





SIS							
Chair - Congress Committee	10/23	10/25	LEONE	Marc	France	marc.leone@ap-hm.fr	
Chair - Elect	10/25	10/27	Russel	Lene	Denmark	lene.russell@mail.dk	
Research Committee	12/22	10/24	David	Sascha	Switzerland	sascha.david@usz.ch	
Social Media Committee	10/23	10/25	Gavrilovic	Srdjan	Serbia	<pre>srdjan_gavrilovic@yahoo.com</pre>	
e-Learning Committee	10/23	10/25	Damiani	Elisa	Italy	elisa.damiani@univpm.it	
CTC Committee	10/23	10/25	Domizi	Roberta	Italy	robertadomizi@gmail.com	

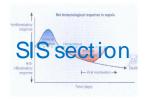
## Massimo Girardis, Benjamin Chousterman, Matthia Mueller















## Next Chair: Lene Russell

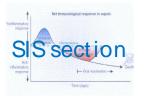












# Lives 2024



## Thematic sessions (3 + 1 slots)

The septic patient at the bedside	What is a dysfunctional host response?
Room 112 Thematic Session	Thematic Session
Moderator:	Moderator:
E. Damiani (Ancona, Italy), G. Hernandez (Santiago, Chile) Monday 7, 8h40	J. Helms (Strasbourg), M. Leone (Marseille) Monday 7, 10h40
08:40	•10:40
Clinical examination of my septic patientM. Leone (Marseille)	<ul> <li>The clinical picture: symptoms of a dysregulated host syndromeC. Dos</li> </ul>
09:00	Santos (Toronto, Canada)
Body temperature control in sepsis: is it so critical?N. Juffermans (Amsterdam, Netherlands)	•11:00
09:20	•The uncontrolled immune responseM. Shankar-Hari (London, United Kingdom)
Is my septic patient immunosuppressed or hyper-inflammed?D. Annane (Garches)	•11:20
09:40	•A vasculocentric view: from endothelium to coagulopathyS. David (Zurich, Switzerland)
Thrombocytopenia in sepsis: how to manage?L. Russell (Hellerup, Denmark)	•11:40
	•Metabolism: no life without energyC. Bode (Bonn, Germany)

#### Candida in sepsis: Actor or just bystander? Thematic Session Moderator: L. Russell (Hellerup, Denmark), J.-F. Timsit (Paris) •09:40 •Let's define invasive Candidasis!G. De Pascale (Roma, Italy) •10:00 •Immune response and candida infectionS. David (Zurich, Switzerland) •10:20 •Should we treat intra-abdominal candida infection?M. Leone (Marseille) •10:40 •PK/PD for antifungals are also important! D. Koulenti (London, United Kingdom)

#### Organ failure in sepsis

Thematic Session Moderator: L. Russell (Hellerup, Denmark), R. Ferrer (Barcelona, Spain) •17:10 •SOFA 2.0! My score... years laterJ.-L. Vincent (Brussels, Belgium) •17:30 •A common chief mechanism of failure for all organsL. Derde (Utrecht, Netherlands) •17:50 •Tissue damage and toleranceM. Girardis (Modena, Italy) •18:10 •Coagulopathy and DIC: symptom or cause of worse outcomeN. D. Nielsen (Albuquerque, United States of America)

## Goal: maximize the number of attendees

## More members are expected

## Debates (2 + 1 slots)

Can I use anti-microbials without knowledge about pharmacokinetics? Debate Monday 7, 14h40 Moderator: M. Mer (Johannesburg, South Africa), J. Lipman (Brisbane, Australia) Debate interventionL. De Bus (Ghent, Belgium), C. McKenzie (Southampton, United Kingdom), H. Bracht (Ulm, Germany), M. Leone (Marseille) How to personalise adjunctive therapy in sepsis at the bedside? Debate Moderator: Tuesday 8, 8h30

Moderator: L. Russell (Hellerup, Denmark), M. Leone (Marseille) Debate interventionS. Einav (Jerusalem, Israel), I. Martin-Loeches (Dublin, Ireland), R. Ferrer (Barcelona, Spain), D. Annane (Garches)

#### Haemodynamic optimisation in septic shock: Target tissue perfusion

Tuesday 8. 9h20

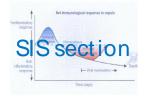
E. Damiani (Ancona, Italy), M. Girardis (Modena, Italy) Objectives :Experts discuss their targets at the bedside in patients with septic shock

•09:20

Debate

Moderator:

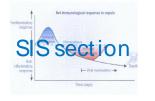
•Debate interventionO. Hamzaoui (*Reims*), F. R. Machado (*São Paulo, Brazil*), A.-C. Lukaszewicz (*Lyon*), G. Hernandez (*Santiago, Chile*)





# **Research Comittee**











# Social Media and Digital Content Committee

Srdjan Gavrilovic, MD, PhD ESICM SIS Section Representative

### Social Media and Digital Content Committee

Last updated : 02/10/2024 - 22 views

The members of the Social Media and Digital Content Committee are :



Katia Donadello, Italy Chairperson of the Social Media and Digital Content Committee

#### Nominated members:

- Segun Olusanya, United Kingdom
- Nicolas Lim, Ireland
- Marta Velia Antonini, Italy
- Bianca Morosanu, Romania

#### Sections' Representatives:

- AKI: Caroline Newmann, Germany
- · APM: Emmanuel Pardo, France
- ARF: Mariachiara Ippolita, Italy
- CD: Christopher Lai, France
- **DS**: TBA
- ETH: Andre Ortiz Suñer, Spain
- FREM: Kristine Koekkoek, Belgium
- HSRO: Anne-François Rousseau, Belgium
- INF: Gennaro De Pascale, France
- NIC: Carolina laquaniello, Italy
- SIS: Srdjan Gavrilovic, Serbia
- TEM: Tommaso Squizzato, Italy
- TransBio: Elena Chiodaroli, Italy

#### N&AHP Committee Representative: Elena Conoscenti, Italy

#### NEXT Committee Representatives:

- Margarita Borislavova, Bulgaria
- Ana-Maria Ioan, Spain
- Elena Sancho Ferrando, Spain

#### Led by



Katia Donadello, Italy

Chairperson of the Social Media and Digital Content Committee

#### Sections' Representatives:

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- INF: Gennaro De Pascale, France
- NIC: Carolina Iaquaniello, Italy
- SIS: Srdjan Gavrilovic, Serbia
- TEM: Tommaso Squizzato, Italy
- TransBio: Elena Chiodaroli, Italy

# Paper of the month

• Thank you Sascha and Mattia!





## Hydrocortisone plus fludrocortisone for community acquired pneumonia-related septic shock: a subgroup analysis of the APROCCHSS phase 3 randomised trial

Nicholas Heming et al. Lancet Respiratory Medicine, 2024

#### **RESEARCH AIM**

To investigate the effect of hydrocortisone + fludrocortisone on 90-day mortality among septic patients with and without community-acquired pneumonia (CAP).

#### BACKGROUND

Severity of CAP is often related to the intensity of inflammatory response.

The **CAPE COD** trial showed a **decreased 28-days mortality** in patients with CAP without shock receiving hydrocortisone<sup>1</sup>.

The **APROCCHSS trial** revealed that hydrocortisone in combination with fludrocortisone **lowered 90-day mortality by 6%** in heterogenous ICU patients with septic shock<sup>2</sup>.

This subgroup analysis of the APROCCHSS trial investigates the impact of hydrocortisone with fludrocortisone on a more homogenous cohort of septic shock patients with or without CAP.

#### METHODS

**Design:** A priori subgroup analysis of the phase 3 randomized APROCCHSS trial.

**<u>Population</u>**: Adult patients (>18 years of age) with septic shock

**Intervention:** Hydrocortisone 50 mg iv. every 6 h + fludrocortisone 50  $\mu$ g via a nasogastric tube once daily.

#### Subgroups:

CAP vs. non-CAP, ARDS vs. non-ARDS

#### Primary outcome:

90-days all-cause mortality

Secondary outcomes: Mortality at ICU discharge, hospital discharge, and at 28and 180-days. Organ support-, organ failure-, hospital- and ICU-free days.

**<u>Statistic</u>**: Interaction between subgroups were assessed with logistic regression for odds ratio (OR) and a generalized linear binomial model for risk difference.

#### RESULTS

1241 patients, from 34 centres in France were enrolled (September 2008 to June 2015): 562 with CAP, 648 without CAP, 31 without any classification.

#### 90-day mortality:

Placebo	Treatment	OR (95%CI)	Placebo	Treatment	OR (95%Cl)	p values mult. int.*	p values addit. int.**
With CAP (n=562)		Without	CAP (n=648)				
143/279 (51%)	109 /283 (39%)	0.60 (0.43-0.83)	157/329 (48%)	148/319 (46%)	0.95 (0.70-1.29)	0.046	0.046
With ARDS	(n=648)		Without	ARDS (n=578)			
186/328 (57%)	155/320 (48%)	0.72 (0.53-0.98)	115/288 (40%)	105/290 (36%)	0.85 (0.61-1.20)	0.045	0.042
With CAP,	without ARDS	(n=215)	Without	CAP, without	ARDS(n=346)		
43/106 (41%)	31/109 (28%)	0.58 (0.33-1.03)	68/174 (39%)	68/172 (40%)	1.02 (0.66-1.57)	0.124	0.130

\*multiplicative interaction, \*\* additive interaction

#### Secondary endpoints:

**Reduced mortality** in septic CAP patients treated with hydrocortisone and fludrocortisone (OR with 95% CI) at:

- Day 28: 0.61 (0.43-0.87)
- Day 180: 0.59 (0.42-0.83)
- ICU discharge: 0.64 (0.46-0.90)
- Hospital discharge: 0.62 (0.44-0.87)

No significant differences between treatment and placebo group among patients with CAP for vasopressor-, organ failure-, ventilator-, ICU- and hospital-free days.

#### SIS COMMENTS

This post hoc analysis of the APROCCHSS trial<sup>3</sup> evaluated the effects of hydrocortisone + fludrocortisone in septic shock patients with and without CAP, highlighting their potentially beneficial impact on both short- and long-term survival. The differential effects on mortality in CAP vs non-CAP septic patients underscores the nuanced responses of different sepsis subpopulations to immunomodulatory treatments.

A dysregulated host response to infection has been increasingly appreciated as the pathophysiological hallmark of the syndrome, making its modulation an appealing therapeutic target. However, huge heterogeneity with regard to factors related to both the wide spectrum of pathogens and the individual host response makes this extremely challenging; many trials using unstratified patients with sepsis have been negative. Therefore, the Surviving Sepsis Campaign guidelines have been cautious to recommend corticosteroids primarily for treating refractory shock rather than as a broad anti-inflammatory treatment in the initial management of sepsis<sup>4</sup>.

Recent studies, such as the CAPE COD trial<sup>1</sup>, have focused on a more homogeneous entity of CAP, yielding much more promising results. The CAPE COD trial showed a 6% mortality reduction in 800 ICU-admitted CAP patients. These findings are in line with the results from COVID-19 mega-trials (RECOVERY). The biggest difference lies in the fact that those researchers have investigated a unique disease compared to the sepsis *syndrome*.

This post hoc analysis of the APROCCHSS trial now demonstrated that the beneficial effect of steroids in CAP holds true if the disease has progressed to septic shock. Obviously, the trial's design does not allow us to conclude whether the improvement is due to local anti-inflammatory effects on the side of the pneumonia or the disruption of systemic inflammatory processes, thereby reducing the risk of multiorgan failure in sepsis. Clarifying whether corticosteroids primarily preserve pulmonary function or act as a protective agent against systemic multiorgan failure could influence the consideration of steroid application in other sepsis subpopulations.

Further research is essential to address these questions and better understand the role of anti-inflammatory agents in sepsis management. Nonetheless, drawing from the evidence accumulated through this and prior studies, we believe that corticosteroids should be considered an essential part of the treatment regimen for critically ill patients with CAP.

- 1. Dequin et al. Hydrocortisone in Severe Community-Acquired Pneumonia. The New England Journal of Medicine, 2023.
- 2. Annane et al. Hydrocortisone plus Fludrocortisone for Adults with Septic Shock. The New England Journal of Medicine, 2018
- 3. Heming et al. Hydrocortisone plus fludrocortisone for community acquired pneumonia-related septic shock: a subgroup analysis of the APROCCHSS phase 3 randomised trial. The Lancet Respiratory Medicine, 2024.
- 4. Evans et al. Surviving Sepsis Campaign: International Guidelines for Man



al Care Medicine, 2021



# Aw: [EXTERN] Re: paper of the month - ESICM SIS section

Dear all,

Please accept my apologies for the delay. We will publish your work on the section page. We will also announce it on social media.

We hope that your work will engage more section to do the same.

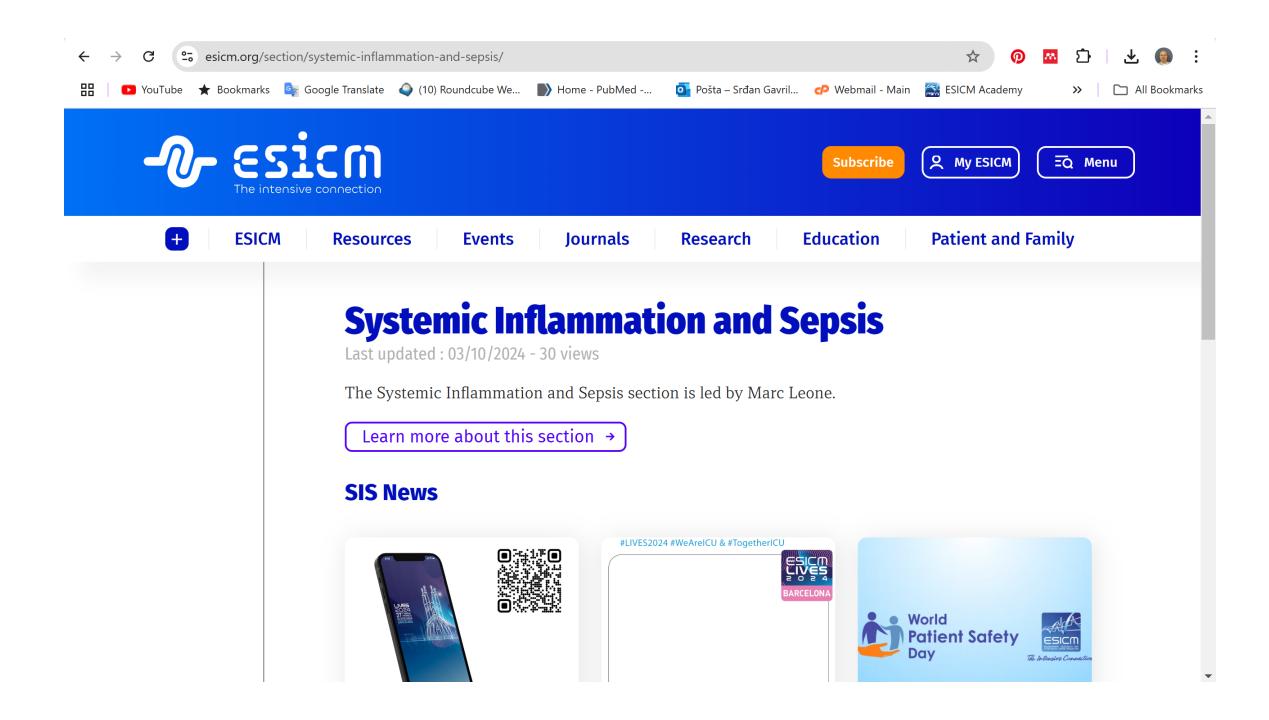
Thanks a lot for your work

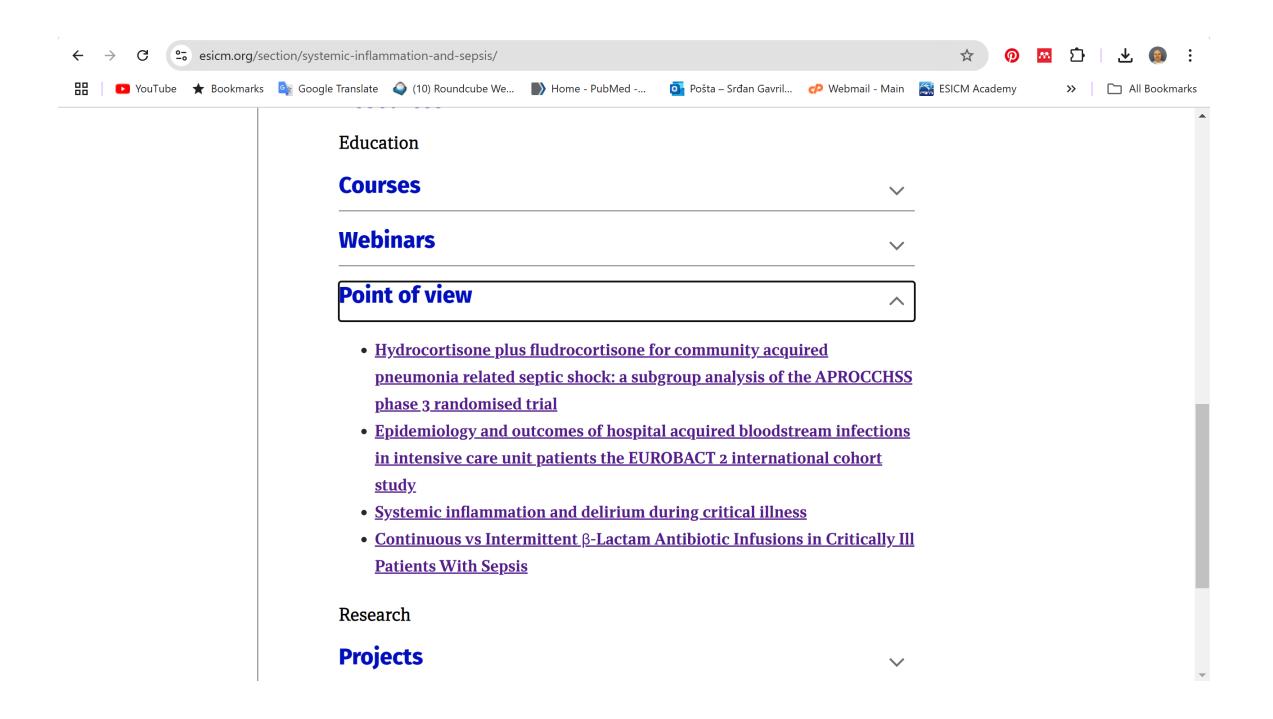




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# We hope that your work will engage more section to do the same.





## **SUMMER OVERVIEW – WEBINARS & PODCAST**



SIS webinar 24 October, 16:00 – 17:00 CEST Sepsis: Back to Basics

## **VOICES webinar**

5 October, 12:00 – 16:30 CEST (LIVES 2024) Voices of ICU survivors: An ESICM-SCCM initiative

## SIS podcast 16 October, 09:00 CEST

ANDIOLOL AND ORGAN FAILURE IN PATIE

WITH SEPTIC SHOCK: TRESS-L RANDOMIZED CLINICAL TH

MARCHE POLYTEDINIC

POWERED BY

INVERSITY OF BIRMINGEAM

Landiolol and Organ Failure in Patients With Septic Shock: The STRESS-L Randomized Clinical Trial

VITAL webinar 17 October, 16:00 – 17:00 CEST





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POWERED BY



TONY WHITEHOUSE UNIVERSITY OF BIRMINGHAM. **BIRMINGHAM, UK** 

**ELISA DAMIANI** AHMED ZAHER MARCHE PODYTEDHNEC OXFORD UNIVERSITY HOSPITALS. UNIVERSITY, ANCONA, ITAL?

ESIC

## **DXFORD, UK**

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SIS podcast 16 October, 09:00 CEST

Landiolol and Organ Failure in **Patients With Septic Shock: The** STRESS-L Randomized Clinical Trial

## SIS webinar 24 October, 16:00 – 17:00 CEST Sepsis: Back to Basics

title: Sepsis: Back to Basics

1.Introduction (3 min) by the moderators: Srdjan Gavrilovic & Roberta Domizi

2.Speaker 1: Sascha David(15 min) Topic 1: Vascular phenotype in sepsis

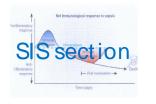
3.Speaker 2: Benjamin Chousterman(15 min) Topic 2: Sepsis induced cardiomyopathy

4.Speaker 3 : Lene Russell(15 min) topic 3: Sepsis induced immune suppression

5.(12 min) Q&A Managed by the moderators via Whatsapp

# Future plans

- Podcast with dr Richard Hotchkiss!
  - Podcast about immunity in the critically ill patient
- Thank you Elisa!
- Promoting all the great things SIS section is doing!



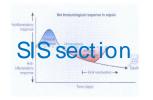






# Report from the E-LEARNING COMMITTEE

Elisa Damiani



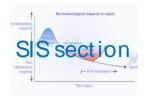
## **ESICM Academy – ACE Courses update**

## **SICM LIVES** BARCELONA

## https://academy.esicm.org/

• 8 ACE Courses for the SIS section

ACE Courses	Authors of original version	Authors for the update		
Immunocompromised patients Part I	Folarin Sogbetun,Nathan D. Nielsen,Nishith Mewada,Olufisayo Otusanya	Irene Coloretti		
Immunocompromised patients Part II	Folarin Sogbetun,Nathan D. Nielsen,Nishith Mewada,Olufisayo Otusanya	Luis Silvestre Chiscano		
Immunocompromised patients Part III	Folarin Sogbetun,Nathan D. Nielsen,Nishith Mewada,Olufisayo Otusanya	Rea Andermatt		
Immunocompromised patients Part IV	Folarin Sogbetun,Nathan D. Nielsen,Nishith Mewada,Olufisayo Otusanya	Benjamin Chousterman		
Sepsis and Septic Shock Part I	Frank Bloos,Xavier Wittebole	Frank Bloos, Xavier Wittebole		
Sepsis and Septic Shock Part II	Francisco Chacon Lozsan, Jaume Mesquida	Francisco Chacon Lozsan, Jaume Mesquida		
Sepsis and Septic Shock Part III	Diego Bastos Porto,Carlos Enrique A. Orellana-Jimene	Diego Bastos Porto		
Sepsis and Septic Shock Part IV	Ligia Pires,Lene Russel	Stefano Busani		

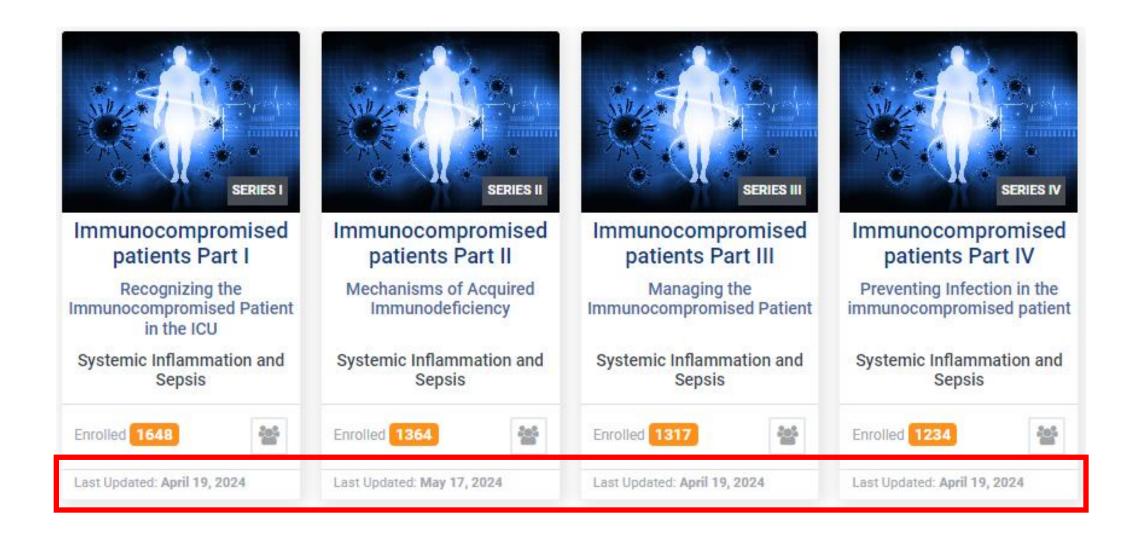


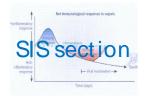
## ESICM Academy – ACE Courses update

**BARCELON** 

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https://academy.esicm.org/





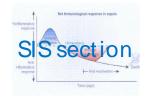
## ESICM Academy – ACE Courses update

**BARCELON** 

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https://academy.esicm.org/



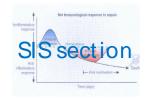


## «Meet the ACE courses authors»



- Presentations of some ACE Courses by some ESICM Academy authors
- Where: NAHP Lounge
- When: Monday 9 -9:40 a.m. Tuesday 9 - 10 a.m. Wednesday 9:40 -10:40 a.m

Everyone is welcome to participate!



## **Contribution to ESICM Podcasts**

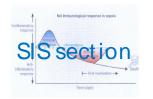
- «The STRESS-L trial: interview to the first author»
- Contributors:
  - Ahmed Zaher (NEXT Committee)
  - Elisa Damiani (SIS section)
  - Tony Whitehouse (first author)
- Goal: to discuss the results, limitations and controversial aspects of the STRESS-L trial and analyze the implications for clinical practice and future research

Reference Constants

## October 25, 2023

## Landiolol and Organ Failure in Patients With Septic Shock The STRESS-L Randomized Clinical Trial Tony Whitehouse, MD<sup>1,2</sup>; Anower Hossain, PhD<sup>3</sup>; Gavin D. Perkins, MD<sup>1,3</sup>; et al > Author Affiliations | Article Information

JAMA. 2023;330(17):1641-1652. doi:10.1001/jama.2023.20134



## **Contribution to ESICM Podcasts**

Future projects:

• Interview to Prof. Ashish Kumar Khanna on «The multimodal approach to vascular failure in sepsis»

 Interview to Prof. Richard Hotchkiss on «The history of immunosuppression in sepsis» → Webinar?











# ESICM Education strategy insights CTC



Representative for SIS section in the CTC Monthly meetings:

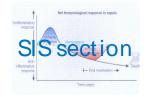
- A. Annual planning for educational activities
  - Stress on the role of the section representatives to link and communicate between CTC and the section
  - New ideas and suggestions for future events and courses
  - Focus on learning pathways and virtual courses
- B. Implementation of Clinical Fellowships
- C. Feedback on educational activities as observers (format, methodology...)

# Planning of 2024 educational activities



RCELON

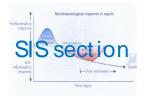
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DN 2024	Format	Dec 2023	Jan	Feb	Mar	Apr	May	Jun	Jul/Aug	BA
DATION COURSE IN HAEMODYNAMICS	Online	5-6								
AGUE	Face to face			5-6						
frica Conference - Cairo	Face to face			8-11						
& SEVERE INFECTIONS	Online			22-23						
PREP COURSE	Online			27						
ff webinar AMS	TV channel			28						
hematic session 1	Online				8					
online Clinical Case ( 1 day course)	Online				13					
DATION COURSE IN ECLS/ECMO	Online				14-15					
D Brussels	Face to face				22					
EXAM	Online					2				
hematic session 2	Online					5				
DATION COURSE IN ARF&MV	Online					09-10				
al live online training (VICTORIA Study)	Online					15				
charest	Face to face					8-9				
PREP COURSE	Online					16				
GA	Face to face					17-18				
CF ATHENS	Face to face					22-23-24				
TION IN CRITICAL ILLNESS	Online					24-25				
SITION COURSE IN HAEMODYNAMICS	Online						2-3			
hematic session 3	Online						3			
Exam	Online						7-8			
led, Marrakech	Face to face						15-18			
t Safety Live Session 1	Online						23			
. REPLACEMENT THERAPY IN ICU	Online						27-28			
Monothematic session	Online						29			
Forum - Istanbul	Face to face						30-31	1		
- Autumn 2024 registrations	Online							TBC		
t Safety Live Session 2	Online							6		
ER COURSE IN ECLS/ECMO	Online							11-12		
ENNA	Face to face							14-15		
t Safety Live Session 3	Online							20		
sia, Bengaluru	Face to face							21-23		
SHOP FOR EDUCATORS	Online							21		
SITION COURSE IN ARF&MV	Online							27-28		
- Autumn 2024 registrations t Safety Live Session 2 ER COURSE IN ECLS/ECMO ENNA t Safety Live Session 3 sia, Bengaluru SHOP FOR EDUCATORS	Online Online Online Face to face Online Face to face Online						30-31	TBC 6 11-12 14-15 20 21-23 21		



## **SICM LIVES** BARCELONA

## **Sepsis and Severe Infections**

	Excellent	Good	Fairly good	Poor	Very poor
Programme content					
Educational methodology					
and resources					
Participants' interaction					
Faculty support					
Organisation					
Other comments		•	•	•	-





# Pre-recorded topics in VODs and Webinairs

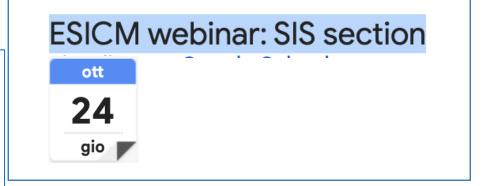
## EFFECT OF IMMUNOMODULATION ON THE MICROCIRCULATION AND ORGAN PERFUSION IN SEPSIS

Roberta Domizi, MD, PhD

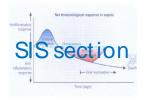
Università Politecnica delle Marche

Clinic of Anaesthesia and Intensive Care – AOU delle Marche

SIS (Systemic Inflammation and Sepsis) Section ESICM

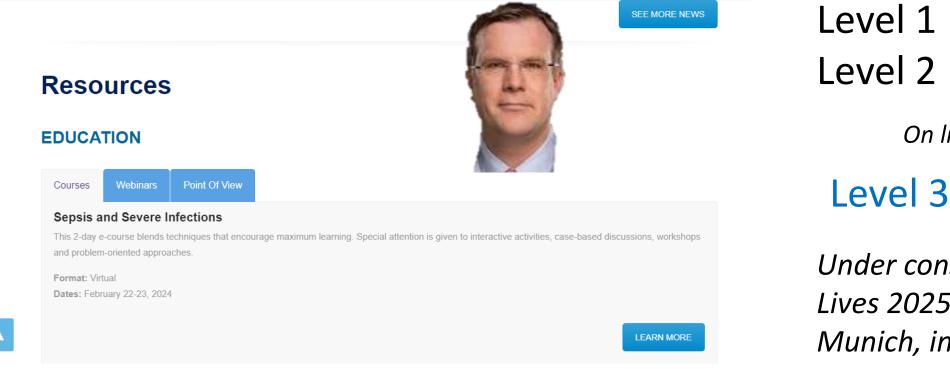






# **Education**

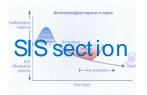




# On line activities evel 3

Under construction Lives 2025 Munich, in presence Case, experiments, guidelines

## SIS / ID section – Hendrik Bracht



## Education



Girardis, G., David, S., Ferrer, R., et al. Understanding, assessing and treating immune, endothelial and haemostasis dysfunctions in bacterial sepsis. Intensive Care Med 2024 https://doi.org/10.1007/s00134-024-07586-2

#### Potential targets for sepsis include:

- Steroids that blunt hypo-inflammatory response
- Albumin that stabilizes endothelial surface layer
- Complement inhibitors that favor procoagulant effects
- o Checkpoint inhibitors that modulate excessive cytokine production

EXPLANATION: in sepsis, steroids are used to blunt hyperinflammatory response and not hypo-inflammatory response. Albumin restores blood pressure and is an endothelial surface layer stabilizer. Complement inhibitors prevent procoagulant effects of the cross-talk between complement and the haemostatic system while checkpoint inhibitors modulate cytokine production.

Quizz

· Epidemiology and outcomes of hospital acquired bloodstream infections in intensive care unit patients the EUROBACT 2 international cohort study

Point Of View

RELANCIAN	METHODE		
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Resources

EDUCATION



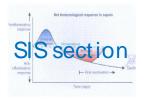
Leone, M., Nielsen, D.N., Russell, L. Ten tips on sepsis-induced thrombocytopenia. Intensive Care Med 50:1157-1160, 2024. https://doi.org/10.1007/s00134-024-07478-5

QUIZ #2 - SIS

#### My septic patient with a low platelet count:

- It is a rare event in sepsis
- Platelets interact with immune system
- The risk of thrombosis is excluded
- Platelets transfusion is recommended if < 150,000/µL</li>

EXPLANATION: in sepsis, thrombocytopenia is a frequent event. Platelets interact with immune and complement systems and thrombocytopenia does not exclude a thrombosis risk. The indication for platelets transfusion in sepsis is debated, except for invasive













# **Publications**

## **Norepinephrine dosage**



#### FEATURE ARTICLES

#### Position Paper on the Reporting of **Norepinephrine Formulations in Critical** Care from the Society of Critical Care Medicine and European Society of Intensive Care Medicine Joint Task Force

**OBJECTIVES:** To provide guidance on the reporting of norepinephrine formulation labeling, reporting in publications, and use in clinical practice.

DESIGN: Review and task force position statements with necessary guidance.

SETTING: A series of group conference calls were conducted from August 2023 to October 2023, along with a review of the available evidence and scope of the problem.

SUBJECTS: A task force of multinational and multidisciplinary critical care experts assembled by the Society of Critical Care Medicine and the European Society of Intensive Care Medicine.

INTERVENTIONS: The implications of a variation in norepinephrine labeled as conjugated salt (i.e., bitartrate or tartrate) or base drug in terms of effective concentration of norepinephrine were examined, and guidance was provided.

MEASUREMENTS AND MAIN RESULTS: There were significant implications for clinical care, dose calculations for enrollment in clinical trials, and results of datasets reporting maximal norepinephrine equivalents. These differences were especially important in the setting of collaborative efforts across countries with reported differences.

CONCLUSIONS: A joint task force position statement was created outlining the scope of norepinephrine-dose formulation variations, and implications for research, patient safety, and clinical care. The task force advocated for a uniform norepinephrine-base formulation for global use, and offered advice aimed at appropriate stakeholders.

KEYWORDS: hypotension; norepinephrine; patient safety; research methods; shock; vasopressor

orepinephrine (also named noradrenaline), a catecholamine vasopressor, is ubiquitous in contemporary critical care practice. This agent is recommended by the Surviving Sepsis Campaign as a firstline vasopressor and most providers report using this agent for the correction of hypotension in septic shock (1-4). Although mortality rates from septic shock have improved, the global incidence is rising (5), increasing the usage of norepinephrine in ICUs across the world. The impact of norepinephrine in critical care practice was evident when septic shock in-hospital mortality

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Norepinephrine Norepinephrine ma/m mg/ml technical technic 0.2 mcg/kg/min 0.2 mcg/kg/min norepinephrine base norepinephrine tartrat (equivalent to (equivalent to 0.1 mcg/kg/min base 0.4 mcg/kg/min tartrate) Norepinephrine 1 ma/ml Norepinephrine 1 mg/ml Each 1 ml of solution contains Each 1 ml of solution contains 1 mg of norepinephrine tartrate, equivalent to 0.5 mg of equivalent to 2 mg of norepinephrine base norepinephrine tartrate

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# **Publications**

## **Refractory septic shock**





Joint SCCM/ESICM position statement on the definition of refractory septic shock



Hariyali Patel, MHA

#### **ESICM** members



Marc Leone MD PhD Michelle Chew MD PhD

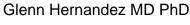


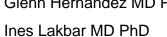
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OF

# Elio Antonuccia, Tania Poloa, Manuela Giovinia, Massimo Girardisb, Ignacio Martin-Loechesc,

Contents lists available at ScienceDirect Journal of Critical Care

## Pre-final version

## **ESICM / SCCM councils**

## Publication ICM February

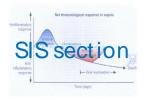


The Intensive Care Professionals

Societyof Critical Care Medicine

Refractory septic shock and alternative wordings: A systematic review of literature

Nathan D. Nielsen<sup>d</sup>, Francisco José Chacón Lozsán<sup>e</sup>, Ricardo Ferrer<sup>f</sup>, Ines Lakbar<sup>g</sup>, Marc Leone<sup>g</sup>,



**Publications** 



# Consensus definition of body temperature alterations

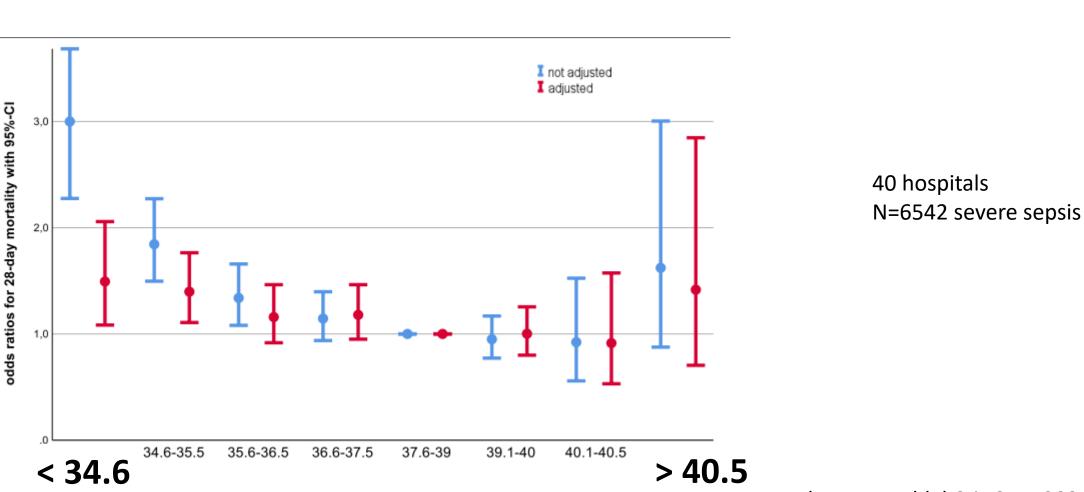
Nicole Juffermans

Erasmus Medical Center, Rotterdam, the Netherlands





# Association of body temperature with mortality in patients with sepsis



Thomas-Ruddel Crit Care 2021

BARCELON



Survey on clinical management: do you treat fever in sepsis patients?



# Always/most of the time 67%



### Never/rarely/sometimes 33 %



Niven, Crit Care 2013



Survey on clinical management: do you rewarm hypothermic sepsis?

# Always/most of the time 75 %

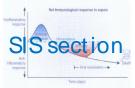


### Never/sometimes 25 %

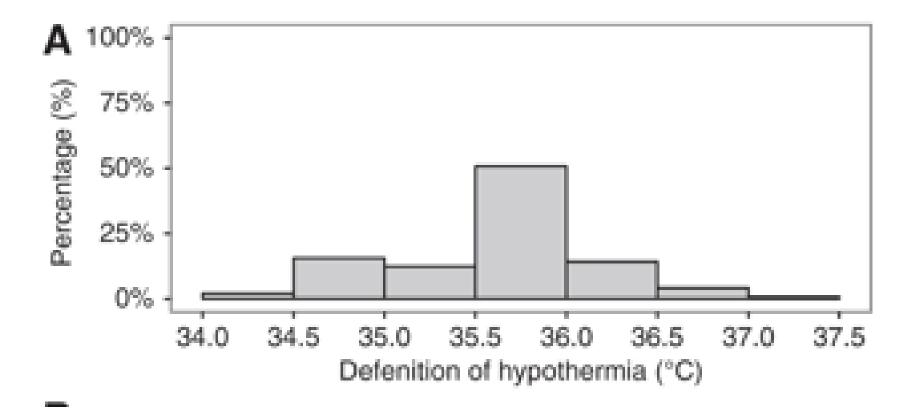


Harmon, Ther Hypother 2020





## Sissection Survey on management: when would you call it hypothermia?



2 BARCELON

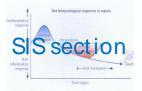
Harmon, Ther Hypother 2020





# To provide definitions of body temperature alterations in sepsis:

- cut-off temperature values
- methodology of measurement.





### Project group under MOU between societies BARCELONA

- Marc Leone (SIS)
- Andrew Conway (INF)
- Sharon Einav (Meth)
- Stijn Blot (NAHP)
- Laura Borgstedt (NEXT)
- Nicole Juffermans (co-chair)



- Dan Sweeney
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- Samantha Gambles-Farr
- Kelly Cawcutt
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- Ryan Maves (co-chair)



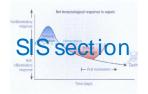
The Intensive Care Professionals



### Methods



- use data from registries for cut off points
- construct data-driven Delphi questions
- complete Oct 2025
- we need you in the expert panel !









### **Publications**



Monitoring of the immune response



### **Publications**



### Monitoring of the immune response

### Monitoring·of·the·immune·response·in·patient·with· sepsis:·state-of-the-science·and·consensus.¶

This document (Project) aims to define and provide statements, based on literature evidence and expert advice, for the most appropriate and feasible bedside method for monitoring the immune response in septic and septic shock patients. Implementing immune monitoring may help to evaluate and interpret clinical sepsis course and patient risks, representing a significant step toward a personalised approach to sepsis therapy.

#### 2. QUESTIONS (PICOs)

#### Target·population·¶

Patients·admitted·to·ICU·with·sepsis·or·septic·shock·from:

 $a) \rightarrow Community - acquired \cdot infections, \cdot commonly \cdot caused \cdot by \cdot microorganisms \cdot without \cdot resistances \cdot to \cdot antibiotics, \cdot with \cdot abrupt \cdot and \cdot dy sregulated \cdot hyperinflammatory \cdot response, \cdot as \cdot for \cdot instance \cdot invasive \cdot pneumococcal-invasive \cdot pneumococcal-$ 

 $meningococcal \cdot diseases, \cdot necrotising \cdot fasciitis \cdot and \cdot streptococcal \cdot toxic \cdot shock \cdot syndrome. \cdot \P$ 

 $b) \rightarrow nosocomial \cdot acquired \cdot infections, \cdot commonly \cdot caused \cdot by \cdot multi \cdot drug \cdot resistant \cdot microorganisms \cdot or \cdot fungi, \cdot and \cdot suspected \cdot immune - dysfunction \cdot / \cdot immune - paralysis \cdot as \cdot for \cdot instance \cdot late \cdot ventilatory \cdot acquired \cdot pneumonia, \cdot acquired$ 

 $invasive \cdot candidias is, \cdot and \cdot bacteraemia \cdot by \cdot opportunistic \cdot agents. \P$ 

#### Interventions¶

Diagnostic-tests-and-biomarkers-of-inflammatory-response-and-immune-system:

- a) → Leukocytes · Count¶
- $b) \! \rightarrow \! \mathsf{Plasma} \cdot \mathsf{cytokines} \cdot (\mathsf{IL1}, \! \cdot \mathsf{IL6}, \! \cdot \mathsf{IL} \cdot 10) \P$
- c)  $\rightarrow$  C-Reactive · Protein¶
- d) $\rightarrow$ Procalcitonin¶
- $e) {\rightarrow} \mathsf{Disseminated}{\cdot} \mathsf{Intravascular}{\cdot} \mathsf{Coagulation}{\cdot} \mathsf{score} \P$
- $f) \rightarrow \mathsf{HLA} \cdot \mathsf{DR} \cdot \mathsf{Monocytes} \P$
- g)→Lymphocytes·count¶

h)→Neutrophils/Lymphocytes·ratio¶

- i)  $\rightarrow$  Lymphocytes·subtype¶
- $j) \rightarrow Immunoglobulin \cdot plasma \cdot concentration\P$
- $k) \! \rightarrow \! \mathsf{CMV} \cdot \! \mathbf{e} \! \cdot \! \mathsf{HSV} \! \cdot \! \mathsf{reactivation} \P$
- l) → Ferritin¶

m)→TNF¶

- Comparisons (if appropriate) ¶
- Gold-Standard-or-none-¶
- Outcomes¶

 $Appropriateness \cdot and \cdot usefulness \cdot of \cdot monitoring \cdot will \cdot be \cdot evaluated \cdot considering \cdot the \cdot following \cdot outcomes: \P$ 

- $\label{eq:conditions} \rightarrow \mathsf{Changes} \cdot \mathsf{in} \cdot \mathsf{severity} \cdot \mathsf{of} \cdot \mathsf{clinical} \cdot \mathsf{conditions} \cdot (\mathsf{SOFA} \cdot \mathsf{score} \cdot \mathsf{and} \cdot \mathsf{shock} \cdot \mathsf{index}) \P$
- $\text{-} \rightarrow \texttt{Rate} \cdot \texttt{of} \cdot \texttt{Secondary} \cdot \texttt{infections} \cdot \texttt{during} \cdot \texttt{ICU} \cdot \texttt{stay} \cdot (\texttt{including} \cdot \texttt{fungal} \cdot \texttt{and} \cdot \texttt{viral} \cdot \texttt{reactions}) \P$
- $\textbf{-} \rightarrow \mathsf{Stay} \cdot (\mathsf{Ventilator}, \mathsf{vasopressors}, \mathsf{RRT}, \mathsf{\cdot}\mathsf{ICU}, \mathsf{\cdot}\mathsf{Hospital}) \P$
- $\text{-} \rightarrow \mathsf{Mortality}(\mathsf{ICU},\mathsf{hospital},\mathsf{longest},\mathsf{follow},\mathsf{up}) \P$

#### EXPERTS

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#### **METHODOLOGIST**

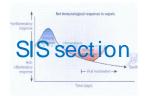
Cortegiani Andrea

#### LITERATURE REVIEW TEAM

Coloretti Irene

#### RELEVANT·DATES¶

	DATE¤	ACTIVITY¤	¤
•	November24¤	invite · participants · and · finalise · the · protocol¤	p
•	December·24¤	Finalisation · of · questions ¤	q
	January- February·25¤	Literature·search·and·Summary·of·findings·tables¤	ä
•	March-25¤	First·Meeting·for·consensus·¤	¤
-	April·25¤	Second Meeting for consensus x	¤
•	May-June-25¤	First·draft·of·document·Circulation·among·panel·members· for·comments·and·external·reviewers¤	¤
•	July·25¤	Submission¤	д



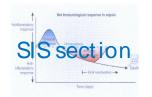
### Our survey







10/16/2024



### Ideas, proposals, future...





### How being better?

How growing the number of members for SIS?

Programs for next year?

Papers for our pipeline?