

Roma, 25 maggio 2018



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XI congresso nazionale

**SIMEU**

ROMA 24-26 MAGGIO 2018

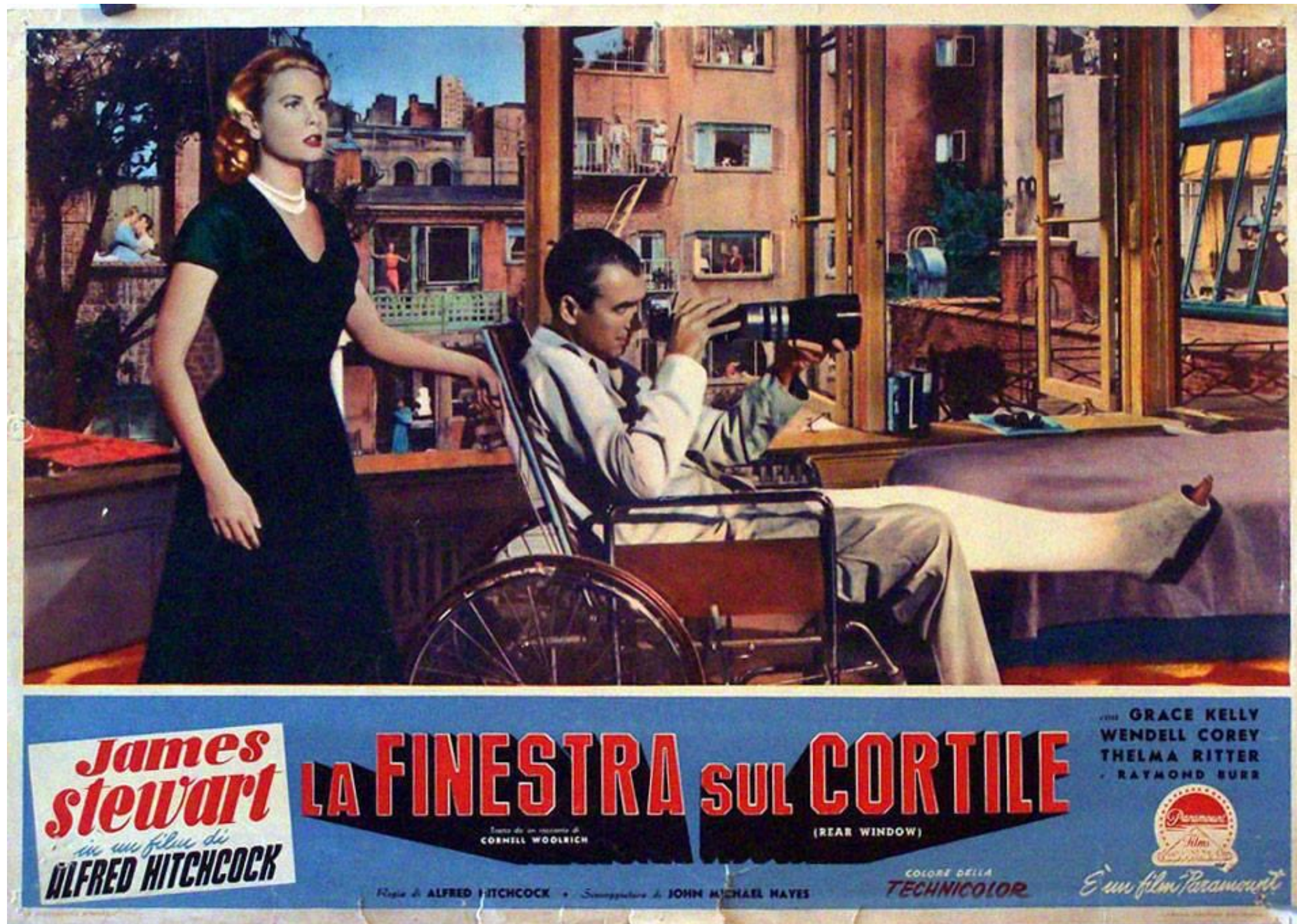
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LUCI E OMBRE DELLA NIV  
NEL PZ CON POLMONITE







**RANTOLI CREPITANTI  
EDEMI DECLIVI**

**TACHIPNEA  
SINCOPE**


**BRONCO-  
SPASMO  
SERRATO**

**pH 7.12  
pCO<sub>2</sub> 85  
HCO<sub>3</sub>- 29**

**DISTRESS  
RESPIRATORIO FR>35  
IN PZ NEUROMUSCOLARE**

**DOLORE TORACICO  
DISPNEA  
IPOFONESI A DX**

**MEDICO  
PS**



**PNEUMOLOGO  
INTENSIVISTA  
della letteratura**

**eCOPD  
POLMONITE  
ACPE**

**RIANIMATORE  
della letteratura**



# Official ERS/ATS clinical practice guidelines: noninvasive ventilation for acute respiratory failure

Eur Respir J 2017; 50: 1602426

*Question 5: Should NIV be used in de novo ARF?*

The main risk of NIV for the indication of *de novo* ARF is to delay a needed intubation [86].

*Recommendation*

Given the uncertainty of evidence we are unable to offer a recommendation on the use of NIV for *de novo* ARF.



Contents lists available at SciVerse ScienceDirect

American Journal of Emergency Medicine

journal homepage: [www.elsevier.com/locate/ajem](http://www.elsevier.com/locate/ajem)



2013; 31: 602-612

## Review

# Emergency management of community-acquired bacterial pneumonia: what is new since the 2007 Infectious Diseases Society of America/American Thoracic Society guidelines <sup>☆</sup>

Gregory J. Moran MD <sup>a,\*</sup>, Richard E. Rothman MD, PhD <sup>b</sup>, Gregory A. Volturo MD <sup>c</sup>

**4.5 million ambulatory care visits in 2007 in the United States, about one-third of which took place in EDs**

**10% - 20% of patients hospitalized with pneumonia are admitted to an intensive care unit (ICU)**

**600 000 hospitalizations for pneumonia occur in adults 65 years or older each year**

**Important cause of death : in 2009, more than 54 000 deaths in the United States were attributed to pneumonia, 86% of which occurred in patients 65 years and older**



## IDSA/ATS Guidelines for CAP in Adults • CID 2007:44

Despite advances in antimicrobial therapy, rates of mortality

Patients with hypoxemia or respiratory distress should receive a cautious trial of noninvasive ventilation unless they require immediate intubation because of  $pF < 150$  and bilaterale alveolar infiltrates

Patients with underlying COPD randomized to receive NIV had a > 25% absolute risk reduction for the need for intubation

Prompt recognition of a failed NIV trial is critically important [...] within the first 1-2 h of NIV [...] improve respiratory rate and oxygen partial pressure or failure to decrease carbon dioxide

## Oxygen therapy for pneumonia in adults (Review)

Zhang Y, Fang C, Dong BR, Wu T, Deng JL

	Hilbert 2001	Cosentini 2010	Confalonieri 1999	
	?	+	+	Random sequence generation (selection bias)
	+	+	+	Allocation concealment (selection bias)
	?	?	-	Blinding (performance bias and detection bias)
	+	+	+	Incomplete outcome data (attrition bias)
	?	-	-	Blinding of participants and personnel (performance bias)
	?	?	-	Blinding of outcome assessment (detection bias)



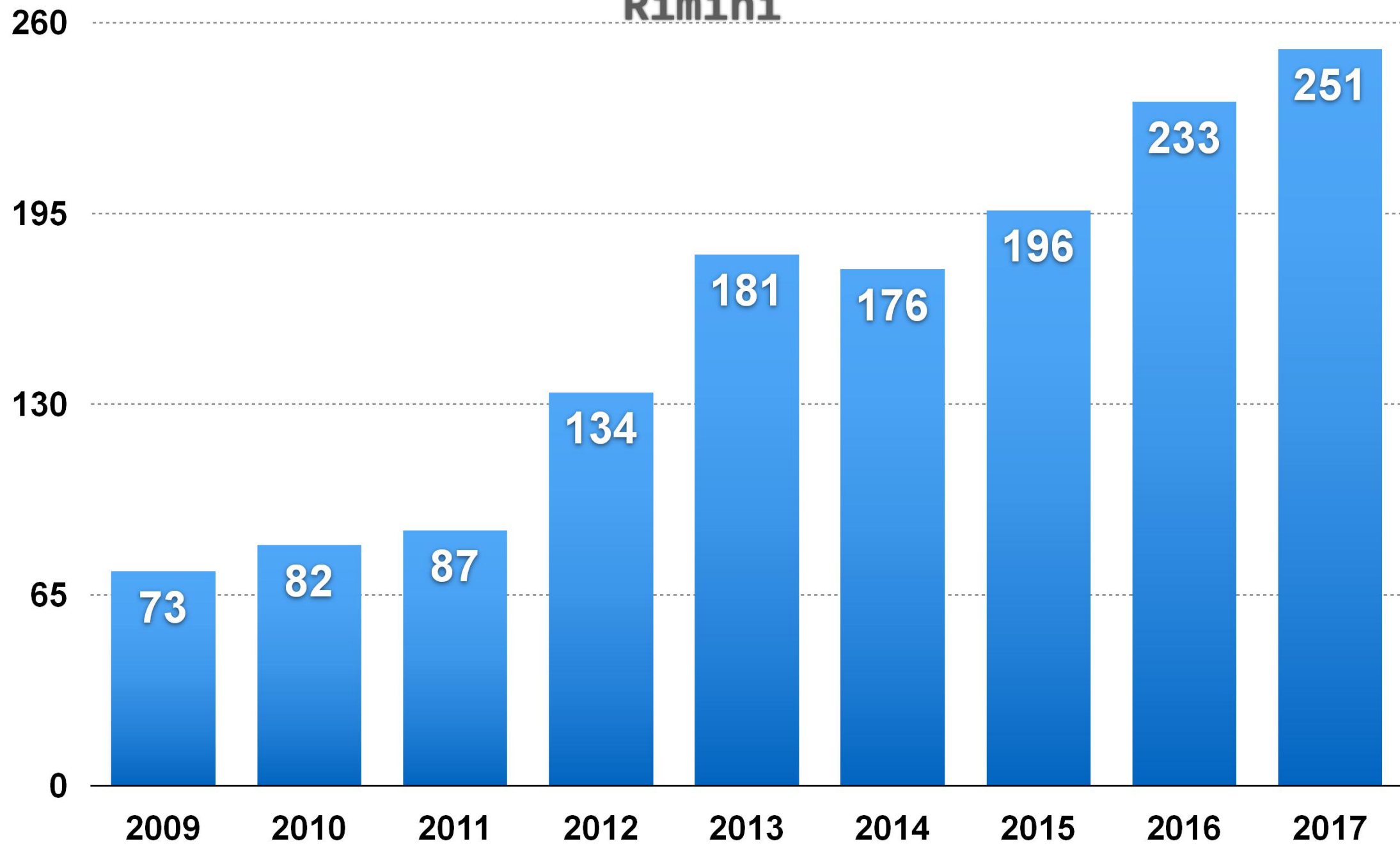
# Noninvasive Ventilation in Acute Hypoxemic Nonhypercapnic Respiratory Failure: A Systematic Review and Meta-Analysis

Xiu-Ping Xu, MD<sup>1</sup>; Xin-Chang Zhang, MD<sup>2</sup>; Shu-Ling Hu, MD<sup>1</sup>; Jing-Yuan Xu, MD<sup>1</sup>; Jian-Feng Xie, MD<sup>1</sup>; Song-Qiao Liu, MD, PhD<sup>1</sup>; Ling Liu, MD, PhD<sup>1</sup>; Ying-Zi Huang, MD, PhD<sup>1</sup>; Feng-Mei Guo, MD, PhD<sup>1</sup>; Yi Yang, MD, PhD<sup>1</sup>; Hai-Bo Qiu, MD, PhD<sup>1</sup>

CCM 2017; 45: e727-e733

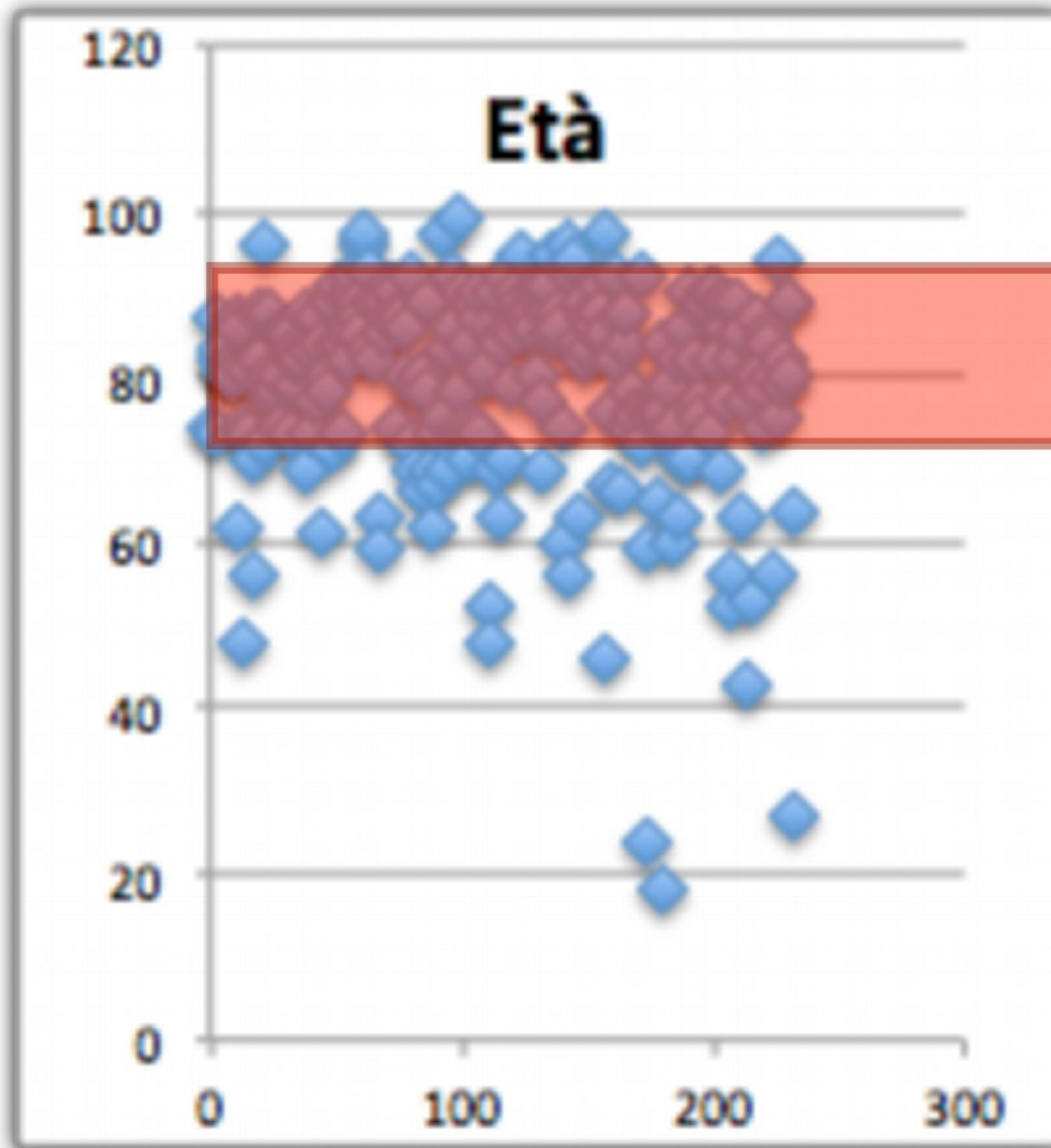
	Zhan 2012	Squadrone 2010	Squadrone 2005	Lemiale 2015	Jaber 2016	Hilbert 2001	Frat 2015	Ferrer 2003	Delclaux 2000	Brambilla 2014	Antonelli 2000	
Random sequence generation (selection bias)	+	+	+	+	+	+	+	?	+	?	+	
Allocation concealment (selection bias)	+	+	+	+	+	+	+	?	+	?	+	
Blinding of participants and personnel (performance bias)	-	-	-	-	-	-	-	-	-	-	-	
Blinding of outcome assessment (detection bias)	-	-	-	-	-	-	-	-	-	-	-	
Incomplete outcome data (attrition bias)	+	+	+	+	+	+	+	+	+	+	+	
Selective reporting (reporting bias)	+	+	+	+	+	+	+	+	+	+	+	
Other bias	+	+	+	+	+	+	+	+	+	+	+	

**Pz sottoposti a NIV in PS - Medicina  
d'Urgenza, Ospedale "Infermi"  
Rimini**

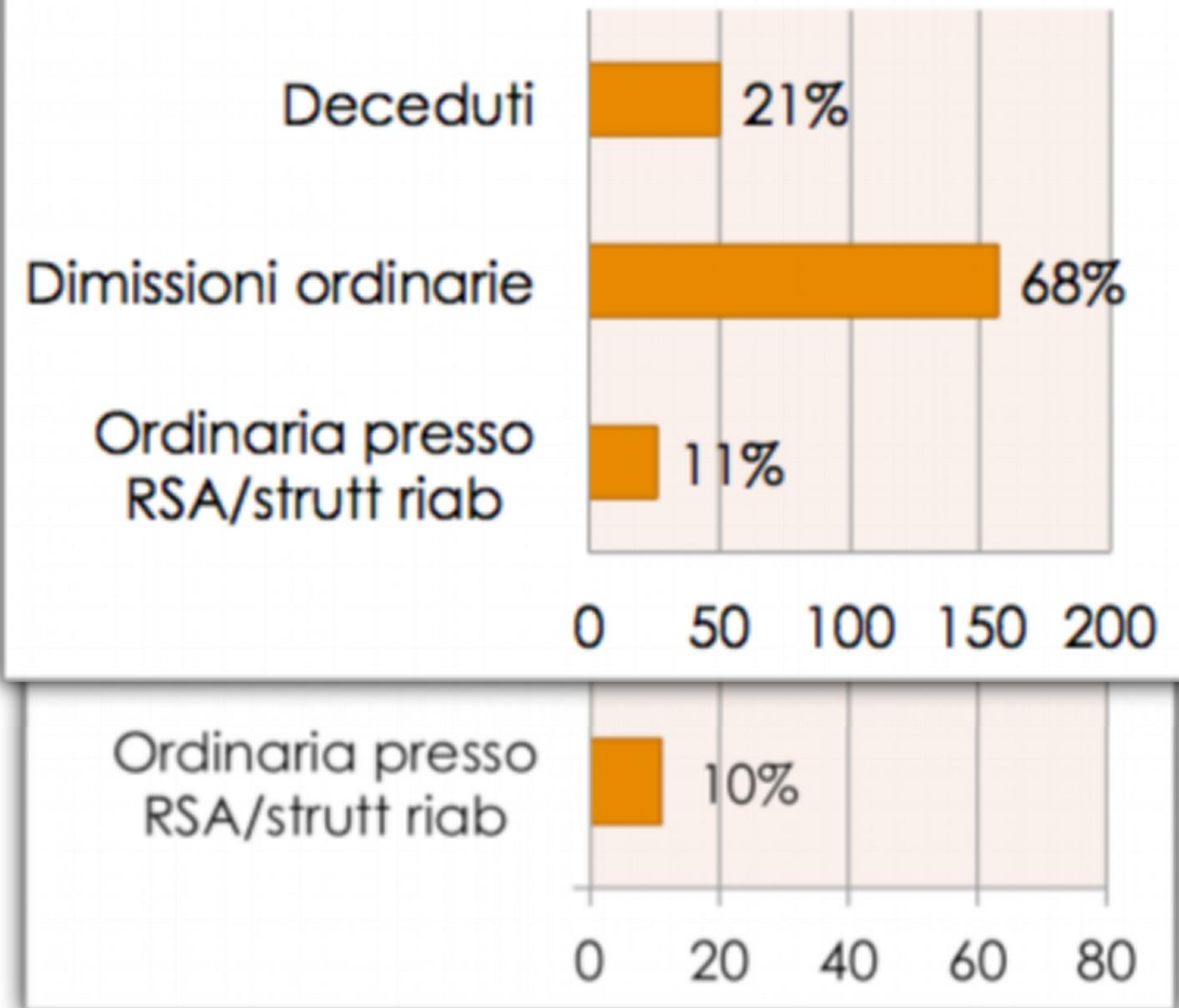


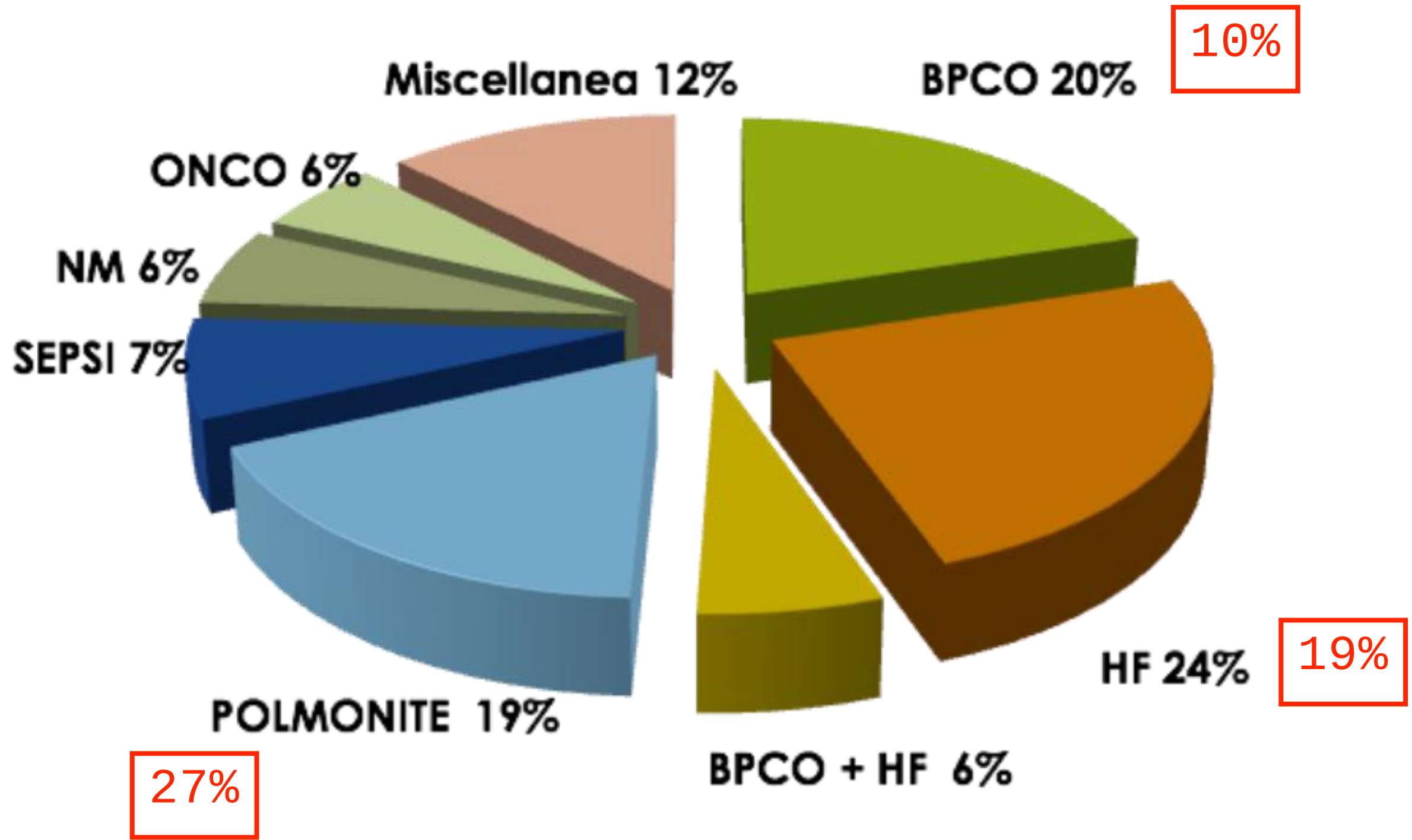


♀ 125 (54%) Età media 79.2  
 ♂ 108 (46%) Età mediana 82



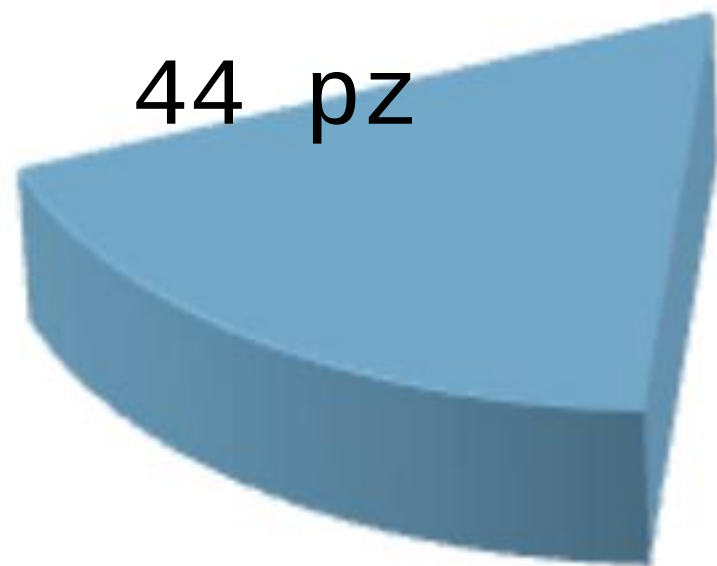
**Esito dei pz sottoposti a NIV in PS-Medurg 2016 (compresi trasferimenti in altre U.O.)**





MORTALITA'





**POLMONITE 19%**

♀ 28 (64%) Età media 81.2  
♂ 16 (36%) Età mediana 86

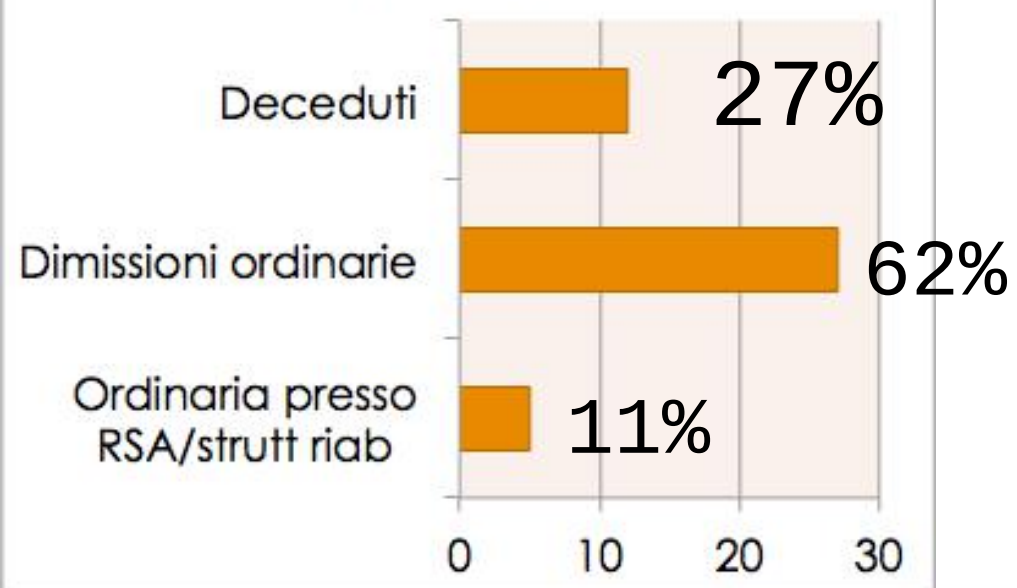
Nei 75% casi inizio NIV in

- Ipossiemia severa non responsiva all'O<sub>2</sub> (34%)
- Marcato distress respiratorio (15%)
- Acidosi respiratoria severa con ipercapnia (30%)

/44 (88%) pz ricoverati in Medicina d'Urgenza;  
successivo trasferimento per 28 pz (64%)

Degenza media: 15.4 gg, DS 12.6 [1-54]

### Esito dei pz con polmonite dimessi dalla Med.Urgenza



## Parametri vitali e EGA al Tempo\_0

	Mean	SD	Min-Max
FC	105	±23	70-155
PAS	124	±31	80-235
PAD	71	±31	48-135
FR	28	±10	8-55
p/F	198	±74	72-380
pH	7.31	±0.96	7.03-7.59
pCO2	56	±20	22-102
Lac	1.9	±1.3	0.83-5.84

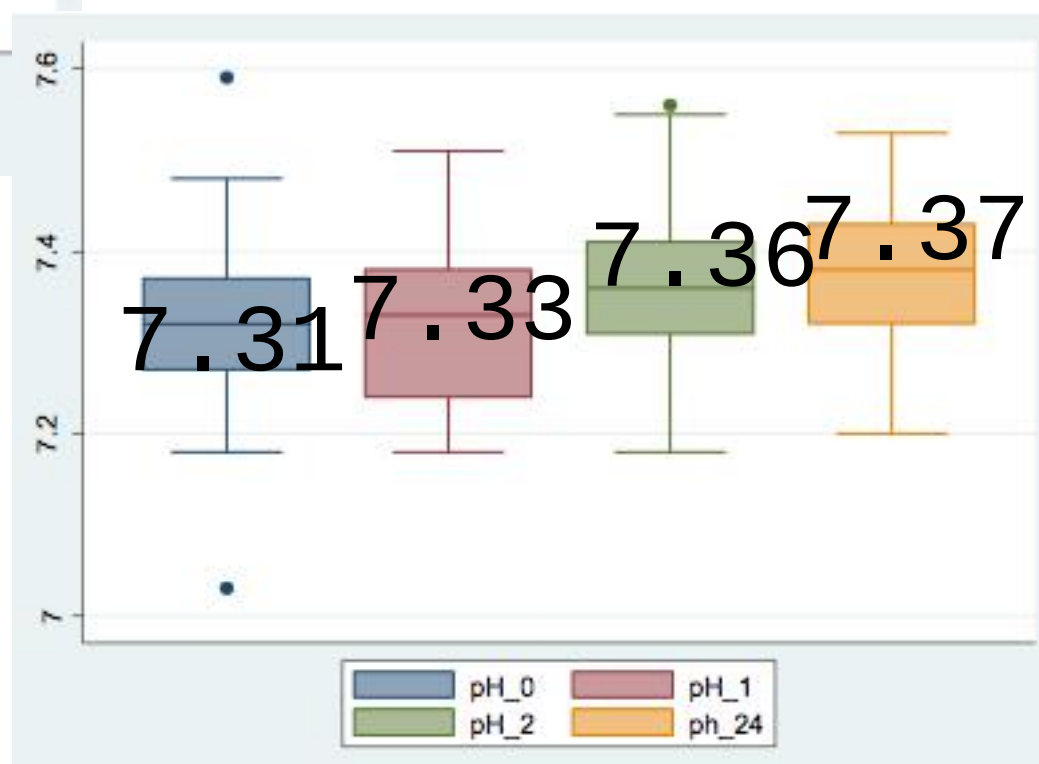
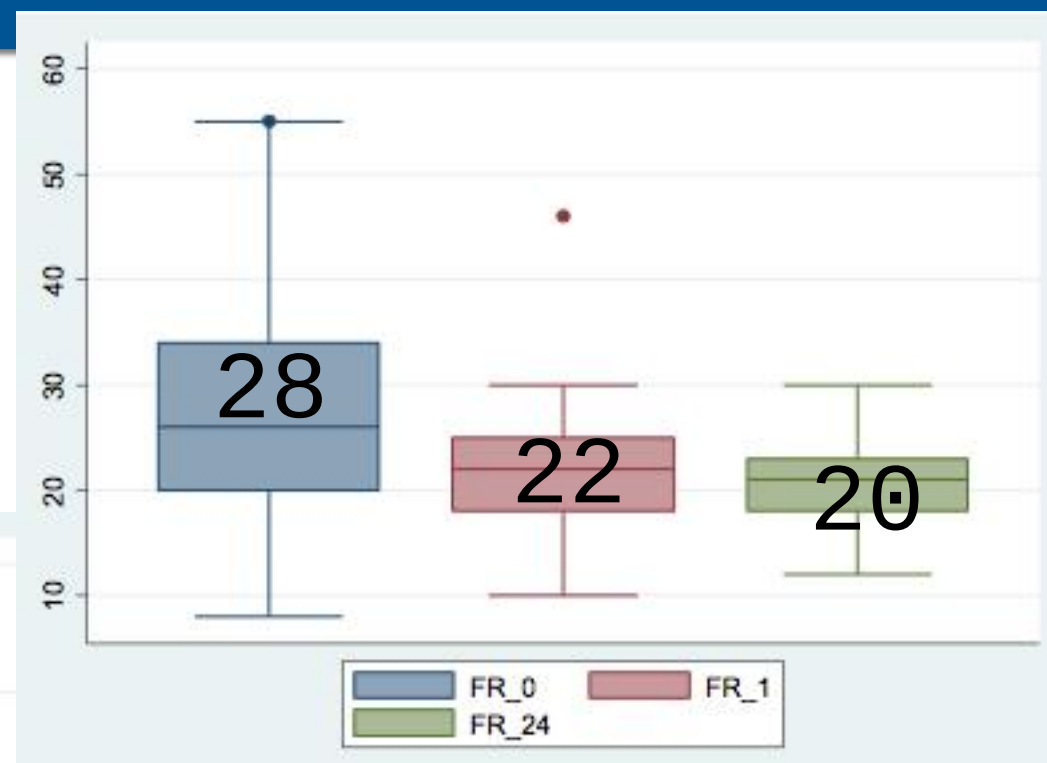
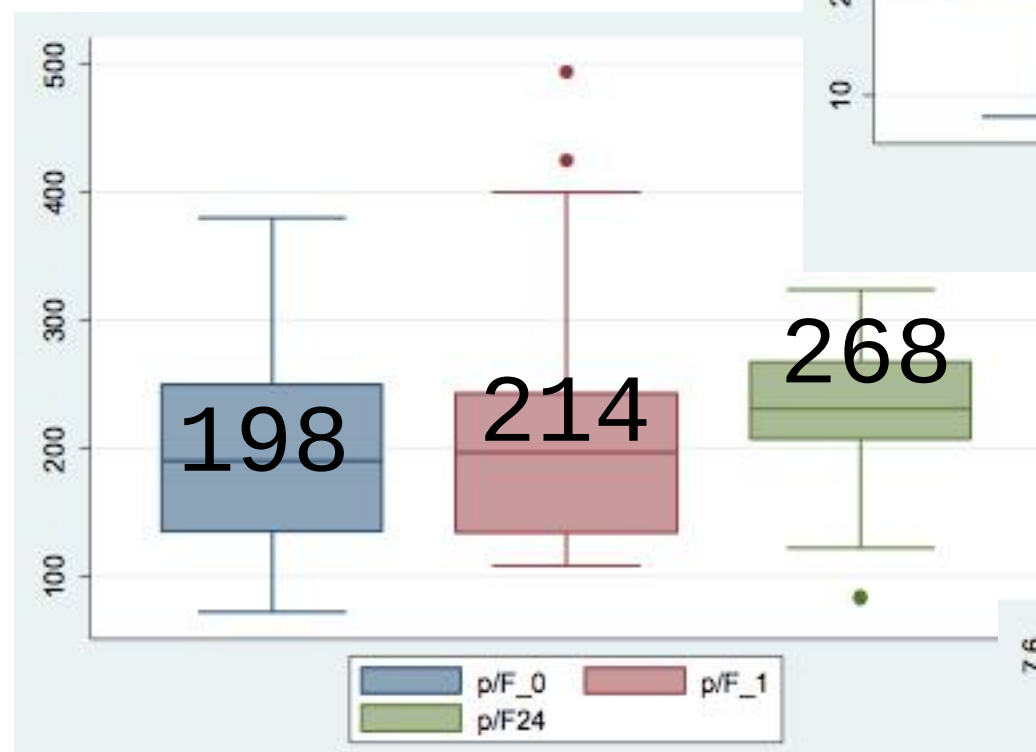


# RX Torace

Infiltrati Bilaterali	6 (17%)
Consolidazioni sn scompenso	9 (24%)
Consolidazioni dx	15 (39%)
Scompenso cardiaco	4 (10%)
BPCO	18 (47%)
Cardiopatìa ischemica cronica	10 (26%)
IR cronica in OLT	8 (12%)
Demenza (Alzheimer, senile)...	14 (36%)
Oncologici (linfomi, adk, )	4 (11%)
Neuromuscolari	3 ( 9%)
<b>TOTALE</b>	<b>(61%)</b>



Tempo\_1  
(Tempo\_2)  
Tempo\_24

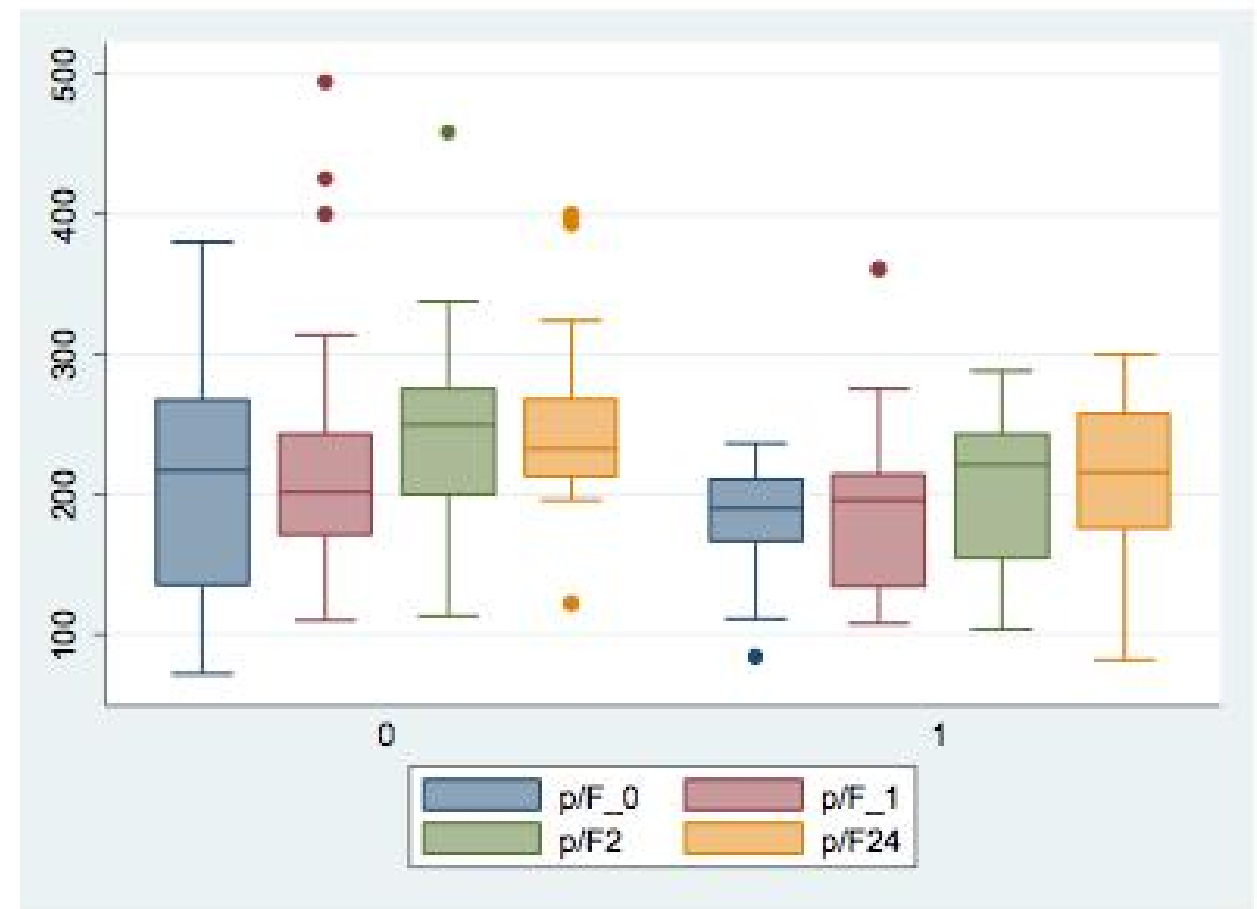
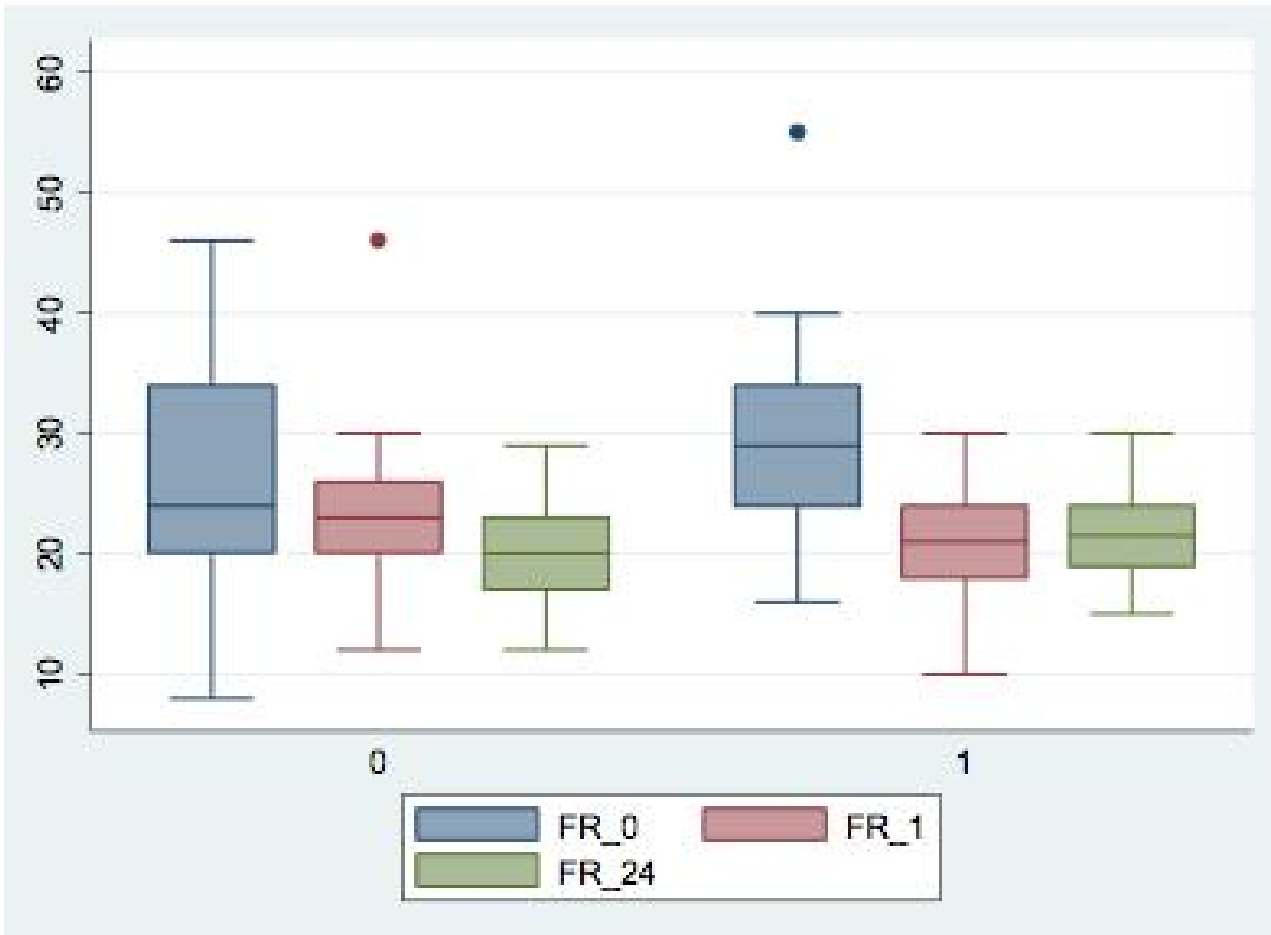


Parametri vit

p/F - pH

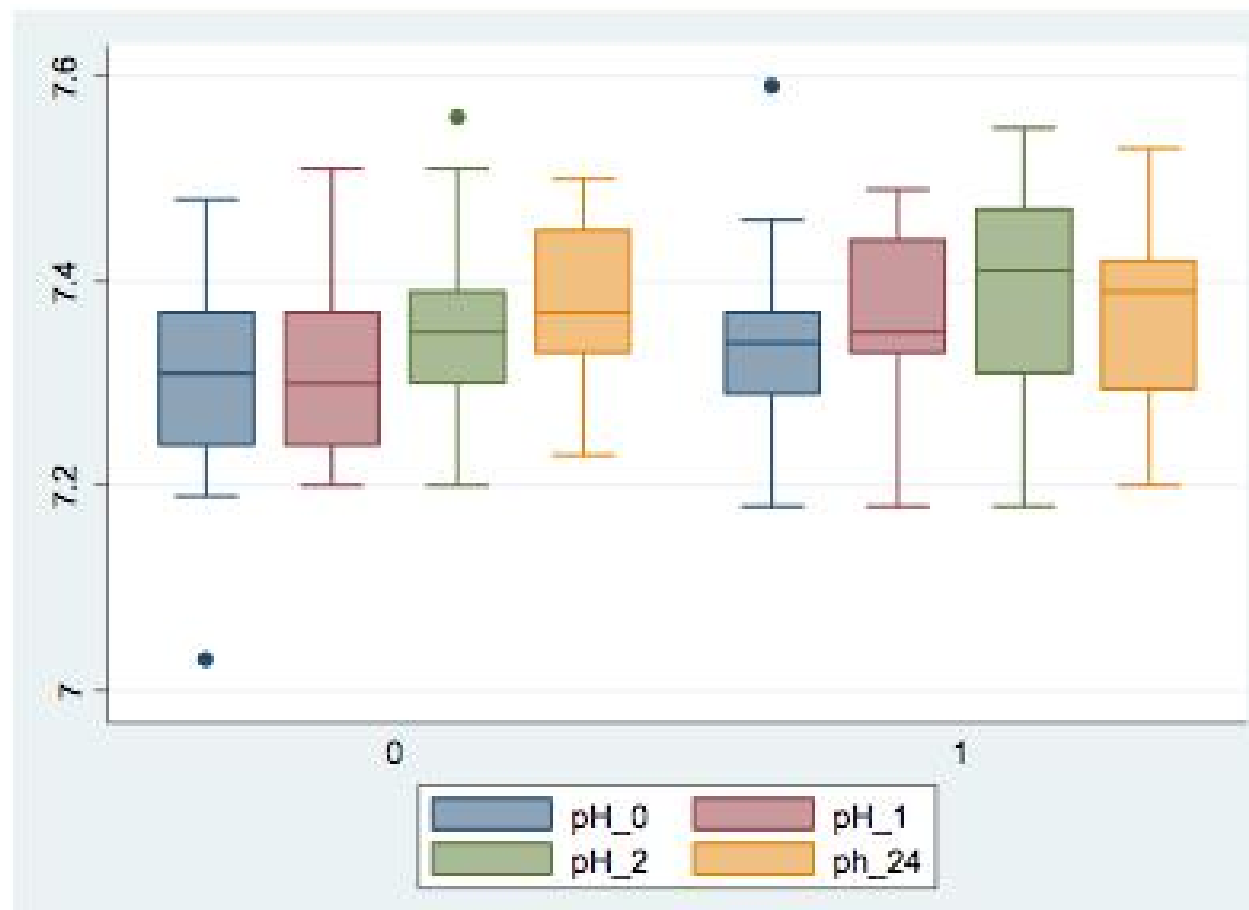
Score preditt





**0 = Success (30)**

**1 = Failure (14)**



# Heart

# Rate

# Acidosis

# Consciousness

# SS

# GCS

# Oxygenation

# n

# p/F

# Respir

# Rate

≤ 120 0

≥ 121 1

≥ 7.35 0

7.30-7.34 2

7.25-7.29 3

< 7.25 4

15 0

13-14 2

11-12 3

< 10 4

≥ 200 0

176-200 2

151-175 3

126-150 4

101-125 5

≤ 100 6

≤ 30 0

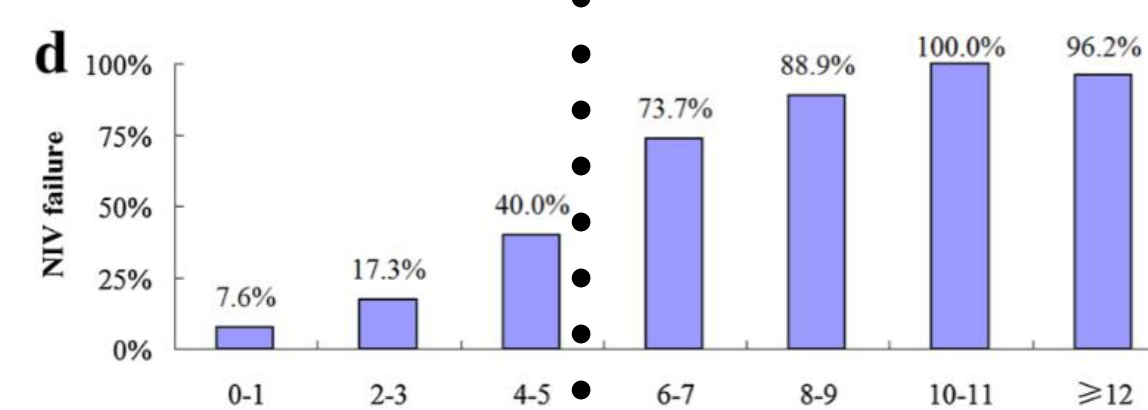
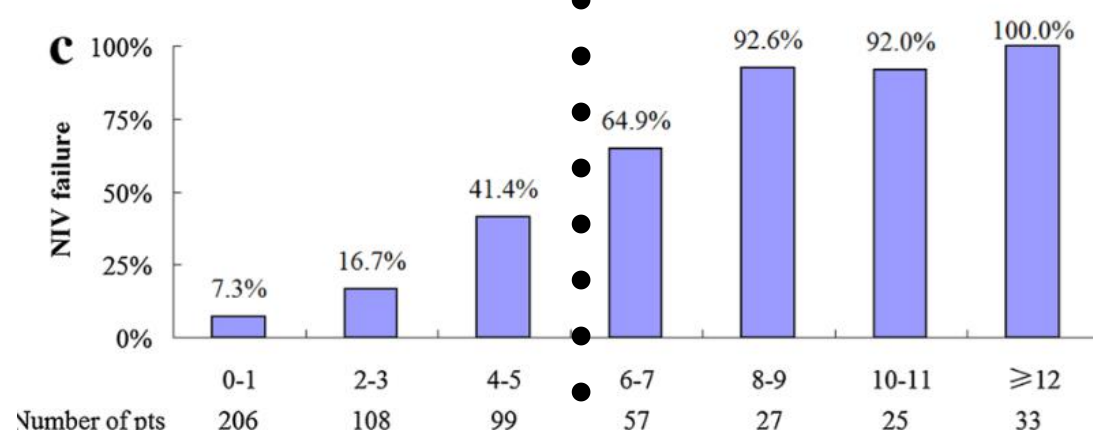
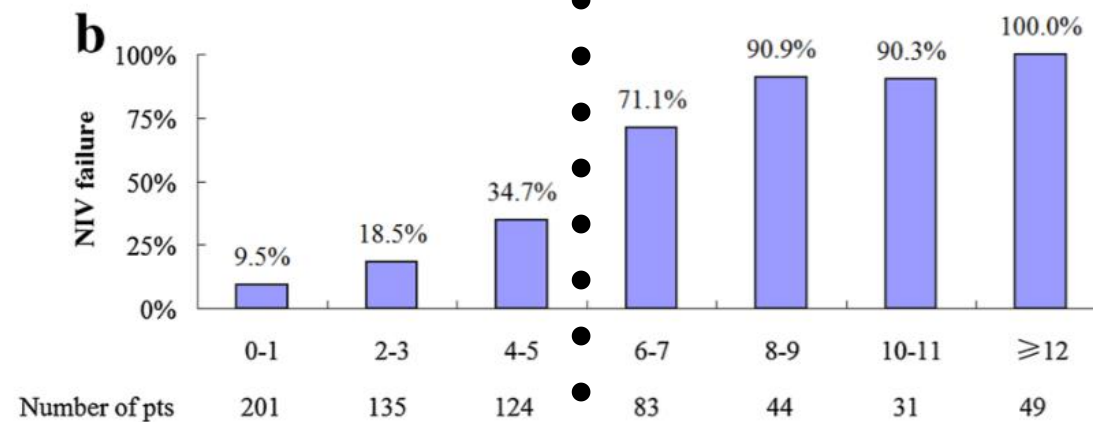
31-35 1

36-40 2

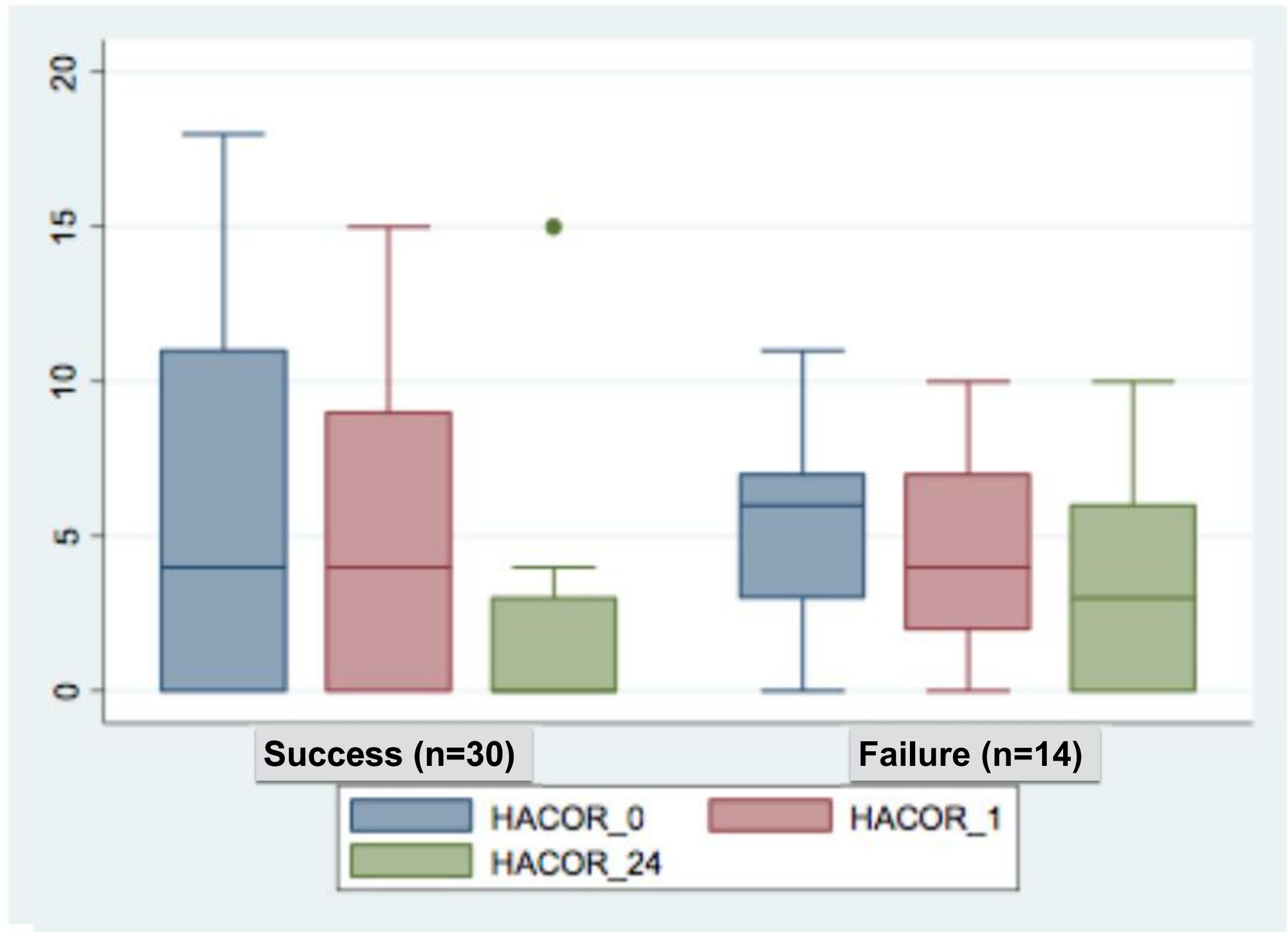
41-45 3

≥ 45 4

# HACOR score > 5 at 1 h treatment onset predicts failure





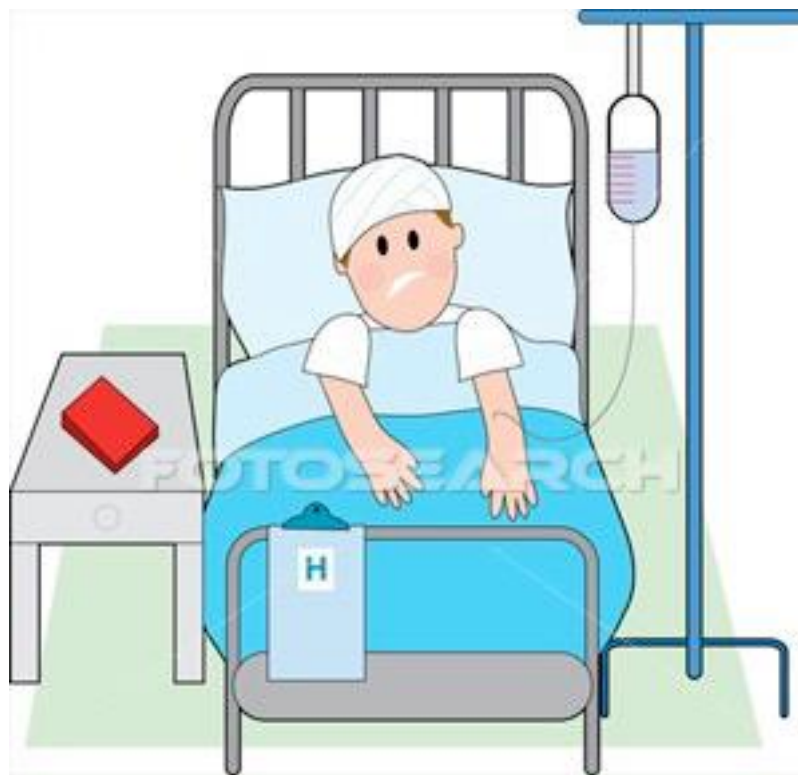
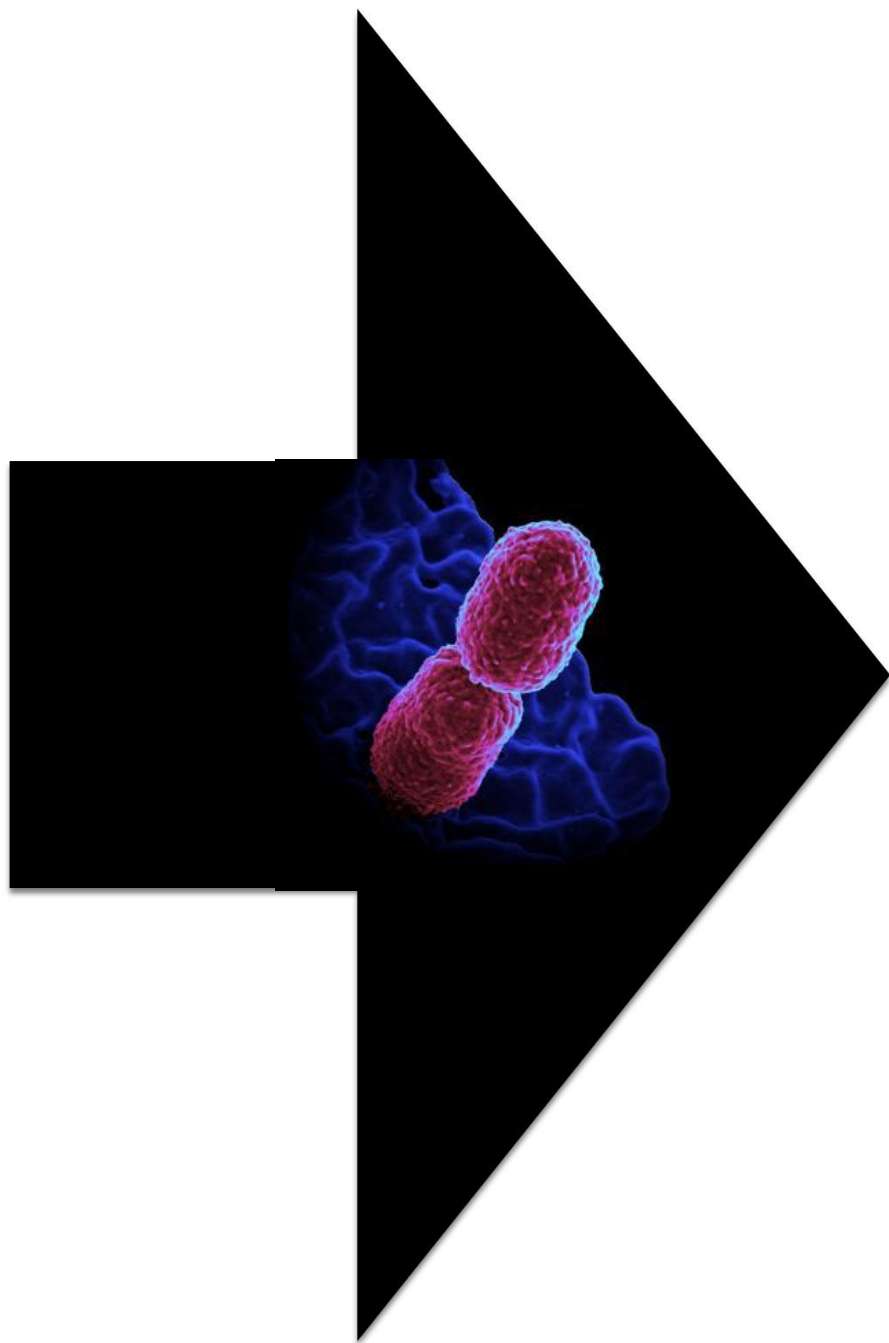


	Success (n=30)	Failure (n=14)	<i>p (t-test)</i>
Età (media, DS)	79.2 (14,5)	85,40 (10,2)	0,159
			<i>p (test chi2)</i>
HACOR 24 > 5	1/25 (4%)	4/13 (31%)	0,021
HACOR 24 > 3	3/25 (12%)	6/13 (46%)	0,019



	Success (n=30)	Failure (n=14)	<i>p (t-test)</i>
Età (media, DS)	79.2 (14,5)	85,40 (10,2)	0,159
			<i>p (test chi2)</i>
HACOR 24 > 5	1/25 (4%)	4/13 (31%)	0,021
HACOR 24 > 3	3/25 (12%)	6/13 (46%)	0,019
qs 24 > 1	3/20 (15%)	4/12 (33%)	0,225

HACOR Cut off point	Sensibilità	Specificità	% di corretta classificaz ione
0	100%	0%	34%
> 0	69%	56%	61%
> 1	69%	60	63%
> 2	62%	72%	68%
<b>&gt; 3</b>	<b>46%</b>	<b>88%</b>	<b>74%</b>
<b>&gt; 5</b>	<b>31%</b>	<b>96%</b>	<b>74%</b>
> 7	15%	96%	68%
> 9	8%	96%	66%
>14	0%	96%	63%
>15	0%	100%	66%



**NIV**

**Antibiotico**

**Fluidi**

**±**

**Vasopressori**





♀ 67 anni

p/F\_0 211 → p/F\_1  
197

♂ 76 anni

p/F\_0 111 → p/F\_1 131

razie per l'attenzione

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