SALA VIOLANTE/GINEVRA

URGENZE RESPIRATORIE

Moderatori: **Salvatore Maggiore – Giorgio Carbone**

Rodolfo Ferrari

La diagnosi differenziale in un paziente con la dispnea

XII congresso nazionale
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Urgenze respiratorie

La diagnosi differenziale in un paziente con la dispnea

Rodolfo Ferrari
Pronto Soccorso e Medicina d'Urgenza, Imola

XII congresso nazionale simeu
RICCIONE 13-15 MAGGIO 2022


You talkin' to me?


Jay
nothing
for the person who has everything
Congratulations!
You have received the gift of nothing. Absolutely nothing.
This is the ultimate in minimalism. Less is more, more or less.
Nothing is precious. Nothing is simple. Nothing is sacred.
Open the pack and be enthralled when nothing happens.
Allow nothing to flow through your mind and calm your soul.
Savour the moment. Soon you'll discover that nothing
really is so much better than something.
the gift of nothing is yours to discover...

Navigando verso il futuro
Consapevoli del proprio passato

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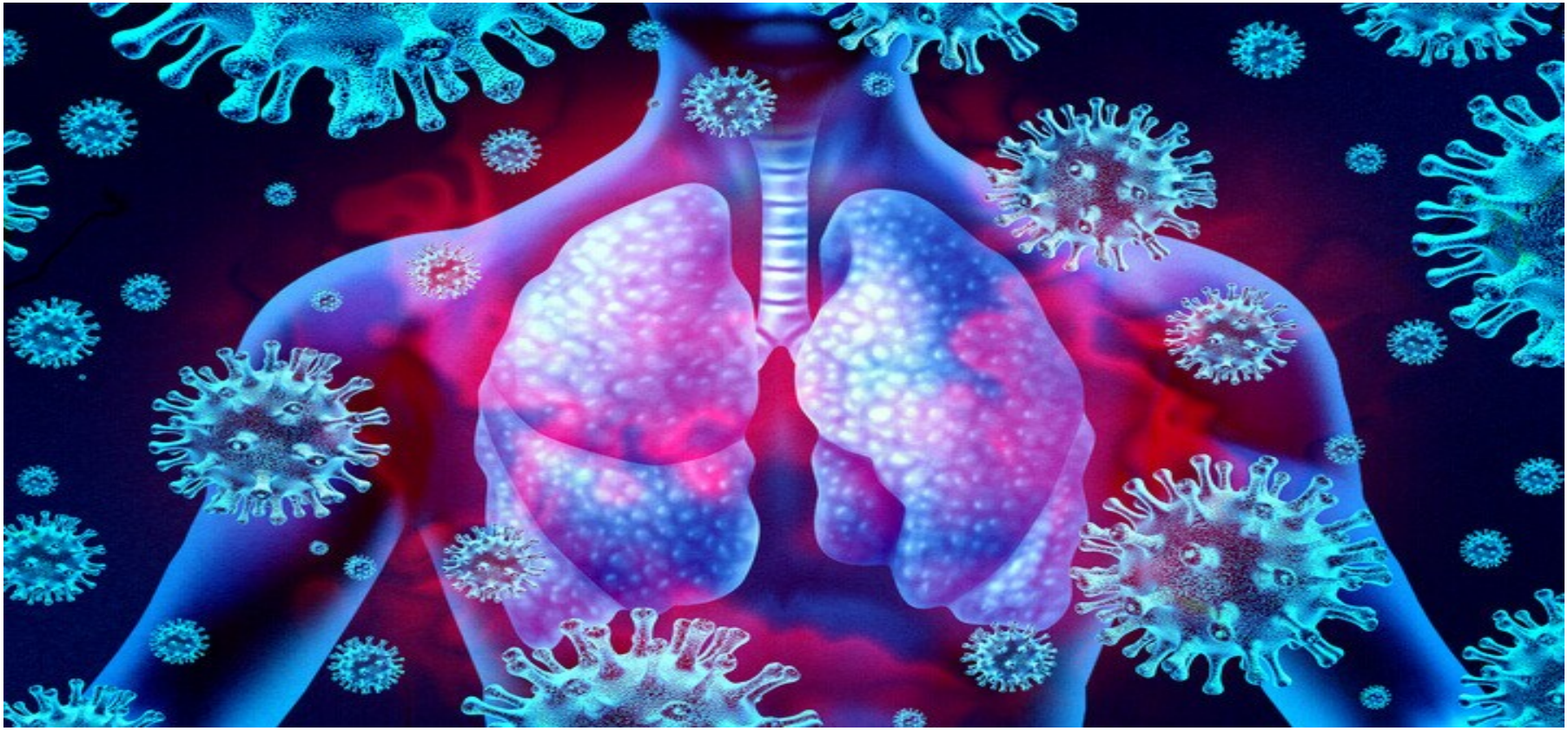


happy hypoxemia

KEEP CALM AND GO BACK TO BASICS

keep-calm.net

Consapevoli del proprio passato

ARF in pandemics

poliomielite (‘50), TBC, SARS, influenza A H_1N_1

contaminazione negli operatori (?!) nel raggio di circa 1 m (isolamento, interfacce - maschere, perdite, pressioni, dispositivi di protezione, misure di controllo delle infezoni, circuito mono o doppia linea, procedure di disconnessione, ...)

non effetti avversi

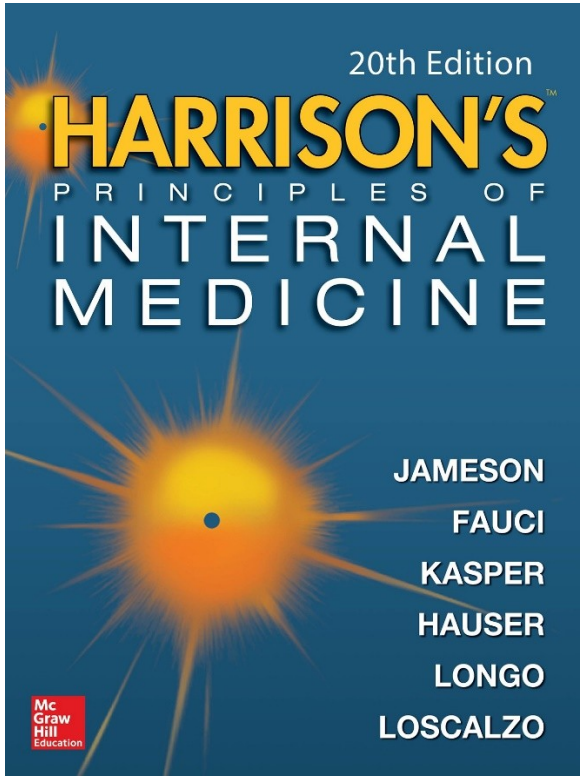
tasso di successo estremamente variabile

non alternativa a TI nella probabilità di evoluzione ad ARDS

per prevenire un ulteriore peggioramento e la necessità di TI in ARF lieve moderata ipercapnica o ipossiemica in assenza di polmonite, MOF ed ipossiemia refrattaria

KEEP CALM AND GO BACK TO BASICS

keep-calm.net



DYSPNEA

Definition: The American Thoracic Society consensus statement defines dyspnea as a "**subjective experience** of breathing discomfort that consists of qualitatively distinct sensations that vary in intensity. The experience derives from interactions among multiple physiological, psychological, social, and environmental factors and may induce secondary physiological and behavioral responses." Dyspnea, **a symptom**, can be perceived only by the person experiencing it and, therefore, must be self-reported. In contrast, signs of increased work of breathing, such as tachypnea, accessory muscle use, and intercostal retraction, can be measured and reported by clinicians.

wikipedia
14/5/2022 ore 07:30

sintomo

la diagnosi differenziale

Expect the
Unexpected

NT-proBNP, PCT, IL-6

eco, EGA, scores

Medicina d’Emergenza - Urgenza
trattamento e terapia prima delle indagini


TRIAGE
AREA


EMERGENCY ROOM
AMBULANCE
AMBULANCE
46

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 soporoso (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. Ausichiarico AUSL _____
Dott. Cavazza AOSP _____


Jean seberg - Jean paul belmondo
fino all'ultimo respiro
(à bout de souffle)
Henri-Jacques Huet - Liliane David - Claude Mansard - Van Doude - Daniel Boulanger - Regia: JEAN-LUC GODARD Sceneggiatura: FRANCOIS TRUFFAUT -


I CAN'T
BREATH


TRIAGE

la diagnosi differenziale


WHO
WHAT
WHERE
WHEN
WHY
HOW

KEEP CALM AND GO BACK TO BASICS

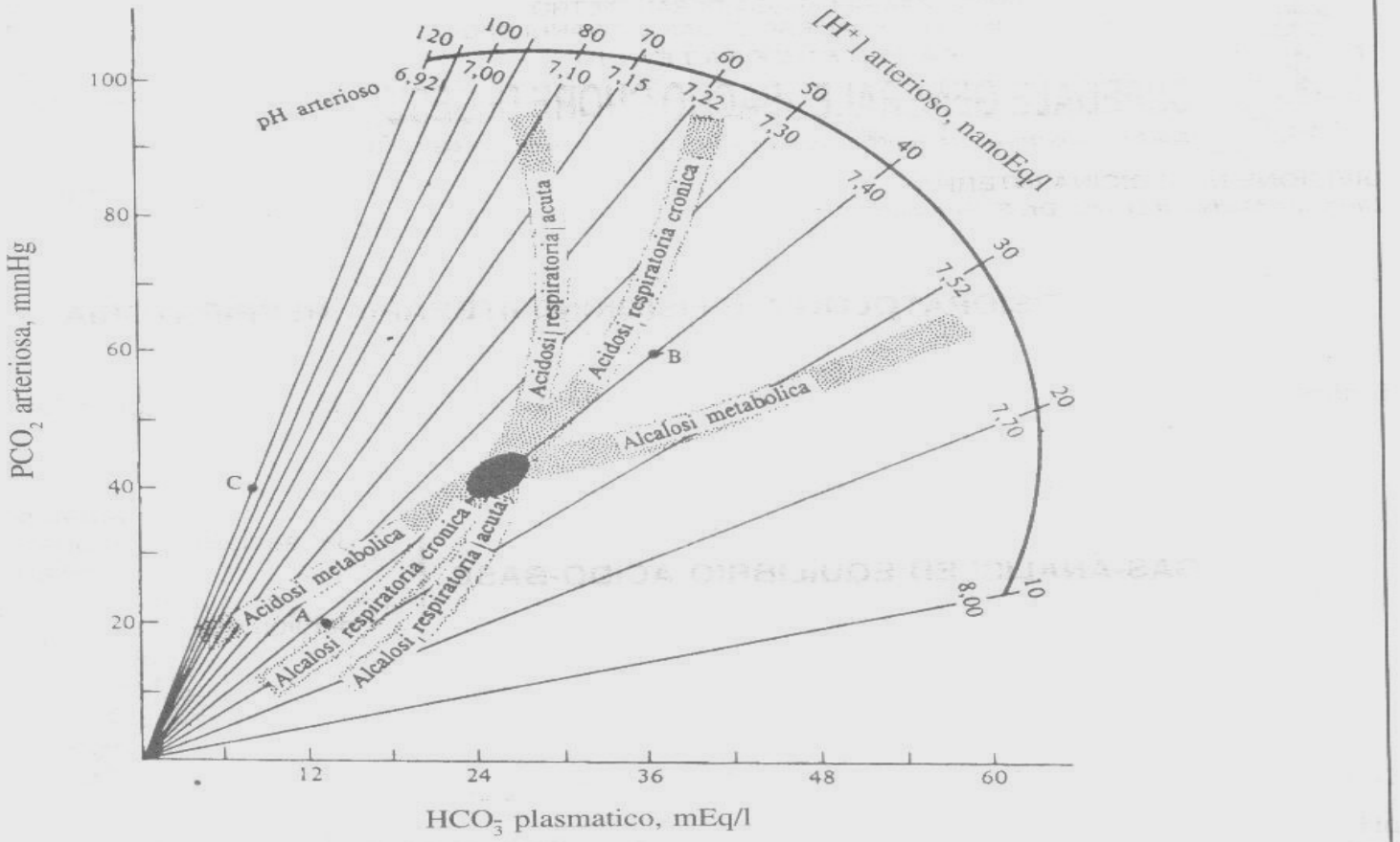
keep-calm.net

lavoro respiratorio e sensorio

cause «non respiratorie» di dispnea

FR + GCS

pattern ventilatorio versus FR


[H+] arterioso, nanoEq/l
120
100
80
70
60
50
40
30
20
10
pH arterioso
6,92
7,00
7,10
7,15
7,22
7,30
7,40
7,52
7,70
8,00
PCO2 arteriosa, mmHg
100
80
60
40
20
Acidosi respiratoria acuta
Acidosi respiratoria cronica
Alcalosi metabolica
Acidosi metabolica
Alcalosi respiratoria cronica
Alcalosi respiratoria acuta
A
B
C
12
24
36
48
60
HCO3 plasmatico, mEq/l

Rose, 1995

indice di Tobin

Kelly – Matthay versus GCS

Tabella 1. Scala di valutazione del sensorio secondo Matthay-Kelly (22)

Grado 1= paziente sveglio e esegue 3 ordini complessi
Grado 2= paziente sveglio ma esegue solo ordini semplici(mostrare le dita)
Grado 3= paziente sonnolento ma facilmente risvegliabile a comandi sempleci
Grado 4= paziente soporoso e esegue ordini semplici solo a ordini vigorosi
Grado 5= paziente comatoso senza alterazioni del tronco encefalico
Grado 6= paziente comatosos con alterazioni del tronco encefalico

iperventilazione versus ipoventilazione

TIPO 1 (polmonare, parenchimale, non-ventilatoria o parziale)

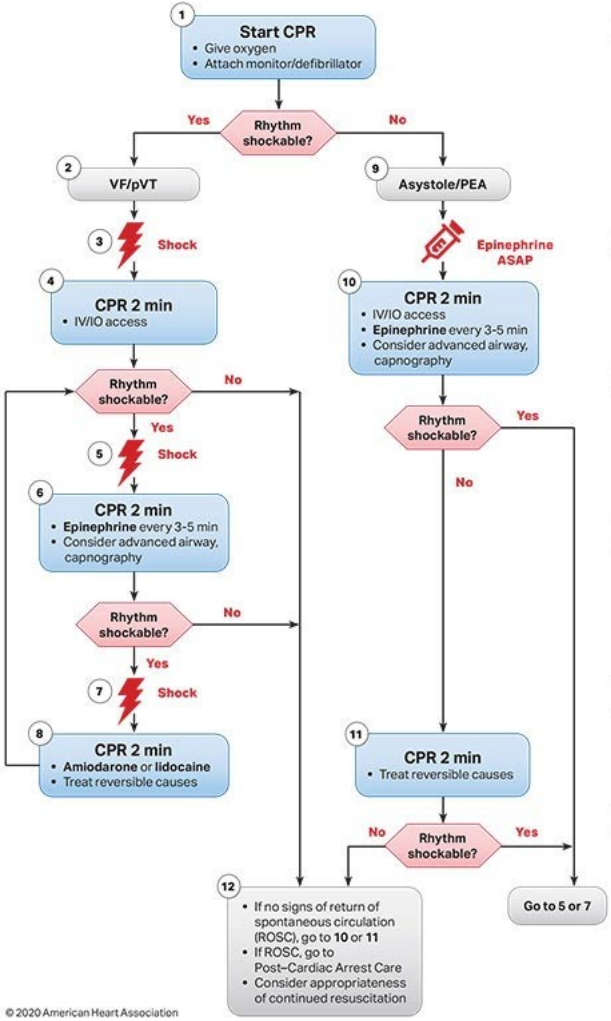
associata ipo o normocapnia.

In genere dovuta a

patologia del parenchima polmonare

- ***TIPO 2 (ventilatoria o globale)***
- *associata ad ipercapnia.*
- *In genere dovuta ad*
- *alterazioni della capacità ventilatoria polmonare*

Adult Cardiac Arrest Algorithm (VF/pVT/Asystole/PEA)



CPR Quality

- Push hard (at least 2 inches [5 cm]) and fast (100-120/min) and allow complete chest recoil.
- Minimize interruptions in compressions.
- Avoid excessive ventilation.
- Change compressor every 2 minutes, or sooner if fatigued.
- If no advanced airway, 30:2 compression-ventilation ratio.
- Quantitative waveform capnography
  - If $PETCO_2$ is low or decreasing, reassess CPR quality.

Shock Energy for Defibrillation

- **Biphasic**: Manufacturer recommendation (eg, initial dose of 120-200 J); if unknown, use maximum available. Second and subsequent doses should be equivalent, and higher doses may be considered.
- **Monophasic**: 360 J

Drug Therapy

- **Epinephrine IV/IO dose:** 1 mg every 3-5 minutes
- **Amiodarone IV/IO dose:** First dose: 300 mg bolus. Second dose: 150 mg.
  or
  Lidocaine IV/IO dose: First dose: 1-1.5 mg/kg. Second dose: 0.5-0.75 mg/kg.

Advanced Airway

- Endotracheal intubation or supraglottic advanced airway
- Waveform capnography or capnometry to confirm and monitor ET tube placement
- Once advanced airway in place, give 1 breath every 6 seconds (10 breaths/min) with continuous chest compressions

Return of Spontaneous Circulation (ROSC)

- Pulse and blood pressure
- Abrupt sustained increase in $PETCO_2$ (typically ≥40 mm Hg)
- Spontaneous arterial pressure waves with intra-arterial monitoring

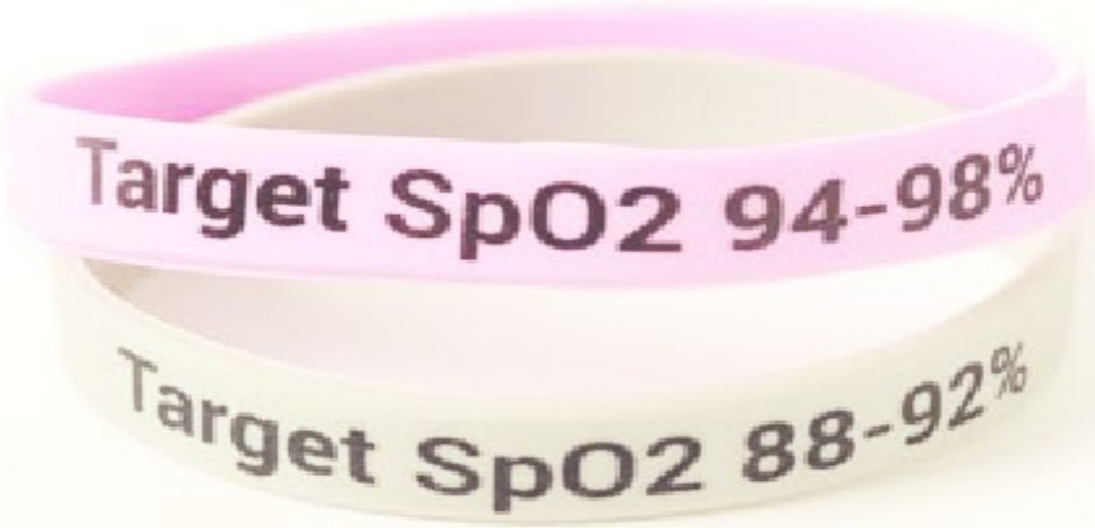
Reversible Causes

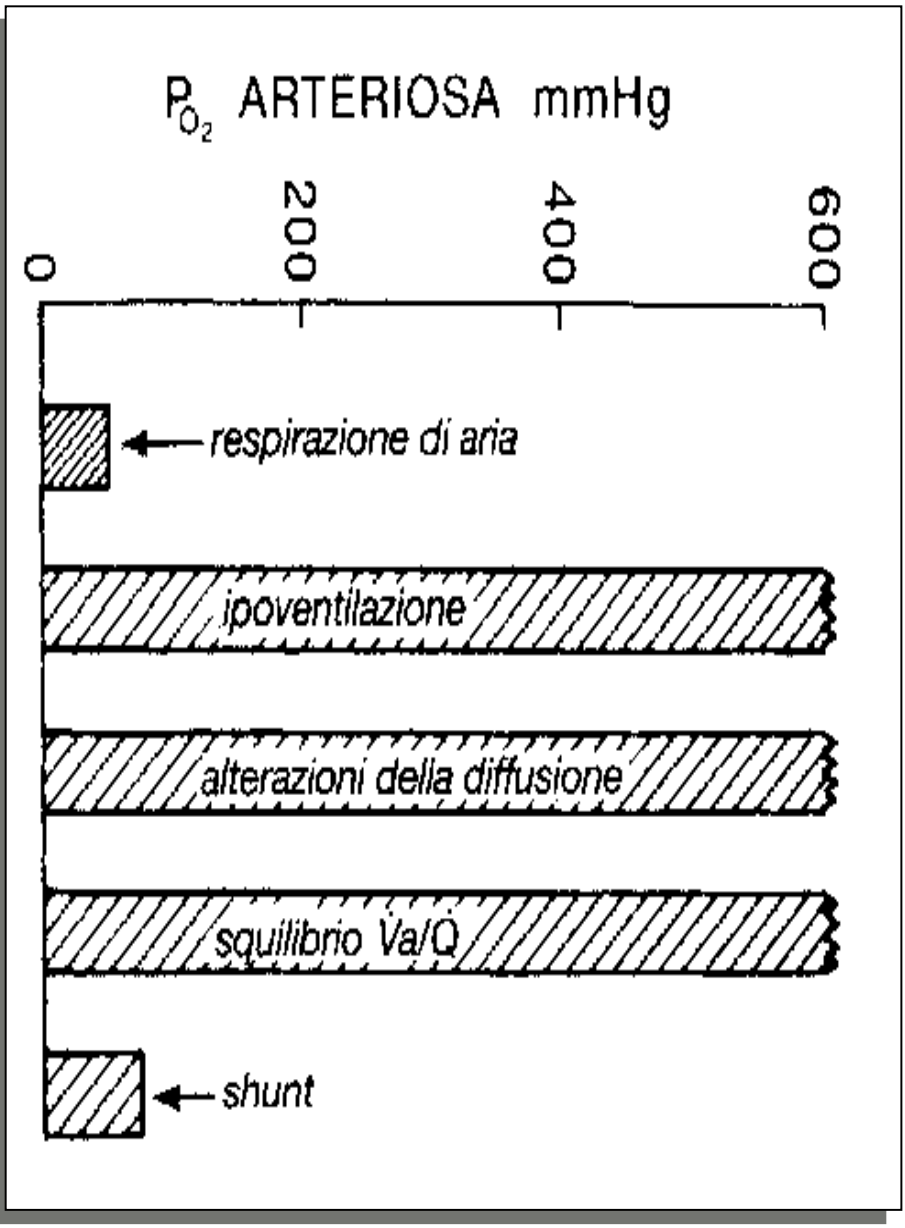
- **H**ypovolemia
- **H**ypoxia
- **H**ydrogen ion (acidosis)
- **H**ypo-/hyperkalemia
- **H**ypothermia
- **T**ension pneumothorax
- **T**amponade, cardiac
- **T**oxins
- **T**hrombosis, pulmonary
- **T**hrombosis, coronary

IRA se ipossiemico

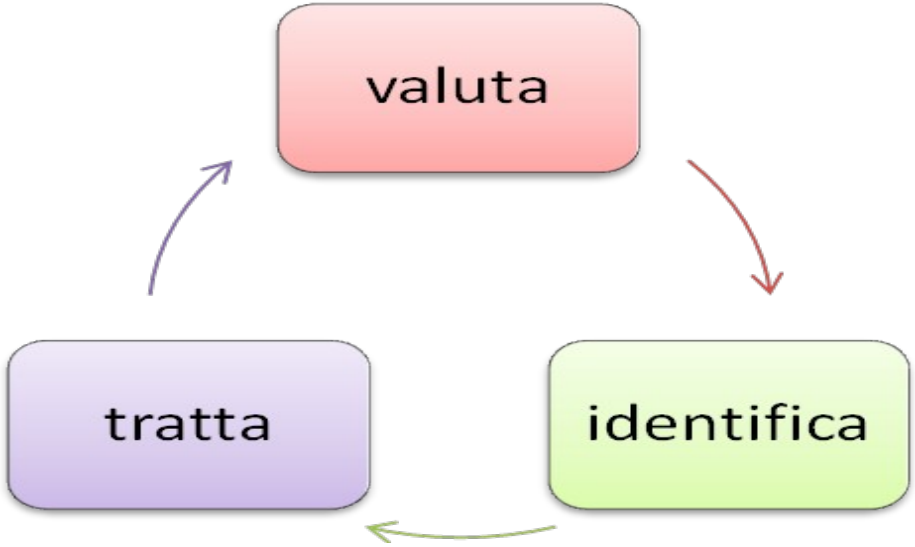
SpO_2


The O2


Target SpO2 94-98%
Target SpO2 88-92%


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

Approccio sistematico



"…anche se non vi sono dati specifici a riguardo, è ipotizzabile che una riacutizzazione di BPCO, in cui la PaO_2 migliora di poco con la somministrazione di aria arricchita di O_2, riconosca una quota di shunt vero e quindi anche una componente cardiaca dovuta alla presenza di aree con edema alveolare…"

A.Rossi et al in Gattinoni L. Rossi A. Olivieri D. (eds): Il punto su L'Insufficienza Respiratoria: terapia intensiva e semintensiva

KEEP CALM AND GO BACK TO BASICS

keep-calm.net

BTS guideline

Table 1 Critical illness requiring high levels of supplemental oxygen

Section 8.10

The initial oxygen therapy is a reservoir mask at 15 L/min pending the availability of reliable oximetry readings.
For patients with spontaneous circulation and a reliable oximetry reading, it may quickly become possible to reduce the oxygen dose while maintaining a target saturation range of 94–98%.
If oximetry is unavailable, continue to use a reservoir mask until definitive treatment is available.
Patients with COPD and other risk factors for hypercapnia who develop critical illness should have the same initial target saturations as other critically ill patients pending the results of blood gas results after which these patients may need controlled oxygen therapy with target range 88–92% or supported ventilation if there is severe hypoxaemia and/or hypercapnia with respiratory acidosis.

	Additional comments	Recommendations
Cardiac arrest or resuscitation	Refer to resuscitation guidelines for choice of delivery device during active resuscitation. Give highest possible inspired oxygen concentration during CPR until spontaneous circulation has been restored.	Recommendation E1
Shock, sepsis, major trauma, drowning, anaphylaxis, major pulmonary haemorrhage, status epilepticus	Also give specific treatment for the underlying condition	Recommendations E2–E4
Major head injury	Early tracheal intubation and ventilation if comatose	Recommendation E5
Carbon monoxide poisoning	Give as much oxygen as possible using a bag-valve mask or reservoir mask. Check carboxyhaemoglobin levels. A normal or high oximetry reading should be disregarded because saturation monitors cannot differentiate between carboxyhaemoglobin and oxyhaemoglobin, owing to their similar absorbances. The blood gas PO2 will also be normal in these cases (despite the presence of tissue hypoxia).	Recommendation E6

COPD, chronic obstructive pulmonary disease; CPR, cardiopulmonary resuscitation; PO_2, oxygen tension arterial or arterialised blood gases.

Evidence statement

- The use of oxygen in major medical emergencies is guided by observational data and expert opinion (evidence level 4).

sintomo

Noninvasive Ventilation and Dyspnea in Palliative Medicine

To the Editor:

We read with great interest the position paper of the American College of Chest Physicians about palliative and end-of-life care for patients with cardiopulmonary disease.[1] We agree that it was about time for the "respiratory world" to write an official document on this hot topic. Having said that, we are concern that little emphasis was paid to the important problem of dyspnea and particularly on its treatment. Pain is one of the major fears of human beings, and every effort should be made to relieve this symptom. In the position paper,[1] it is stated for example that "the factors most commonly associated with a request for physician-assisted suicide are patients' fear of losing control of mental faculties and experiencing severe pain". Pain is a classic symptom for example of patients with end-stage cancer. We are, however, pulmonologists dealing not only with cancer patients but also with the patients with end-stage COPD, in whom the "pain of the respiratory system" (*ie*, dyspnea) is the predominant symptom.

In the position paper,[1] it was mentioned that the therapeutic options for dyspnea are oxygen, opioids, anxiolytics, and not-better-specified nonpharmaceutical intervention, basing this statement on a article[2] published 4 years ago. In these last years, several studies were, however, published on the use of noninvasive ventilation (NIV) in patients with do-not-intubate order, with end-stage disease and severe dyspnea and/or respiratory distress. In the two more recent studies,[3,4] it was demonstrated that about half of the patients survived the episode of respiratory distress and were discharged from the hospital. Indeed, in a pilot investigation[5] it was showed that in a large portion of patients with end-stage solid cancer admitted to a palliative care unit for acute respiratory distress, NIV was able to significantly reduce dyspnea after only 1 h of ventilation. A randomized international trial is in progress in 10 palliative care units in order to evaluate the effect of oxygen therapy alone or in combination with NIV, the main outcomes being the reduction in dyspnea and in the use of opioids. Again we congratulate the authors of the position statement for their efforts, but we also wish that the chest physicians will consider in future the possibility of using NIV in the palliative treatment of dyspnea as a peculiar and unique tool of the respiratory world.

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Annamaria Cuomo, MD
Respiratory Intensive Care Unit
Fondazione S. Maugeri
Pavia, Italy

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References

1 Selecky PA, Eliasson CA, Hall RI, et al. Palliative and end-of-life care for patients with cardiopulmonary diseases: American College of Chest Physician Position Statement. Chest 2005; 125:3599–3610
2 Luce JM, Luce JA. Perspectives on care at the close of life: management of dyspnea in patients with far-advanced lung disease: "once I lose it, it's kind hard to catch it." JAMA 2001; 285:1331–1337
3 Levy M, Tanios MA, Nelson D, et al. Outcomes of patients with do-not-intubate orders treated with noninvasive ventilation. Crit Care Med 2004; 32:2002–2007

We read with great interest the position paper of the American College of Chest Physicians about palliative and end-of-life care for patients with cardiopulmonary disease.[1] We agree that it was about time for the "respiratory world" to write an official document on this hot topic. Having said that, we are concern that little emphasis was paid to the important problem of dyspnea and particularly on its treatment. Pain is one of the major fears of

with the patients with end-stage COPD, in whom the "pain of the respiratory system" (*ie*, dyspnea) is the predominant symptom.

a palliative care unit for acute respiratory distress, NIV was able to significantly reduce dyspnea after only 1 h of ventilation. A random-

palliazione

SIAARTI
PRO VITA CONTRA DOLOREM SEMPER
SOCIETÀ ITALIANA DI ANESTESIA ANALGESIA RIANIMAZIONE E TERAPIA INTENSIVA

GRANDI INSUFFICIENZE D'ORGANO "END STAGE": CURE INTENSIVE O CURE PALLIATIVE? "DOCUMENTO CONDIVISO" PER UNA PIANIFICAZIONE DELLE SCELTE DI CURA

Documento approvato e condiviso da:

- SOCIETÀ ITALIANA ANESTESIA ANALGESIA RIANIMAZIONE TERAPIA INITENSIVA (SIAARTI)
- ITALIAN RESUSCITATION COUNCIL (IRC)
- ASSOCIAZIONE NAZIONALE MEDICI CARDIOLOGI OSPEDALIERI (ANMCO)
- SOCIETÀ ITALIANA MEDICINA EMERGENZA URGENZA (SIMEU)
- SOCIETÀ ITALIANA CURE PALLIATIVE (SICP)
- SOCIETÀ ITALIANA NEFROLOGIA (SIN)
- ASSOCIAZIONE NAZIONALE INFERMIERI DI AREA CRITICA (ANIARTI)
- SOCIETÀ ITALIANA MEDICINA GENERALE (SIMG)
- ASSOCIAZIONE ITALIANA PNEUMOLOGI OSPEDALIERI (AIPO)

società italiana medicina d'emergenza urgenza

c.a. Prof. Massimo Antonelli
Presidente della SIAARTI

p.c. Dott. Giuseppe Gristina
Segretario e Tesoriere SIAARTI

Torino, 7 giugno 2013

Oggetto: documento condiviso "Grandi insufficienze d'organo 'end stage': cure intensive o cure palliative?"

Informiamo che il documento condiviso "Grandi insufficienze d'organo 'end stage': cure

dell'emergenza. E' emersa tuttavia da parte della maggioranza dei presenti la necessità di sottolineare che i percorsi di questi pazienti, una volta intrapresi, non subiscano interruzioni ricadendo inappropriatamente nel percorso dell'emergenza.

Cordiali Saluti

IL Presidente Nazionale SIMEU
Dr. Giorgio Carbone

Il Segretario Nazionale SIMEU
Dr. Andrea Fabbri

SIMEU
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website: www.simeu.it

Noninvasive Ventilation in Patients With Do-Not-Intubate and Comfort-Measures-Only Orders: A Systematic Review and Meta-Analysis

Michael E. Wilson, MD[1,2]; Abdul M. Majzoub, MD[1]; Claudia C. Dobler, MD, PhD[3]; J. Randall Curtis, MD, MPH[4,5]; Tarek Nayfeh, MD[6]; Bjorg Thorsteinsdottir, MD[2,7,8]; Amelia K. Barwise, MB, BCh, BAO[1,8]; Jon C. Tilburt, MD, MPH[7,8]; Ognjen Gajic, MD, MSc[1]; Victor M. Montori, MD, MSc[3,6]; M. Hassan Murad, MD, MPH[2,6]

Conclusions: A large proportion of patients with do-not-intubate orders who received noninvasive ventilation survived to hospital discharge and at 1 year, with limited data showing no decrease in quality of life in survivors. Provision of noninvasive ventilation in a well-equipped hospital ward may be a viable alternative to the ICU for selected patients. Crucial questions regarding quality of life in survivors, quality of death in nonsurvivors, and the impact of noninvasive ventilation in patients with comfort-measures-only orders remain largely unanswered. (*Crit Care Med* 2018; XX:00–00)

inedita energia

leggere e saper leggere

saggi di critica letteraria
per "Il Gatto Selvatico" 1955-1965

BTS guideline for oxygen use in adults in healthcare and emergency settings

B R O'Driscoll,[1,2] L S Howard,[3] J Earis,[4] V Mak,[5] on behalf of the British Thoracic Society Emergency Oxygen Guideline Group

EXECUTIVE SUMMARY OF THE GUIDELINE

Philosophy of the guideline

- Oxygen is a treatment for hypoxaemia, not breathlessness. Oxygen has not been proven to have any consistent 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 recommends 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.

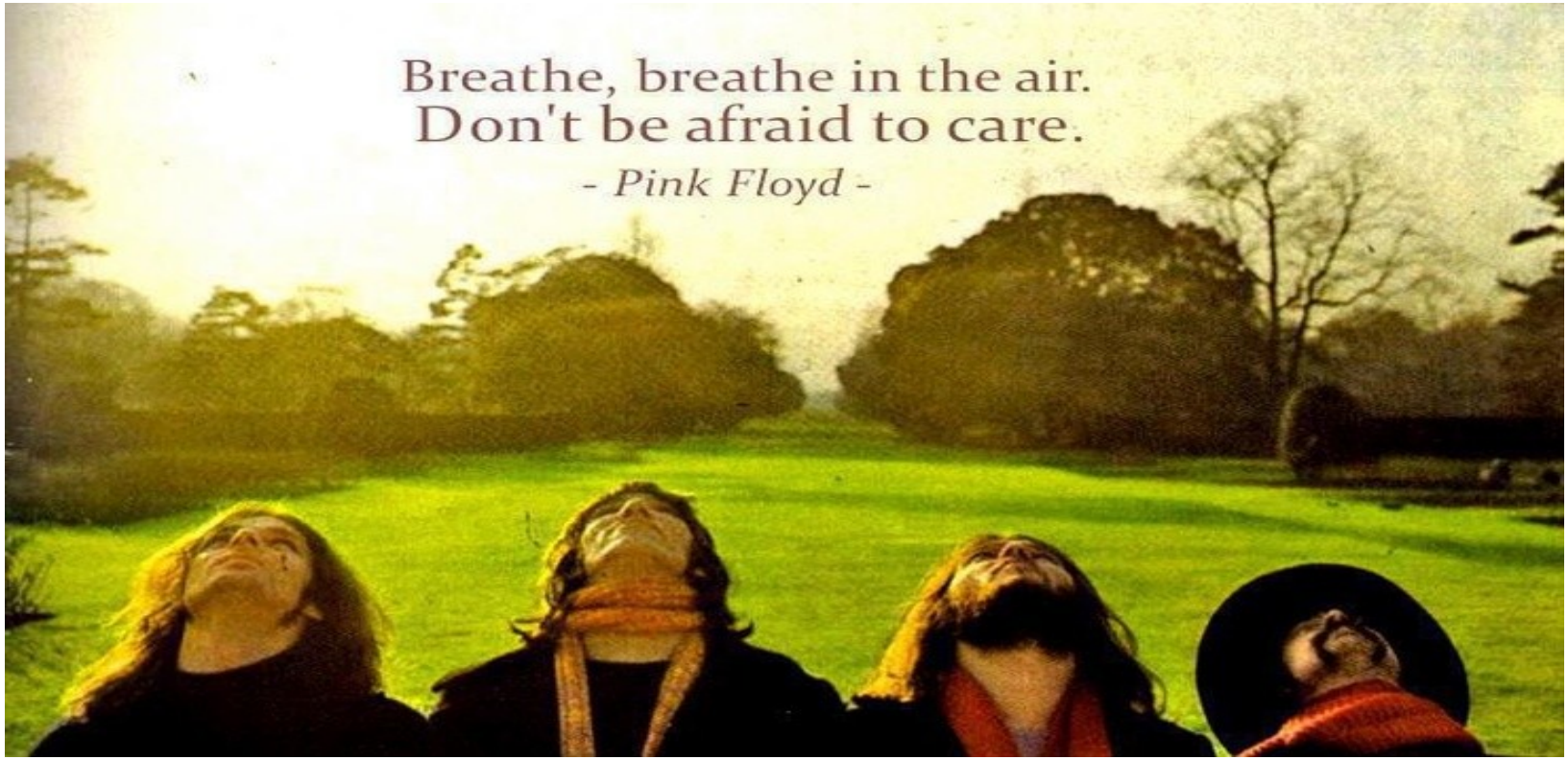
appropriate oxygen therapy can be started in the event of unexpected clinical deterioration with hypoxaemia and also to ensure that the oximetry section of the early warning score (EWS) can be scored appropriately.

- The target saturation should be written (or ringed) on the drug chart or entered in an electronic prescribing system (guidance on figure 1 (chart 1)).

3 Oxygen administration

- Oxygen should be administered by staff who are trained in oxygen administration.
- These staff should use appropriate devices and flow rates in order to achieve the target saturation range (figure 2 (chart 2)).
- Staff should be trained in the use of a range of

S.I.M.E.U.
Specialisti in Medicina d’Emergenza - Urgenza


Breathe, breathe in the air.
Don't be afraid to care.
- Pink Floyd -


TIME
(Waters)
(from the LP "THE DARK SIDE OF THE MOON" SMAS-11163)
TRO-Hampshire House Publishing Corp. ASCAP
STEREO
HARVEST
3832
(S45-X48029A)
Intro.-:35
Total-3:33
Produced by Pink Floyd
PINK FLOYD
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Recorded in England

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Active Albuterol or Placebo, Sham Acupuncture, or No Intervention in Asthma

Michael E. Wechsler, M.D., John M. Kelley, Ph.D., Ingrid O.E. Boyd, M.P.H., Stefanie Dutile, B.S., Gautham Marigowda, M.B., Irving Kirsch, Ph.D., Elliot Israel, M.D., and Ted J. Kaptchuk

METHODS

In a double-blind, crossover pilot study, we randomly assigned 46 patients with asthma to active treatment with an albuterol inhaler, a placebo inhaler, sham acupuncture, or no intervention. Using a block design, we administered one each of these four interventions in random order during four sequential visits (3 to 7 days apart); this procedure was repeated in two more blocks of visits (for a total of 12 visits by each patient). At each visit, spirometry was performed repeatedly over a period of 2 hours. Maximum forced expiratory volume in 1 second (FEV_1) was measured, and patients' self-reported improvement ratings were recorded.

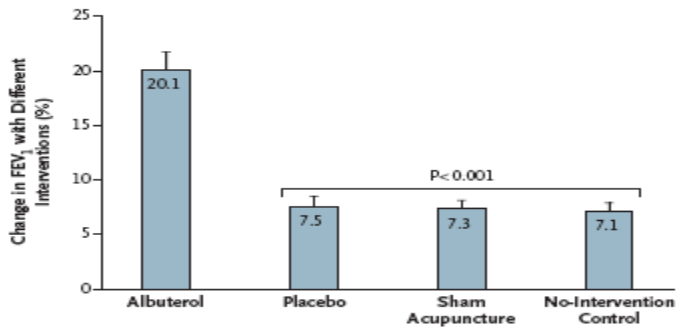

Figure 3. Percent Change in Maximum Forced Expiratory Volume in 1 Second (FEV_1) with Each of the Four Interventions.

The relative improvement in FEV_1 achieved with albuterol was significantly greater than that achieved with each of the other three interventions (P<0.001). No other differences among the four experimental conditions were significant. T bars indicate standard errors.

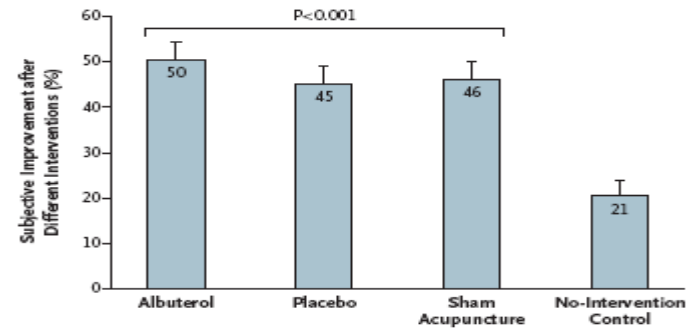

Figure 4. Percent Change in Subjective Improvement with Each of the Four Interventions.

The relative improvement in subjective outcomes, assessed with the use of a visual-analogue scale (with 0 indicating no improvement and 10 indicating complete improvement), was significantly greater with the albuterol inhaler, placebo inhaler, and sham acupuncture interventions than with the no-intervention control (P<0.001). No other differences among the four experimental conditions were significant. T bars indicate standard errors.


IN UN CERTO SENSO, NON CAPISCO MAI BÉNE COSA SUCCEDE ...
SCHULZ

XII congresso nazionale

simeu

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