Rianimazione Cardiopolmonare: Le più note davvero?

Silvia Scelsi

From science to guidelines

BLSD

cosa c’è di nuovo?

Contents lists available at ScienceDirect

Resuscitation

journal homepage: www.elsevier.com/locate/resuscitation

Resuscitation 81 (2010) 1219–1276

European Resuscitation Council Guidelines for Resuscitation 2010

Jerry P. Nolan,∗, Jasmeet Soar, David A. Zideman, Dominique Biarent, Leo L. Bossaert, Charles Deakin, Rudolph W. Koster, Jonathan Wyllie, Bernd Böttiger, on behalf of the ERC Guidelines Writing Group.

Circulation
JOURNAL OF THE AMERICAN HEART ASSOCIATION

American Heart Association®

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Circulation
JOURNAL OF THE AMERICAN HEART ASSOCIATION

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Part 1: Executive Summary : 2010 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care

John M. Field, Mary Fran Hazinski, Michael R. Sayre, Leon Chameides, Stephen M. Schexnayder, Robin Hemphill, Ricardo A. Samson, John Kattwinkel, Robert A. Berg, Farhan Bhanji, Diana M. Cave, Edward C. Jauch, Peter J. Kudenchuk, Robert W. Neumar, Mary Ann Peberdy, Jeffrey M. Perlman, Elizabeth Sinz, Andrew H. Travers, Marc D. Berg, John E. Billi, Brian Eigel, Robert W. Hickey, Monica E. Kleinman, Mark S. Link, Laurie J. Morrison, Robert E. O'Connor, Michael Shuster, Clifton W. Callaway, Brett Cucchiara, Jeffrey D. Ferguson, Thomas D. Rea and Terry L. Vanden Hoek

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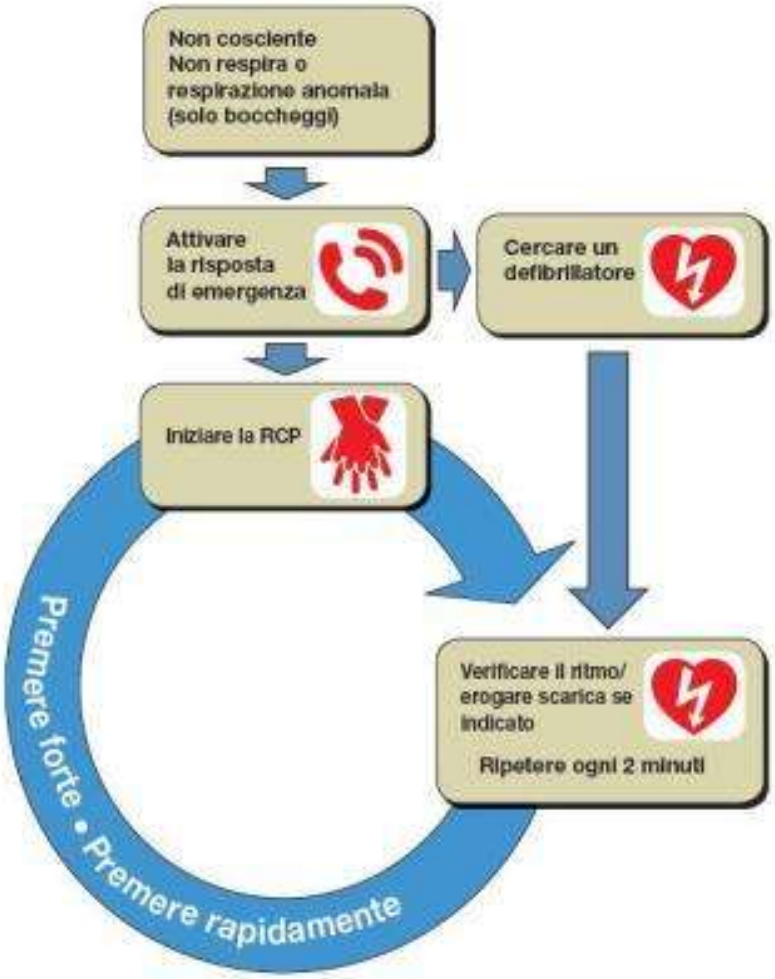
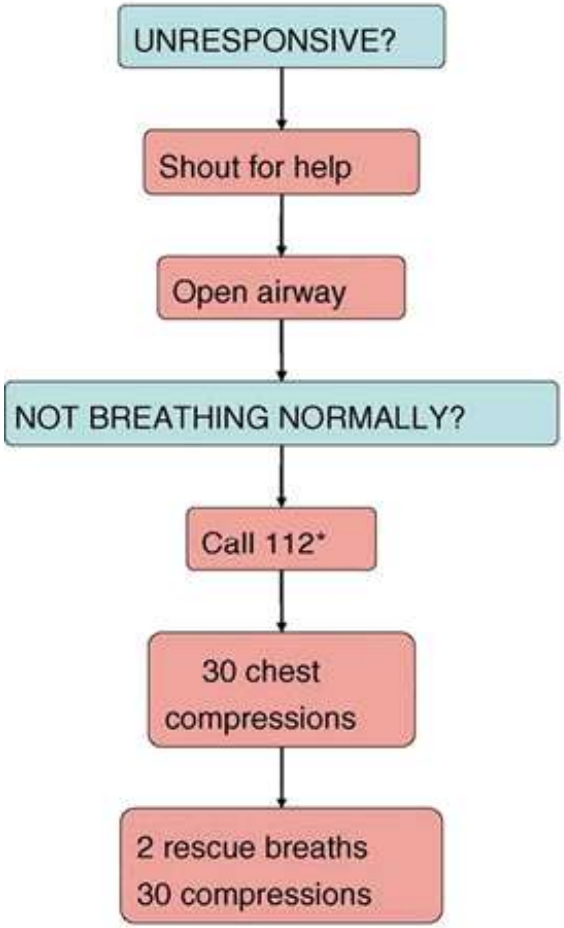
12/11/2012

Algoritmo BLS semplificato per gli adulti

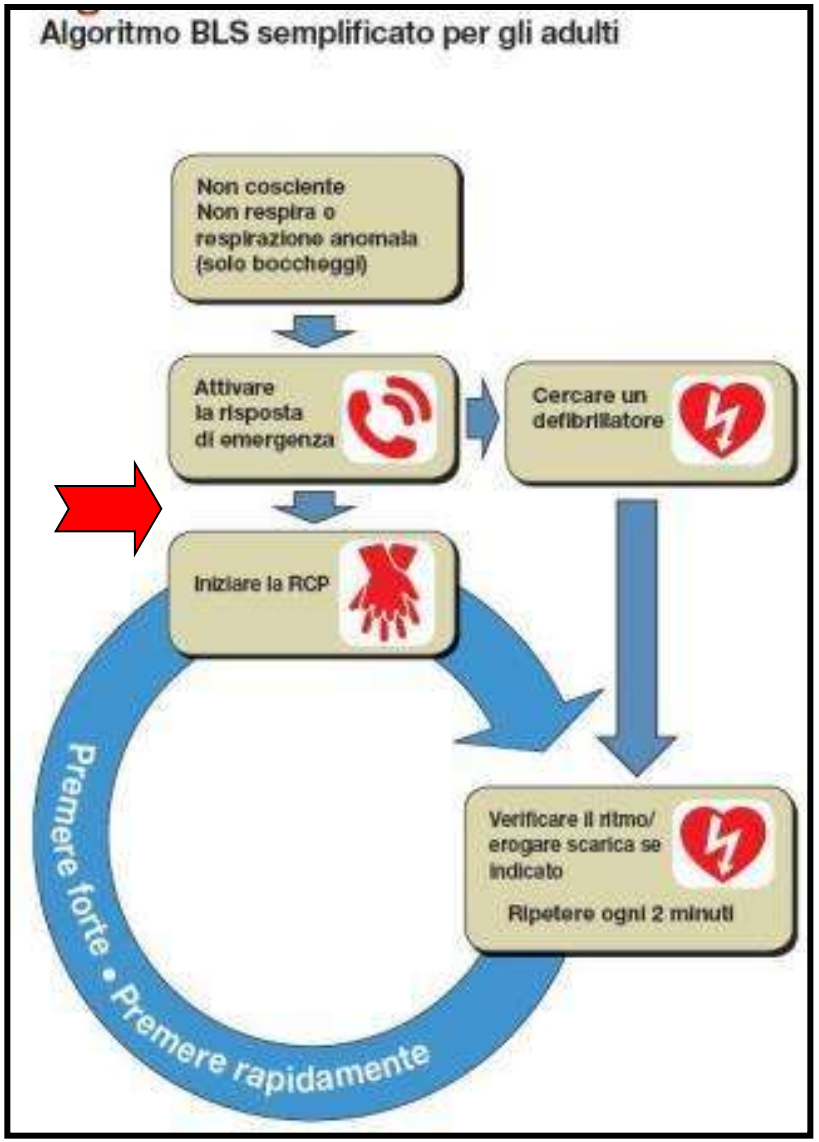


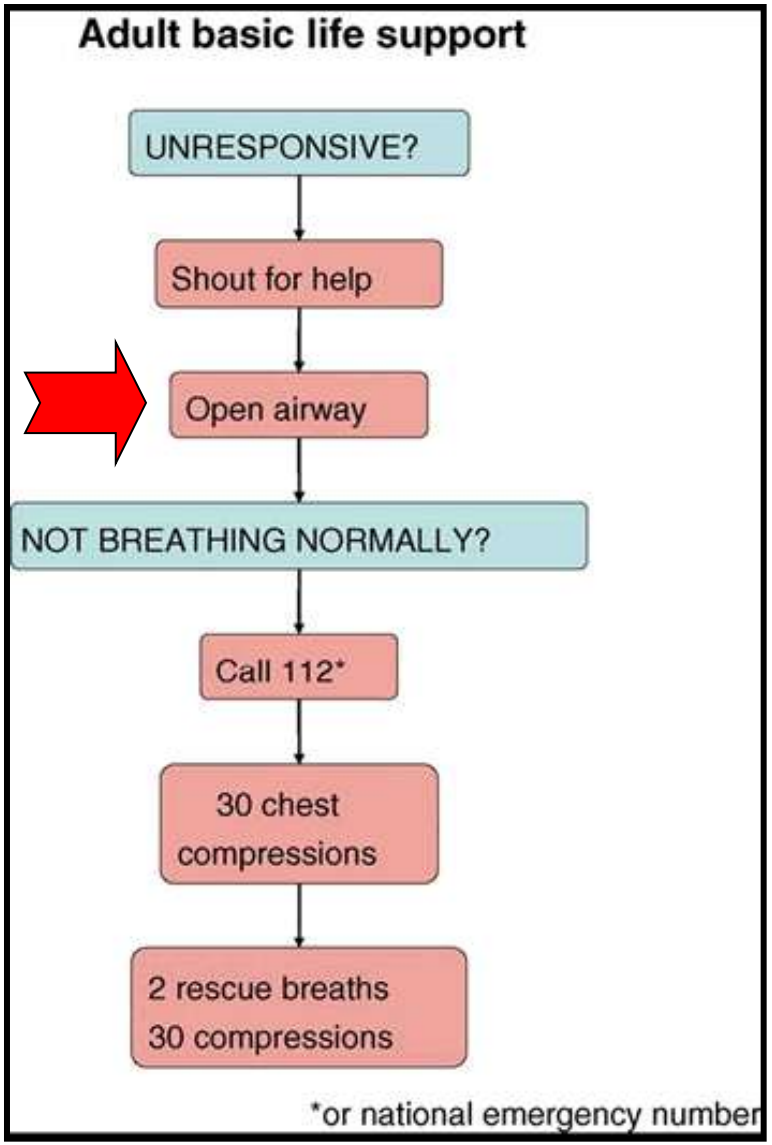
Adult basic life support



*or national emergency number

Differenze


Algoritmo BLS semplificato per gli adulti
Non cosciente
Non respira o
respirazione anomala
(solo boccheggi)
Attivare
la risposta
di emergenza
Cercare un
defibrillatore
Iniziare la RCP
Verificare il ritmo/
erogare scarica se
indicato
Ripetere ogni 2 minuti
Premere forte • Premere rapidamente


Adult basic life support
UNRESPONSIVE?
Shout for help
Open airway
NOT BREATHING NORMALLY?
Call 112*
30 chest
compressions
2 rescue breaths
30 compressions
*or national emergency number

CPR is as easy as

C-A-B

Compressions
Push hard and fast on the center of the victim's chest

Airway
Tilt the victim's head back and lift the chin to open the airway

Breathing
Give mouth-to-mouth rescue breaths

American Heart Association
Learn and Live

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Sudden cardiac arrest (SCA)
is a leading cause of death in Europe.
Depending on the way SCA
is defined, it affects about 350,000–700,000
individuals a year.

Atwood C, Eisenberg MS, Herlitz J, Rea TD. Incidence of EMS-treated out-ofhospital cardiac arrest in Europe. Resuscitation 2005;67:75–80.

- Le raccomandazioni sono riconoscere rapidamente e iniziare RCP
- Accentuare l’importanza per il personale del 118 di dare istruzioni pre-arrivo affinchè anche il testimone possa iniziare l’attività di RCP

- Dare il giusto rilievo al fatto che il gasping non è un respiro e va iniziata la rianimazione.
- Fare in modo che in assenza di un respiro valido si inizi RCP
- Anche per i soccorritori professionali scompare la ricerca del polso che da sola, viene definita non affidabile come metodo per confermare l'ACC.

Checking the carotid pulse (or any other pulse) is an Inaccurate method of confirming the presence or absence of circulation, both for lay rescuers and for professionals

R.W. Koster et al. / Resuscitation 81 (2010) 1277–1292

Minimize the importance of pulse checks by healthcare providers. Detection of a pulse can be difficult, and even highly trained healthcare providers often incorrectly assess the presence or absence of a pulse when blood pressure is abnormally low or absent. Healthcare providers should take no more than 10 seconds to determine if a pulse is present.

John M. Field et al/ *Circulation.* 2010;122:S640-S656

ventilazione

In primary (non-asphyxial) cardiac arrest the arterial blood is not moving and remains saturated with oxygen for several minutes.

È sicuramente raccomandato partire con le compressioni, e se il soccorritore non se la sente di ventilare è meglio solo le compressioni che nessuna manovra.

ventilazione

Le ventilazioni devono durare circa 1 secondo per ognuna, comunque non più di cinque secondi entrambe le ventilazioni di soccorso.

Questo qualunque sia la modalità di ventilazione che usiamo.

Low minute-ventilation (lower than normal tidal volume and respiratory rate) can maintain effective oxygenation and ventilation during CPR. During adult CPR, tidal volumes of approximately 500–600 ml (6–7 ml kg^{-1}) are recommended

ventilazione

During CPR, the purpose of ventilation is to maintain adequate oxygenation and to remove CO2. The optimal tidal volume, respiratory rate and inspired oxygen concentration to achieve this, however, are not fully known. The current recommendations are based on the following evidence:

1. During CPR, blood flow to the lungs is substantially reduced, so
an adequate ventilation–perfusion ratio can be maintained with
lower tidal volumes and respiratory rates than normal.
2. Hyperventilation is harmful because it increases intrathoracic
pressure, which decreases venous return to the heart and
reduces cardiac output. Survival is consequently reduced.
3. Interruptions in chest compression (for example, to check the
heart rhythm or for a pulse check) have a detrimental effect on
survival.
4. When the airway is unprotected, a tidal volume of 1 l produces
significantly more gastric distension than a tidal volume
of 500 ml.
5. Low minute-ventilation (lower than normal tidal volume and
respiratory rate) can maintain effective oxygenation and ventilation
during CPR.During adult CPR, tidal volumes of
approximately 500–600 ml (6–7 ml kg−1) are recommended.

In terms of airway management the *2010 AHA Guidelines for CPR and ECC* have a major new **Class I**
Recommendation for adults: use of quantitative Waveform capnography for confirmation and monitoring of endotracheal tube placement.
In addition, the use of supraglottic advanced Airway continues to be supported as an lternative to endotracheal Intubation for airway management during CPR.
Finally, the routine use of cricoid pressure during Airway management of patients in cardiac arrest is no longer recommended.

compressioni

- Le compressioni devono avere una profondità di 5 cm(non più di 6)

  J.Kramer, Johansen et al. Resuscitation (2006)71,283-292

- Il ritmo deve essere compreso tra 100 e 120 al minuto.

  Abella Circulation (2005), 111: 428-34

- Il rapporto resta 30:2
- La performance è migliore se si seguono i device

  R.W. Koster et al. / Resuscitation 81 (2010) 1277–1292

- The recommended depth of compression

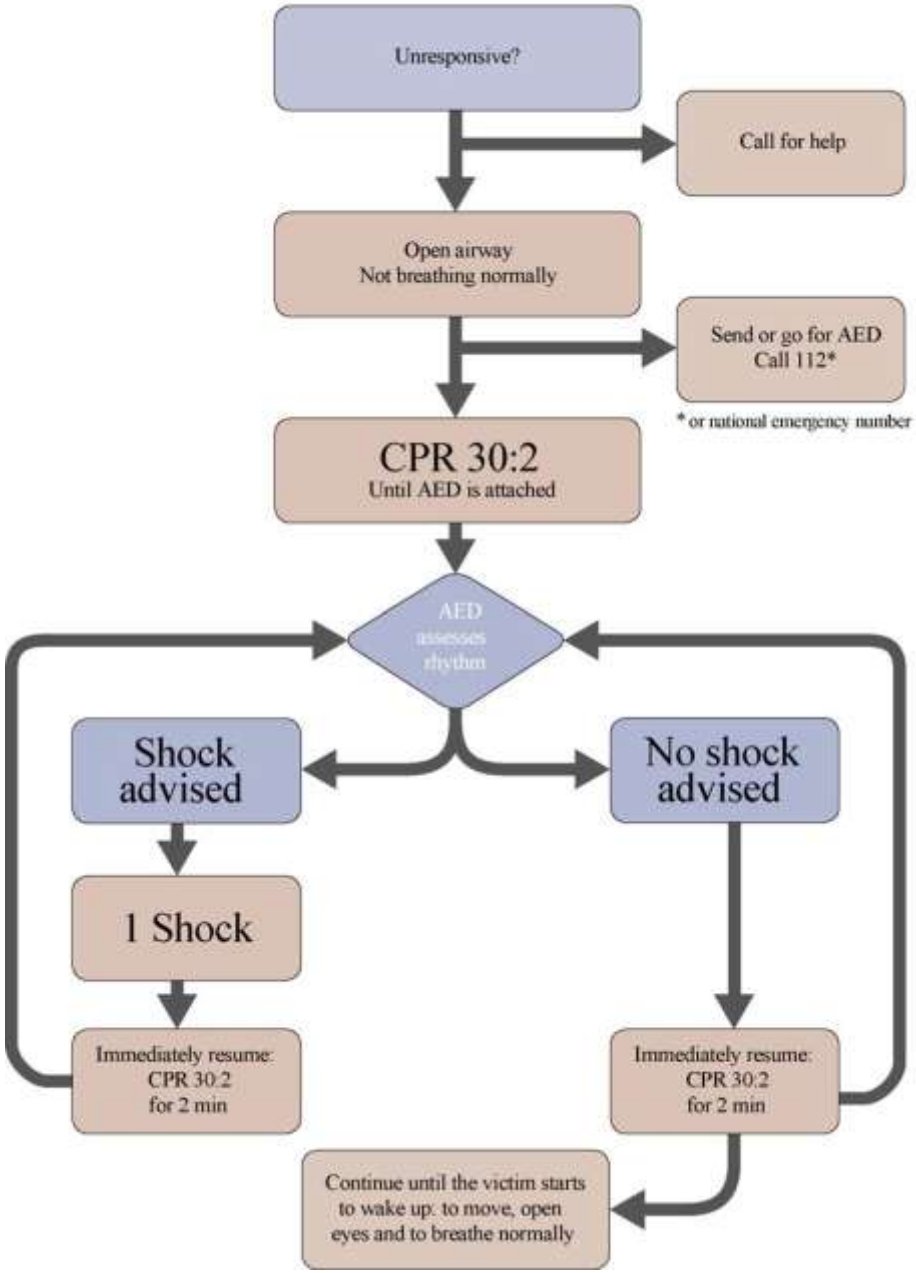
for adult victims has increased from a depth of 1-1⁄2

to 2 inches to a depth of at least 2 inches.

compressioni

- Comprimere interrompendo il meno possibile
- Dopo due minuti sarebbe bene dare il cambio al soccorritore
- Defibrillare appena disponibile DAE (unica terapia efficace nei ritmi defibrillabili)

Automated External Defibrillation Algorithm



Defibrillare

Il ritmo rilevato è defibrillabile nel 25-30%.

Di fatto, se riuscissimo a registrare il ritmo cardiaco al momento dell’arresto di circolo, troveremmo una FV/TV nel 59-65% dei casi.

Le compressioni devono durare più tempo possibile, sarebbe consigliato massaggiare fino alla partenza dell’analisi.

Molto dipende dalla tipologia degli apparecchi

1 shock alla massima energia erogabile tale che non provochi danni miocardici e sia efficace.

Optimal energy levels for both monophasic and biphasic waveforms are unknown.

Defibrillare

Usare il DAE appena disponibile e seguire i comandi vocali

Usare dagli otto anni in su, tra 1 e 8 anni è consigliabile usare i riduttori

Sotto un anno di età è sconsigliato l’uso del DAE, è raro che ci sia un arresto con ritmo defibrillabile

Defibrillare

Standard AEDs are suitable for use in children older than 8 years. For children between 1 and 8 years paediatric pads should be used, together with an attenuator or a paediatric mode if available; if these are not available, the AED should be used as it is. Use of AEDs is not recommended for children <1 year. There are, however, a few case reports describing the use of AEDs in children aged <1 year.136,137 The incidence of shockable rhythms in infants is very low except when there is cardiac disease135,138,139; in these rare cases, if an AED is the only defibrillator available its use should be considered (preferably with dose attenuator).

R.W. Koster et al. :Resuscitation 81 (2010) 1277–1292

Ostruzione vie aeree

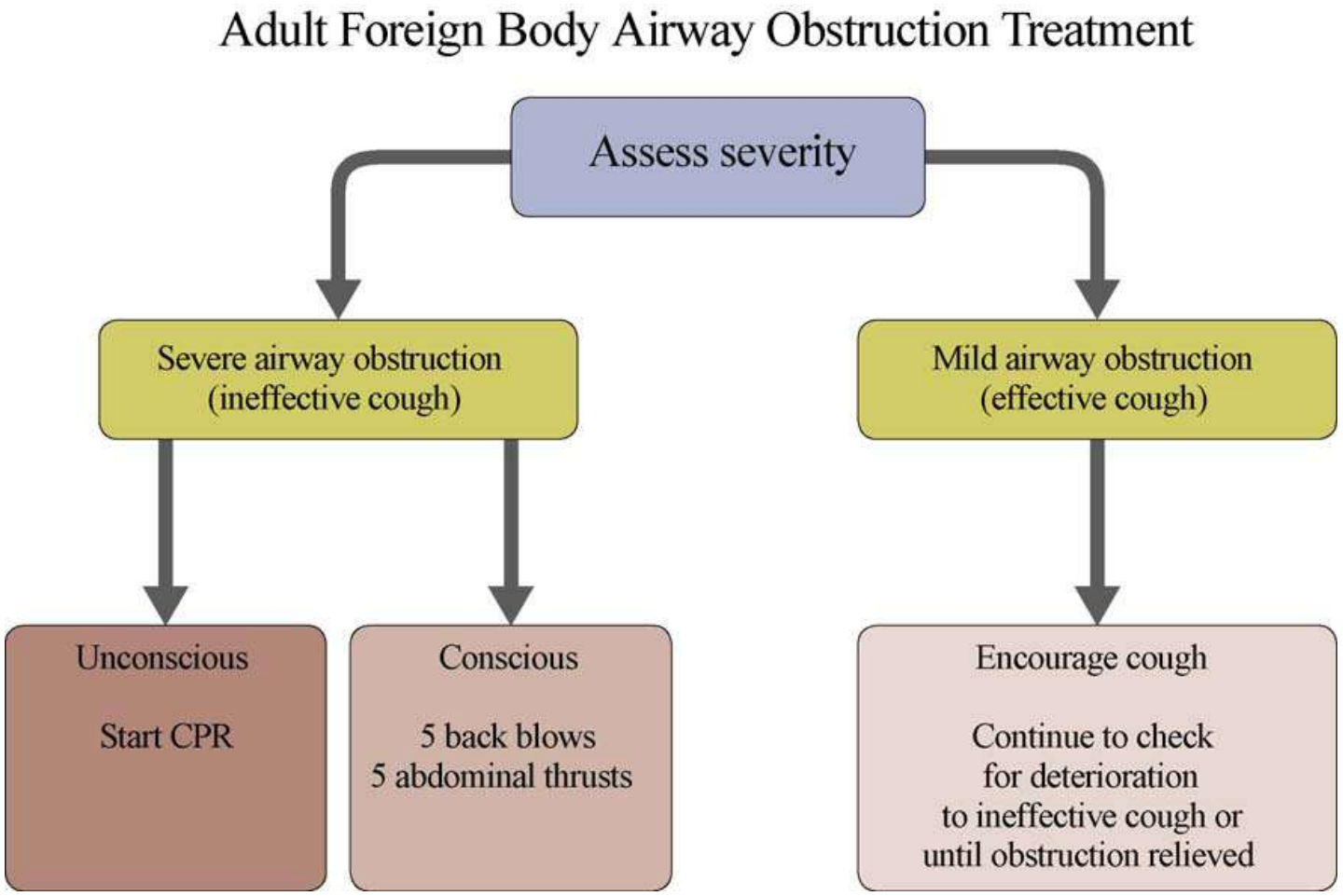


Table 2.1
Differentiation between mild and severe foreign body airway obstruction (FBAO).

Sign	Mild obstruction	Severe obstruction
“Are you choking?”	“Yes”	Unable to speak, may nod
Other signs	Can speak, cough	Cannot beathe/wheezy breathing/silent attempts to cough/unconsciousness
	breathe	

a General signs of FBAO: attack occurs while eating; victim may clutch his neck.

Conclusione

Non cambia nulla……

Usare sempre il buon senso…..

Diffondere, formare ed educare……..

Meglio fare qualcosa che non fare nulla…..

messaggio

Massaggio, massaggio, massaggio!