Anàlisis de la evolució de la mortalitat de la sepsis greu a les UCIs catalanes als últims 6 anys

34 Reunió de la SOCMIC

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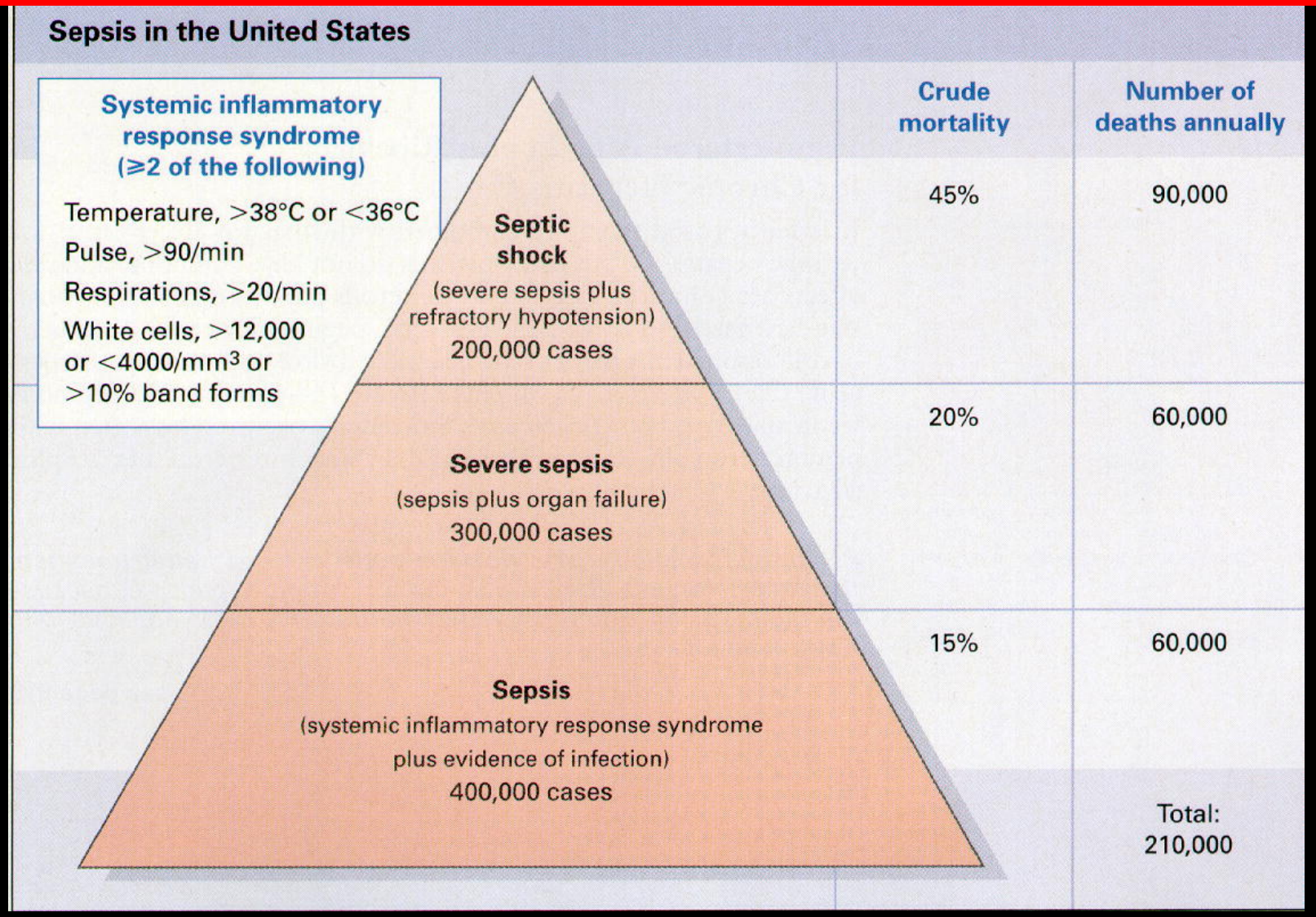
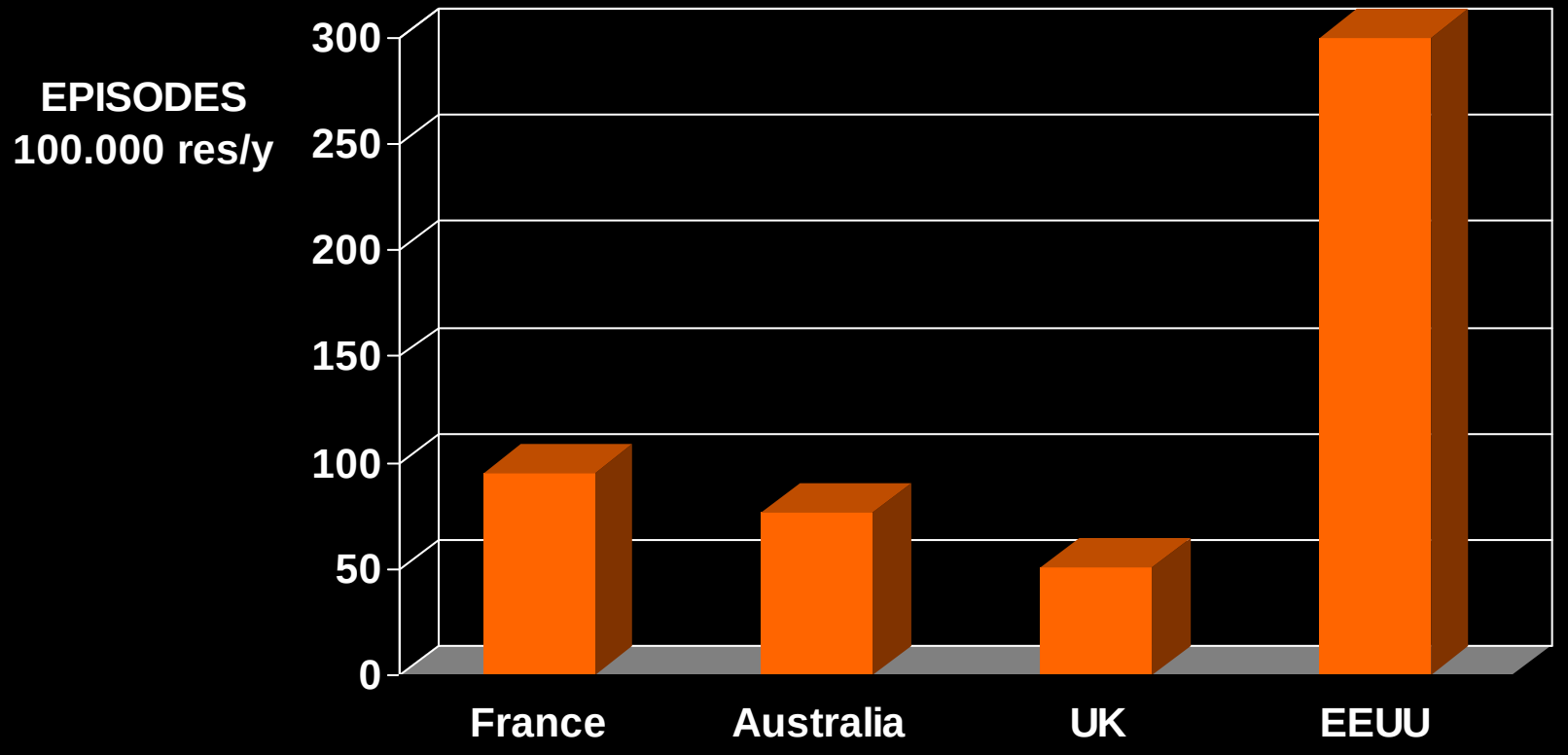
Epidemiology of Severe Sepsis USA



NEJM 2002;347:966-7

Epidemiology of Severe Sepsis

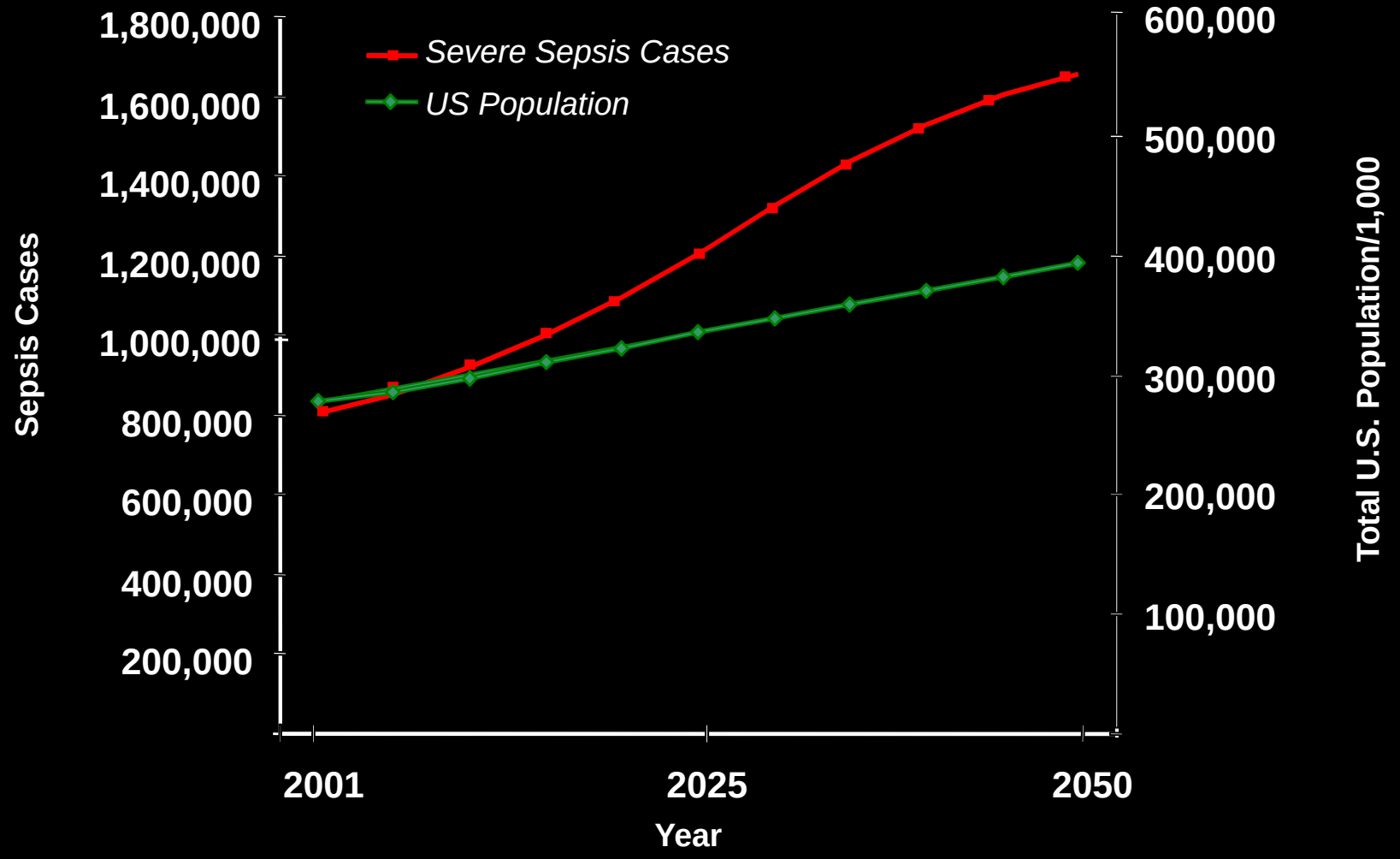
INCIDENCE OF SEVERE SEPSIS



Brun-Buisson C et.al Intensive Care Med. 2004;30(4):580-8.
Finfer S et al. Intensive Care Med. 2004;30(4):589-96.
Padkin A et al. Crit Care Med. 2003;31(9):2332-8.
Angus DC et al. Crit Care Med. 2001;29(7):1303-10.

MORTALITY: 28 to 50%

Projected Incidence of Severe Sepsis in the US: 2001 - 2050



Angus DC, et al. Crit Care Med. 2001.

Outcomes of the Surviving Sepsis Campaign in intensive care units in the USA and Europe: a prospective cohort study

Mitchell M Levy, Antonio Artigas, Gary S Phillips, Andrew Rhodes, Richard Beale, Tiffany Osborn, Jean-Louis Vincent, Sean Townsend, Stanley Lemeshow, R Phillip Dellinger

Lancet Infect Dis 2012; 12: 919–24

	Emergency department	Ward	ICU	Total hospital mortality
USA	3008/12 212	1661/4763	664/1785	5313/18 766
Europe	766/2159	1481/3405	502/1045	2719/6609
OR unadjusted	1·65 (1·42–1·91); p<0·0001	1·51 (1·30–1·71); p<0·0001	1·61 (1·32–1·96); p<0·0001	1·80 (1·58–2·06); p<0·001
OR adjusted*	1·05 (0·89–1·23); p=0·597	1·00 (0·86–1·18); p=0·965	1·19 (0·96–1·47); p=0·106	1·05 (0.92–1.21); p=0·467

ICU bed availability is higher in the USA

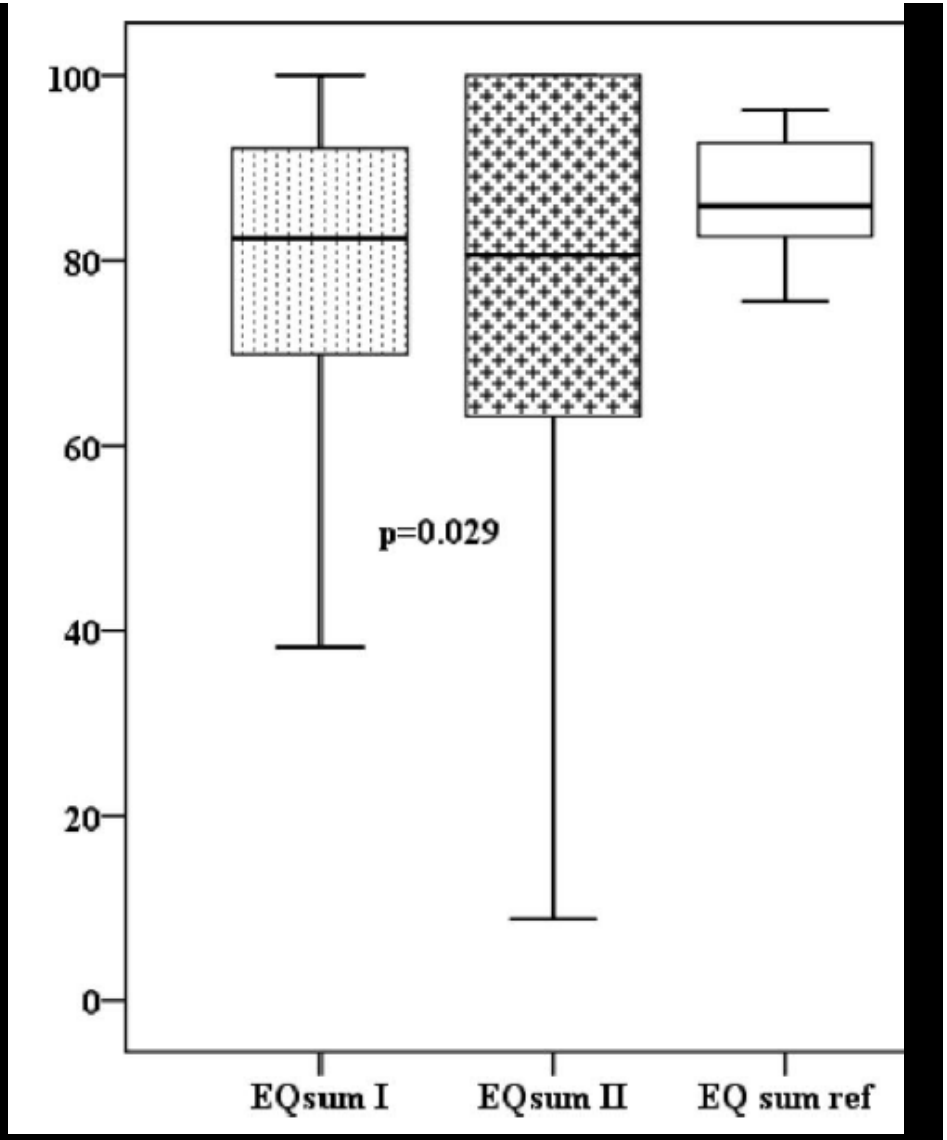
Long-term outcome and quality-adjusted life years after severe sepsis*

Sari Karlsson, MD; Esko Ruokonen, MD, PhD; Tero Varpula, MD, PhD; Tero I. Ala-Kokko, MD, PhD;
Ville Pettilä, MD, PhD; for the Finnsepsis Study Group

Crit Care Med 2009; 37: 1268–1274

	Mortality (%)
ICU	15.5
Hospital	28.3
1 Year	40.9
2 Year	44.9

Quality of life (EuroQol-5D)=



Sepsis incidence and outcome: Contrasting the intensive care unit with the hospital ward*

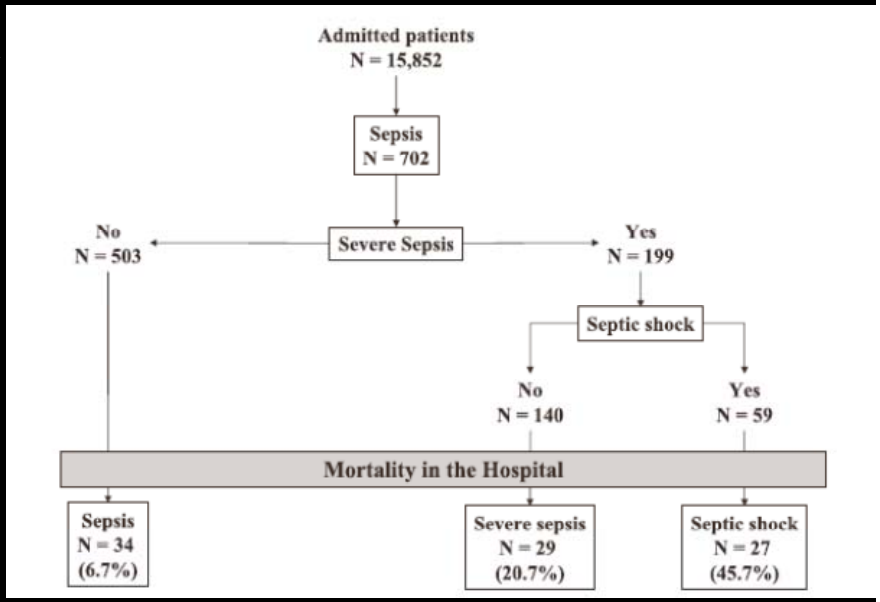
Andrés Esteban, MD, PhD; Fernando Frutos-Vivar, MD; Niall D. Ferguson, MD, MSc; Oscar Peñuelas, MD; José Ángel Lorente, MD, PhD; Federico Gordo, MD, PhD; Teresa Honrubia, MD, PhD; Alejandro Algora, MD; Alejandra Bustos, MD; Gema García, MD; Inmaculada Rodríguez Diaz-Regañón, MD; Rafael Ruiz de Luna, MD

Incidence Severe sepsis: 104/100.000 res/y

Only 32% received intensive care

Incidence Septic Shock: 31/100.000 res/y

Mortality 20.7% - 45.7%



	Community-Acquired Infection (n = 585)	Hospital-Acquired Infection (n = 106)	Intensive Care Unit-Acquired Infection (n = 11)
Pulmonary, n (%)	331 (56)	28 (26)	6 (54.5)
Gastrointestinal, n (%)	79 (13.5)	27 (27)	—
Urinary-gynecologic, n (%)	15 (20)	26 (24)	2 (18)
Skin and muscle, n (%)	30 (5)	17 (16)	—
Central nervous system, n (%)	4 (0.7)	—	1 (9)
Catheter-related infection, n (%)	2 (0.3)	3 (3)	2 (18)
Other origin, n (%)	24 (4)	5 (5)	—

Impact of the Surviving Sepsis Campaign protocols on hospital length of stay and mortality in septic shock patients: Results of a three-year follow-up quasi-experimental study*

(Crit Care Med 2010; 38:1036–1043)

Álvaro Castellanos-Ortega, MD, PhD; Borja Suberviola, MD; Luis A. García-Astudillo, MD; María S. Holanda, MD; Fernando Ortiz, MD; Javier Llorca, MD, PhD; Miguel Delgado-Rodríguez, MD, MPH, PhD

	Historical Group, n = 96 (20%)	Intervention Group, n = 384 (80%)	*p*
Patient characteristics			
Age, yr	62.2 ± 16.3	64.5 ± 15.1	.328
Male, n (%)	55 (57.3)	255 (66.4)	.097
Sequential Organ Failure Assessment score	10.2 ± 3.2	9.4 ± 3.2	.036
Acute Physiology and Chronic Health Evaluation II score	24.6 ± 7.8	23.2 ± 7.3	.136
Mechanical ventilation, n (%)	83 (86.4)	254 (66.1)	<.001
Central venous oxygen saturation (%) at ICU admission	67.1 ± 13.8	68.3 ± 13.7	.410
Location before ICU admission, n (%)			.007
Emergency department	19 (19.8)	126 (32.8)	
Medical ward	32 (33.3)	76 (19.8)	
Surgery department	26 (27.1)	123 (32.0)	
Another hospital	19 (19.8)	59 (15.4)	
Source of infection, n (%)			.850
Intra-abdominal infection	28 (29.2)	134 (35.3)	
Pneumonia	42 (43.8)	136 (35.8)	
Urinary tract infection	8 (8.3)	45 (11.8)	
Skin/soft tissue infection	5 (5.2)	15 (4.0)	
Other infections	7 (7.3)	25 (6.5)	
Unknown	6 (6.2)	25 (6.6)	
Hospital mortality, n (%)	55 (57.3)	144 (37.5)	.001

Surviving Sepsis Campaign

- **Phase 1**: 2002, Barcelona declaration.

  Reduce mortality from severe sepsis by 25% by 2009

- **Phase 2**: Creating guidelines for sepsis management.

  Intensive Care Med 2004;30:536-55
  Intensive Care Med 2008;34:17-60

- **Phase 3**: Translating guidelines to clinical practice.

  Two sepsis bundles in partnership with IHI.
  Database: measure the change process.

Objectiu

- Determinar si des de la introducció de les guies internacionals de tractament de la sepsis de la Surviving Sepsis Campaign (SSC) s'ha produït una reducció de mortalitat atribuïble a una millora en el tractament en els pacients ingresatss en les UCIs catalanes amb sepsis greu o shock séptic.

Mètode

- Tots els episodis de sepsis greu o shock septic en dos períodes de temps.
  - 2 mesos al 2006, abans de la intervenció EDUSEPSIS.
  - 3 mesos al 2011, abans de la intervenció ABISS.
- 6 UCIS catalanes que van participar als 2 periodes:
  - Centre Medic Delfos
  - Hospital Parc Tauli de Sabadell
  - Consorci Sanitari de Terrassa
  - Hospital Mutua Terrassa
  - Hospital Vall d'Hebron
  - Hospital Josep Trueta de Girona

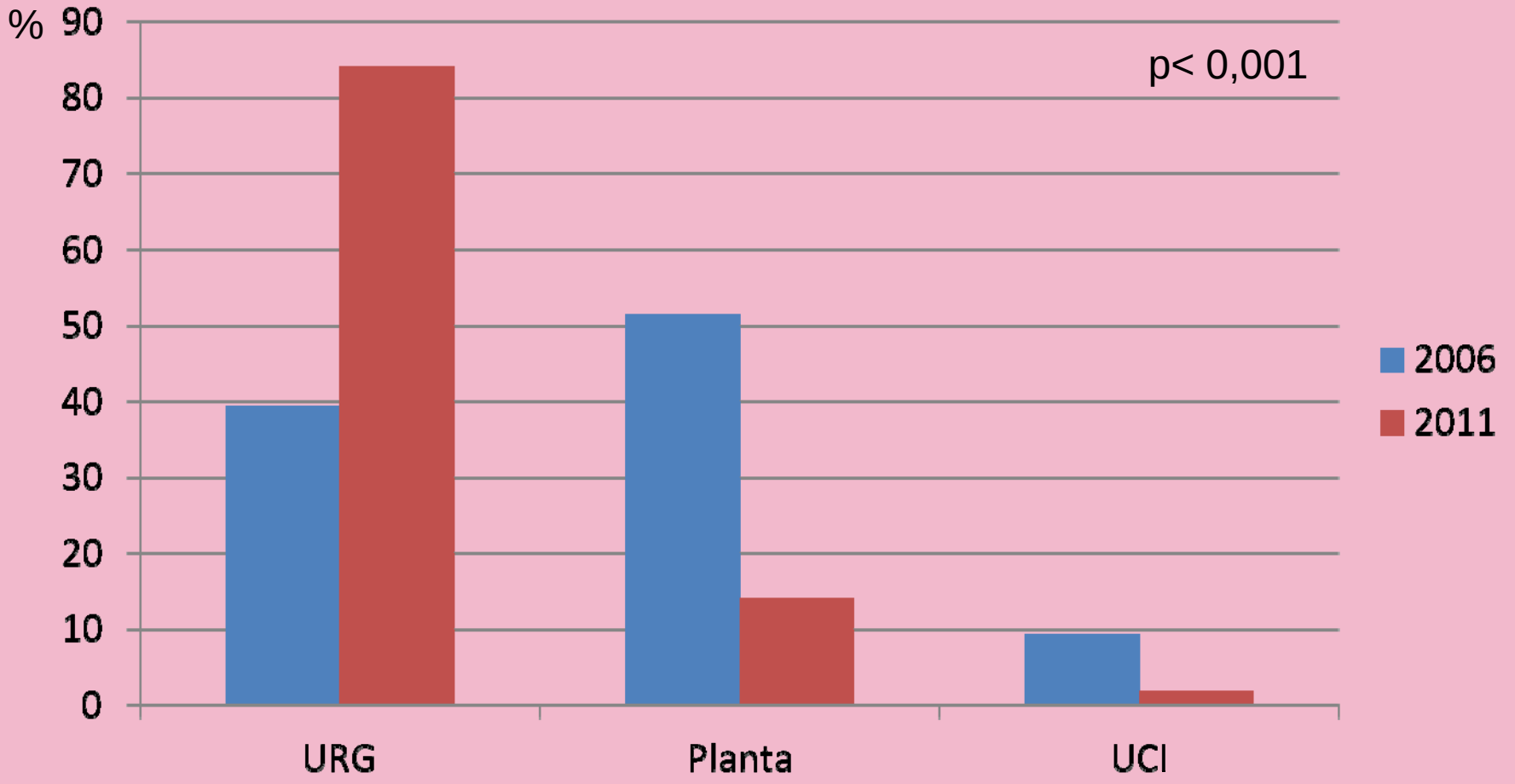
Mètode

- S’han comparat les variables clíniques, de tractament i mortalitat entre els dos grups.
- Les dades es presenten com percentatges o com mitja ± desviació estàndard.
- Anàlisis estadístic:
  - t de Student per variables continues.
  - chi quadrat per variables categòriques.
  - Anàlisis multivariat per ajustar la mortalitat.

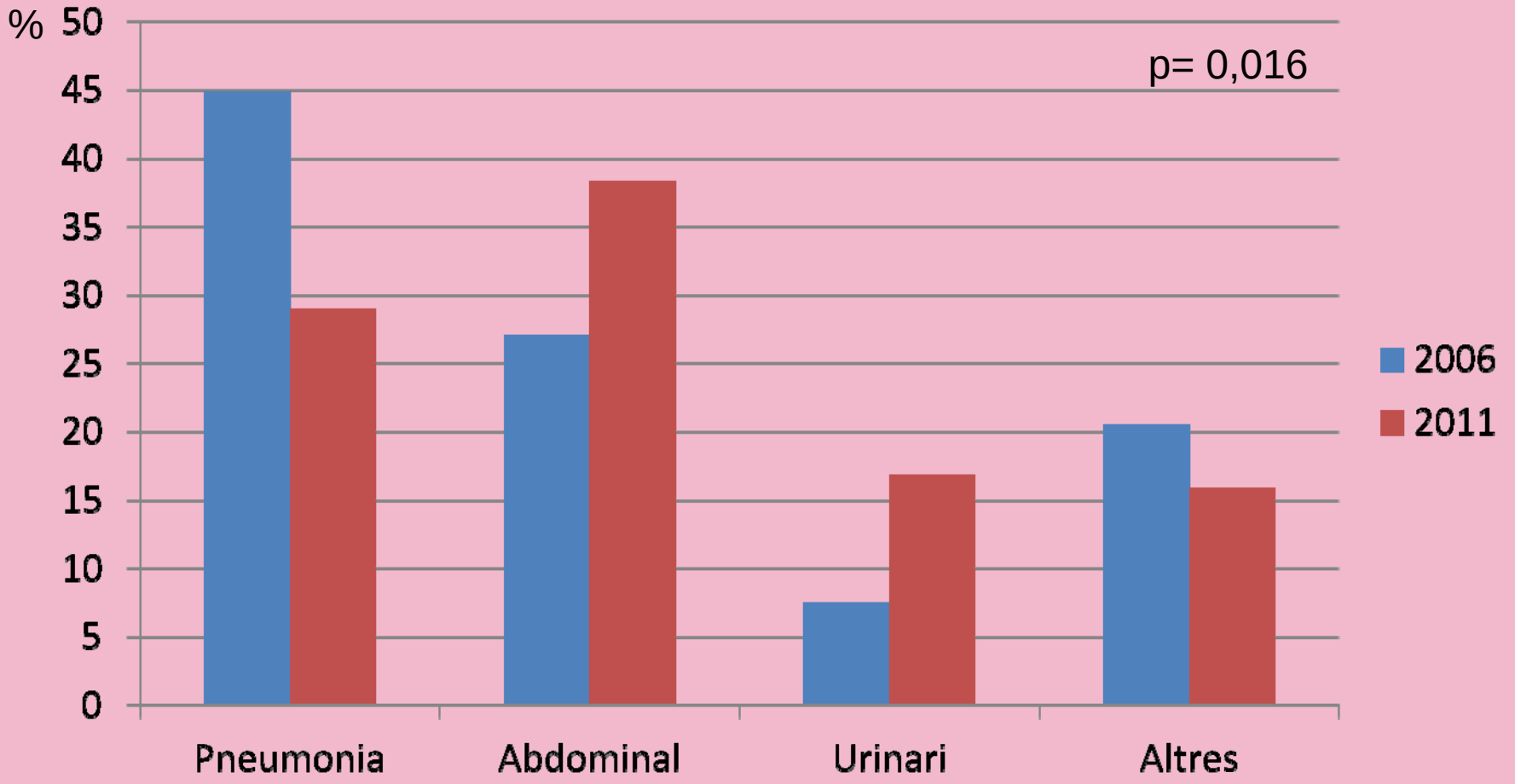
Resultats

- Es van incloure 214 pacients, 107 a cada període.
- Al 2011 els pacients van ser tenir:
  - més gravetat (APACHE II 18.7±6.8 vs 21.4±7.1; p=0,005)
  - tendència a tenir més edat (60.3±17.3 vs 62.7±15.1 anys; p=0,276) i més gènere masculí (68,2% vs 57,9%;p= 0,119).

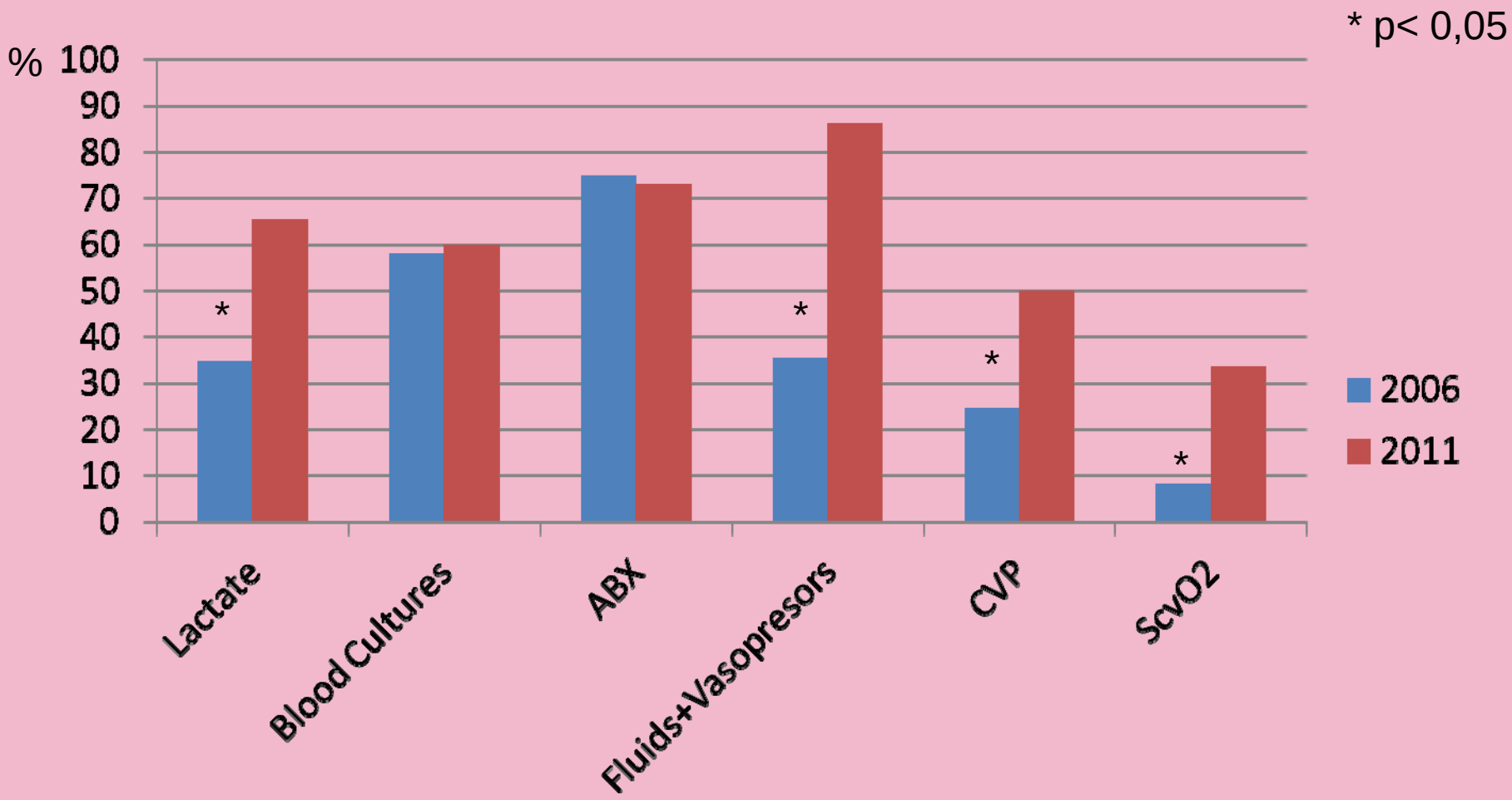
Resultats: Origen Sepsis



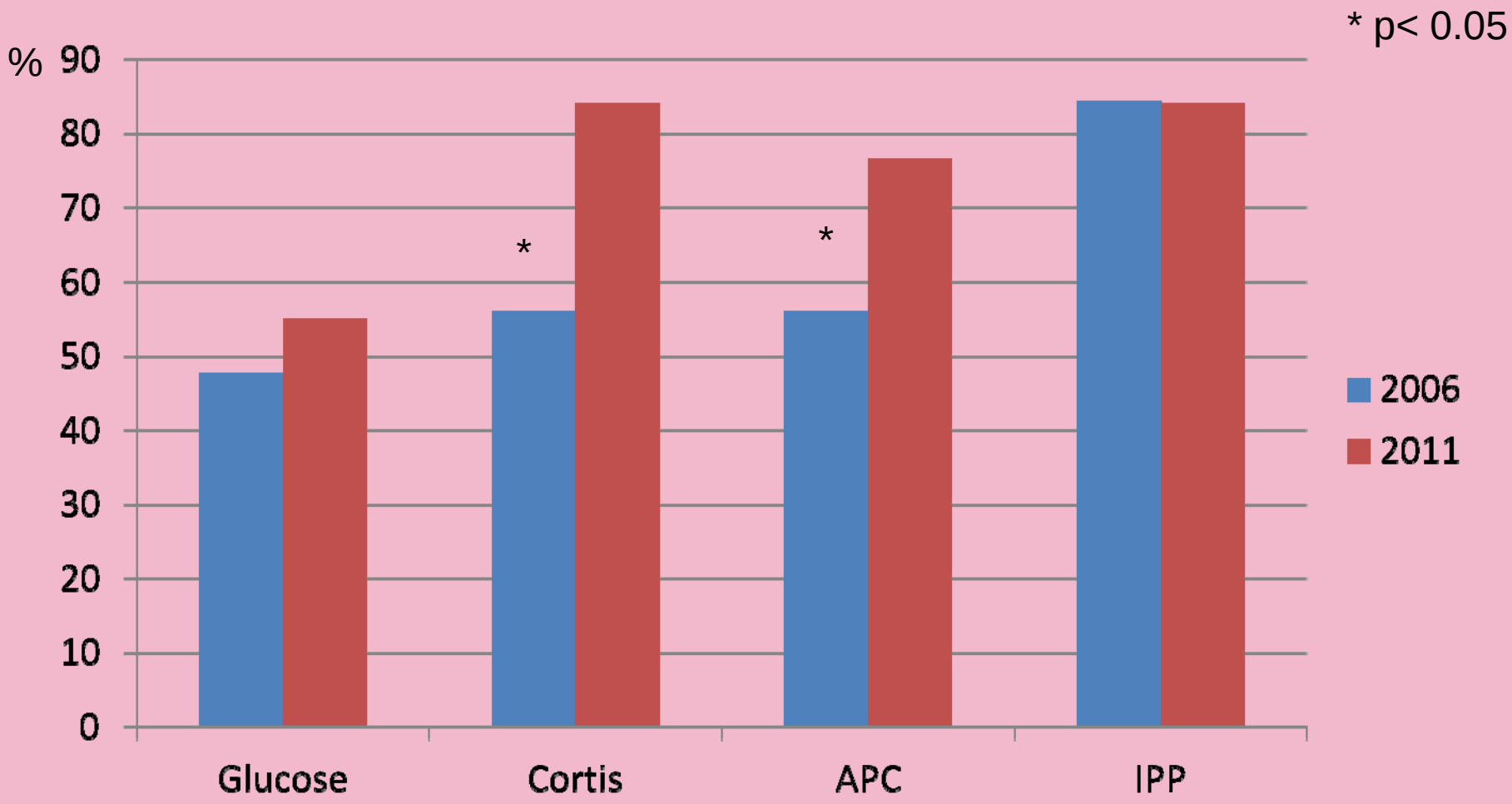
Resultats: Focus Sepsis



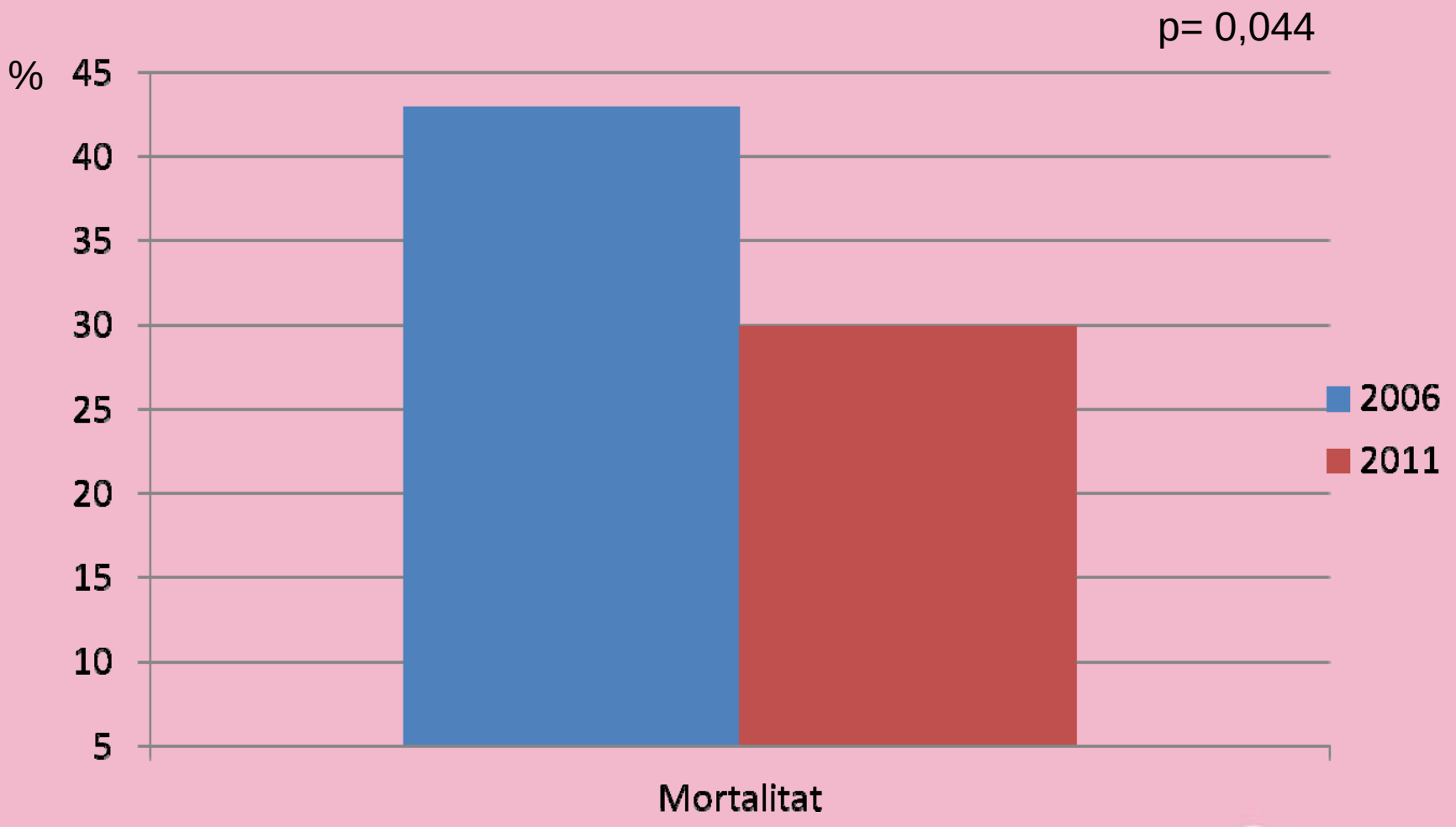
Results: Compliment Indicadors



ABISS EDUSEPSIS Results: Compliment Indicadors



Resultats: Mortalitat



Resultats: Mortalitat

- Descens de la mortalitat:
  - Crua: 12,2%
  - Relativa: 29,0%
- Mortalitat ajustada per edat, gravetat, origen de la sepsis i focus d'infecció:

  OR 0,446 (0,222-0,893), *p*=0,023

Conclusió

- En els últims 6 anys s'ha reduït la mortalitat de la sepsis a Catalunya, probablement atribuïble a una millora en el compliment de les recomanacions de tractament.
- Encara existeix marge de millora en algunes de les recomanacions.

Agraïments

- Investigadors catalans Edusepsis.
- Unitat de Recerca Clínica del hospital de Sabadell
- Institut Carlos III.
- Astra-Zeneca pel suport logístic durant trobades d'investigadors.