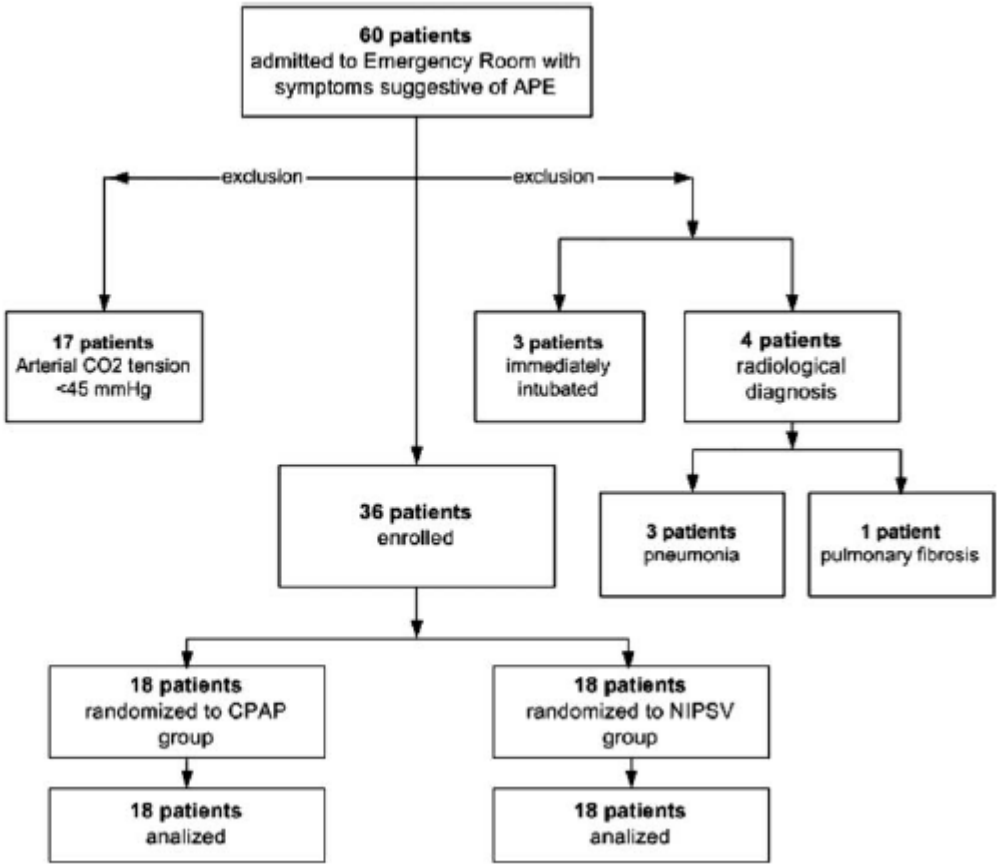
Intensive Care Med (2005) 31:807–811
DOI 10.1007/s00134-005-2649-6

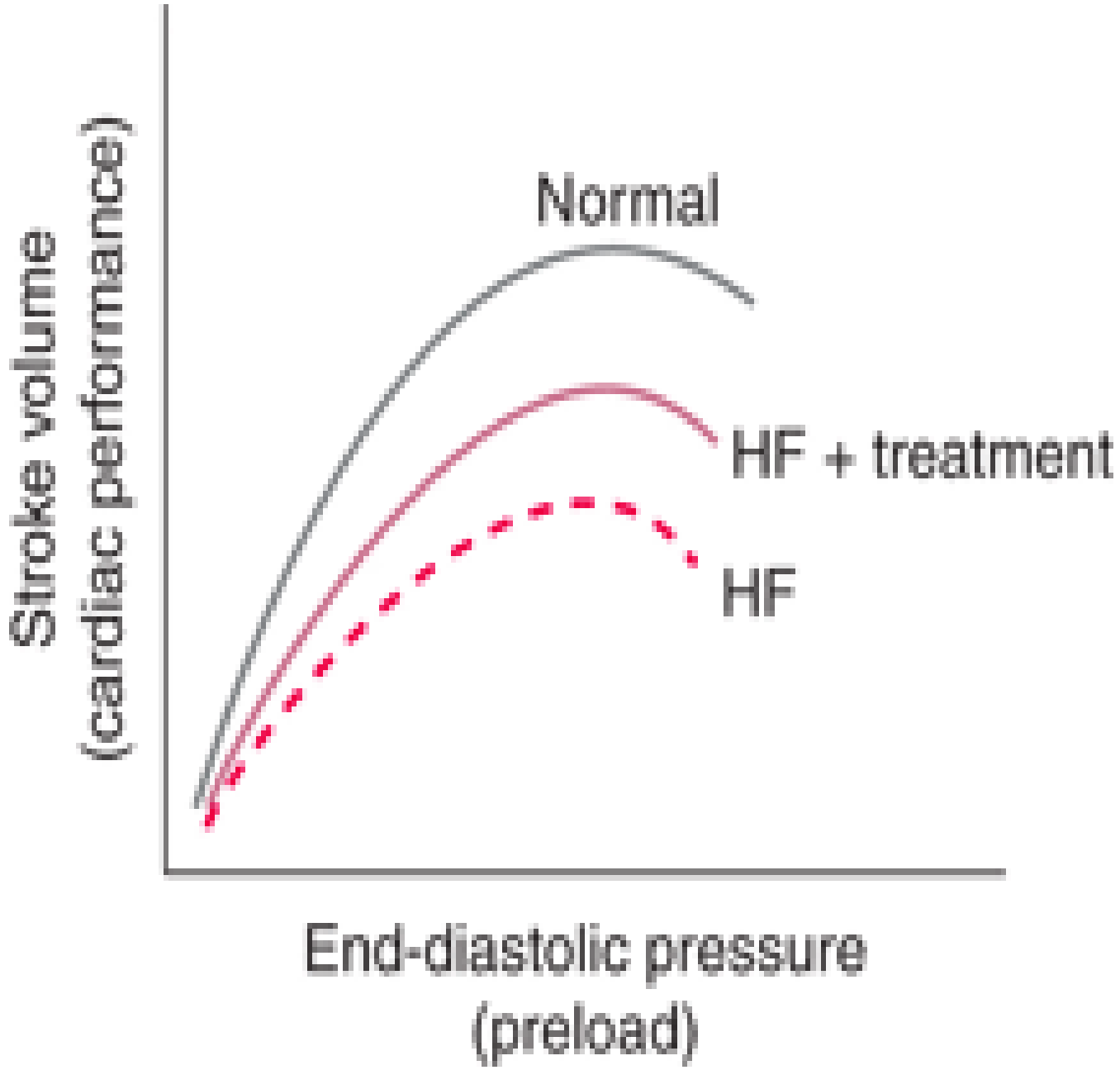
ORIGINAL

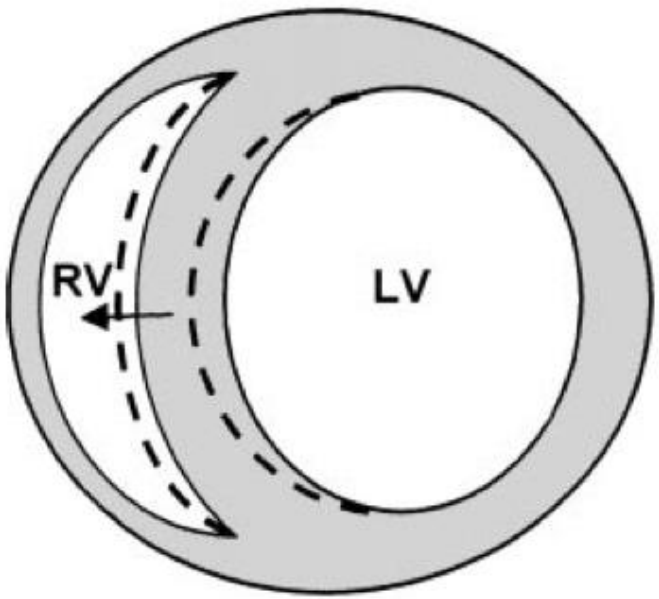
Andrea Bellone
Marco Vettorello
Alessandra Monari
Francesca Cortellaro
Daniele Coen

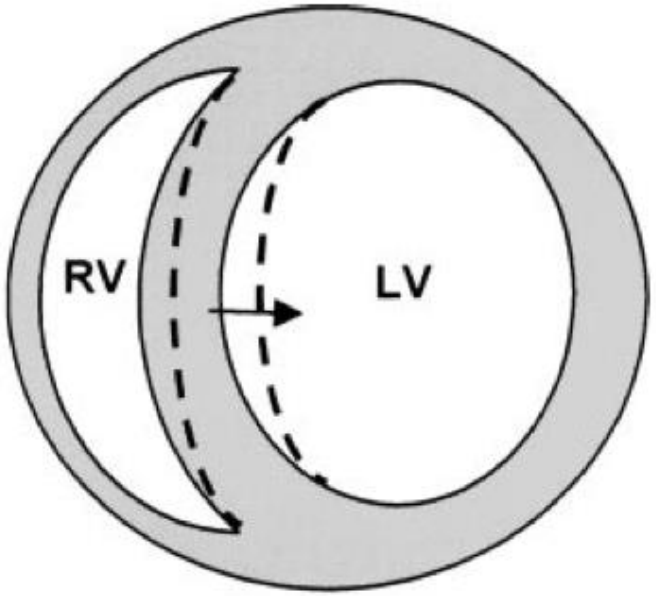
Noninvasive pressure support ventilation vs. continuous positive airway pressure in acute hypercapnic pulmonary edema

Fig. 1 Trial profile




Stroke volume
(cardiac performance)
Normal
HF + treatment
HF
End-diastolic pressure
(preload)





Decreased RV inflow

Positive pressure inspiration
IVC constriction
Release of abdominal compression

Increased RV inflow

Positive pressure expiration
Release of inspiratory hold
Release of IVC constriction
Abdominal compression

Congresso Regionale SIMEU Emilia Romagna 2017

TEAM WORKING IN EMERGENZA-URGENZA: DAL TERRITORIO ALLA MEDICINA D'URGENZA IN UN LAVORO DI EQUIPE MULTIPROFESSIONALE E MULTIDISCIPLINARE

Aula Magna Azienda Ospedaliero Universitaria di Ferrara, 12 maggio 2017

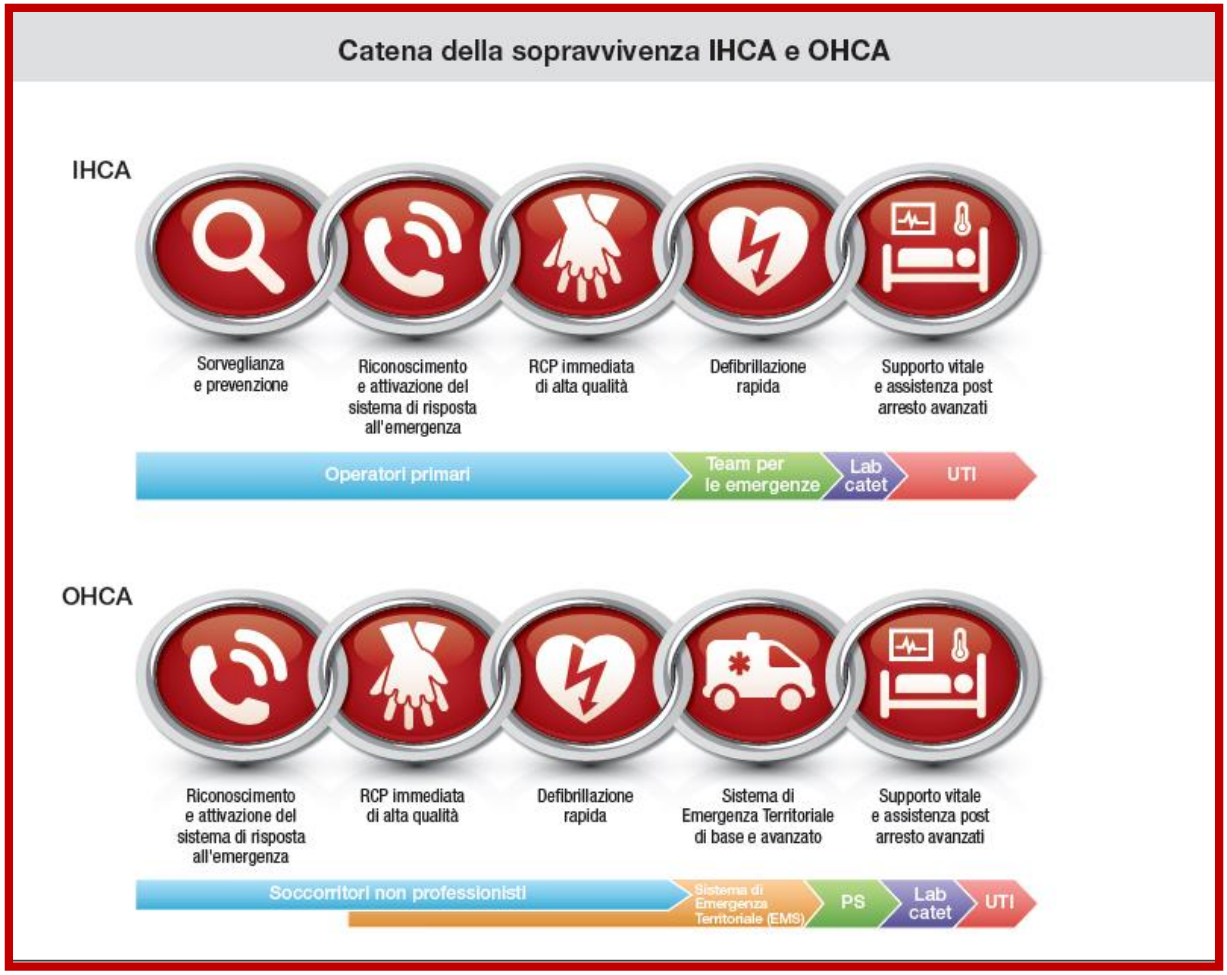
Rodolfo Ferrari

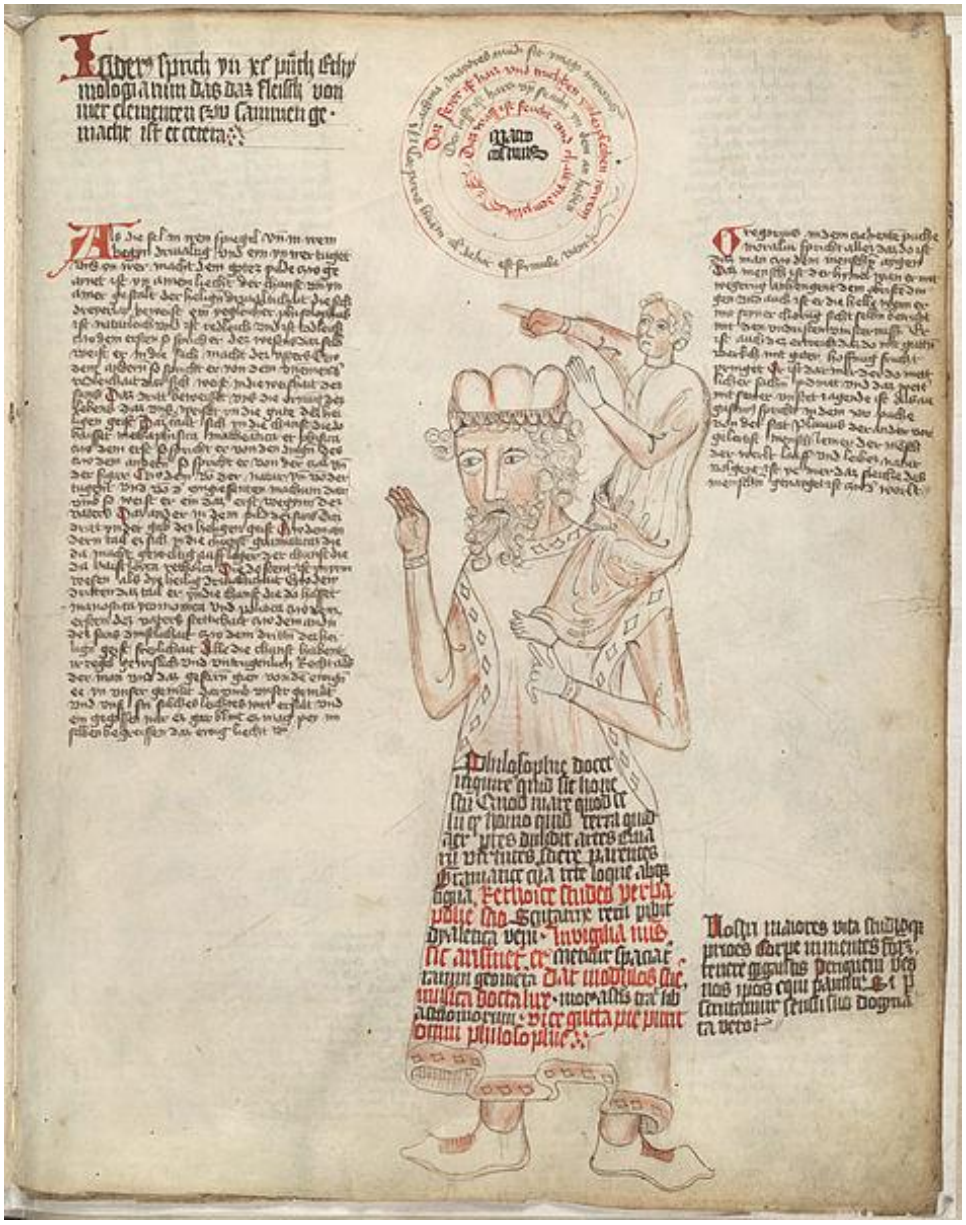
Medicina d'Urgenza e Pronto Soccorso
Policlinico Sant'Orsola – Malpighi
Azienda Ospedaliero – Universitaria di Bologna

Pump o Lung Failure?
Ventimask, CPAP o NIV?

In PS / shock room …

Le catene della sopravvivenza






YOU ARE
HERE
123


118
RegioneEmilia-Romagna

Dispnea

Definizione: *Sensazione di respirazione difficoltosa associata o meno a qualunque tipo di difficoltà oggettiva della ventilazione*

Parametri da rilevare*: PA, FC, SpO_2 FR (possibilmente ECG)

- Segni di shock**
- FR <10 o > 34 atti/min
- Stato saporoso (o GCS≤9)
- Compromissione vie aeree
- SpO_2< 86% e/o cianosi in AA
- SpO2<90% associata a FC <40 o>130

SI → **ROSSO**

NO

- FR ≥25 e ≤ 34 atti/min
- Lieve alterazione dello stato di coscienza (GCS tra 10 e 13)
- SpO_2 tra 86 e 92%
- Sospetto di TEP***
- Rumori respiratori
- Dolore toracico

SI → **GIALLO**

NO

VERDE

* Non appena viene rilevato un parametro che consenta di attribuire un codice rosso si omettono le altre valutazioni

** (PAS< 90, FC > 100/min, sudorazione algida e pallore)

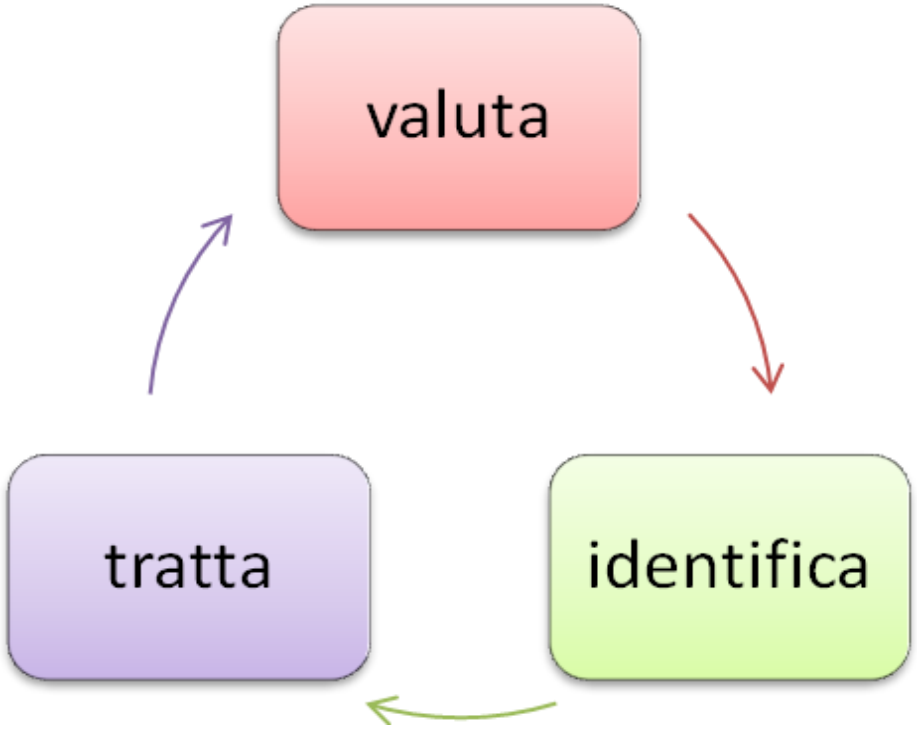
*** Segni di TVP o pregresse TVP o TEP
Immobilizzazione o intervento chirurgico nelle ultime 4 settimane
Emottisi

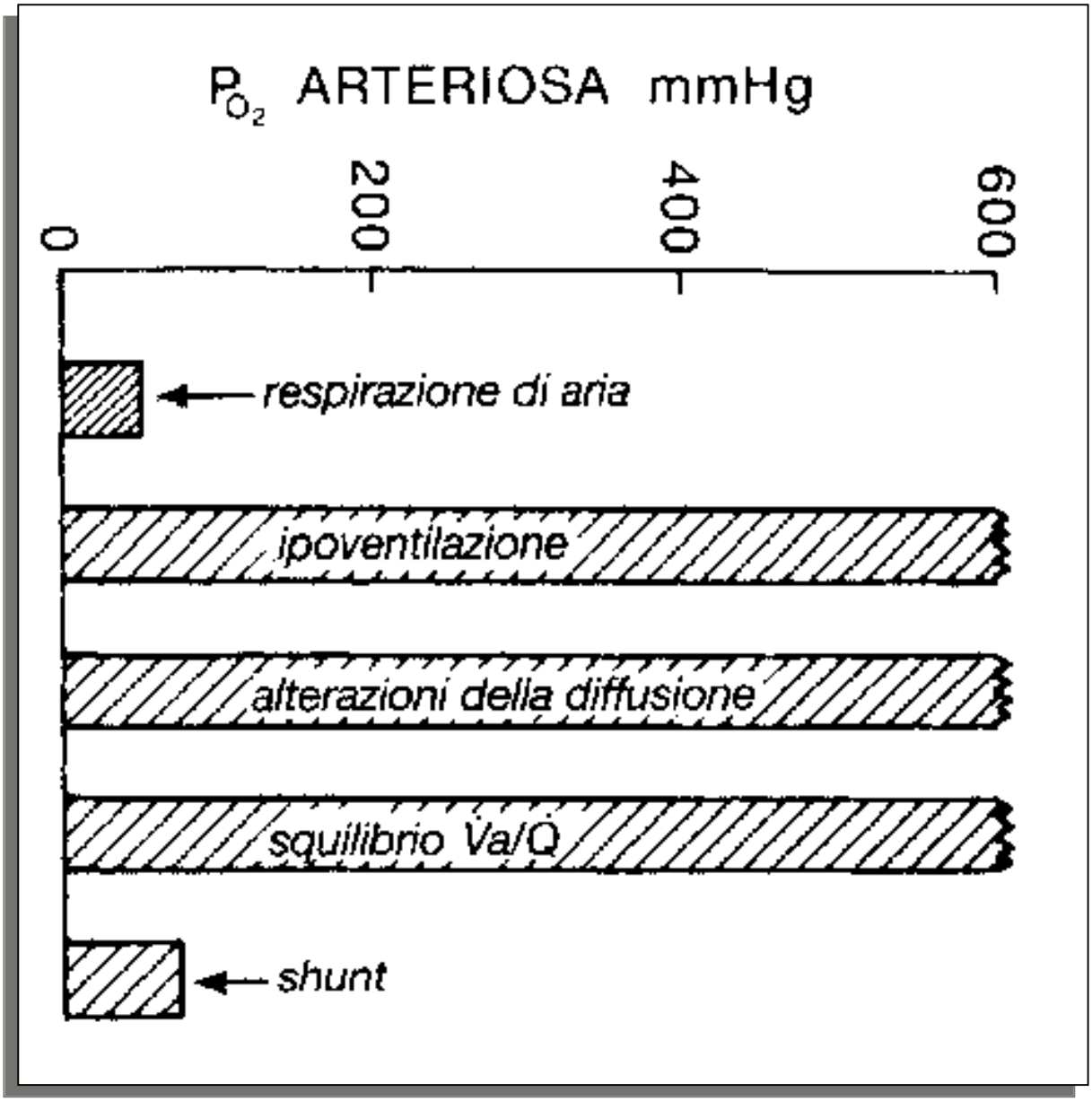
Percorso condiviso tra i Professionisti di Triage dell'Az Ospedaliero-Universitaria, Bologna e AUSL. Rev 0 Data Approvazione 12/07/2007 Applicato 31.07.2007

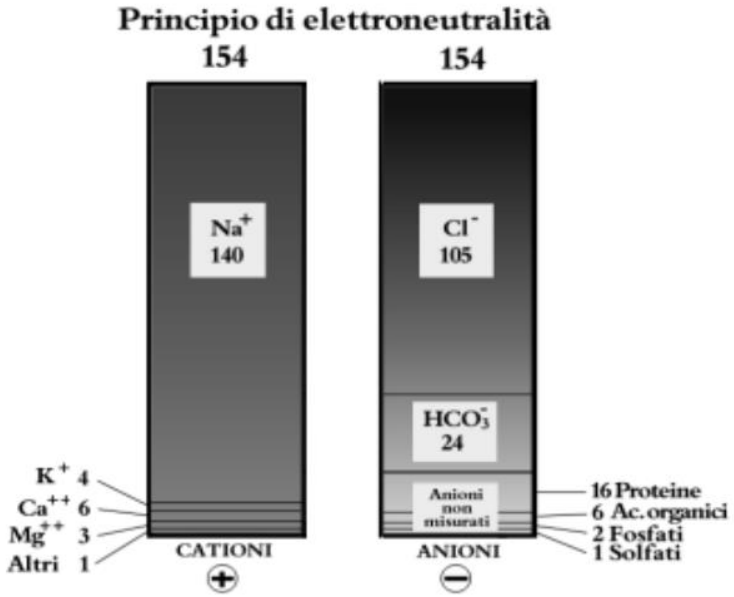
Dott. Auxichiarico AUSL _____

Dott. Cavazza AOSP _____

Approccio sistematico




P_{O_2} ARTERIOSA mmHg
0
200
400
600
respirazione di aria
ipoventilazione
alterazioni della diffusione
squilibrio Va/Q
shunt



Eq. I-E

Eq. A-B

$$[H^+] = K \frac{PCO_2}{[HCO_3^-]}$$

Eq. Osmolare

$$Posm = 2[Na^+] + \frac{[Glucosio]}{18} + \frac{[N-ureico]}{2,8}$$

Rapporto PaO_2 / FiO_2

P/F	Gas exchange
> 400	normal
400 - 300	mildly impaired
300-200	moderately impaired
< 200	severely impaired

Fisiopatologia

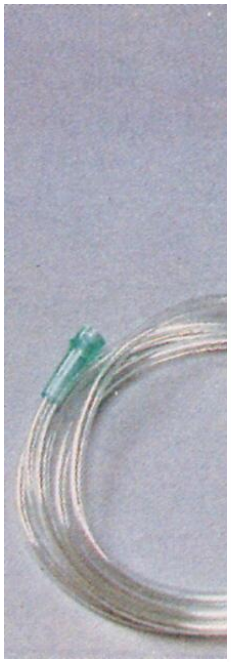
perfusione

ventilazione

ossigenazione

DO_2 = O_2 presente nel sangue (CaO_2) × portata cardiaca (CO)

DO_2= (Hb x SaO_2 x 1,34) x (FC x SV)



6103 062

DECCA

sad day
the rolling stones
you can't always get what you want

Selezione dei Pazienti da trattare con NIV in urgenza

Sintomi e segni di distress respiratorio:

Dispnea di grado moderato-severo

FR > 24 (> 30 nella forma ipossiemica)

Reclutamento della muscolatura accessoria

Alterazione del sensorio

Anormalità emogasanalitiche:

$PaCO_2$ > 45 mmHg (o incremento di 15 – 20)

pH < 7.35 (> 7.10)

P/F < 200 mmHg (< 300)

Acidosis, non-invasive ventilation and mortality in hospitalised COPD exacerbations

C M Roberts,[1,2] R A Stone,[1,3] R J Buckingham,[1] N A Pursey,[1] D Lowe,[1] On behalf of the National Chronic Obstructive Pulmonary Disease Resources and Outcomes Project (NCROP) implementation group

Conclusions COPD admissions treated with NIV in usual clinical practice were severely ill, many with mixed metabolic acidosis. Some eligible patients failed to receive NIV, others received it inappropriately. NIV appears to be often used as a ceiling of treatment including patient groups in whom efficacy of NIV is uncertain. The audit raises concerns that challenge the respiratory community to lead appropriate clinical improvements across the acute sector.

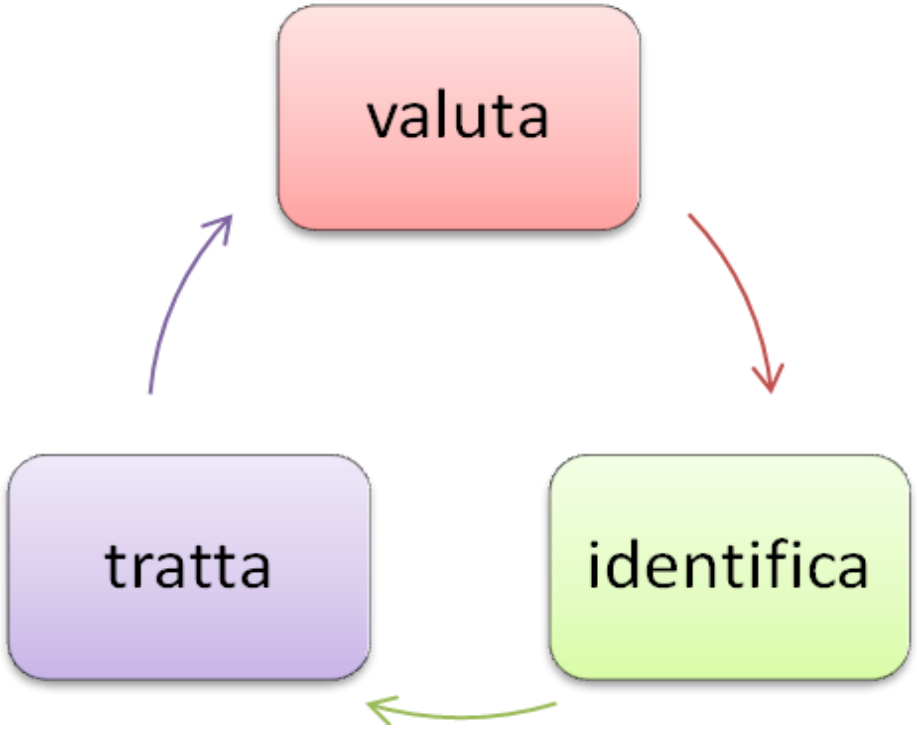
Thorax 2011;**66**:43–48. doi:10.1136/thx.2010.153114

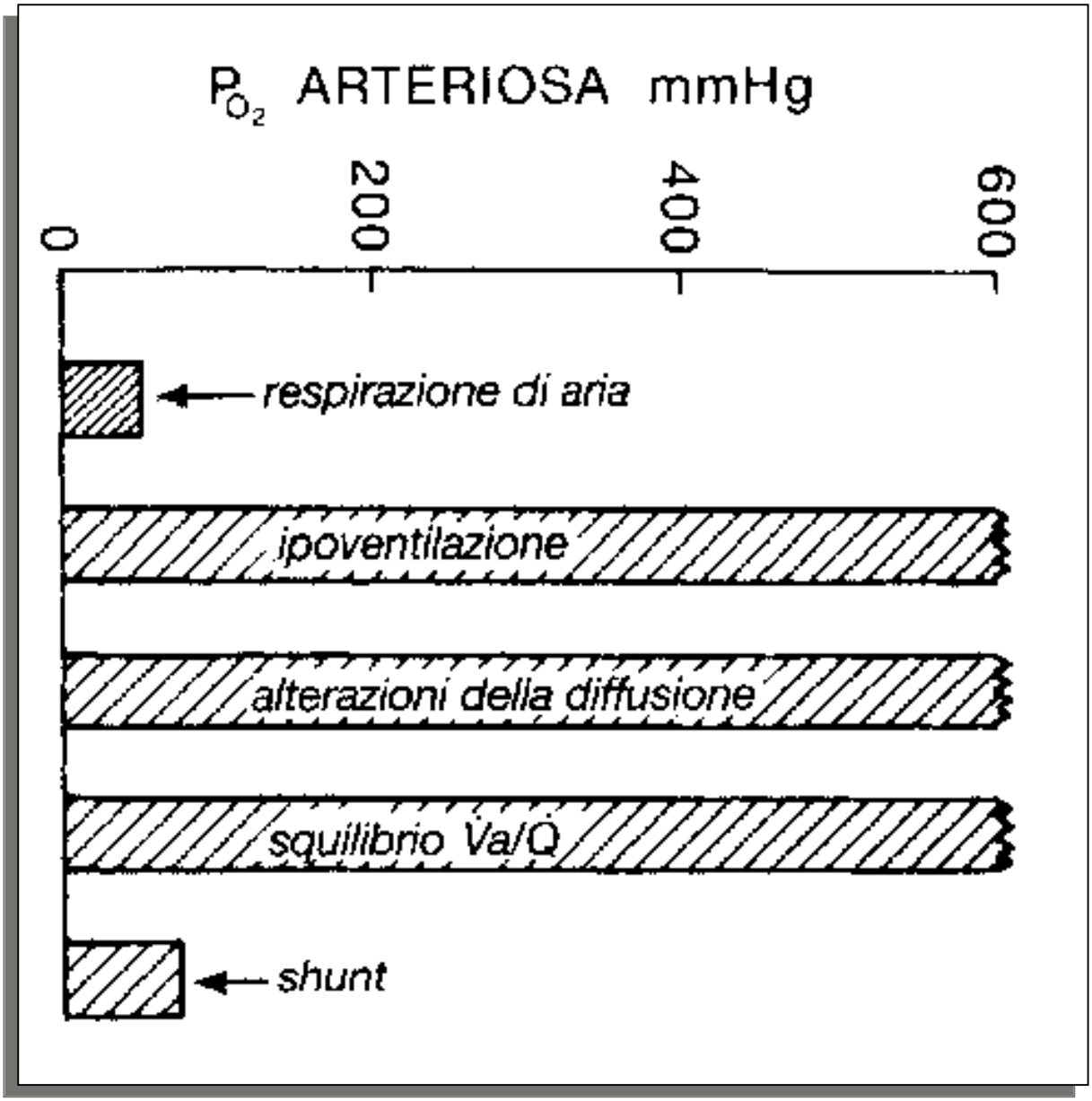
COPD- 'The Blue Bloater'

COPD- 'The Pink Puffer'


LESS IS
MORE

Approccio sistematico




P_{O_2} ARTERIOSA mmHg
0
200
400
600
respirazione di aria
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alterazioni della diffusione
squilibrio Va/Q
shunt

Frequenza respiratoria

e

Pattern ventilatorio

Dispnea

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SI → ROSSO

- FR ≥25 e
- Lieve alte
  coscienza
- SpO_2 tra
- Sospetto
- Rumori r
- Dolore to

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Dott. Cavazza AOSP _____

Symptoms of

Acidosis

Central
- Headache
- Sleepiness
- Confusion
- Loss of consciousness
- Coma

Respiratory
- Shortness of breath
- Coughing

Heart
- Arrhythmia
- Increased heart rate

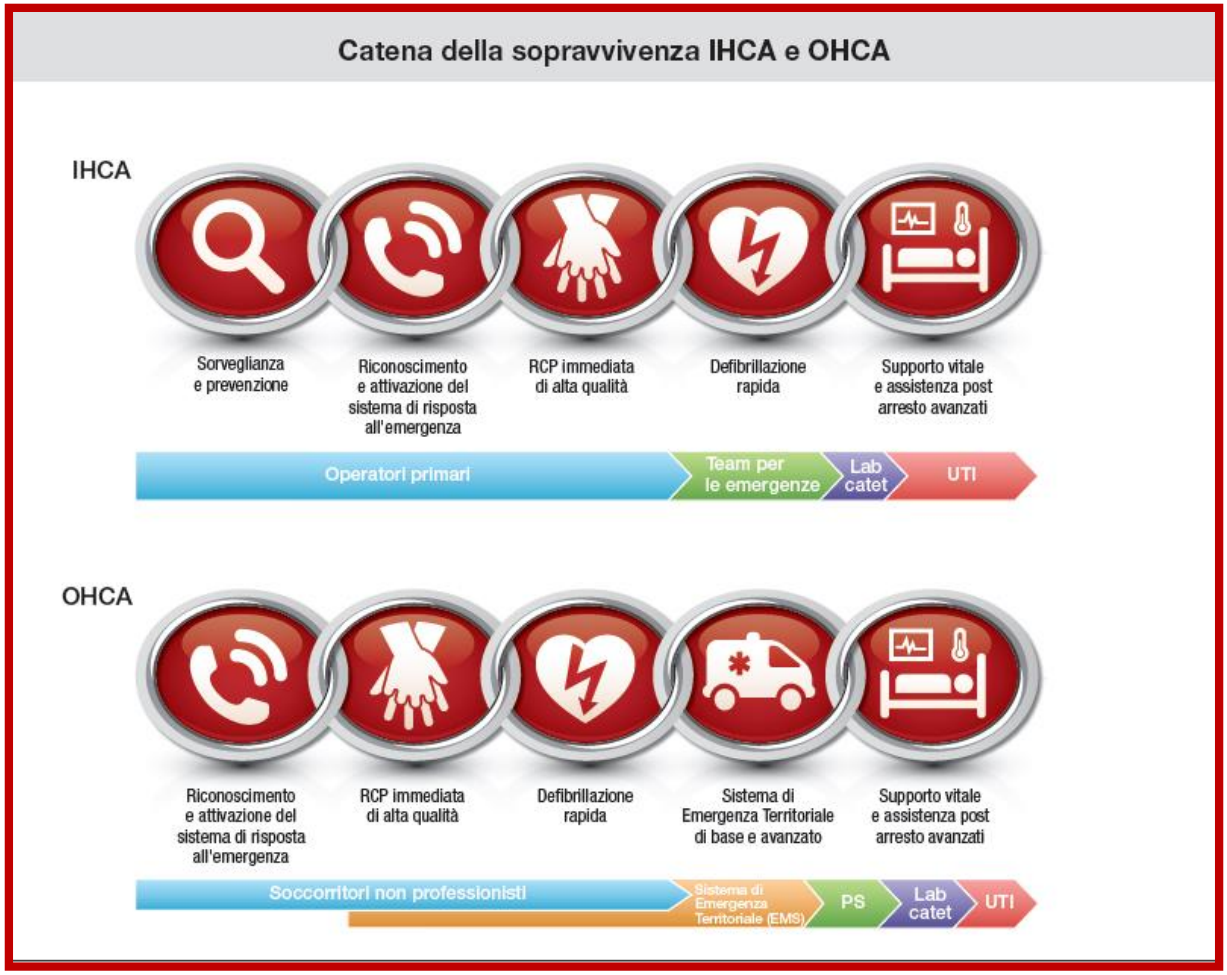
Muscular
- Seizures
- Weakness

Gastric
- Nausea
- Vomiting

Intestinal
- Diarrhea


OLT
6
7

Le catene della sopravvivenza



Prima sessione

QUANDO A CASA MANCA IL RESPIRO: approccio razionale nel pz con insufficienza respiratoria acuta dall'extra all'intra-ospedaliero

Moderatori: A. Fabbri (Forlì) , N. Binetti (AUSL Bologna Nord)

PUMP o LUNG FAILURE? Ventimask, CPAP o NIV?

(9.30-10.20)

- Di cosa parliamo: pump failure - lung failure 9:30-9:45

Sabrina Lupacciolu, Scuola Specializzazione Medicina Emergenza-Urgenza, Modena

- In extra ospedaliero…

Claudia Morselli, 118-PS-Medicina d'Urgenza, Imola 9:45-10:05

- In PS / Shock room…

Rodolfo Ferrari, PS- Medicina d'urgenza S. Orsola-Malpighi Bologna 10:05-10:25

- Competenze infermieristiche nella gestione paziente con dispnea acuta

In extra ospedaliero… - *Romano Guatteri, PS- 118 Reggio Emilia*- 10:25 – 10:40
In PS/shock room… - *Francesca Chierici, PS Ferrara* - 10:40-10:55

Discussione (relatori e moderatori) 10:55-11:10

all
you
need
is
less

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ferrara 2017 SIMEU società italiana medicina d'emergenza-urgenza

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