Surviving Sepsis Campaign: International Guidelines for Management of Sepsis and Septic Shock 2021

Les vendredis de réanimation Dr K. Ben Ismail **AHU**

Service de Réanimation Médicale Zaghouan

Introduction

Intensive Care Med (2021) 47:1181-1247 https://doi.org/10.1007/s00134-021-06506-y

GUIDELINES

Surviving sepsis campaign: international guidelines for management of sepsis and septic shock 2021

-This article is being simultaneously published in *Critical Care Medicine* (DOI: https://doi.org/10.1097/CCM.00000000005337) and *Intensive Care Medicine* (DOI: https://doi.org/10.1007/s00134-021-06506-y).

Recommendations from these guidelines cannot replace the clinician's decision-making capability when presented with a unique patient's clinical variables.

Introduction

Classification des recommandations et niveau de preuves

Classe I	Classe IIa	Classe IIb	Classe III
Bénéfice >>> Risque	Bénéfice > Risque des études complémentaires sont nécessaires	Bénéfice ≥ Risque des études complémentaires sont requises; des registres sont requis	Risque ≥ Bénéfice Pas d'études requises

Niveaux de preuve

Niveau d'évidence A: Données issues de plusieurs études randomisées ou de méta

analyses avec de larges populations étudiées.

Niveau d'évidence B : Données provenant d'une seule étude randomisée ou d'études

non randomisées avec des populations étudiées limitées.

Niveau d'évidence C: Consensus d'experts d'opinion, cas cliniques avec populations

étudiées très limitées.

Oxygen targets

Recommendation

46. There is **insufficient evidence to make a recommendation** on the use of conservative oxygen targets in adults with sepsis-induced hypoxemic respiratory failure





Liberal or Conservative Oxygen Therapy for Acute Respiratory Distress Syndrome

The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812

MARCH 12, 2020

VOL. 382 NO. 11

Conservative Oxygen Therapy during Mechanical Ventilation in the ICU

The ICU-ROX Investigators and the Australian and New Zealand Intensive Care Society Clinical Trials Group*

THE LANCET

ARTICLES | VOLUME 391, ISSUE 10131, P1693-1705, APRIL 28, 2018

Mortality and morbidity in acutely ill adults treated with liberal versus conservative oxygen therapy (IOTA): a systematic review and metaanalysis

Derek K.Chu, M.D. * † . Lisa H-Y Kim, M.D. * † . Paul J Young, MBChB » Nima Zamiri, M.D. » Saleh A.Almenawer, M.D. Prof Roman Jaeschke, M.D. » et al. Show all authors » Show footnotes

- -PaO2 55-70 mmHg; SpO2 88-92% et de la thérapie chez les patients atteints de sepsis sont limitées, avec trois essais randomisés chez les patients ayant un sepsis en réanimation.
- -Dans l'essai ICU-ROX (1 000 participants), l'oxygénothérapie conservatrice n'a pas eu d'effet significatif sur le résultat principal, à savoir le nombre de jours sans ventilation invasive.
- -La mortalité à 90 et 180 jours n'était pas différente.
- -L'étude LOCO-2 (stratégie conservatrice) : aucune différence dans la survie à 28 jours.
- À l'heure actuelle, les preuves sont insuffisantes pour formuler une recommandation fondée sur des données solides.



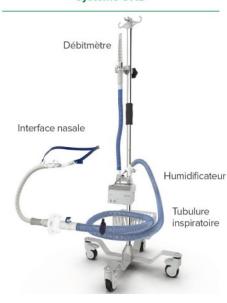
Recommendation

47. For adults with sepsis-induced hypoxemic respiratory failure, we **suggest** the use of high flow nasal oxygen over non-invasive ventilation





Système OHD



The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812

JUNE 4, 2015

VOL. 372 NO. 23

High-Flow Oxygen through Nasal Cannula in Acute Hypoxemic Respiratory Failure

Jean-Pierre Frat, M.D., Arnaud W. Thille, M.D., Ph.D., Alain Mercat, M.D., Ph.D., Christophe Girault, M.D., Ph.D., Stéphanie Ragot, Pharm.D., Ph.D., Sébastien Perbet, M.D., Gwénael Prat, M.D., Thierry Boulain, M.D., Elise Morawiec, M.D., Alice Cottereau, M.D., Jérôme Devaquet, M.D., Saad Nseir, M.D., Ph.D., Keyvan Razazi, M.D., Jean-Paul Mira, M.D., Ph.D., Laurent Argaud, M.D., Ph.D., Jean-Charles Chakarian, M.D., Jean-Damien Ricard, M.D., Ph.D., Xavier Wittebole, M.D., Stéphanie Chevalier, M.D., Alexandre Herbland, M.D., Muriel Fartoukh, M.D., Ph.D., Jean-Michel Constantin, M.D., Ph.D., Jean-Marie Tonnelier, M.D., Marc Pierrot, M.D., Armelle Mathonnet, M.D., Gaëtan Béduneau, M.D., Céline Delétage-Métreau, Ph.D., Jean-Christophe M. Richard, M.D., Ph.D., Laurent Brochard, M.D., and René Robert, M.D., Ph.D., for the FLORALI Study Group and the REVA Network

- SDRA : origine pulmonaire ou extra-pulmonaire
- o -la ventilation non invasive (VNI) ou l'oxygène à haut débit(HFNC)
- -60 L par minute pour atteindre des fractions d'oxygène inspiré (FiO2) de 95 à 100 %.
- Une revue systématique et une méta-analyse de neuf ont montré que l'HFNC réduit l'intubation par rapport à l'oxygène conventionnel (RR 0,85 ; IC 95 % 0,74-0,99) mais n'affecte pas le risque de décès ou la durée de séjour en USI .
- Bien que la qualité des preuves soit faible, les avantages de HFNC pour le patient en sepsis présentant une hypoxiemie non hypercapnique semblent être justifiés.

Non-invasive ventilation

Recommendation

48. There is **insufficient evidence to make a recommendation** on the use of non-invasive ventilation in comparison to invasive ventilation for adults with sepsis-induced hypoxemic respiratory failure





Intensive Care Med (2016) 42:82–92 DOI 10.1007/s00134-015-4087-4

ORIGINAL



Alexandre Demoule Sylvie Chevret Annalisa Carlucci Achille Kouatchet Samir Jaber Ferhat Meziani Matthieu Schmidt Changing use of noninvasive ventilation in critically ill patients: trends over 15 years in francophone countries

- Risque : Retarder l'intubation
- Les études publiés sont critiqués en terme de nombre de patients inclus et la methodologie, aucune recommandation claire ne peut être faite.
 Si la VNI est utilisée chez des patients présentant une insuffisance respiratoire hypoxique associée à un sepsis, nous suggérons de surveiller une réduction précoce du travail respiratoire et de contrôler étroitement les volumes courants.

Protective ventilation in acute respiratory distress syndrome (ARDS)

Recommendation

49. For adults with sepsis-induced ARDS, we **recommend** using a low tidal volume ventilation strategy (6 mL/kg), over a high tidal volume strategy (> 10 mL/kg)

Strong recommendation, high quality of evidence

Recommendation

50. For adults with sepsis-induced severe ARDS, we **recommend** using an upper limit goal for plateau pressures of 30 cm H_2O , over higher plateau pressures

Strong recommendation, moderate quality of evidence





LUNG SAFE: Large observational study to UNderstand the Global impact of Severe Acute respiratory FailurE

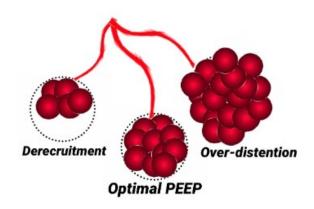
LUNG SAFE (Large observational study to UNderstand the Global impact of Severe Acute respiratory FailurE) is a multicentre, prospective, observational, 4-week inception cohort study, which has been carried out by the Acute Respiratory Failure section through the ESICM Trials Group. The study aimed to prospectively assess the burden of, management and therapeutic approaches to, and outcomes from acute hypoxaemic respiratory failure requiring ventilatory support, with a specific focus on ARDS as defined by the Berlin Definition.

Recommendation

51. For adults with moderate to severe sepsis-induced ARDS, we **suggest** using higher PEEP over lower PEEP

Weak recommendation, moderate quality of evidence



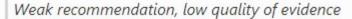


- La recommandation est inchangée par rapport à 2016.
- o 3 méthodes :
 - en fonction des mesures de la compliance thoracopulmonaire , dans le but d'obtenir la meilleure compliance ou la pression motrice la plus faible, un équilibre entre le recrutement pulmonaire et la surdistension.
 - augmenter la PEP pendant que le patient reçoit un volume courant de 6 mL/kg, jusqu'à ce que la pression des voies aériennes en plateau soit de 28 cm H2O
 - -Tableau de titration PEEP/FiO2.
- La titration de la PEEP guidée par la pression œsophagienne a été évaluée dans deux essais.

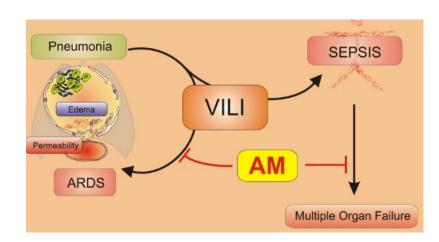
Low tidal volume in non-ARDS respiratory failure

Recommendation

52. For adults with sepsis-induced respiratory failure (without ARDS), we **suggest** using low tidal volume as compared to high tidal volume ventilation







- Nous suggérons donc que la ventilation à faible volume courant soit utilisée chez tous les patients atteints de sepsis .
- L'utilisation de la ventilation à faible volume courant évite le risque de favoriser les lésions pulmonaires induites par la ventilation chez les patients septiques chez qui le diagnostic de SDRA a été manqué.

Recruitment manoeuvres

Recommendations

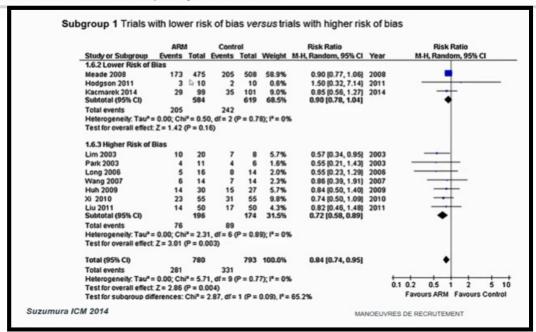
53. For adults with sepsis-induced moderate-severe ARDS, we **suggest** using traditional recruitment maneuvers

Weak recommendation, moderate quality of evidence

54. When using recruitment maneuvers, we **recommend against** using incremental PEEP titration/strategy

Strong recommendation, moderate quality of evidence





- L'augmentation temporaire de la pression transpulmonaire peut faciliter l'ouverture des alvéoles pour permettre l'échange gazeux ,mais pourrait également entraîner des lésions pulmonaires induites par la ventilation et une hypotension artérielle transitoire.
- Tout patient recevant des manœuvres de recrutement doit être surveillé de près et les manœuvres de recrutement doivent être interrompues si suspicion de complications.

Prone ventilation

Recommendation

55. For adults with sepsis-induced moderate-severe ARDS, we **recommend** using prone ventilation for more than 12 h daily

Strong recommendation, moderate quality of evidence





Neuromuscular blocking agents

Recommendation

56. For adults with sepsis induced moderate-severe ARDS, we **suggest** using intermittent NMBA boluses, over NMBA continuous infusion

Weak recommendation, moderate quality of evidence



The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812

MAY 23, 2019

VOL. 380 NO. 21

Early Neuromuscular Blockade in the Acute Respiratory Distress Syndrome

The National Heart, Lung, and Blood Institute PETAL Clinical Trials Network*

• Compte tenu de l'incertitude des résultats concernants les avantages et les inconvénients des curares, le groupe d'experts a émis une faible recommandation en faveur des bolis intermittents de NMBA par rapport à une perfusion continue.

Extracorporel membrane oxygénation (ECMO)

Recommendation

57. For adults with sepsis-induced severe ARDS, we **suggest** using veno-venous (VV) ECMO when conventional mechanical ventilation fails in experienced centers with the infrastructure in place to support its use



Weak recommendation, low quality of evidence

Efficacy and economic assessment of conventional ventilatory support versus extracorporeal membrane oxygenation for severe adult respiratory failure (CESAR): a multicentre randomised controlled trial

Giles J. Peek, Miranda Mugford, Ravindranath Tiruvoipati, Andrew Wilson, Elizabeth Allen, Mariamma M. Thalanany, Clare L. Hibbert, Ann Truesdale, Felicity Clemens, Nicola Cooper, Richard K. Firmin, Diana Elbourne, for the CESAR trial collaboration

ventilation support. Methods: In this UK-based multicentre trial, we used an independent central randomisation service to

randomly assign 180 adults in a 1:1 ratio to receive continued conventional management or referral to consideration for treatment by ECMO. Eligible patients were aged 18-65 years and had severe (Murray score $>3\cdot0$ or pH $<7\cdot20$) but potentially reversible respiratory failure. Exclusion criteria were: high pressure (>30 cm H_2O of peak inspiratory pressure) or high FiO₂ ($>0\cdot8$) ventilation for more than 7 days; intracranial bleeding; any other contraindication to limited heparinisation; or any contraindication to continuation of active treatment. The primary outcome was death or severe disability at 6 months after randomisation or before discharge from hospital. Primary analysis was by intention to treat. Only researchers who did the 6-month follow-up were masked to treatment assignment. Data about resource use and economic outcomes (quality-adjusted

- Une revue systématique récente a trouvé que l'ECMO VV délivrée dans des centres experts réduisait la mortalité des patients atteints de SDRA sévère .
- un coût élevé

2021 VS 2016

Recommendations 2021	Recommendation Strength and Quality of Evidence	Changes From 2016 Recommendations
VENTILATION	200	
46.There is insufficient evidence to make a recommendation on the use of conservative oxygen targets in adults with sepsis-induced hypoxemic respiratory failure.	No recommendation	
 For adults with sepsis-induced hypoxemic res- piratory failure, we suggest the use of high flow nasal oxygen over noninvasive ventilation. 	Weak, low quality of evidence	NEW
48. There is insufficient evidence to make a recom- mendation on the use of noninvasive ventila- tion in comparison to invasive ventilation for adults with sepsis-induced hypoxemic respira- tory failure.	No recommendation	
 For adults with sepsis induced moderate- severe ARDS, we suggest using intermittent NMBA boluses, over NMBA continuous infusion. 	Weak, moderate-quality evidence	Mana
57. For adults with sepsis-induced severe ARDS, we suggest using Veno-venous (VV) ECMO when conventional mechanical ventilation fails in experienced centers with the infrastructure in place to support its use.	Weak, low quality of evidence	NEW

Corticosteroids

Recommendation

58. For adults with septic shock and an ongoing requirement for vasopressor therapy we **suggest** using IV corticosteroids

Weak recommendation; moderate quality of evidence

Remark

The typical corticosteroid used in adults with septic shock is IV hydrocortisone at a dose of 200 mg/day given as 50 mg intravenously every 6 h or as a continuous infusion. It is suggested that this is commenced at a dose of norepinephrine or epinephrine ≥ 0.25 mcg/kg/min at least 4 h after initiation



The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812

MARCH 1, 2018

VOL. 378 NO. 9

Adjunctive Glucocorticoid Therapy in Patients with Septic Shock

B. Venkatesh, S. Finfer, J. Cohen, D. Rajbhandari, Y. Arabi, R. Bellomo, L. Billot, M. Correa, P. Glass, M. Harward, C. Joyce, Q. Li, C. McArthur, A. Perner, A. Rhodes, K. Thompson, S. Webb, and J. Myburgh, for the ADRENAL Trial Investigators and the Australian—New Zealand Intensive Care Society Clinical Trials Group*

 Nous avons défini le besoin continu comme une dose de norépinéphrine ou d'épinéphrine ≥ 0,25 mcg/kg/min pendant au moins 4 heures après l'initiation pour maintenir la PAM cible. La dose d'hydrocortisone est généralement de 200 mg/jour.

2021 VS 2016

Recommendations 2021	Recommendation Strength and Quality of Evidence	Changes From 2016 Recommendations
ADDITIONAL THERAPIES		
58. For adults with septic shock and an ongoing requirement for vasopressor therapy we sug- gest using IV corticosteroids.	Weak, moderate-quality evidence	UPGRADE from Weak recommendation, low quality of evidence
		"We suggest against using IV hydrocortisone to treat septic shock patients if adequate fluid resuscitation and vasopressor therapy are able to restore hemodynamic stability (see goals for Initial Resuscitation). If this is not achievable, we suggest IV hydrocortisone at a dose of 200 mg/day."

Blood Purification

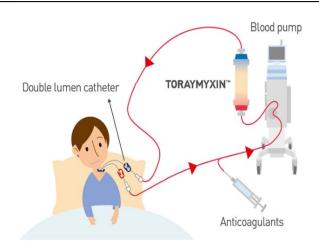
Recommendations

59. For adults with sepsis or septic shock, we **suggest against** using polymyxin B haemoperfusion Weak recommendation; low quality of evidence

60. There is insufficient evidence to make a recommendation on the use of other blood purification techniques



Procedure of TORAYMYXIN™ Treatment



The **JAMA** Network

Effect of Targeted Polymyxin B Hemoperfusion on 28-Day Mortality in Patients With Septic Shock and Elevated Endotoxin Level

The EUPHRATES Randomized Clinical Trial

- o La polymyxine-B est un antibiotique dont les néphro- et neurotoxicités empêchent l'utilisation par voie systémique.
- La production d'endotoxine par les bactéries Gram négatif est le starter de la réaction inflammatoire du sepsis.
- La possibilité de neutraliser l'ET peut permettre d'améliorer le pronostic du choc septique.
- La polymyxine-B a été intégrée sur des composés polymériques de membranes artificielles pouvant être utilisées en hémoperfusion.
- In vivo ,les membranes recouvertes de polymyxine-B pouvaient permettre de réduire les taux circulants d'ET.
- Plusieurs études cliniques chez l'homme ont été réalisées au cours du sepsis sévère et du choc septique montrant une amélioration de l'état hémodynamique, des conditions d'oxygénation des patients, voire même de la mortalité..

Red blood cell (RBC) transfusion targets

Recommendation

61. For adults with sepsis or septic shock, we **recommend** using a restrictive (over liberal) transfusion strategy

Strong recommendation; moderate quality of evidence

Remark

A restrictive transfusion strategy typically includes a haemoglobin concentration transfusion trigger of 70 g/L; however, RBC transfusion should not be guided by haemoglobin concentration alone. Assessment of a patient's overall clinical status and consideration of extenuating circumstances such as acute myocardial ischaemia, severe hypoxemia or acute haemorrhage is required





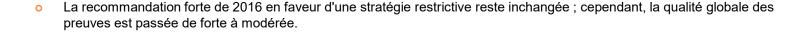


Review

Transfusion of Red Blood Cells to Patients with Sepsis

Yi-Ling Chan 1, Shih-Tsung Han 1, Chih-Huang Li 1 0, Chin-Chieh Wu 2 and Kuan-Fu Chen 1,2,3,4,8 0

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- 4 Community Medicine Research Center, Chang Gung Memorial Hospital Keelung, Keelung 204, Taiwan
- Correspondence: kfchen@cgmh.org.tw; Tel.: +886-975-360-714



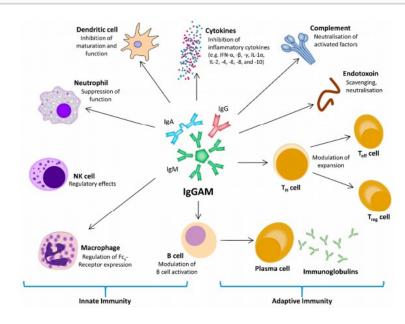
Immunoglobulins

Recommendation

62. For adults with sepsis or septic shock, we suggest against using intravenous immunoglobulins

Weak recommendation, low quality of evidence





- Son coût limite également sa faisabilité dans les pays à revenu faible ou intermédiaire.
- Sur la base de ces jugements, les cliniciens peuvent envisager d'éviter l'utilisation systématique des immunoglobulines intraveineuses chez les patients atteints de sepsis et de choc septique.

Stress ulcer prophylaxis

Recommendation

63. For adults with sepsis or septic shock, and who have risk factors for gastrointestinal (GI) bleeding, we **suggest** using stress ulcer prophylaxis

Weak recommendation, moderate quality of evidence



Venous thromboembolism (VTE) prophylaxis

Recommendations

- 64. For adults with sepsis or septic shock, we **recommend** using pharmacologic VTE prophylaxis unless a contraindication to such therapy exists

 Strong recommendation, moderate quality of evidence
- 65. For adults with sepsis or septic shock, we **recommend** using low molecular weight heparin (LMWH) over unfractionated heparin (UFH) for VTE prophylaxis Strong recommendation, moderate quality of evidence
- 66. For adults with sepsis or septic shock, we **suggest against** using mechanical VTE prophylaxis in addition to pharmacological prophylaxis, over pharmacologic prophylaxis alone *Weak recommendation, low quality of evidence*





Renal replacement therapy

Recommendations

67. In adults with sepsis or septic shock and AKI who require renal replacement therapy, we **suggest** using either continuous or intermittent renal replacement therapy Weak recommendation, low quality of evidence

68. In adults with sepsis or septic shock and AKI, with no definitive indications for renal replacement therapy, we **suggest against** using renal replacement therapy Weak recommendation, moderate quality of evidence



Glucose control

Recommendation

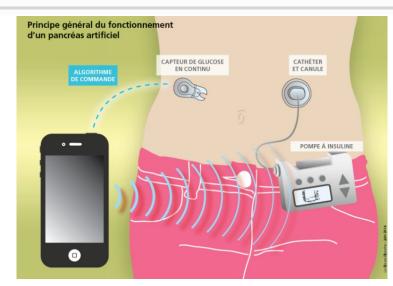
69. For adults with sepsis or septic shock, we **recommend** initiating insulin therapy at a glucose level of ≥ 180 mg/dL (10 mmol/L)

Strong recommendation; moderate quality of evidence

Remark

Following initiation of an insulin therapy, a typical target blood glucose range is 144–180 mg/dL (8–10 mmol/L)





 La gestion électronique du glucose, la surveillance continue du glucose et les systèmes en boucle fermée, peuvent permettre d'obtenir de manière plus sûre un meilleur contrôle glycémique et des taux plus faibles d'hypoglycémie.



Vitamin C

Recommendation

70. For adults with sepsis or septic shock, we suggest against using IV vitamin C

Weak recommendation, low quality of evidence



Bicarbonate therapy

Recommendations

71. For adults with septic shock and hypoperfusion-induced lactic acidemia, we **suggest against** using sodium bicarbonate therapy to improve haemodynamics or to reduce vasopressor requirements Weak recommendation, low quality of evidence

72. For adults with septic shock, severe metabolic acidemia (pH \leq 7.2) and AKI (AKIN score 2 or 3), we **suggest** using sodium bicarbonate therapy Weak recommendation, low quality of evidence



Sodium bicarbonate therapy for patients with severe metabolic acidaemia in the intensive care unit (BICAR-ICU): a multicentre, open-label, randomised controlled, phase 3 trial

Samir Jaber, Catherine Paugam, Emmanuel Futier, Jean-Yves Lefrant, Sigismond Lasocki, Thomas Lescot, Julien Pottecher, Alexandre Demoule, Martine Ferrandière, Karim Asehnoune, Jean Dellamonica, Lionel Velly, Paër-Sélim Abback, Audrey de Jong, Vincent Brunot, Fouad Belafia, Antoine Roquilly, Gérald Chanques, Laurent Muller, Jean-Michel Constantin, Helena Bertet, Kada Klouche, Nicolas Molinari, Boris Jung, for the BICAR-ICU Study Group*



Nutrition

Recommendation

73. For adult patients with sepsis or septic shock who can be fed enterally, we **suggest** early (within 72 h) initiation of enteral nutrition

Weak recommendation; very low quality of evidence

Editorial

NUTRIREA-2 trial finds that early enteral nutrition and early parenteral nutrition do not differ with regards to major clinical outcomes

Feng Tian1,2, Gordon S. Doig1

³Intensive Care Research Unit, Northern Clinical School, Royal North Shore Hospital, University of Sydney, Australia; ²Research Institute of General Surgery, Jinling Hospital, Medical School of Nanjing University, Nanjing 210093, China

Correspondence to: Gordon S. Doig. Intensive Care Research Unit, Northern Clinical School, Royal North Shore Hospital, University of Sydney, Pacific Hwy, St. Leonards, Sydney, NSW 2065, Australia. Email: gdoig@med.usyd.edu.au.

Provenance: This is an invited Editorial commissioned by Section Editor Dr. Ming Zhong (Department of Critical Care Medicine, Zhongshan Hospital Fudan University, Shanghai, China).

Comment on: Reignier J, Boisramé-Helms J, Brisard L, et al. Enteral versus parenteral early nutrition in ventilated adults with shock: a randomised, controlled, multicentre, open-label, parallel-group study (NUTRIREA-2). Lancet 2018;391:133-43.

- -Dans les 72 heures suivant l'admission aux soins intensifs. Le comparateur était la nutrition entérale commencée après 72 heures.
- 44 unités de soins intensifs françaises a randomisé 2 410 patients sous ventilation mécanique invasive en état de choc entre une nutrition entérale précoce et une nutrition parentérale précoce.

Objectifs du traitement

Goals of care

Recommendations

74. For adults with sepsis or septic shock, we **recommend** discussing goals of care and prognosis with patients and families over no such discussion

Best Practice Statement

75. For adults with sepsis or septic shock, we **suggest** addressing goals of care early (within 72 h) over late [72]

Weak recommendation, low-quality evidence

76. There is **insufficient evidence to make a recommendation** for any specific standardised criterion to trigger goals of care discussion



Recommendations

77. For adults with sepsis or septic shock, we **recommend** integrating principles of palliative care (which may include palliative care consultation based on clinician judgement) into the treatment plan, when appropriate, to address patient and family symptoms and suffering

Best Practice Statement

78. For adults with sepsis or septic shock, we **suggest against** routine formal palliative care consultation for all patients over palliative care consultation based on clinician judgement Weak recommendation, low-quality evidence

Peer support groups

Recommendation

79. For adult survivors of sepsis or septic shock and their families, we **suggest** referral to peer support groups over no such referral

Weak recommendation, very low quality of evidence



Transitions of care

Recommendations

- 80. For adults with sepsis or septic shock, we **suggest** using a handoff process of critically important information at transitions of care, over no such handoff process Weak recommendation, very low-quality evidence
- 81. There is **insufficient evidence to make a recommendation** for the use of any specific structured handoff tool over usual handoff processes

Screening for economic or social support

Recommendation

82. For adults with sepsis or septic shock and their families, we **recommend** screening for economic and social support (including housing, nutritional, financial, and spiritual support), and make referrals where available to meet these needs

Best Practice Statement

Sepsis education for patients and families

Recommendation

83. For adults with sepsis or septic shock and their families, we **suggest** offering written and verbal sepsis education (diagnosis, treatment, and post-ICU/post-sepsis syndrome) prior to hospital discharge and in the follow-up setting

Weak recommendation, very low-quality evidence

Shared decision making

Recommendation

84. For adults with sepsis or septic shock and their families, we **recommend** the clinical team provide the opportunity to participate in shared decision making in post-ICU and hospital discharge planning to ensure discharge plans are acceptable and feasible

Best Practice Statement

Post-discharge follow-up

Recommendations

- 91. For adult survivors of sepsis or septic shock, we **recommend** assessment and follow-up for physical, cognitive, and emotional problems after hospital discharge

 Best Practice Statement
- 92. For adult survivors of sepsis or septic shock, we **suggest** referral to a post-critical illness follow-up programme if available

 Weak recommendation, very low-quality evidence
- 93. For adult survivors of sepsis or septic shock receiving mechanical ventilation for > 48 h or an ICU stay of > 72 h, we **suggest** referral to a post-hospital rehabilitation programme Weak recommendation, very low-quality evidence

Recommendations

88. For adults with sepsis or septic shock who developed new impairments, we **recommend** hospital discharge plans include follow-up with clinicians able to support and manage new and long-term sequelae

Best Practice Statement

89. There is **insufficient evidence to make a recommendation** on early post-hospital discharge follow-up compared to routine post-hospital discharge follow-up

What matters most to sepsis survivors: a qualitative analysis to identify specific health-related quality of life domains

Christian König a,b , Bastian Matt a , Andreas Kortgen a , Alison E. Turnbull c,d,e , and Christiane S. Hartog a,b

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^cOutcomes After Critical Illness and Surgery (OACIS) Group, Johns Hopkins University, Baltimore, MD, USA

^dDivision of Pulmonary and Critical Care Medicine, School of Medicine, Johns Hopkins University, Baltimore, MD

^eDepartment of Epidemiology, Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD

Cognitive therapy

Recommendation

90. There is **insufficient evidence to make a recommendation** on early cognitive therapy for adult survivors of sepsis or septic shock

LES POINTS FORTS

- Questions sélectionnées suite à une évaluation internationale des pratiques et des incertitudes.
 PICO s'interroge sur les résultats à long terme
- Utilisation du cadre « Evidence to Decision » comme outil transparent et système structuré de formulation de recommandations
- Ventilation : OHD
- PICCO
- Le post spsis

CONCLUSIONS

« Survivre au sepsis » est possible ... à condition d'agir juste et à temps...

MERCI

