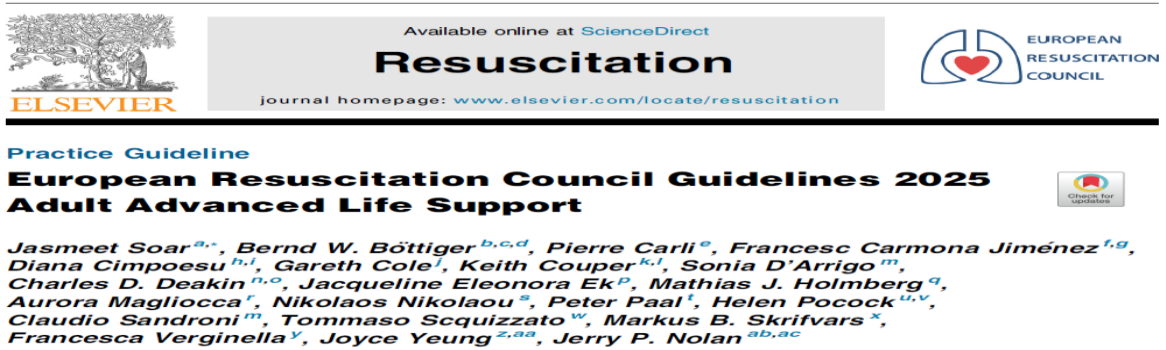
Réanimation spécialisée de l'arrêt cardio-respiratoire: Quoi de neuf en 2025 ?

Journée des filières « arrêts cardiaques » et « cœur »

11 décembre 2025

Dr David PINERO



ELSEVIER

Available online at ScienceDirect

Resuscitation

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

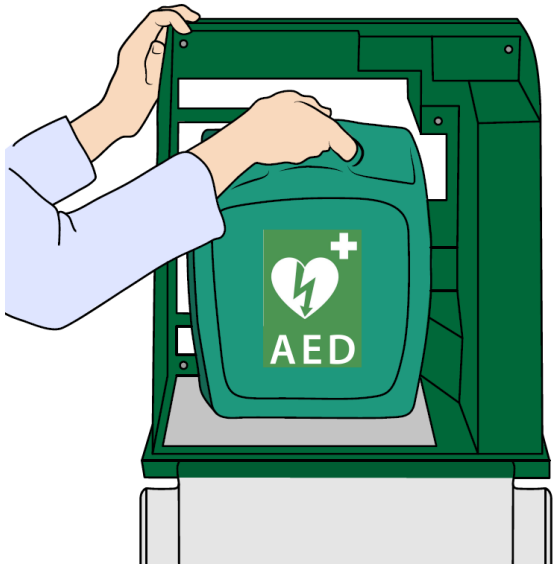
EUROPEAN RESUSCITATION COUNCIL

Practice Guideline

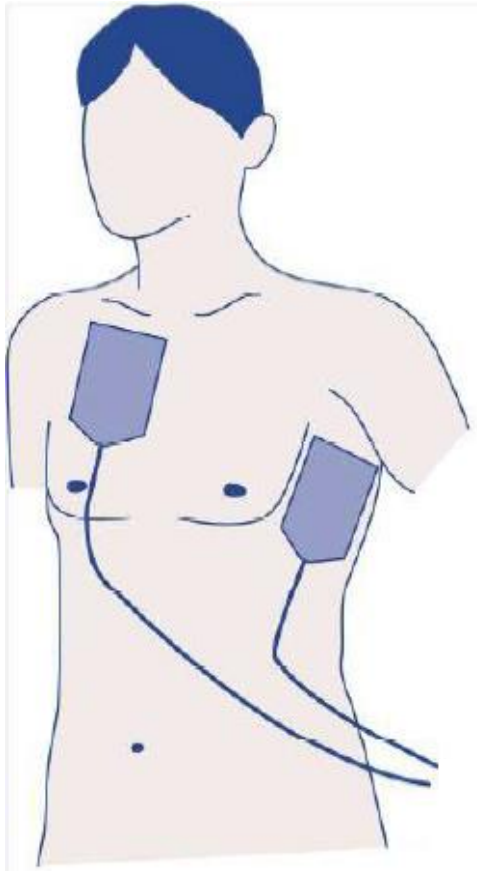
European Resuscitation Council Guidelines 2025 Adult Advanced Life Support

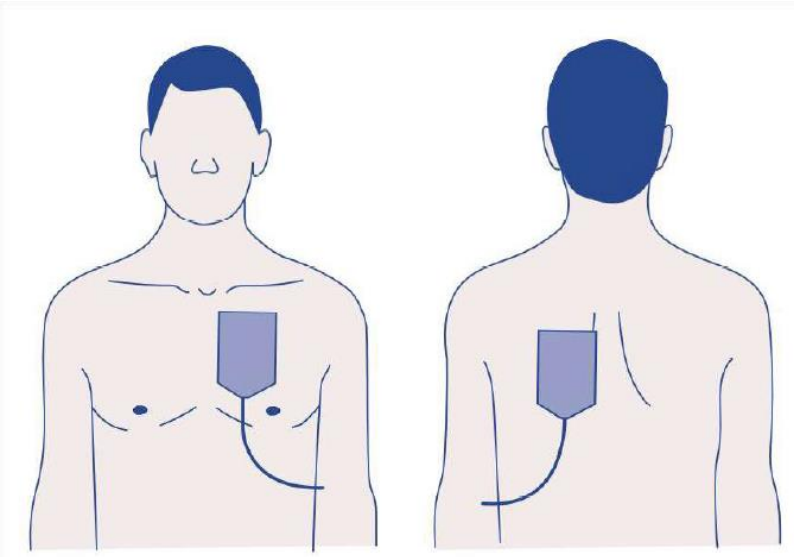
Jasmeet Soar[a,*], Bernd W. Böttiger[b,c,d], Pierre Carli[e], Francesc Carmona Jiménez[f,g], Diana Cimpoesu[h,i], Gareth Cole[j], Keith Couper[k,l], Sonia D'Arrigo[m], Charles D. Deakin[n,o], Jacqueline Eleonora Ek[p], Mathias J. Holmberg[q], Aurora Magliocca[r], Nikolaos Nikolaou[s], Peter Paal[t], Helen Pocock[u,v], Claudio Sandroni[m], Tommaso Scquizzato[w], Markus B. Skrifvars[x], Francesca Verginella[y], Joyce Yeung[z,aa], Jerry P. Nolan[ab,ac]

DEFIBRILLATION



DEFIBRILLATION : position électrodes





JAMA Network | Open

Original Investigation | Emergency Medicine

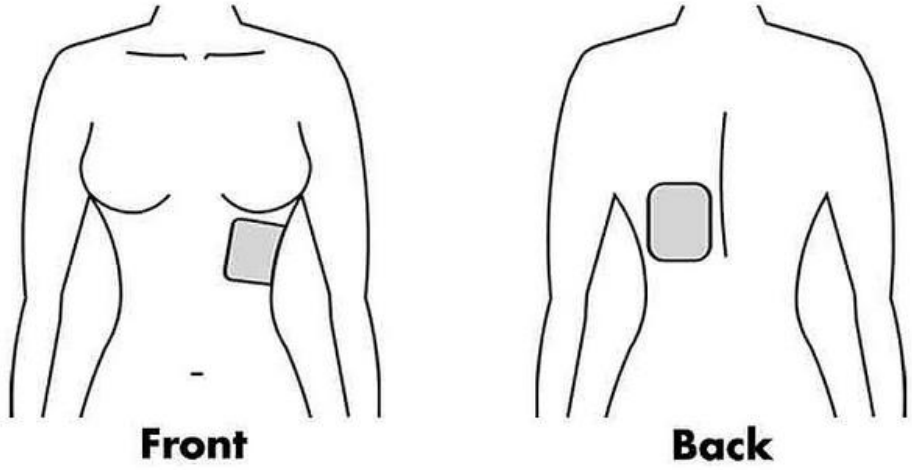
Initial Defibrillator Pad Position and Outcomes for Shockable Out-of-Hospital Cardiac Arrest

Joshua R. Lupton, MD, MPH, MPhil; Craig D. Newgard, MD, MPH; David Dennis, BS, EMT-P; Jack Nuttall, MA; Ritu Sahni, MD, MPH; Jonathan Jui, MD; Matthew R. Neth, MD; Mohamud R. Daya, MD, MS

JACC Vol. 27, No. 2
February 1996:449–52

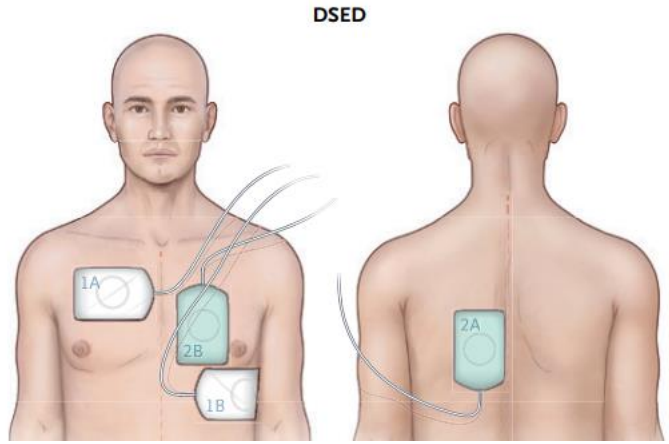
Transthoracic Defibrillation: Importance of Avoiding Electrode Placement Directly on the Female Breast

LUIS A. PAGAN-CARLO, MD, KIRK T. SPENCER, MD, COLIN E. ROBERTSON, FRCP, ANNE DENGLER, RN, CLAY BIRKETT, MSEE, RICHARD E. KERBER, MD, FACC
Iowa City, Iowa and Edinburgh, Scotland, United Kingdom



Cas particuliers : FV réfractaire

- Changement positions électrodes
- Augmenter l'intensité au maxi ?
- Double défibrillation séquentielle ?



Outcome	Standard Defibrillation (N=136)	VC Defibrillation (N=144)	DSED (N=125)	Adjusted Relative Risk (95% CI)*	
				DSED vs. Standard	VC vs. Standard
	number of patients/total number (percent)				
Survival to hospital discharge†	18/135 (13.3)	31/143 (21.7)	38/125 (30.4)	2.21 (1.33–3.67)	1.71 (1.01–2.88)
Termination of ventricular fibrillation	92/136 (67.6)	115/144 (79.9)	105/125 (84.0)	1.25 (1.09–1.44)	1.18 (1.03–1.36)
ROSC	36/136 (26.5)	51/144 (35.4)	58/125 (46.4)	1.72 (1.22–2.42)	1.39 (0.97–1.99)

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

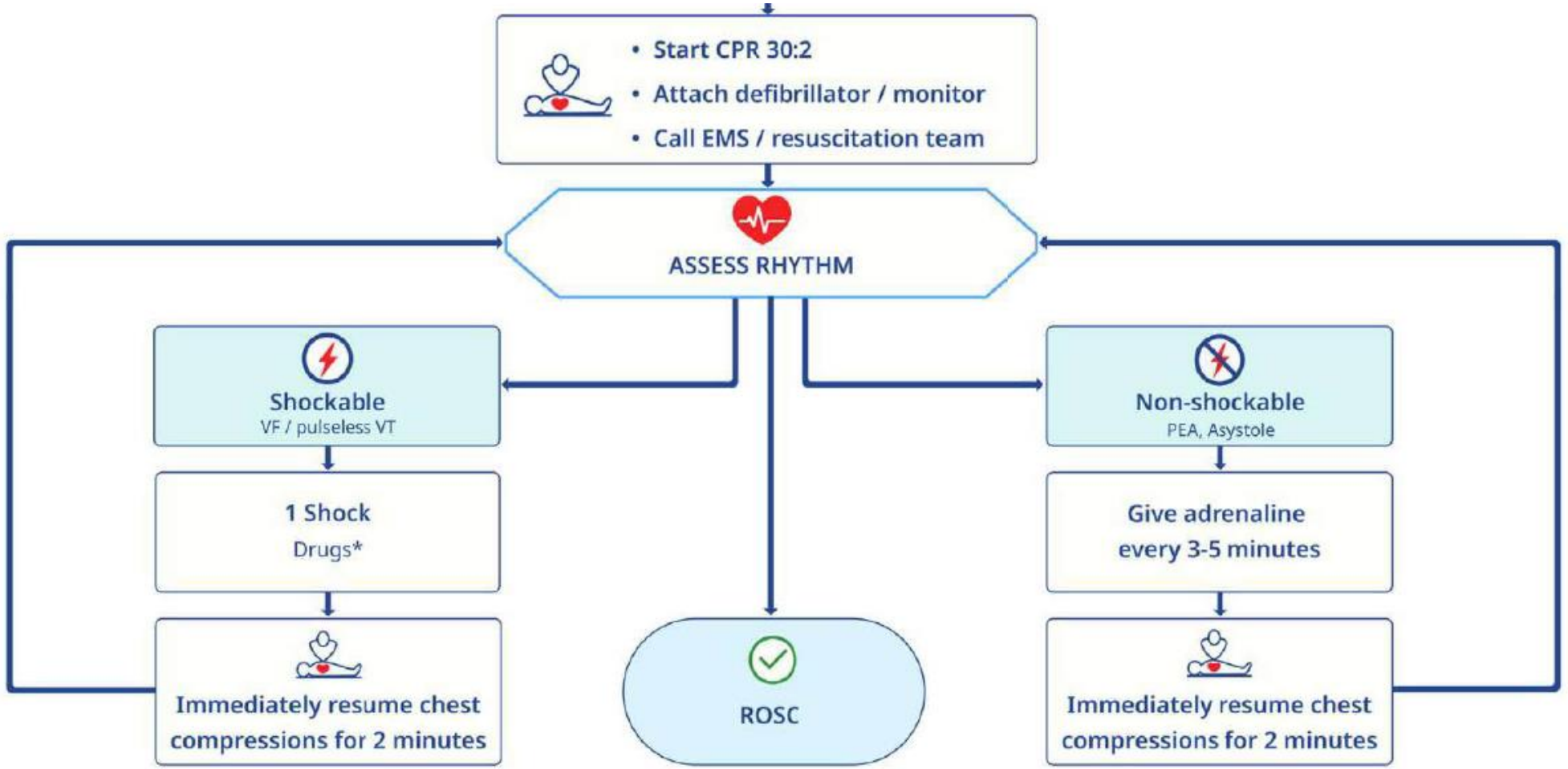
Defibrillation Strategies for Refractory Ventricular Fibrillation

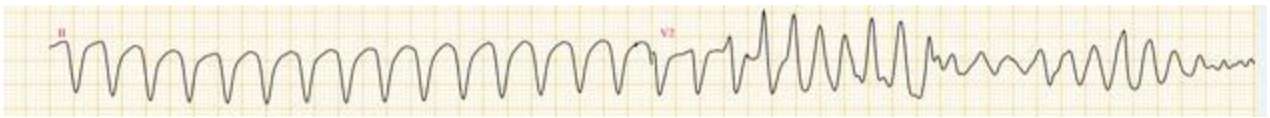
Sheldon Cheskes, M.D., P. Richard Verbeek, M.D., Ian R. Drennan, A.C.P., Ph.D., Shelley L. McLeod, Ph.D., Linda Turner, Ph.D., Ruxandra Pinto, Ph.D., Michael Feldman, M.D., Ph.D., Matthew Davis, M.D., Christian Vaillancourt, M.D., Laurie J. Morrison, M.D., Paul Dorian, M.D., and Damon C. Scales, M.D., Ph.D.

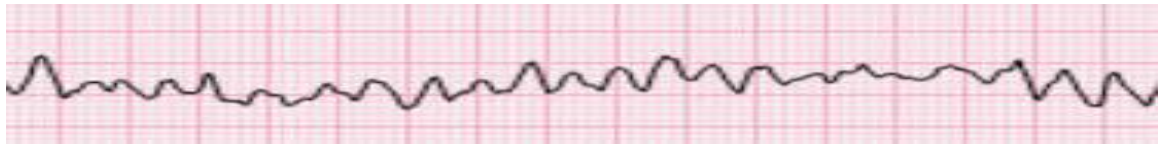
2 essais européens
- STRAT DEFI
- The Dual Defib Trial

Cas particuliers : arrêt devant une équipe médicale

- arrêt devant une équipe médicale sur un patient scopé, défibrilateur à proximité ou défibrillateur en place
- 3 chocs
- Vérification entre chaque choc
- RCP
- Ces 3 chocs sont considérés comme le 1er choc dans l'algorythme


• Start CPR 30:2
• Attach defibrillator / monitor
• Call EMS / resuscitation team
ASSESS RHYTHM
Shockable
VF / pulseless VT
1 Shock
Drugs*
Immediately resume chest compressions for 2 minutes
ROSC
Non-shockable
PEA, Asystole
Give adrenaline every 3-5 minutes
Immediately resume chest compressions for 2 minutes





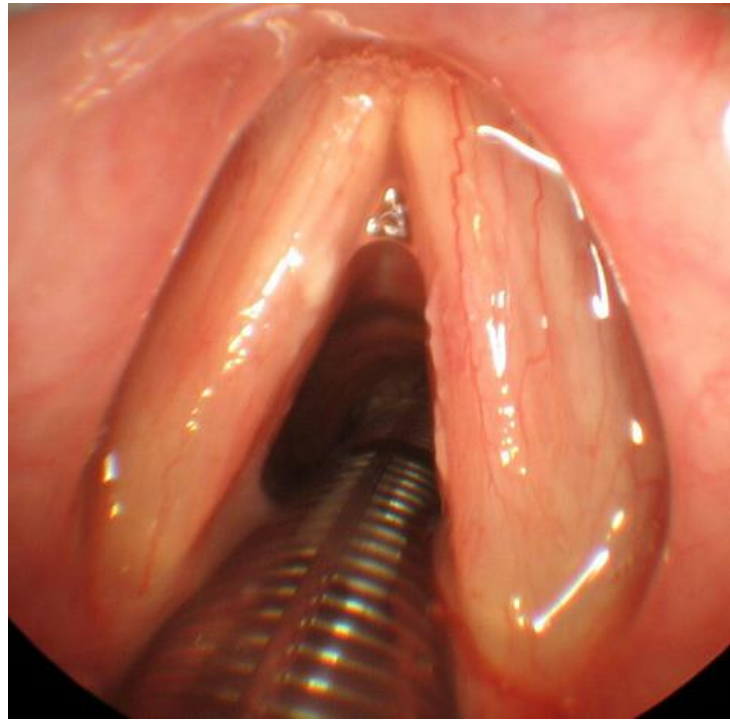
VENTILATION

- Masque, DSG ou IOT ?

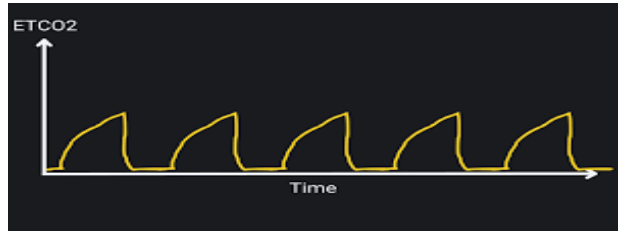
JAMA | Original Investigation

Effect of Bag-Mask Ventilation vs Endotracheal Intubation During Cardiopulmonary Resuscitation on Neurological Outcome After Out-of-Hospital Cardiorespiratory Arrest
A Randomized Clinical Trial

Patricia Jabre, MD, PhD; Andrea Penaloza, MD, PhD; David Pinero, MD; Francois-Xavier Duchateau, MD; Stephen W. Borron, MD, MS; Francois Javaudin, MD; Olivier Richard, MD; Diane de Longueville, MD; Guillem Bouilleau, MD; Marie-Laure Devaud, MD; Matthieu Heidet, MD, MPH; Caroline Lejeune, MD; Sophie Fauroux, MD; Jean-Luc Greingor, MD; Alessandro Manara, MD; Jean-Christophe Hubert, MD; Bertrand Guihard, MD; Olivier Vermylen, MD; Pascale Lievens, MD; Yannick Auffret, MD; Celine Maisondieu, MD; Stephanie Huet, MD; Benoît Claessens, MD; Frederic Lapostolle, MD, PhD; Nicolas Javaud, MD, PhD; Paul-Georges Reuter, MD, MS; Elinor Baker, MD; Eric Vicaut, MD, PhD; Frédéric Adnet, MD, PhD



IOT : Laryngoscopie directe ou VL ?



Ventilation
- BAVU : poitrine se soulève
- Ventilation mécanique : volume 6-8 ml/kg, FR 10/min, TI 1 à 1,5s, PEEP 0-5 cmH alarme Pmax 60-70

ABORD VEINEUX

Available online at ScienceDirect
Resuscitation
journal homepage: www.elsevier.com/locate/resuscitation
EUROPEAN RESUSCITATION COUNCIL
ELSEVIER

Review

Intraosseous and intravenous vascular access during adult cardiac arrest: A systematic review and meta-analysis

Keith Couper[a,b,], Lars W. Andersen[c,d,e], Ian R. Drennan[f,g,h], Brian E. Grunau[i,j,k], Peter J. Kudenchuk[l,m], Ranjit Lall[a], Eric J. Lavonas[n,o], Gavin D. Perkins[a,b], Mikael Fink Vallentin[c,d], Asger Granfeldt[d,e], On behalf of the International Liaison Committee on Resuscitation Advanced Life Support Task Force*

IO en première intention

- n'améliore pas:
  - Le taux de survie a 30 jours
  - Le taux de sortie de l hôpital avec pronostic neuro favorable
- Peut réduire le taux de RACS

The NEW ENGLAND JOURNAL of MEDICINE

Intraosseous or Intravenous Vascular Access for Out-of-Hospital Cardiac Arrest

Authors: Mikael F. Vallentin, M.D., Ph.D., Asger Granfeldt, M.D., Ph.D., D.M.Sc., Thomas L. Klitgaard, M.D., Ph.D., Søren Mikkelsen, M.D., Ph.D., Fredrik Folke, M.D., Ph.D., Helle C. Christensen, M.D., Ph.D., Amalie L. Povlsen, M.D., +40, and Lars W. Andersen, M.D., Ph.D., D.M.Sc., M.P.H. Author Info & Affiliations

Published October 31, 2024 | N Engl J Med 2025;392:349-360 | DOI: 10.1056/NEJMoa2407616 | VOL. 392 NO. 4

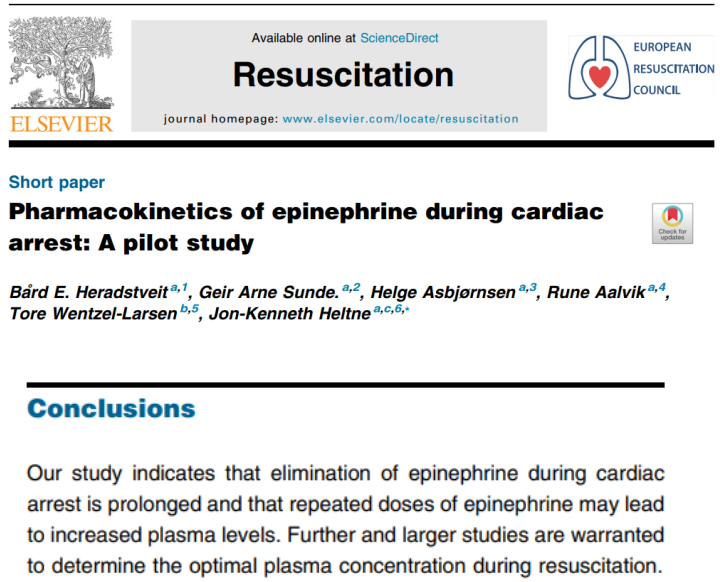
Réaliser 2 tentatives d'accès veineux périphérique avant d'envisager un accès intra-osseux

THERAPEUTIQUES INJECTABLES

- Adrénaline: 1 mg/3 à 5 min (Rythme choquable / non choquable)

- Amiodarone : 300mg après 3° choc puis 150mg après 5° choc

- Thrombolytique si EP suspectée ou confirmée (dilat VD isolée pendant ACR ≠ EP)



ELSEVIER

Available online at ScienceDirect

Resuscitation

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

EUROPEAN RESUSCITATION COUNCIL

Short paper

Pharmacokinetics of epinephrine during cardiac arrest: A pilot study

Bård E. Heradstveit[a,1], Geir Arne Sunde.[a,2], Helge Asbjørnsen[a,3], Rune Aalvik[a,4], Tore Wentzel-Larsen[b,5], Jon-Kenneth Heltne[a,c,6,]*

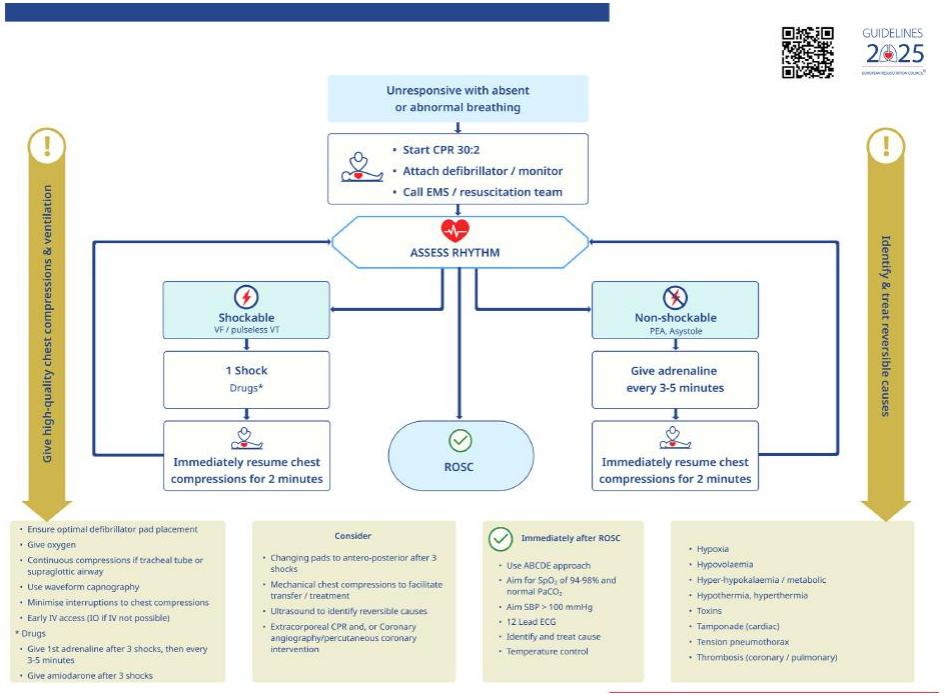
Conclusions

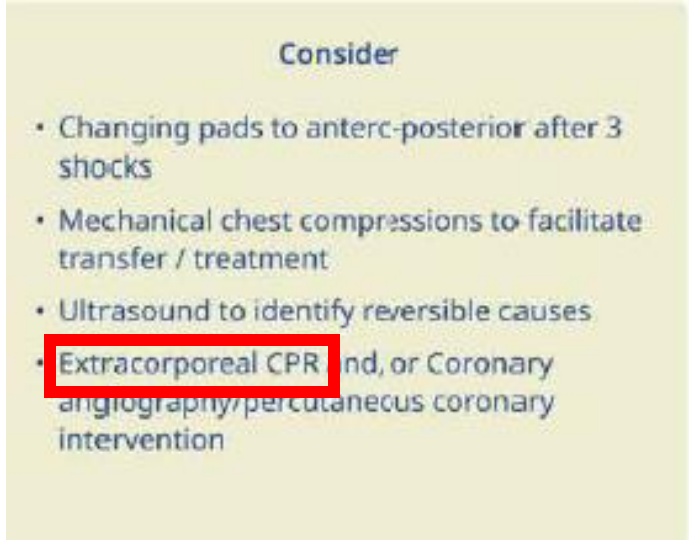
Our study indicates that elimination of epinephrine during cardiac arrest is prolonged and that repeated doses of epinephrine may lead to increased plasma levels. Further and larger studies are warranted to determine the optimal plasma concentration during resuscitation.

FOCUS ECPR

Indications : ACR REFRACTAIRE

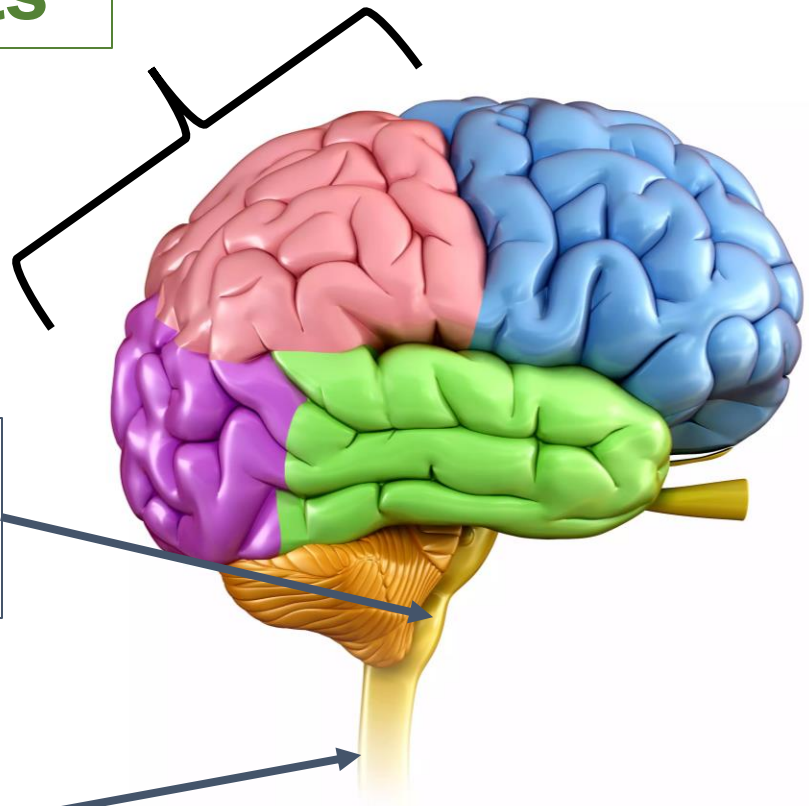
- Age max 50-75 ans
- Absence de comorbidités
- NF 5 min
- Rythme initial choquable (cas particulier intra hospitalier)
- LF idéalement < 60 min
- ETCO2 > 10
- *Lactate < 15*
- **Intoxication cardiotropes ou induction anesthésie**
- **Présence de signes de vie**





SIGNES DE VIE ?

Mouvements



Réactivité pupillaire

Gasps

Available online at ScienceDirect

Resuscitation

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

Practice Guideline

European Resuscitation Council Guidelines 2025 Ethics in Resuscitation

Violetta Raffay[a,b,1], Johannes Wittig[c,d,1], Leo Bossaert[e], Jana Djakow[f,g,h], Therese Djärv[i,j], Ángel Estella[k,l], Ileana Lulic[m], Spyros D. Mentzelopoulos[n], Koenraad G. Monsieurs[o], Patrick Van de Voorde[p], Kasper G. Lauridsen[c,q,], and the ERC Ethics in Resuscitation Collaborators*

Arrêter une réanimation n'est pas un abandon : c'est reconnaître qu'elle ne peut plus apporter de bénéfice réel au patient.