GiViTI

Gruppo Italiano per la Valutazione degli Interventi in Terapia Intensiva

ISTITUTO DI RICERCHE FARMACOLOGICHE MARIO NEGRI - IRCCS

Meeting GiViTI - Anno 2019

Meeting GiViTI 2019
13-15 Novembre
Pesaro, Hotel Baia Flaminia

Giovedì 14 novembre

9:00-9:40 L'H1N1 a dieci anni di distanza
Roberto Fumagalli, Carlotta Rossi

9:40-10:30 Uso e consumo degli antibiotici, quali novità in 5 anni?
Giulia Mandelli, Bruno Viaggi

10:30-11:00 Discussione

11:00-11:30 Break

Available online http://ccforum.com/content/10/2/136

Commentary

Epidemiology studies in critical care

Greg Martin

Division of Pulmonary and Critical Care, Emory University School of Medicine, Atlanta, Georgia, USA, and Medical and Coronary Intensive Care, Grady Memorial Hospital, Atlanta, Georgia, USA

Corresponding author: Greg Martin, Greg_Martin@emory.org

Published: 30 March 2006 *Critical Care* 2006, **10**:136 (doi:10.1186/cc4897)

#194300154

Value of epidemiology studies in critical care

Epidemiology studies are often overlooked in the current world of evidence-based medicine. The studies do not rank in the hierarchy of clinical trial data, they are not often considered to influence clinical care and they may be considered merely ‘descriptive’ of a medical problem.

Available online http://ccforum.com/content/10/2/136

Commentary

Epidemiology studies in critical care

Greg Martin

Division of Pulmonary and Critical Care, Emory University School of Medicine, Atlanta, Georgia, USA, and Medical and Coronary Intensive Care, Grady Memorial Hospital, Atlanta, Georgia, USA

Corresponding author: Greg Martin, Greg_Martin@emory.org

Published: 30 March 2006 *Critical Care* 2006, **10**:136 (doi:10.1186/cc4897)

#194300154

Descriptive epidemiology studies also inform intensivists about the type of conditions they should expect to encounter in their ICU (i.e. the frequency of disease) and they guide clinicians in treating patients by reporting information on relative causality (such as *Streptococcus pneumoniae* being the most common cause of community-acquired pneumonia).

Available online http://ccforum.com/content/10/2/136

Commentary

Epidemiology studies in critical care

Greg Martin

Division of Pulmonary and Critical Care, Emory University School of Medicine, Atlanta, Georgia, USA, and Medical and Coronary Intensive Care, Grady Memorial Hospital, Atlanta, Georgia, USA

Corresponding author: Greg Martin, Greg_Martin@emory.org

Published: 30 March 2006 *Critical Care* 2006, **10**:136 (doi:10.1186/cc4897)

#194300154

Longitudinal studies add a vitally important characteristic to point-prevalence or time-limited epidemiology studies. They permit characterization of temporal changes in affected patients and in disease characteristics, such as in the frequency, complications and outcomes of a disease.

Available online http://ccforum.com/content/10/2/136

Commentary

Epidemiology studies in critical care

Greg Martin

Division of Pulmonary and Critical Care, Emory University School of Medicine, Atlanta, Georgia, USA, and Medical and Coronary Intensive Care, Grady Memorial Hospital, Atlanta, Georgia, USA

Corresponding author: Greg Martin, Greg_Martin@emory.org

Published: 30 March 2006 *Critical Care* 2006, **10**:136 (doi:10.1186/cc4897)

#194300154

Longitudinal epidemiology studies on a local level can be utilized for quality control purposes, to assess the impact of changes in healthcare delivery. In general, longitudinal studies are invaluable for understanding how a disease is changing and how it affects patients in the studied healthcare system.

Available online http://ccforum.com/content/10/2/136

Commentary

Epidemiology studies in critical care

Greg Martin

Division of Pulmonary and Critical Care, Emory University School of Medicine, Atlanta, Georgia, USA, and Medical and Coronary Intensive Care, Grady Memorial Hospital, Atlanta, Georgia, USA

Corresponding author: Greg Martin, Greg_Martin@emory.org

Published: 30 March 2006 *Critical Care* 2006, **10**:136 (doi:10.1186/cc4897)

#194300154

Longitudinal studies add a vitally important characteristic to point-prevalence or time-limited epidemiology studies. They permit characterization of temporal changes in affected patients and in disease characteristics, such as in the frequency, complications and outcomes of a disease.

ORIGINAL ARTICLE FREE PREVIEW

Emergence of a Novel Swine-Origin Influenza A (H1N1) Virus in Humans

Novel Swine-Origin Influenza A (H1N1) Virus Investigation Team*

June 18, 2009
N Engl J Med 2009; 360:2605-2615
DOI: 10.1056/NEJMoa0903810

Abstract

CARING FOR THE CRITICALLY ILL PATIENT

JAMA-EXPRESS

Critically Ill Patients With 2009 Influenza A(H1N1) Infection in Canada

Anand Kumar, MD
Ryan Zarychanski, MD

Context Between March and July 2009, the largest number of confirmed cases of 2009 influenza A(H1N1) infection occurred in North America.

ORIGINAL ARTICLE FREE PREVIEW

Critical Care Services and 2009 H1N1 Influenza in Australia and New Zealand

The ANZIC Influenza Investigators*

November 12, 2009
N Engl J Med 2009; 361:1925-1934
DOI: 10.1056/NEJMoa0908481

Abstract

REVIEW ARTICLE MEDICAL PROGRESS FREE PREVIEW

Clinical Aspects of Pandemic 2009 Influenza A (H1N1) Virus Infection

Writing Committee of the WHO Consultation on Clinical Aspects of Pandemic (H1N1) 2009 Influenza*

May 6, 2010
N Engl J Med 2010; 362:1708-1719
DOI: 10.1056/NEJMra1000449

As of March 2010, illness caused by the 2009 H1N1 virus had occurred in almost all countries, with more than 16,000 deaths from laboratory-confirmed cases reported to the World Health

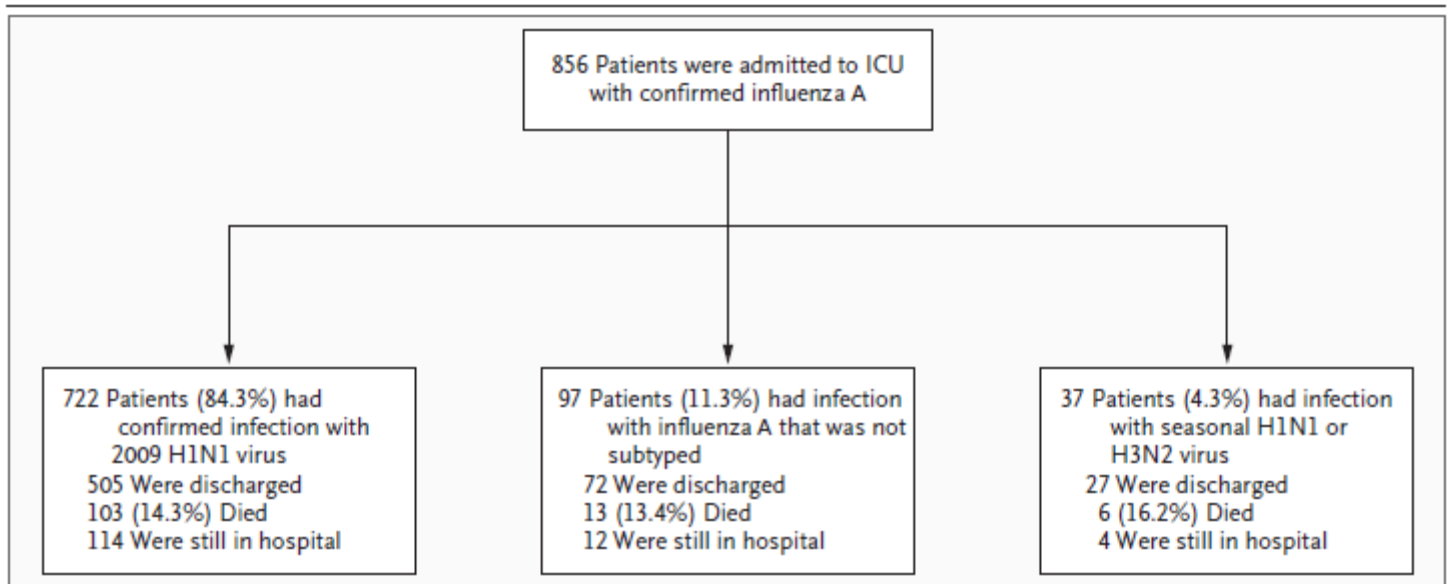


Figure 1. Enrollment and Follow-up of Patients with Influenza A Admitted to Intensive Care Units (ICUs) in Australia and New Zealand.

Follow-up data are as of September 7, 2009.

Among patients admitted to ICU, older age, the presence of coexisting conditions, and a requirement for invasive ventilation were independently associated with increased risk of death, but because there were greater numbers of younger patients in our cohort, the majority of deaths occurred in younger patients.

n engl j med 361;20 nejm.org november 12, 2009

CHEST Original Research

INFLUENZA A(H1N1) INFECTION

Clinical Findings and Demographic Factors Associated With ICU Admission in Utah Due to Novel 2009 Influenza A(H1N1) Infection

Russell R. Miller III, MD, MPH; Boaz A. Markewitz, MD, FCCP; Robert T. Rolfs, MD, MPH; Samuel M. Brown, MD; Kristin K. Dascomb, MD, PhD; Colin K. Grissom, MD, FCCP; Michael D. Friedrichs, MS; Jeanmarie Mayer, MD; Eliotte L. Hirshberg, MD; Jamie Conklin, MD; Robert Paine III, MD; and Nathan C. Dean, MD, FCCP

We report a critically ill cohort with unexpected numbers of nonwhite, obese, medically uninsured patients with novel A(H1N1) infection, most with severe lung injury and multiorgan dysfunction due to influenza without concomitant bacterial infection. Our findings suggest that demographic factors and obesity are associated with critical illness due to novel A(H1N1) infection.

CHEST 2010; 137(4):752–758

Intensive Care Med (2011) 37:1746–1755
DOI 10.1007/s00134-011-2339-5

ORIGINAL

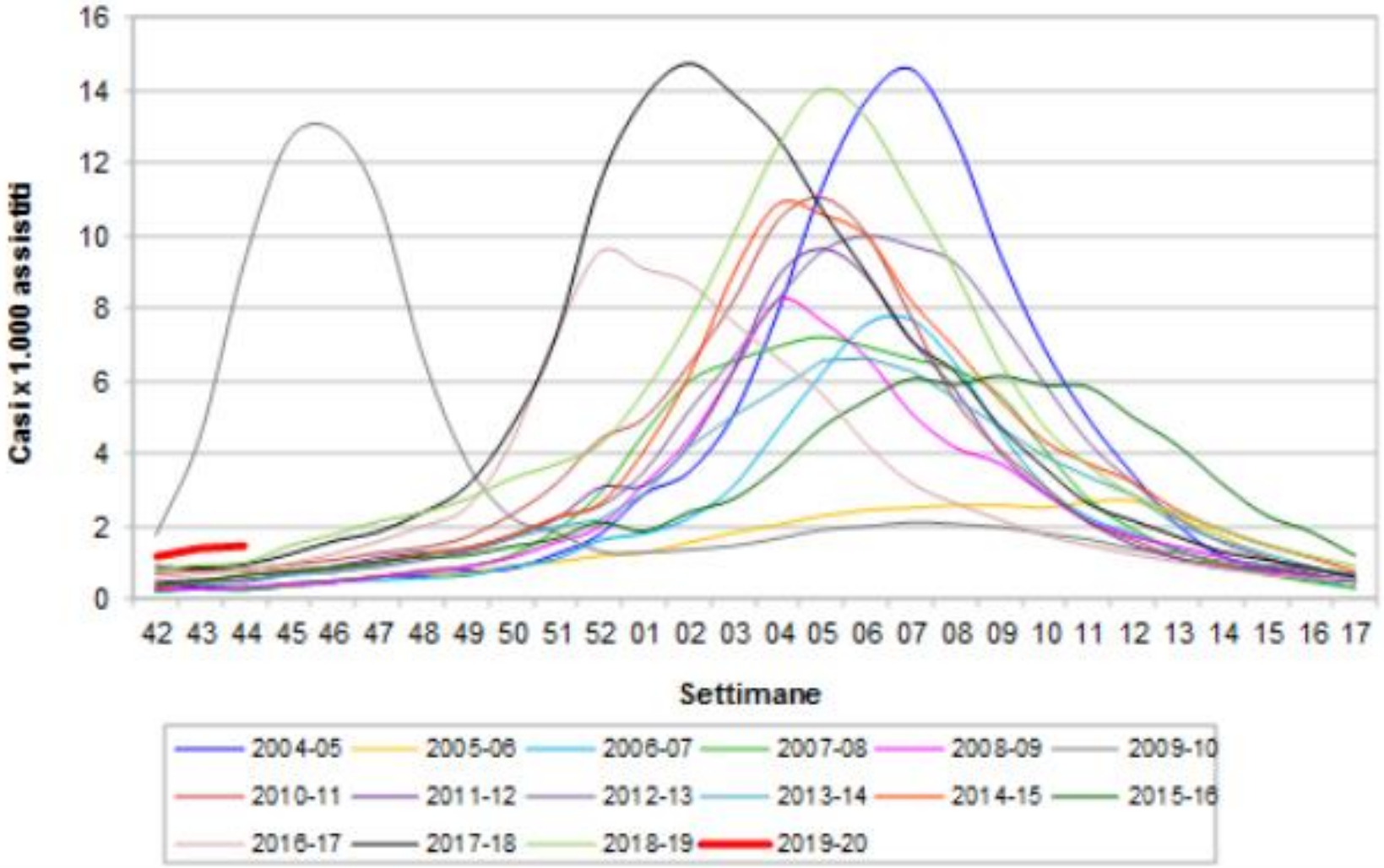
Guido Bertolini
Carlotta Rossi
Daniele Crespi
Stefano Finazzi
Marco Morandotti
Sandra Rossi
Mario Peta
Martin Langer
Daniele Poole

Is influenza A(H1N1) pneumonia more severe than other community-acquired pneumonias? Results of the GiViTI survey of 155 Italian ICUs

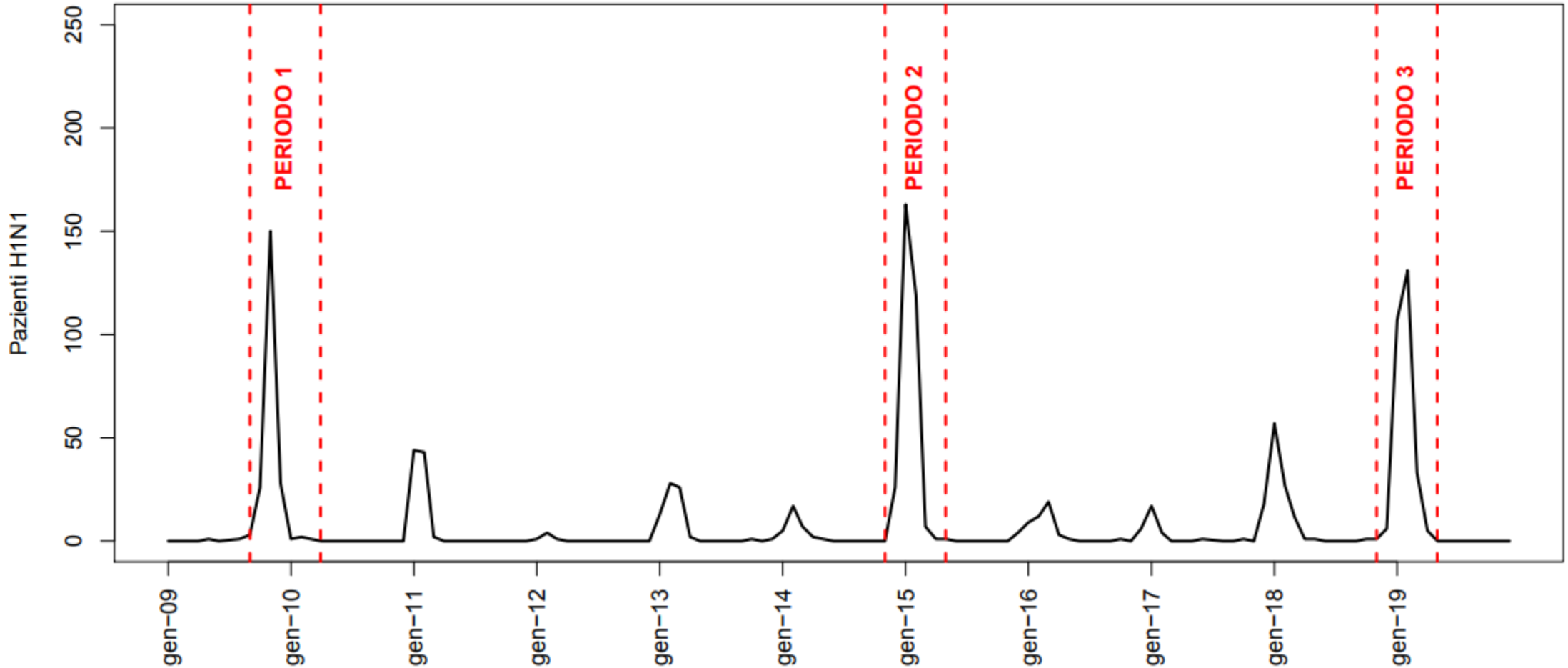
Conclusion: This study confirmed the specific features of critically ill A(H1N1) patients (i.e., young age, pregnancy, obesity). The pandemic did not increase ICU workload compared with other periods. A(H1N1) pneumonia did not have a higher risk of death than CAP of different origin among patients admitted to the ICU

Rapporto Epidemiologico InfluNet

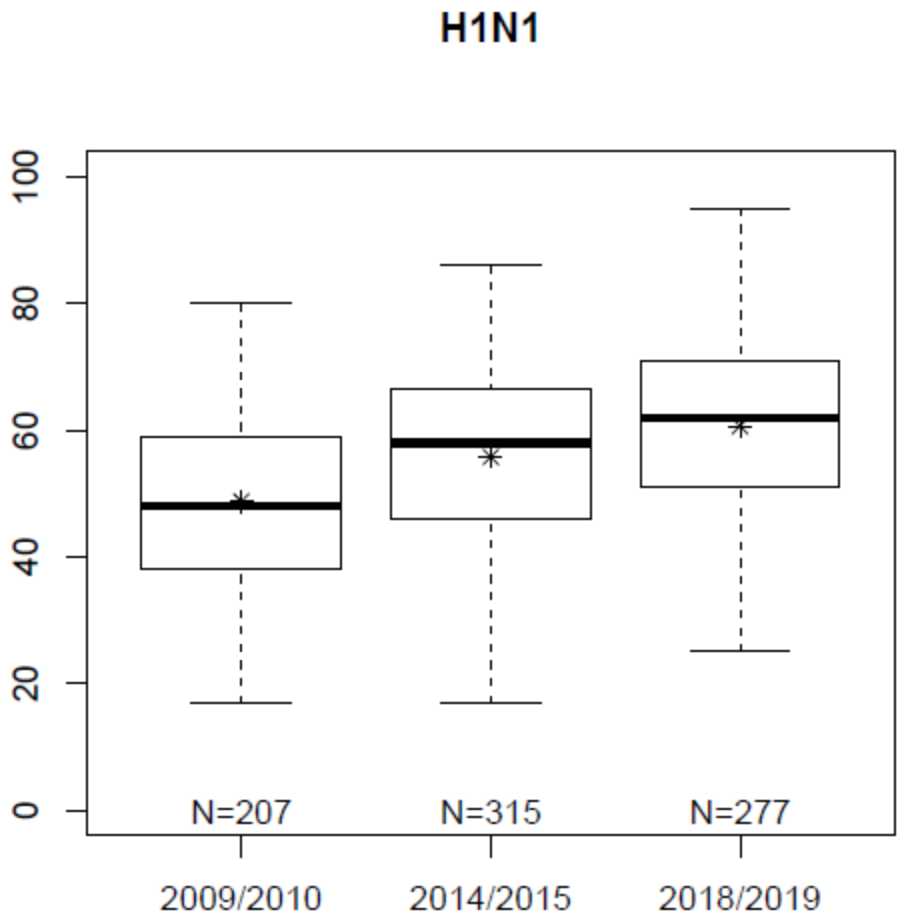
Incidenza delle sindromi influenzali (ILI) in Italia. Stagioni 2004/05 - 2019/20




Presto
tutti i dettagli

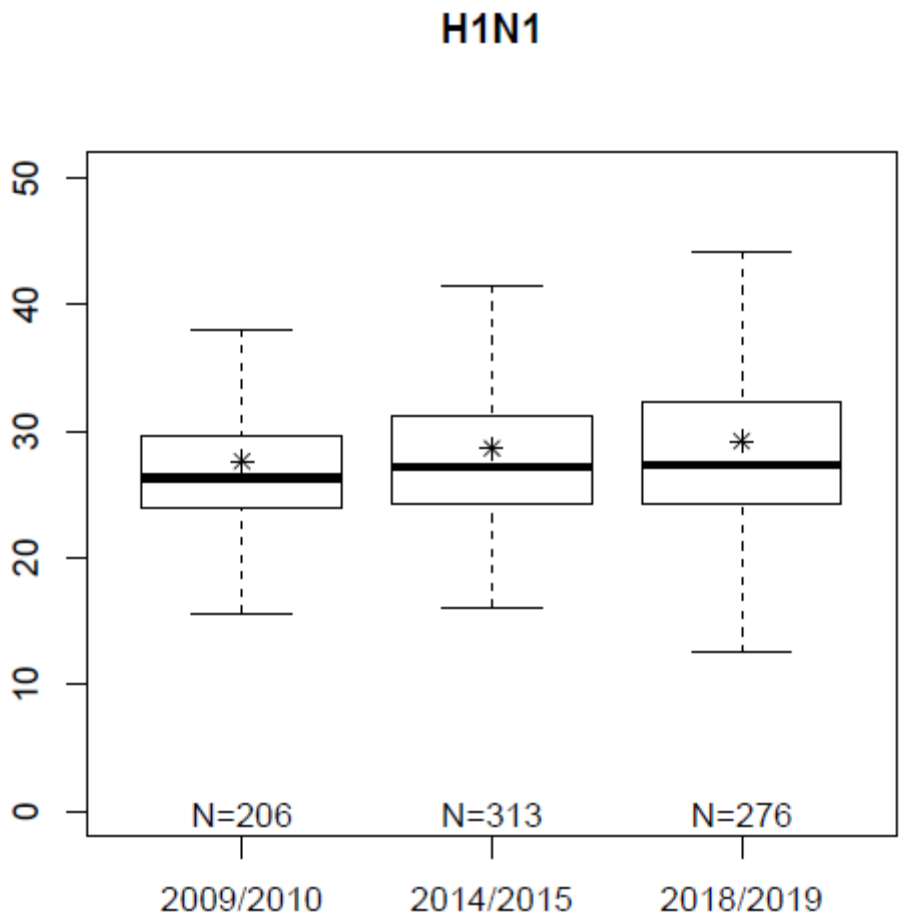

Pazienti H1N1
0
50
100
150
200
250
PERIODO 1
PERIODO 2
PERIODO 3
gen−09
gen−10
gen−11
gen−12
gen−13
gen−14
gen−15
gen−16
gen−17
gen−18
gen−19

AGE


H1N1
0
20
40
60
80
100
N=207
N=315
N=277
2009/2010
2014/2015
2018/2019

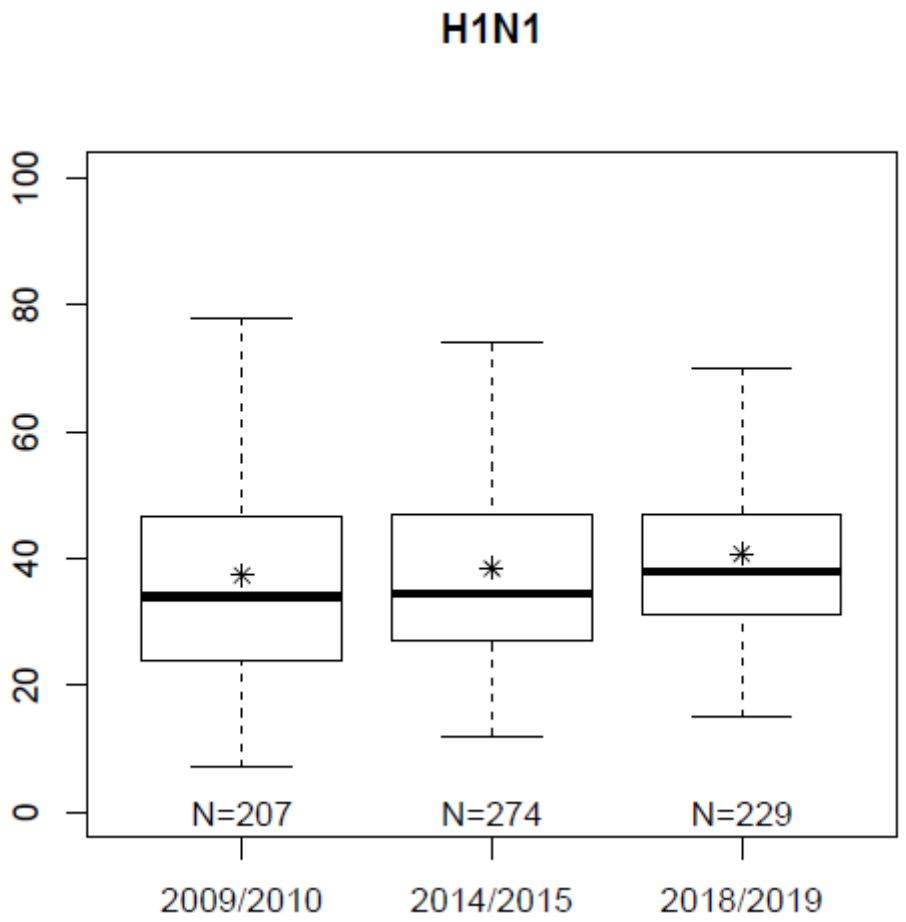
P<0.01

BODY MASS INDEX



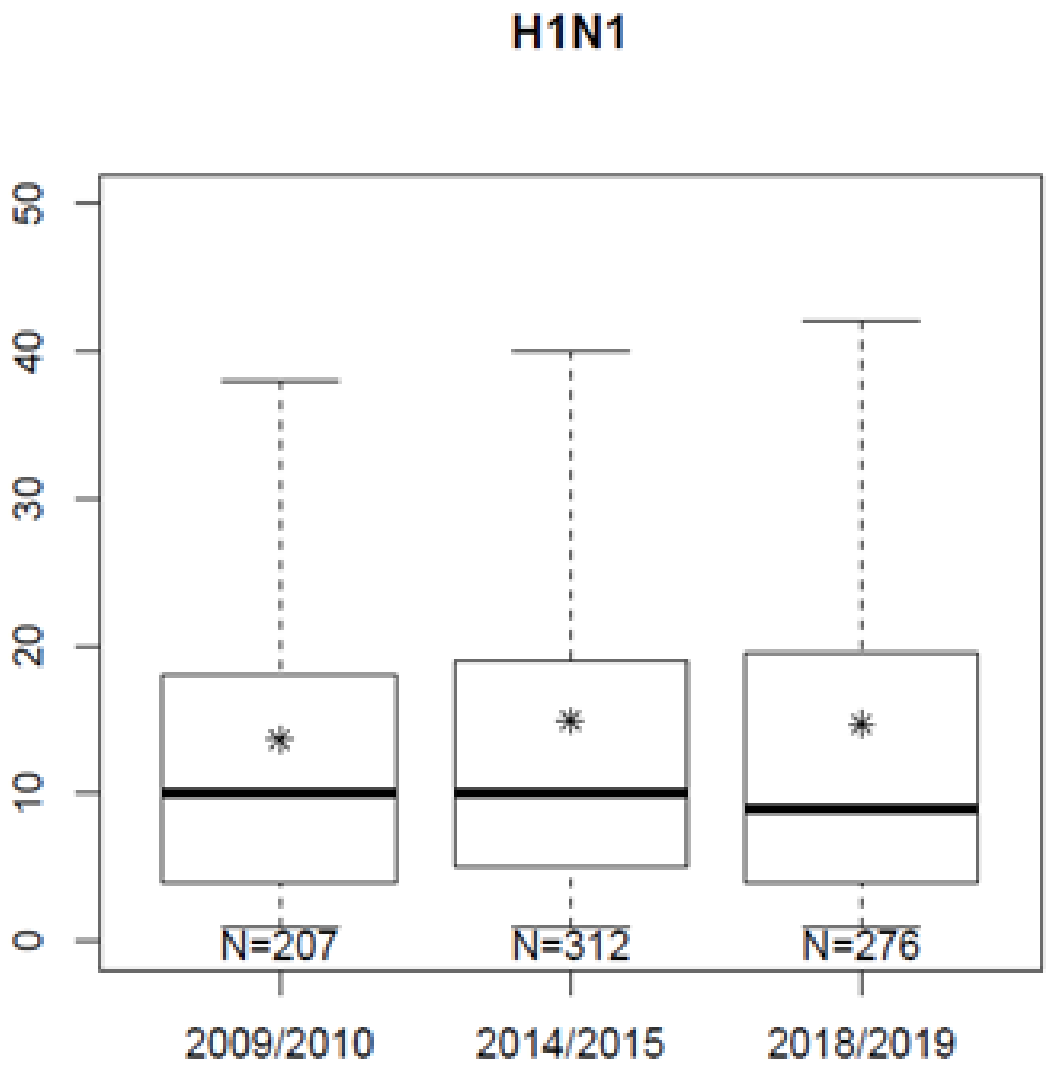
P<0.01

SAPS2


H1N1
100
80
60
40
20
0
N=207
N=274
N=229
2009/2010
2014/2015
2018/2019

P<0.01

LOS


H1N1
0
10
20
30
40
50
N=207
N=312
N=276
2009/2010
2014/2015
2018/2019

N, %	Totale	Periodo 1	Periodo 2	Periodo 3	p-value
Numero TI	172	87	107	77	-
Numero pazienti	799	207	315	277	-
Periodo	-	10/2009 - 02/2010	12/2014 – 03/2015	12/2018 – 03/2019	-
Degenza (giorni)	media 14.52 mediana 10	media 13.7 mediana 10	media 14.9 mediana 10	media 14.7 mediana 9	0.8431
Mortalità TI	178, 22.4%	41, 19.8%	72, 23.0%	65, 23.6%	0.0572
Mortalità ultimo H	227, 28.8%	48, 23.2%	94, 30.1%	85, 31.7%	0.1328
Trasferiti ad altra TI	144, 19.1%	31, 18.9%	77, 24.6%	36, 13.0%	0.0128

PLOS ONE

RESEARCH ARTICLE

Improved survival rates in patients with H1N1 acute respiratory failure in Korea between 2009 and 2016

Hayoung Choi[1☯], Ui Won Ko[2☯], Hyun Lee[3☯], Sang-Bum Hong[4‡*], Chi Ryang Chung[2,5‡*]

1 Division of Pulmonary, Allergy, and Critical Care Medicine, Department of Internal Medicine, Hallym University Kangnam Sacred Heart Hospital, Seoul, Korea, **2** Department of Critical Care Medicine, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea, **3** Division of Pulmonary Medicine and Allergy, Department of Internal Medicine, Hanyang University College of Medicine, Seoul, Korea, **4** Division of Pulmonary and Critical Care Medicine, Department of Medicine, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Korea, **5** Department of Medicine, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea

☯ These authors contributed equally to this work.
‡ These authors also contributed equally to this work.
* ccrzzang@gmail.com (CRC); hongsangbum@gmail.com (SBH)

RESEARCH ARTICLE

Improved survival rates in patients with H1N1 acute respiratory failure in Korea between 2009 and 2016

Hayoung Choi[1☯], Ui Won Ko[2☯], Hyun Lee[3☯], Sang-Bum Hong[4‡*], Chi Ryang Chung[2,5‡*]

1 Division of Pulmonary, Allergy, and Critical Care Medicine, Department of Internal Medicine, Hallym University Kangnam Sacred Heart Hospital, Seoul, Korea, **2** Department of Critical Care Medicine, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea, **3** Division of Pulmonary Medicine and Allergy, Department of Internal Medicine, Hanyang University College of Medicine, Seoul, Korea, **4** Division of Pulmonary and Critical Care Medicine, Department of Medicine, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Korea, **5** Department of Medicine, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea

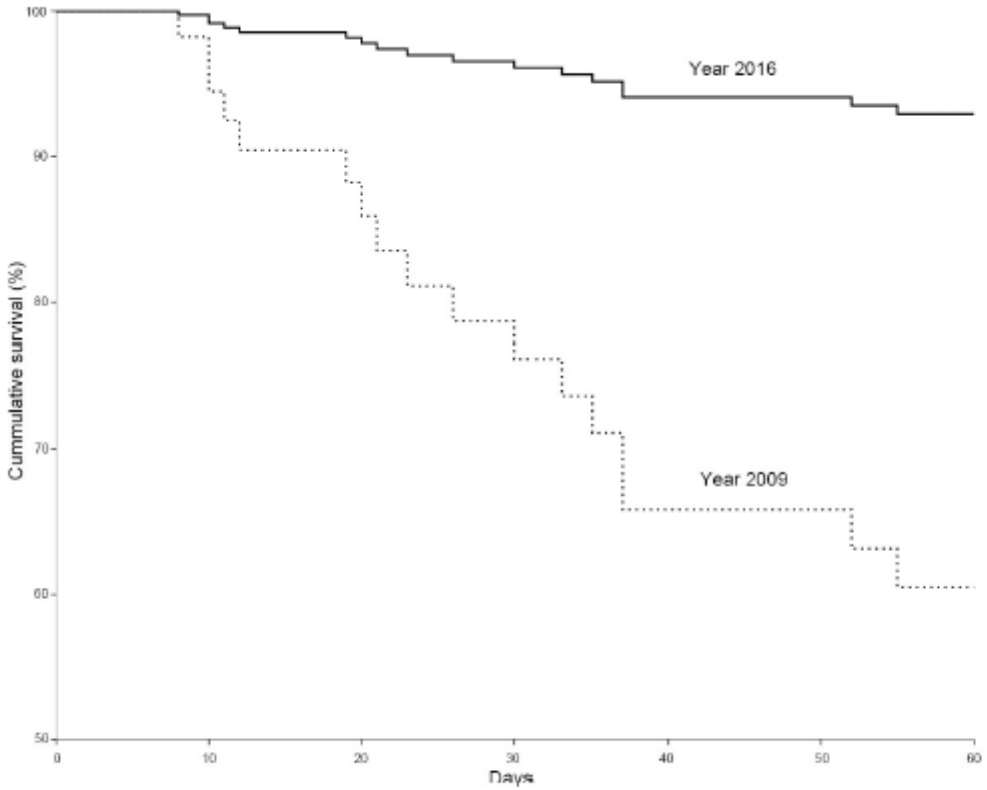
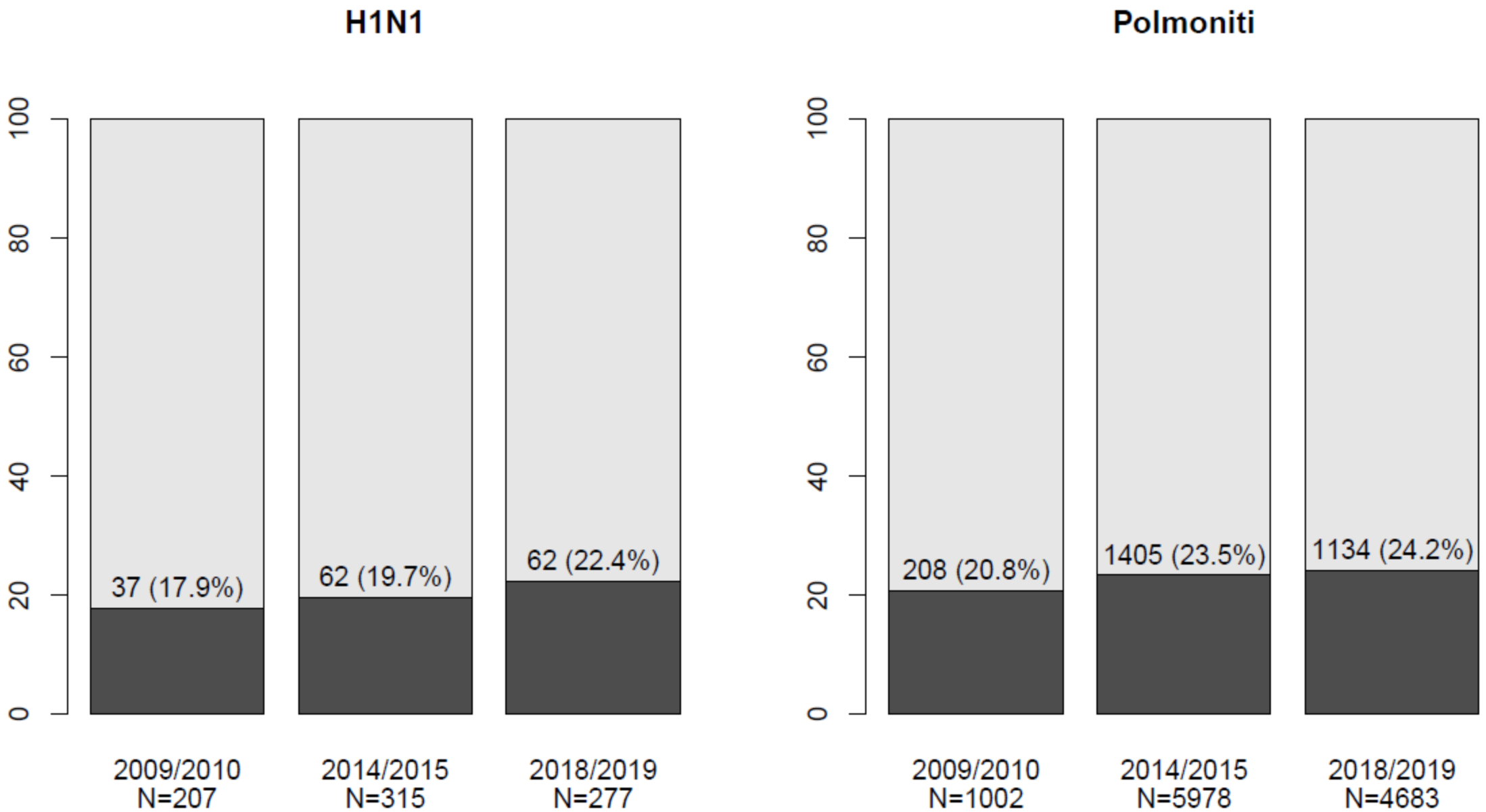


Fig 1. Cox proportional hazards model cumulative survival curve for patients with H1N1 acute respiratory failure each year (the solid line represents patients treated in 2016; the dotted line represents those treated in 2009).

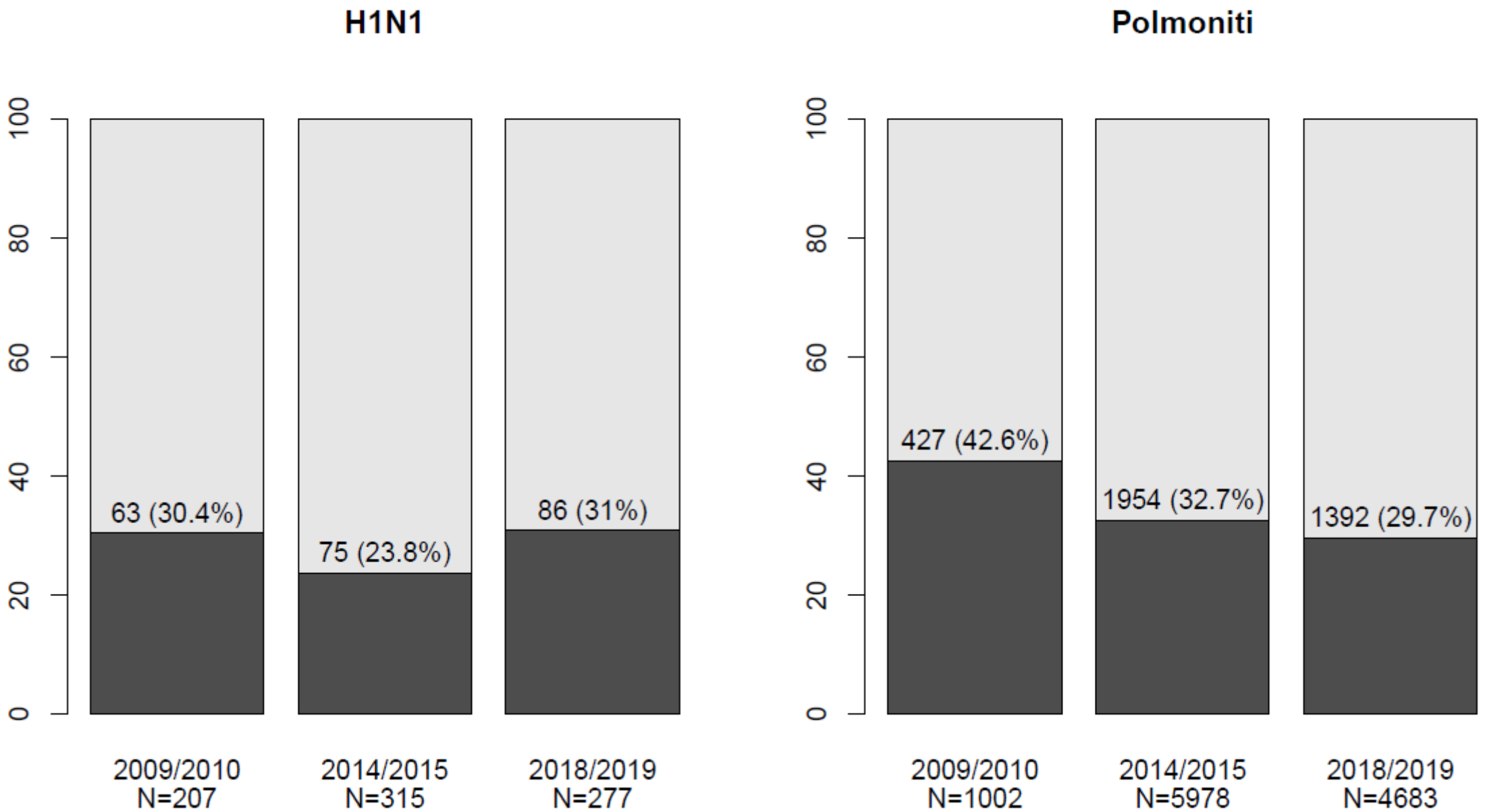
Does influenza A pneumonia behaves differently from other non influenza pneumonia?

Comorbidità: diabete



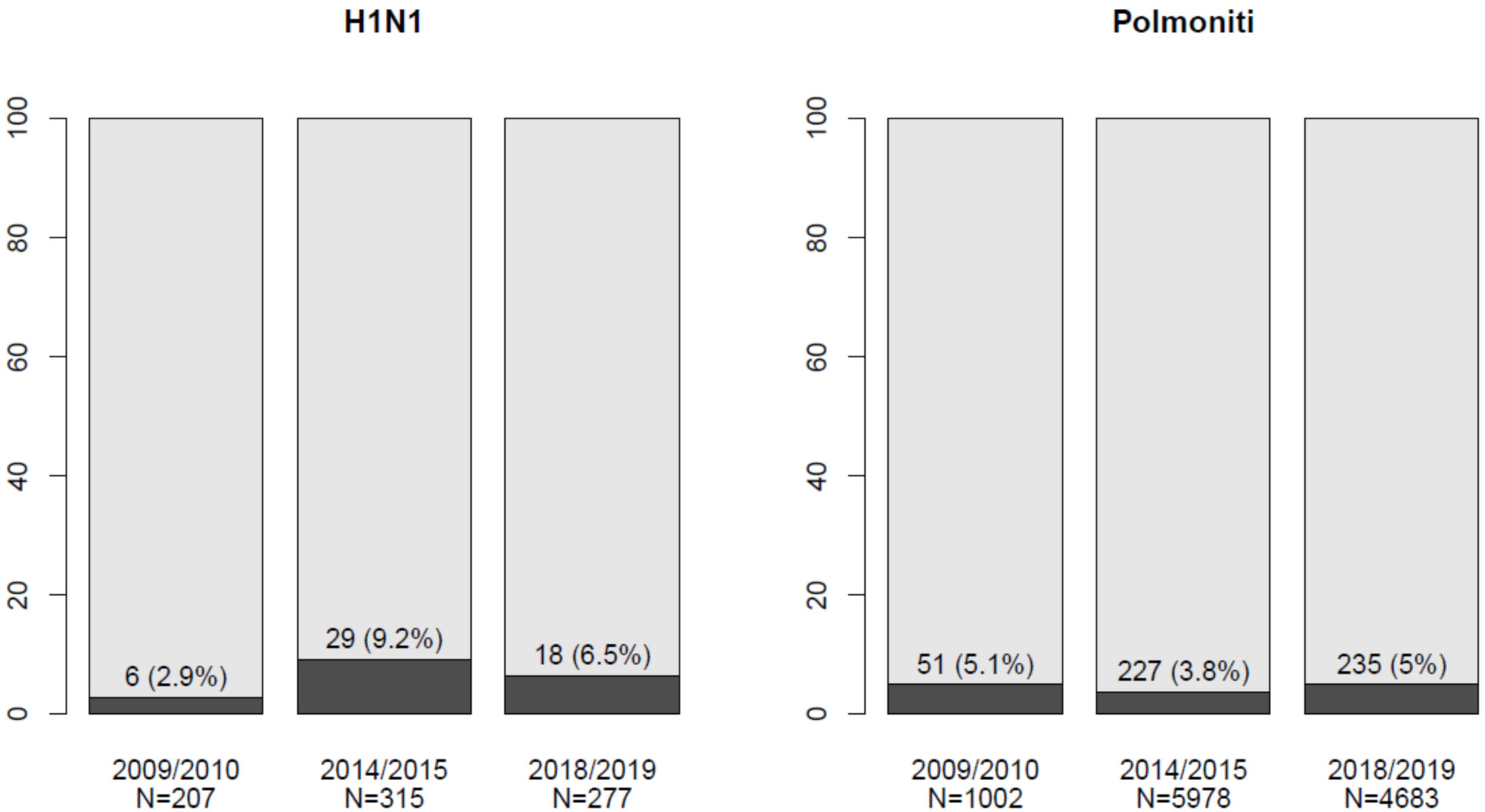
P<0.01

Comorbidità: BPCO



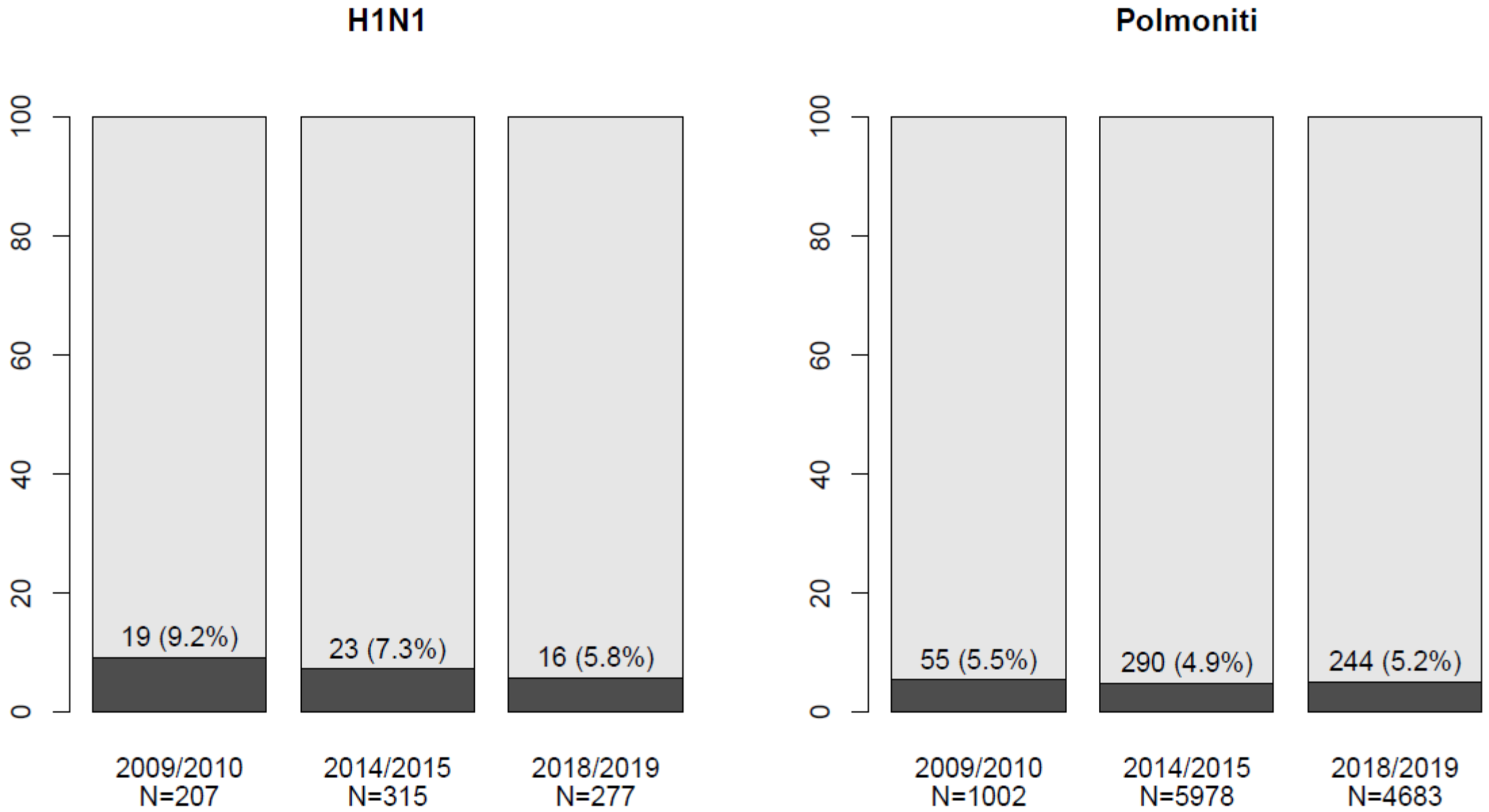
P<0.01

Comorbidità: immunosoppressione

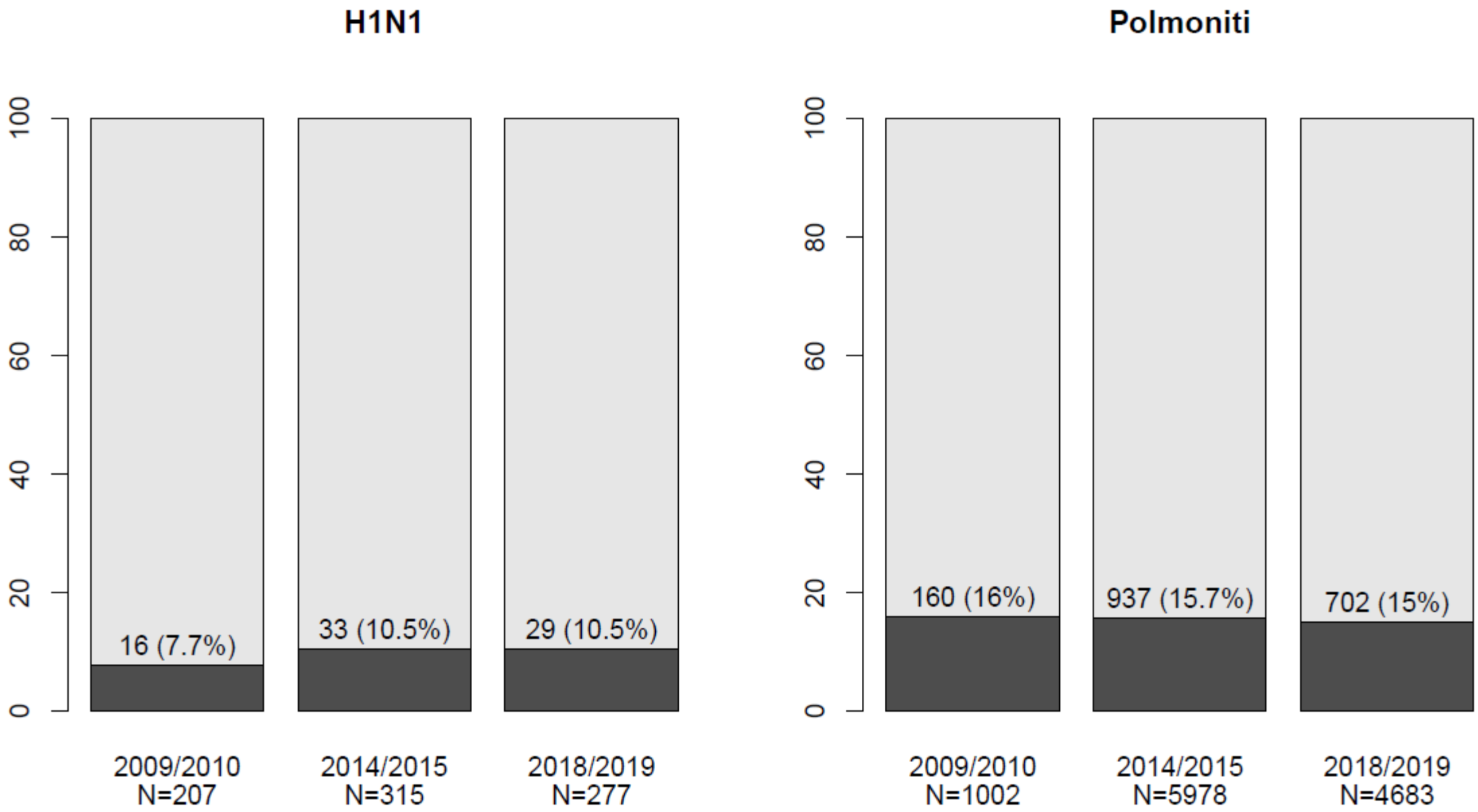


P<0.01

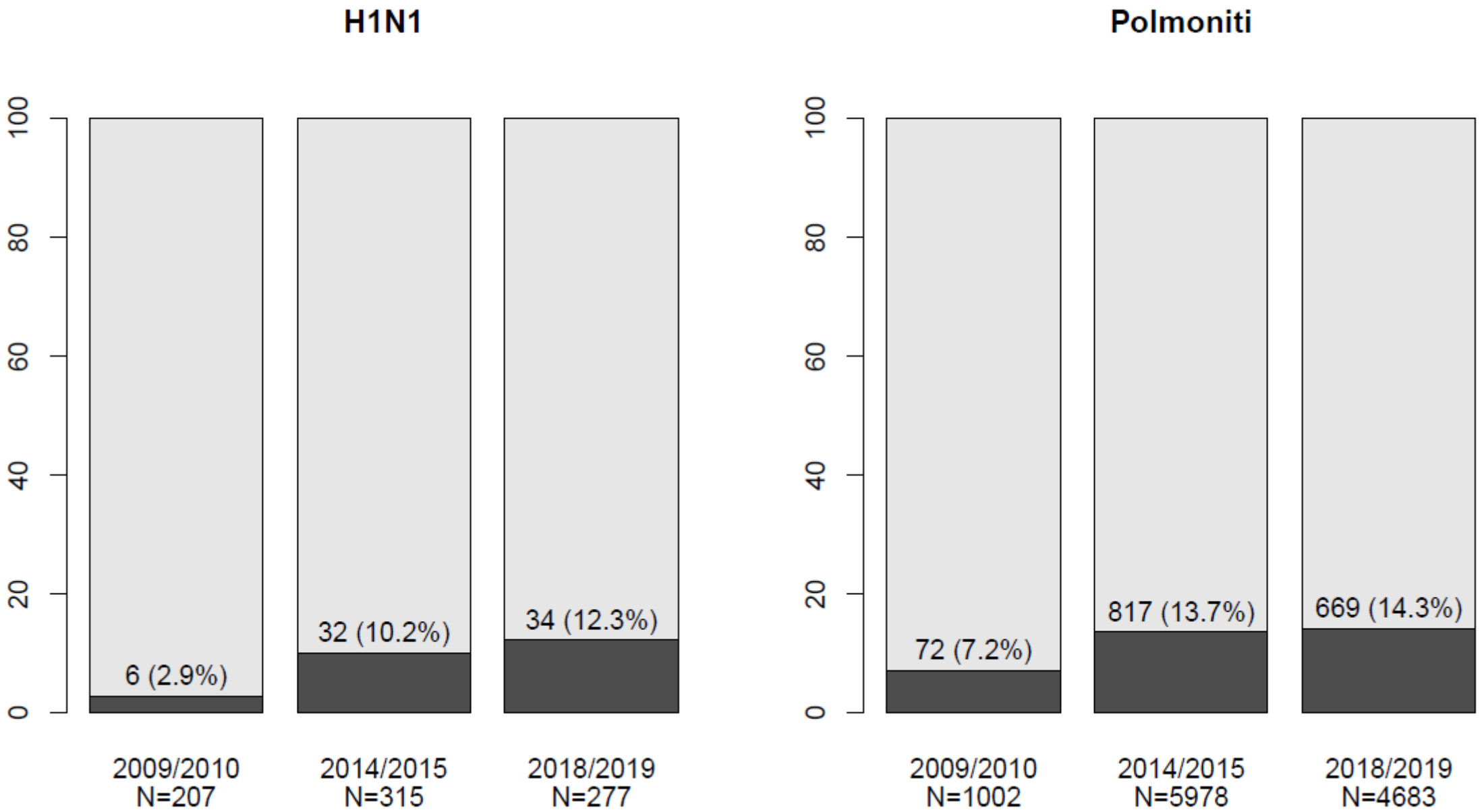
Comorbidità: malattie ematologiche maligne



Comorbidità: insufficienza cardiaca

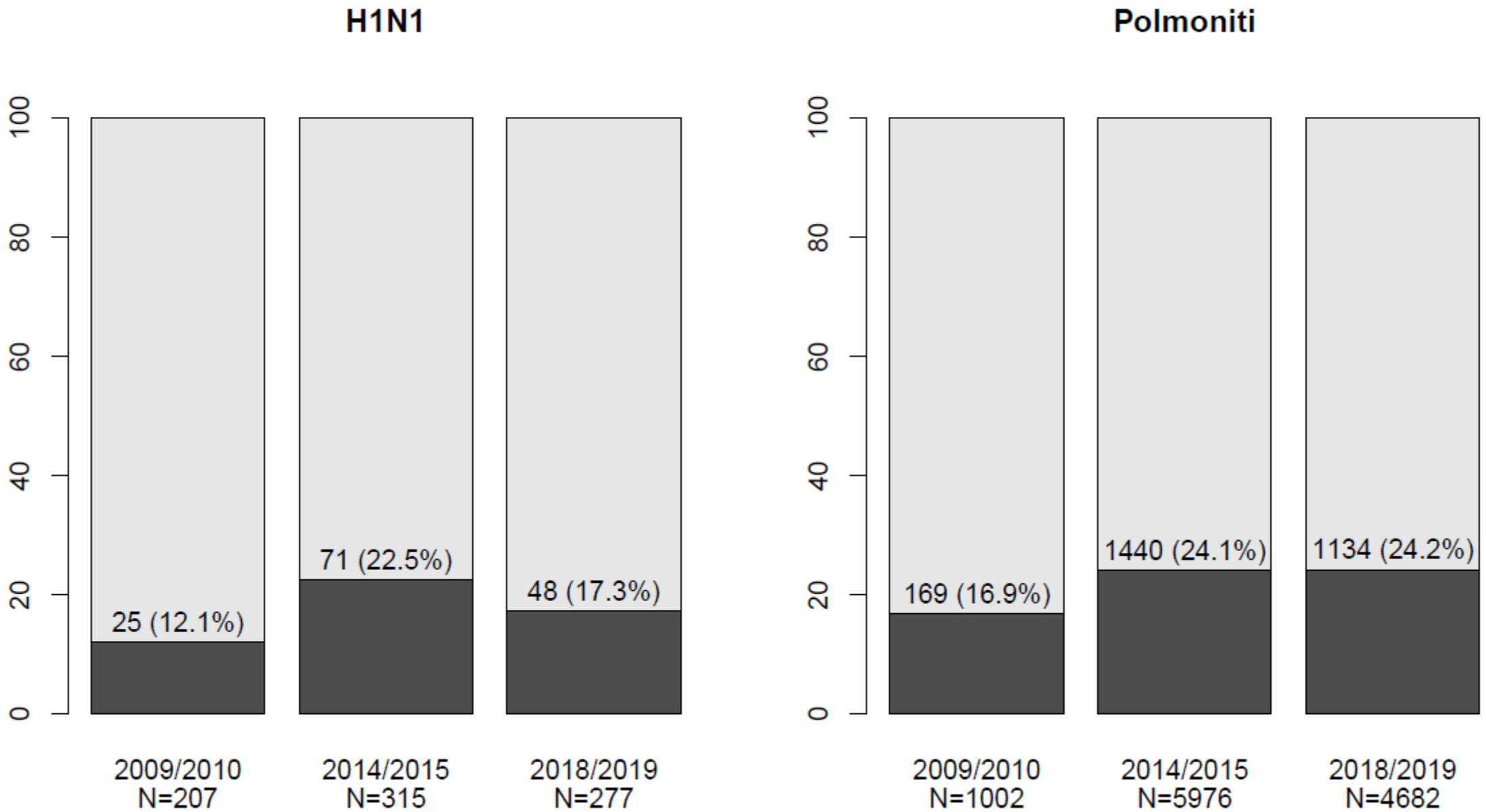


Comorbidità: insufficienza renale cronica



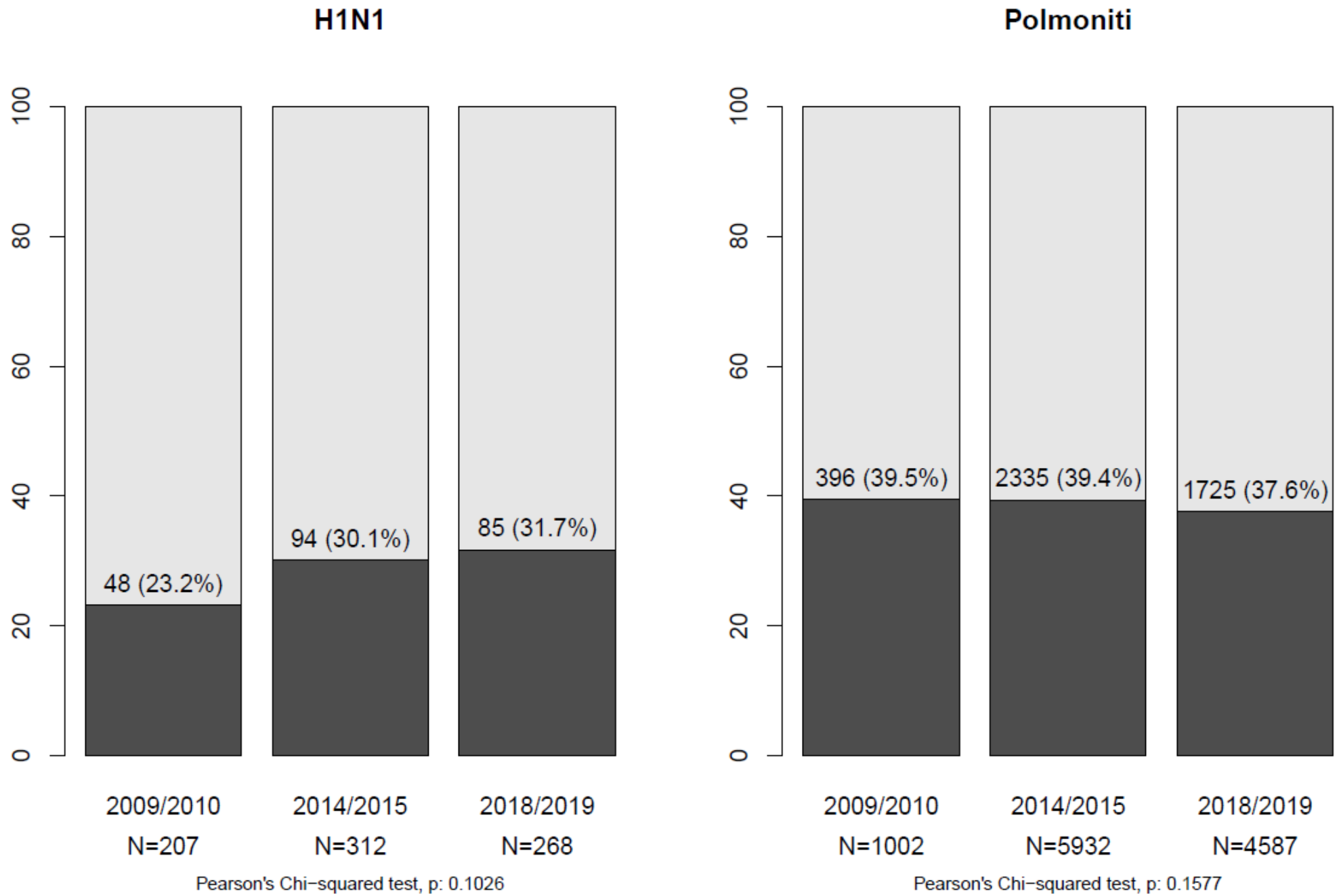
P<0.01

Comorbidità: shock settico



P<0.01

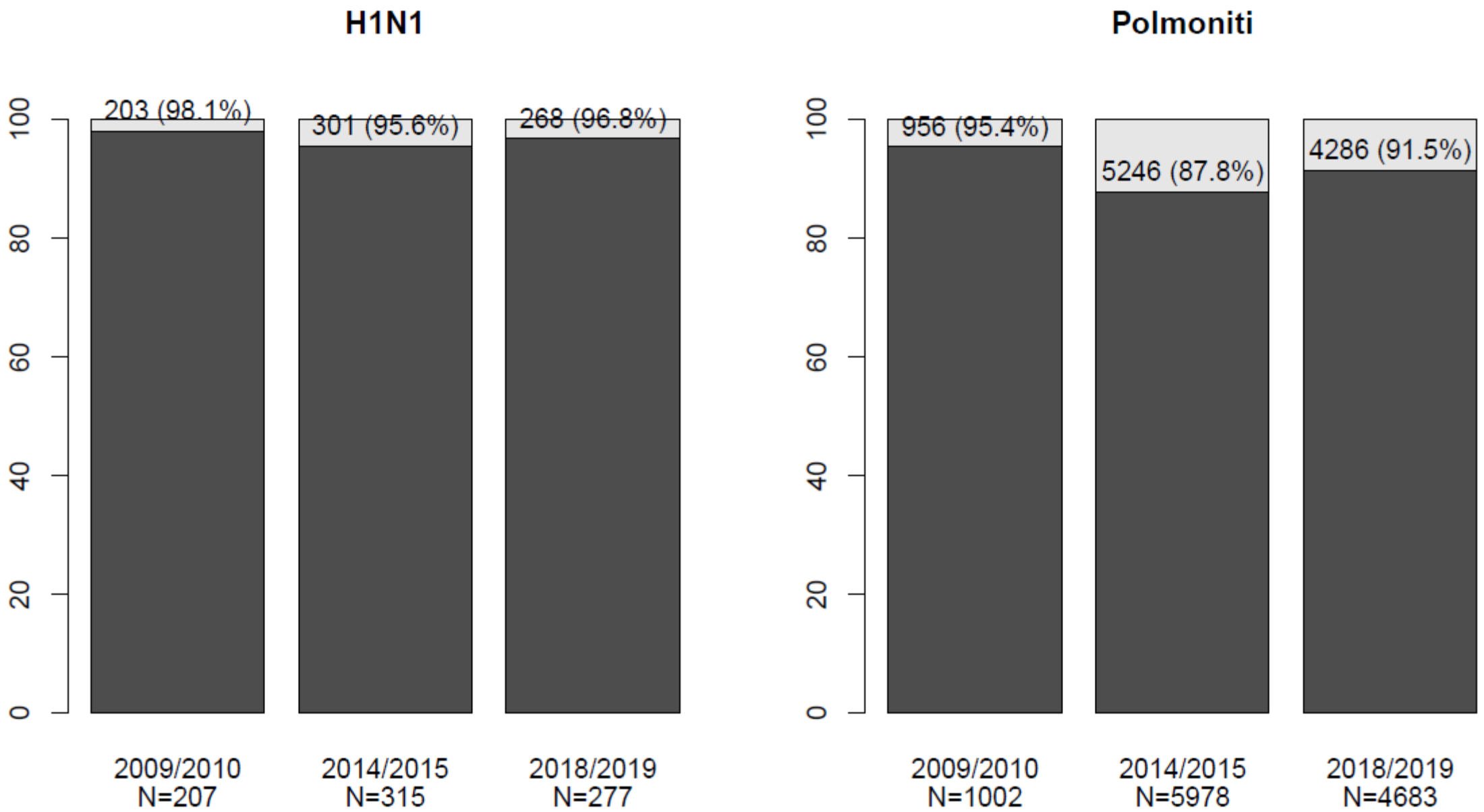
Mortalità ultimo ospedale



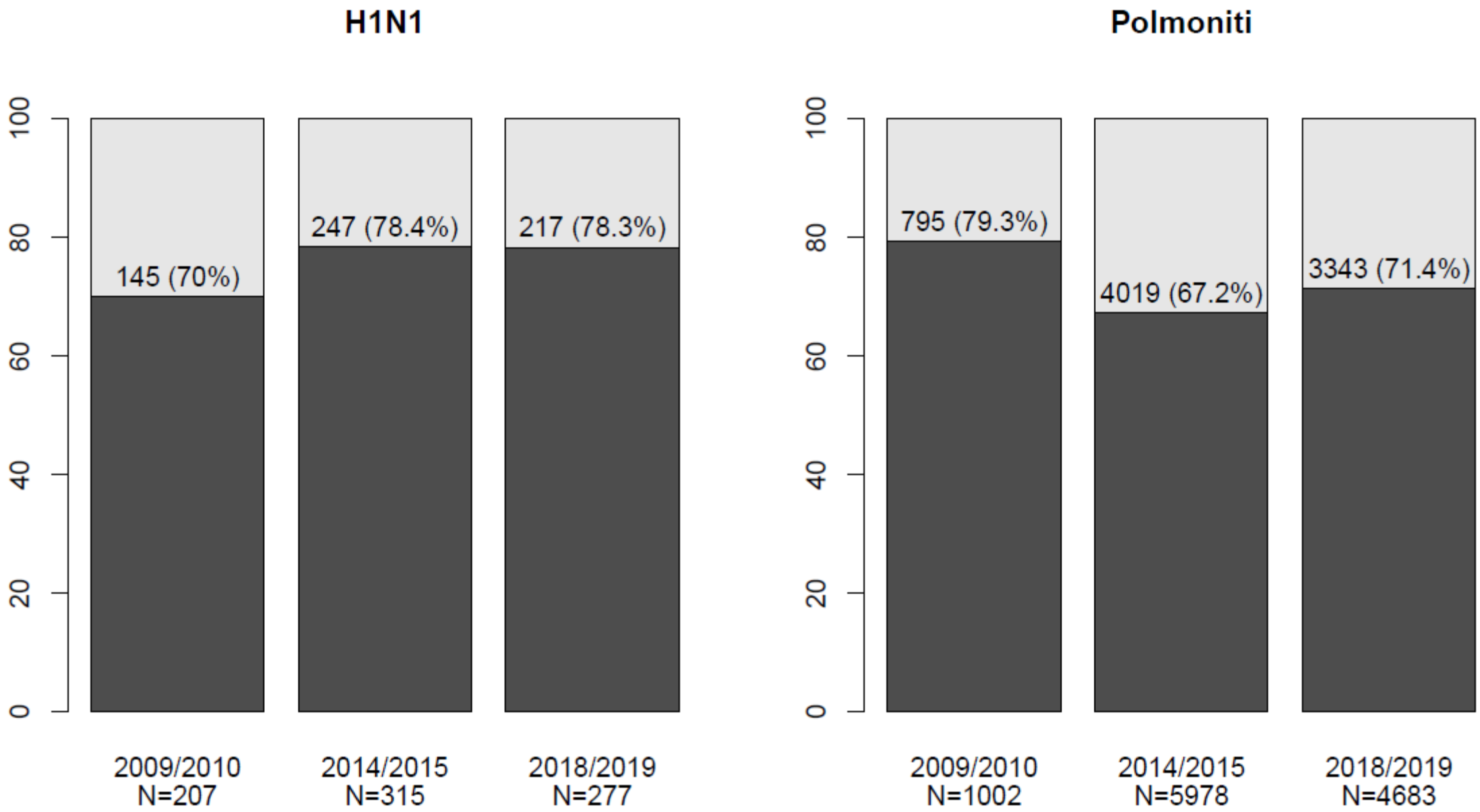
Points to focus our attention: it doesn’t mean that we are making inference from the data collected

Sorry for the bias

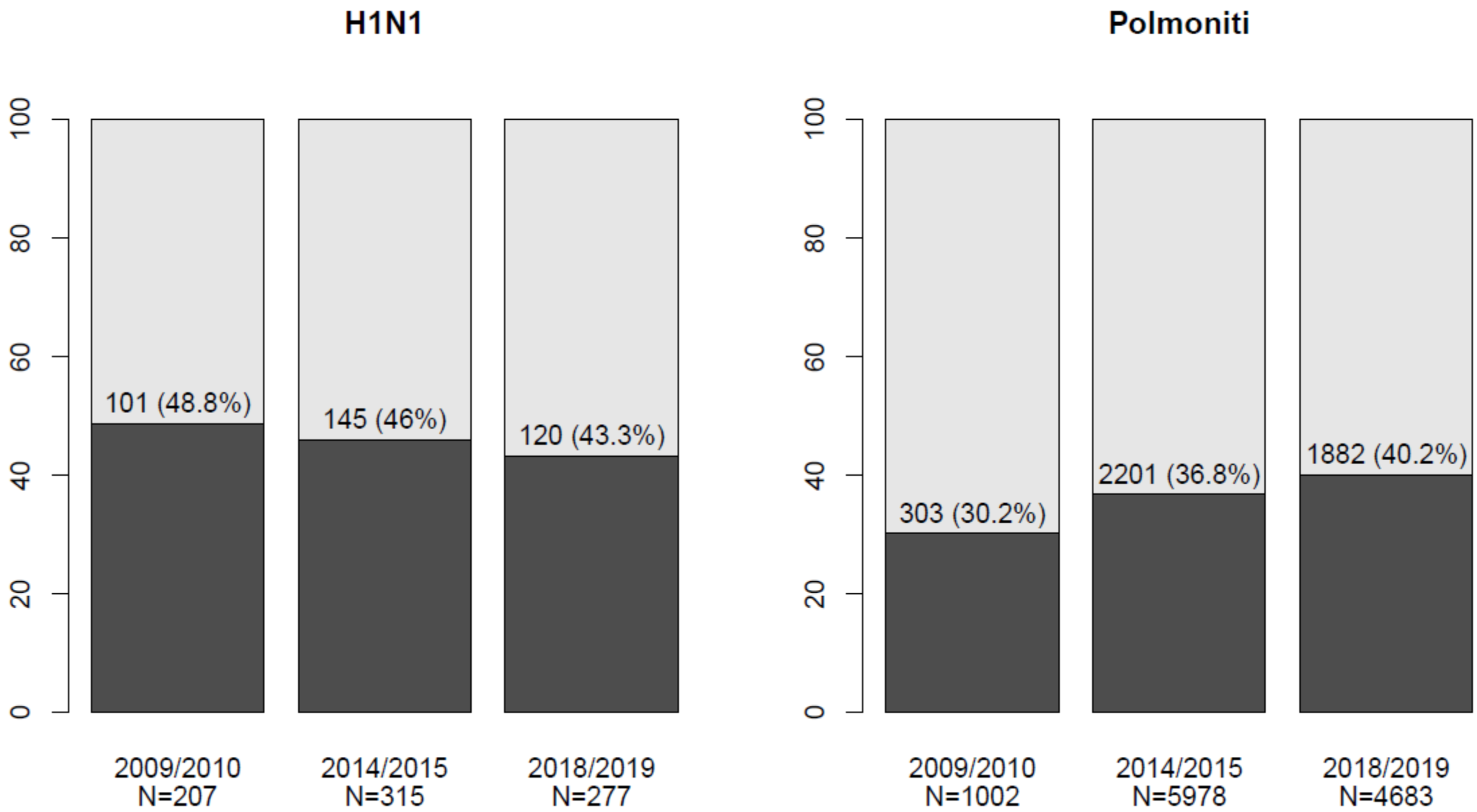
Ventilazione meccanica



Ventilazione invasiva



Ventilazione non invasiva



Points to focus our attention: it doesn't mean that we are making inference from the data collected

Risk Factors for Noninvasive Ventilation Failure in Critically Ill Subjects With Confirmed Influenza Infection

Alejandro Rodríguez MD PhD, Cristina Ferri MD, Ignacio Martin-Loeches MD PhD, Emili Díaz MD PhD, Joan R Masclans MD PhD, Federico Gordo MD PhD, Jordi Sole-Violán MD PhD, María Bodí MD PhD, Francesc X Avilés-Jurado MD PhD, Sandra Trefler PhD, Monica Magret MD PhD, Gerard Moreno MD, Luis F Reyes MD, Judith Marin-Corral MD PhD, Juan C Yebenes MD PhD, Andres Esteban MD PhD, Antonio Anzueto MD, Stefano Aliberti MD, and Marcos I Restrepo MD MSc; on behalf of the Grupo Español de Trabajo Gripe A Grave (GETGAG)/Sociedad Española de Medicina Intensiva, Crítica y Unidades Coronarias (SEMICYUC) Working Group

RESPIRATORY CARE • OCTOBER 2017 VOL 62 NO 10

NIV Failure in Critically Ill Influenza Subjects

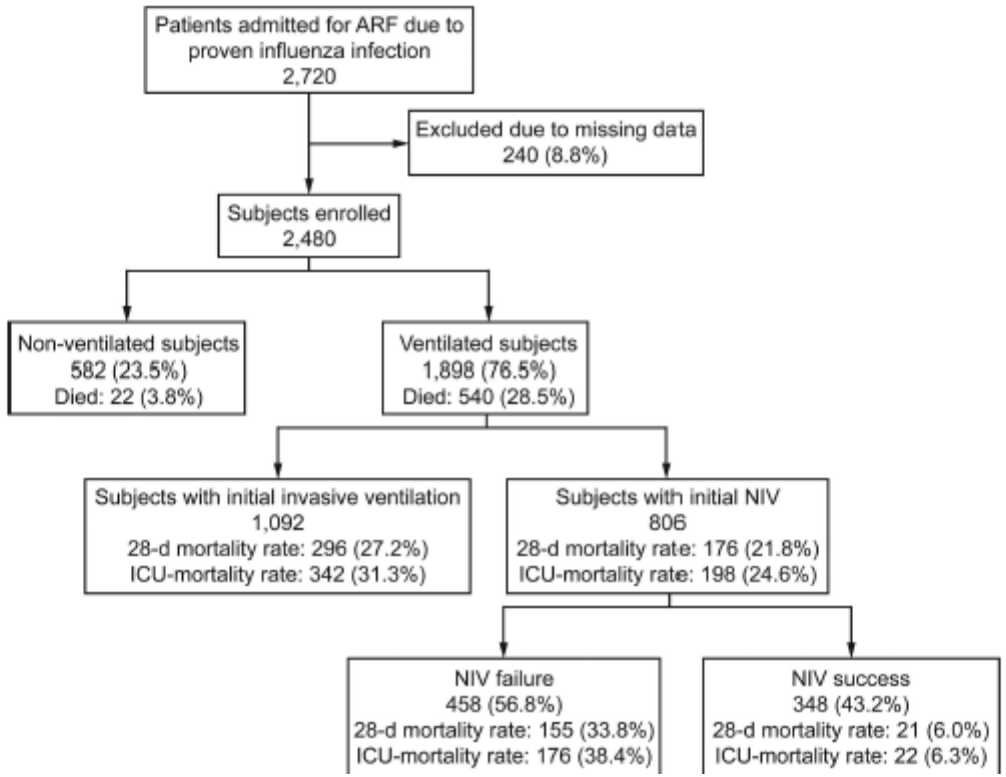


Table 1. Characteristics of the 1,898 Subjects Included

Variables	Whole Population (N = 1,898)	Invasive Mechanical Ventilation Group (n = 1,092)	NIV Failure Group (n = 458)	NIV Success Group (n = 348)
Age, median (IQR) y	53 (41–64)	51 (39–62)[a]	53 (42–65)[b]	58 (47–68)[c]
Male sex, n (%)	1,139 (60)	643 (58.9)	276 (60.3)	220 (63.2)
APACHE II score, median (IQR)	16 (12–22)	17 (12–23)	17 (13–22)[d]	14 (10–19)[e]
SOFA score, median (IQR)	6 (4–9)	7 (5–10)[f]	7 (4–9)[g]	4 (3–6)[h]
Time between onset symptoms and hospital admission, median (IQR) d	4 (2–6)	4 (2–6)	4 (2–6)	4 (2–5)
Time between onset symptoms and ICU admission, median (IQR) d	1 (1–1)	1 (1–1)	1 (1–1)	1 (1–1)
Quadrants infiltrated in chest radiograph upon ICU admission, median (IQR)	2 (2–4)	3 (2–4)	3 (2–4)[i]	2 (1–3)[j]
Lactate dehydrogenase, median (IQR) U/L	600 (380–970)	625 (383–980)	620 (423–1100)[k]	485 (332–857)[l]
Creatine phosphokinase, median (IQR) U/L	193 (83–500)	214 (94–547)	171 (86–496)	152 (73–364)
Leukocytes $\times 10^9$, median (IQR)	8.1 (4.5–13.0)	8.0 (4.3–13.0)	7.8 (4.3–12.3)[m]	9.1 (5.4–13.6)[n]
Serum creatinine, median (IQR), mg/dL	0.9 (0.7–1.5)	1.0 (0.7–1.5)	0.9 (0.7–1.4)	0.9 (0.6–1.4)
Serum procalcitonin, median (IQR) μg/mL	0.7 (0.2–3.1)	0.9 (0.3–4.1)	0.6 (0.3–2.6)	0.5 (0.2–2.0)
Serum-reactive C-protein, median (IQR) mg/dL	28.7 (14–95)	27.0 (14–87)[o]	31.1 (15–120)[p]	34.2 (14–111)
Comorbidities, n (%)				
Asthma	181 (9.6)	86 (7.9)[q]	51 (11.2)[r]	44 (12.6)
COPD	434 (23.0)	211 (19.3)	100 (21.9)[s]	123 (35.2)[t]
Chronic cardiac disease	232 (12.3)	108 (9.9)	53 (11.6)[v]	71 (20.4)[w]
Chronic renal failure	165 (8.7)	83 (7.6)	42 (9.2)	40 (11.5)
Hematologic disease	131 (6.9)	69 (6.3)	37 (8.1)	25 (7.2)
Pregnancy	70 (3.7)	45 (4.1)	14 (3.1)	11 (3.2)
Obesity (body mass index > 30 kg/m^2)	363 (19.2)	208 (19.2)	82 (17.9)	73 (21.0)
Diabetes mellitus	306 (16.1)	146 (13.4)	78 (17.0)[x]	82 (23.6)[y]
Neuromuscular disease	54 (2.9)	32 (2.9)	12 (2.6)	10 (2.9)
ICU mortality, n (%)	540 (28.5)	342 (31.3)[z]	176 (38.4)[#]	22 (6.3)*

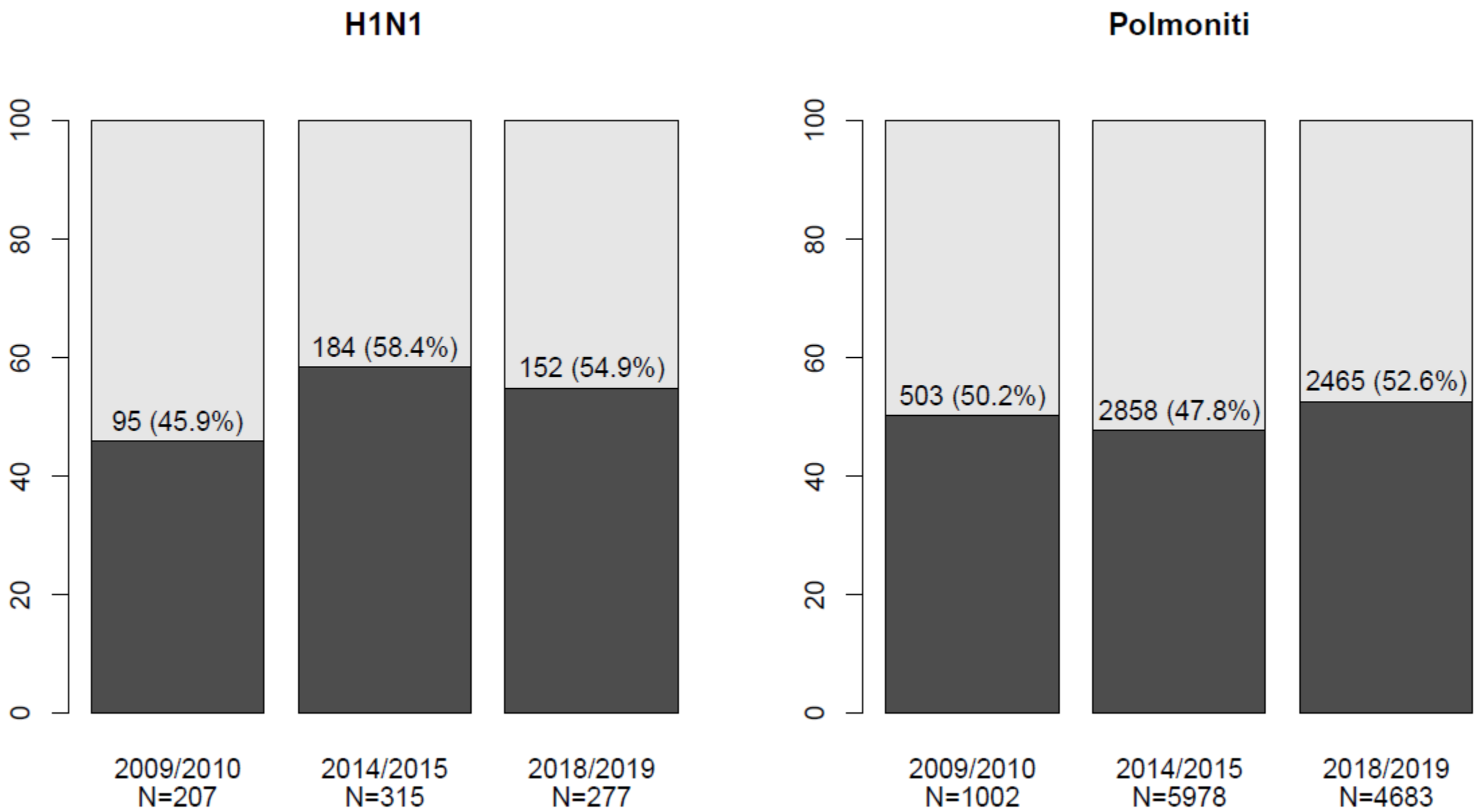
Table 3. Multiple Logistic Regression Models of Study Variables Associated With ICU Mortality in Subjects With Noninvasive Ventilation

Variable	OR	95% CI	*P*
Age	1.01	1.01–1.03	.030
APACHE II score	1.05	1.03–1.08	<.001
Time between onset symptoms and ICU admission	1.13	1.07–1.19	<.001
No. of quadrants infiltrated in chest radiograph	1.35	1.15–1.58	<.001
No. of comorbidities	1.38	1.15–1.66	<.001
NIV failure	11.45	6.52–20.1	<.001

Points to focus our attention: it doesn’t mean that we are making inference from the data collected

Sorry for the bias

Farmaci vasoattivi



Points to focus our attention: it doesn't mean that we are making inference from the data collected

Journal of Critical Care (2013) **28**, 321–327

ELSEVIER

Journal of Critical Care

Infection

Myocardial dysfunction during H1N1 influenza infection☆,☆☆

David Fagnoul MD, Pierre Pasquier MD, Laurent Bodson MD, Julian Arias Ortiz MD, Jean-Louis Vincent MD, PhD, Daniel De Backer MD, PhD*

Department of Intensive Care, Erasme University Hospital, Université Libre de Bruxelles, Brussels, Belgium

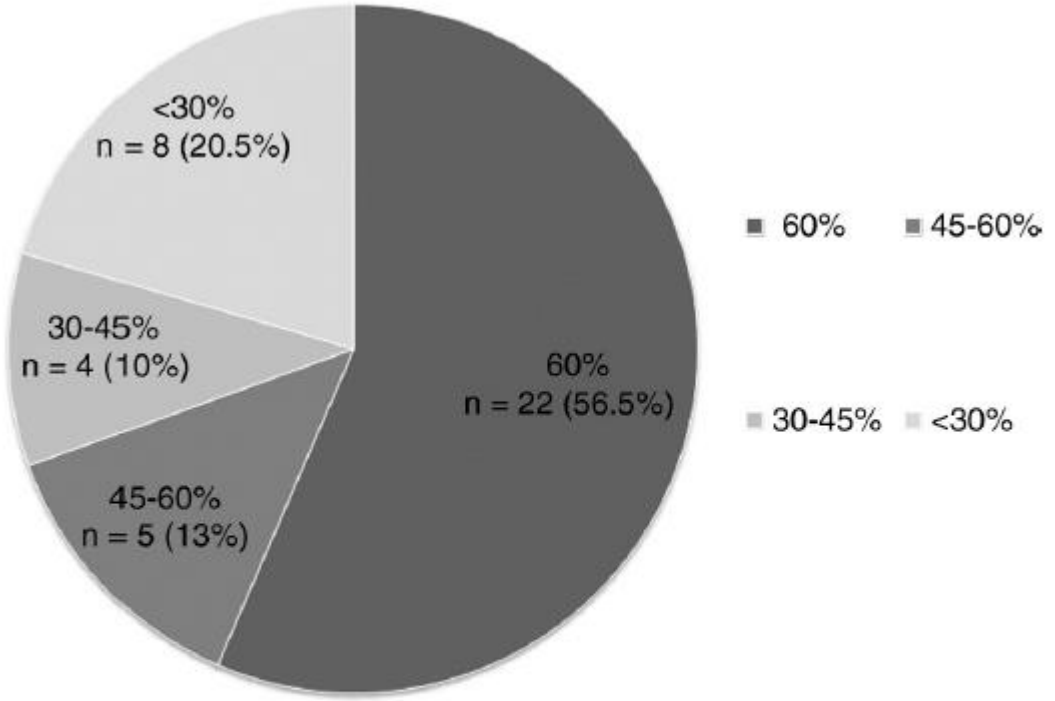


Fig. 1 Distribution of LVEF values at admission. Left ventricular function was classified into normal (LVEF >60%), slightly to moderately altered (LVEF, 45%-60%), moderately to severely altered (LVEF, 30%-45%), and severely altered (LVEF<30%).

Journal of Critical Care (2013) 28, 321–327

Journal of Critical Care

Infection

Myocardial dysfunction during H1N1 influenza infection☆,☆☆

David Fagnoul MD, Pierre Pasquier MD, Laurent Bodson MD, Julian Arias Ortiz MD, Jean-Louis Vincent MD, PhD, Daniel De Backer MD, PhD*

Department of Intensive Care, Erasme University Hospital, Université Libre de Bruxelles, Brussels, Belgium

Main hemodynamic variables and therapeutic interventions in patients evaluated for myocardial dysfunction with echocardiography

	All patients (n = 39)	Patients without myocardial dysfunction (n = 11)	Patients with myocardial dysfunction (n = 28)	Patients with predominant LV dysfunction (n = 17)	Patients with predominant RV dysfunction (n = 11)
Heart rate, beats per minute	100 ± 19	96 ± 18	104 ± 19	99 ± 18	108 ± 18
Mean arterial pressure, mm Hg	85 ± 13	83 ± 12	85 ± 14	87 ± 15	83 ± 11
Systolic pulmonary pressure[a], mm Hg	40 ± 12	39 ± 14	41 ± 11	42 ± 11	37 ± 9
PAOP, mm Hg	16 ± 6	16 ± 6	14 ± 4	17.5 ± 7	15 ± 4
CVP, mm Hg	11 ± 5	10 ± 4	11 ± 5	11 ± 5	12 ± 4
Cardiac index,[a] L/min per square meter	4 ± 1	4.65 ± 0.96	3.9 ± 1	3.77 ± 1	4.05 ± 1
S(c)vO2	75 (70-80)	78 (72-83)	73 (67-79)	72 (67-77)	73 (69-80)
Lactate, mEq/L	2.0 ± 2.2	1.6 ± 0.9	2.3 ± 2.6	2.1 ± 2.6	2.5 ± 2.5
Troponin (ng/mL)	0.03 (0.01-0.3)	0.02 (0.01-0.15)	0.03 (0.01-0.31)	0.03 (0.01-0.25)	0.04 (0.01-0.44)
PEEP (cm H_2O)	8.5 ± 3.4	8.8 ± 3.6	8.8 ± 3.4	8.6 ± 3.4	8.8 ± 3.5
Pa_{O_2}/F_{IO_2}	178 (133-242)	171 (125-256)	177 (131-233)	174 (128-226)	193 (137-250)
Norepinephrine, n; dose, μg/kg per min	23; 0.22 (0.09-0.40)	5; 0.23 (0.14-0.27)	18; 0.23 (0.1-0.46)	10; 0.2 (0.10-0.40)	8; 0.3 (0.10-0.90)
Dobutamine, n; μg/kg per min	15; 5 (4-20)	–	15; 5 (4-20)	10; 5 (4-10)	5; 20 (7,5-20)[b]
Levosimendan, n (%)	2	0	2	1	1
ECMO, n (%)	7 (18%)	0	7 (25%)	1 (6%)	6 (54%)[b]
Inhaled NO, n (%)	8 (20%)	3 (27%)	5 (18%)	1 (6%)	4 (36%)
Prone position, n (%)	7 (18%)	3 (27%)	4 (14%)	2 (18%)	2 (18%)

What’s about overinfection?

Table 3. Incidence of bacterial co-infection among 2009 Pandemic and post-Pandemic period

	2009 Pandemic		Post-pandemic	
	EU Martin-Loeches *et al.* [30]	**US Rice *et al.* [31]**	**EU Beumer *et al.* [2]**	**US Shah *et al.* [34]**
S. pneumoniae	55% (62/113)	11% (17/154)	7% (3/45)	5.4% (7/129)
S. aureus	8% (9/113)	31% (47/154)	11% (5/45)	36,5% (47/129)
P. aeruginosa	8% (9/113)	ND	2,2% (1/45)	14% (18/129)
S. pyogenes	5.3% (6/113)	3% (4/154)	2,2% (1/45)	1,6% (2/129)
H. influenzae	2.6% (3/113)	ND	2,2% (1/45)	2.3% (3/129)

EU, European Union; ND, no data; US, United States of America.

Periodo 2: 2014/2015

H1N1

216/315 pazienti con dati del petalo

Infezioni con microrganismi isolati	N	%
No	23	20.2
Si	91	79.8
Numero totale di microrganismi isolati	105	
Missing	0	

Microrganismi responsabili isolati (MDR) ***	N	% su isolati, N=91	MDR N	MDR % su gruppo
Batteri				
Gram +	*15*	*16.5*	*3*	*20.0*
Staphylococcus	6	6.6		
Staphylococcus Aureus (MRSA)	4	4.4	2	50.0
S. coagulasi negativo (meticillina resistente)	1	1.1	1	100.0
Streptococcus	9	9.9		
Pneumococcus (resistente alla penicillina)	6	6.6	0	0.0
Enterococcus	1	1.1		
Gram -	*10*	*11.0*	*6*	*60.0*
Klebsiella (prod. ESBL)	4	4.4	2	50.0
Enterobacter (prod. ESBL)	0	0.0	0	0.0
Serratia (prod. ESBL)	0	0.0	0	0.0
Pseudomonas aer.	2	2.2		
MDR pseudomonas aer. sensibile a carbapenemi			1	50.0
MDR pseudomonas aer. resistente anche a carbapenemi			0	0.0
Escherichia coli (prod. ESBL)	1	1.1	0	0.0
Proteus (prod. ESBL)	0	0.0	0	0.0
Acinetobacter (resistente ai carbapenemi)	2	2.2	2	100.0

Periodo 3: 2018/2019

H1N1

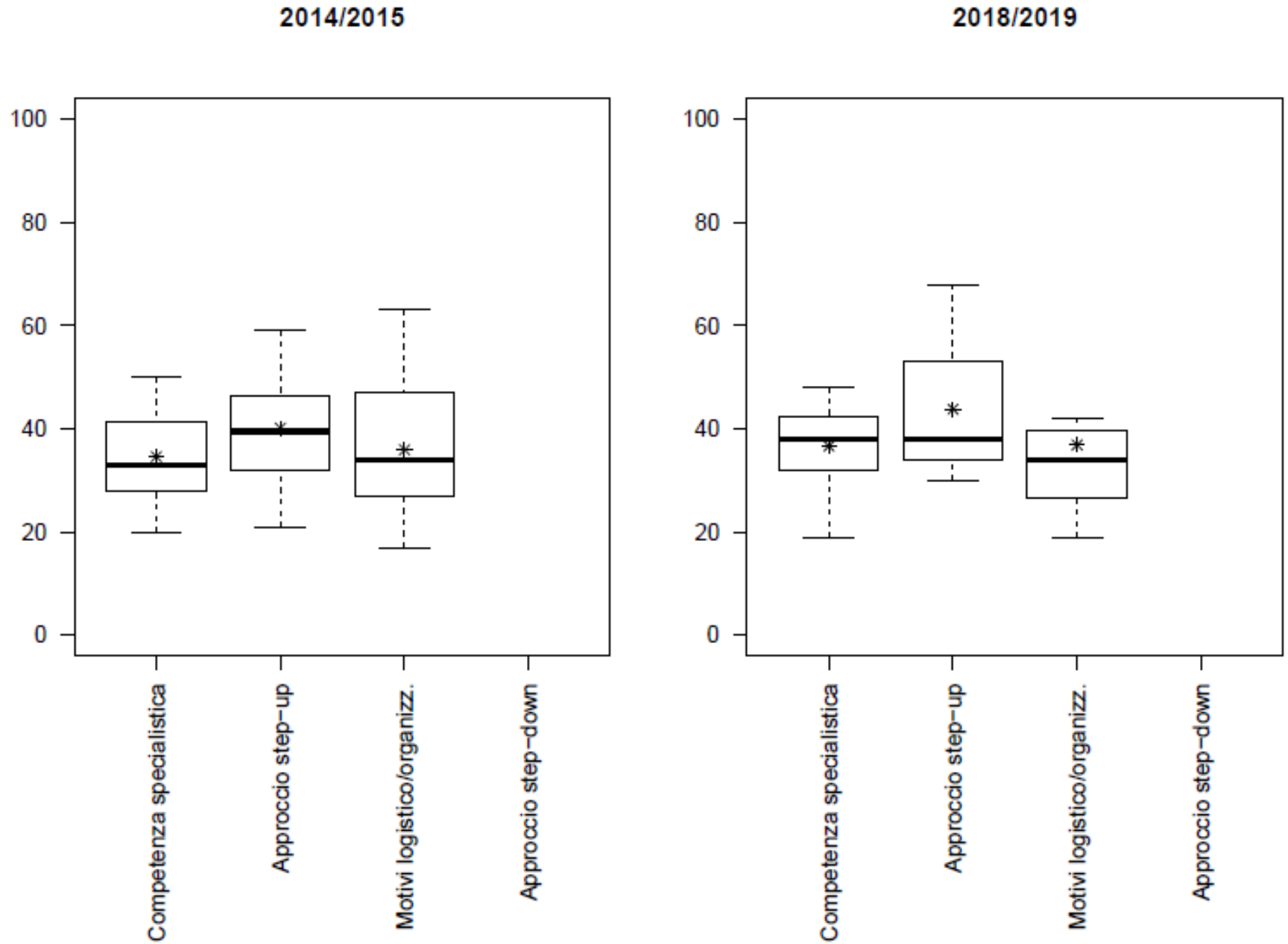
186/277 pazienti con dati del petalo

Infezioni con microrganismi isolati	N	%
No	13	10.4
Si	112	89.6
Numero totale di microrganismi isolati	142	
Missing	0	

Microrganismi responsabili isolati (MDR) ***	N	% su isolati, N=112	MDR N	MDR % su gruppo
Batteri				
Gram +	*24*	*21.4*	*1*	*4.2*
Staphylococcus	10	8.9		
Staphylococcus Aureus (MRSA)	8	7.1	1	12.5
S. coagulasi negativo (meticillina resistente)	0	0.0	0	0.0
Streptococcus	14	12.5		
Pneumococcus (resistente alla penicillina)	10	8.9	0	0.0
Gram -	*13*	*11.6*	*1*	*7.7*
Klebsiella (prod. ESBL)	4	3.6	0	0.0
Enterobacter (prod. ESBL)	0	0.0	0	0.0
Serratia (prod. ESBL)	0	0.0	0	0.0
Pseudomonas aer.	3	2.7		
MDR pseudomonas aer. sensibile a carbapenemi			0	0.0
MDR pseudomonas aer. resistente anche a carbapenemi			0	0.0
Escherichia coli (prod. ESBL)	0	0.0	0	0.0
Proteus (prod. ESBL)	1	0.9	0	0.0
Acinetobacter (resistente ai carbapenemi)	1	0.9	1	100.0

What’s about ECMO?

SAPS 2


2014/2015
2018/2019
100
80
60
40
20
0
Competenza specialistica
Approccio step−up
Motivi logistico/organizz.
Approccio step−down

Intensive Care Med (2013) 39:1880–1881
DOI 10.1007/s00134-013-3012-y

Francesco Giuseppe De Rosa
Silvia Corcione
Nicole Pagani
Maria Laura Stella
Rosario Urbino
Giovanni Di Perri
V. Marco Ranieri

High rate of respiratory MDR gram-negative bacteria in H1N1-ARDS treated with ECMO

Bronco-alveolar lavage(BAL) samples were positive during the ICU stay in seven patients: 5(71.4 %) in the ECMO group [multidrug resistant (MDR) P. aeruginosa, MDR S. maltophilia, S. marcescens, MDR A. baumannii, K. Pneumoniae producing carbapenemases (KPC) and Aspergillus fumigatus] compared to two A. baumanni isolates (22.2 %) in the no-ECMO group (p = 0.04). There was only one positive blood culture for S. marcescens in the ECMOgroup. The mortality was 28.6 and 44.4 % in patients treatedwith orwithout ECMO, respectively. A bacterial infection was the probable cause of death in all patients who died, and a possible infection by A. fumigatus was responsible for one death. A selective antibiotic pressure is an important factor for the development of local resistance and also the isolation of MDR strains.

To be investigated

Álvarez-Lerma et al. Critical Care (2016) 20:337
DOI 10.1186/s13054-016-1512-1

Critical Care

RESEARCH Open Access

Delay in diagnosis of influenza A (H1N1)pdm09 virus infection in critically ill patients and impact on clinical outcome

Francisco Álvarez-Lerma[1,2,3*], Judith Marín-Corral[1,2], Clara Vila[1], Joan Ramón Masclans[1,2,4,5], Francisco Javier González de Molina[6], Ignacio Martín Loeches[7], Sandra Barbadillo[8], Alejandro Rodríguez[4,9] and on behalf of the H1N1 GETGAG/SEMICYUC Study Group

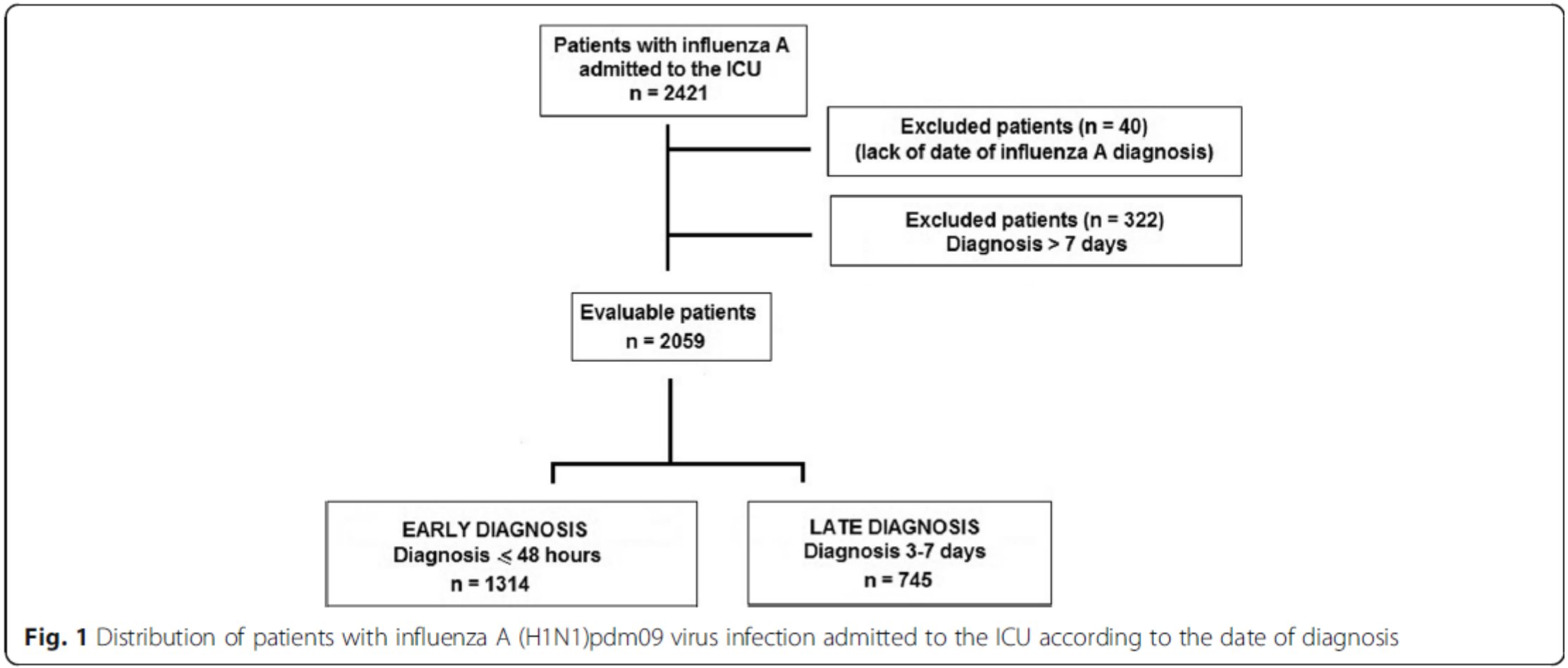


Fig. 1 Distribution of patients with influenza A (H1N1)pdm09 virus infection admitted to the ICU according to the date of diagnosis

Álvarez-Lerma et al. Critical Care (2016) 20:337

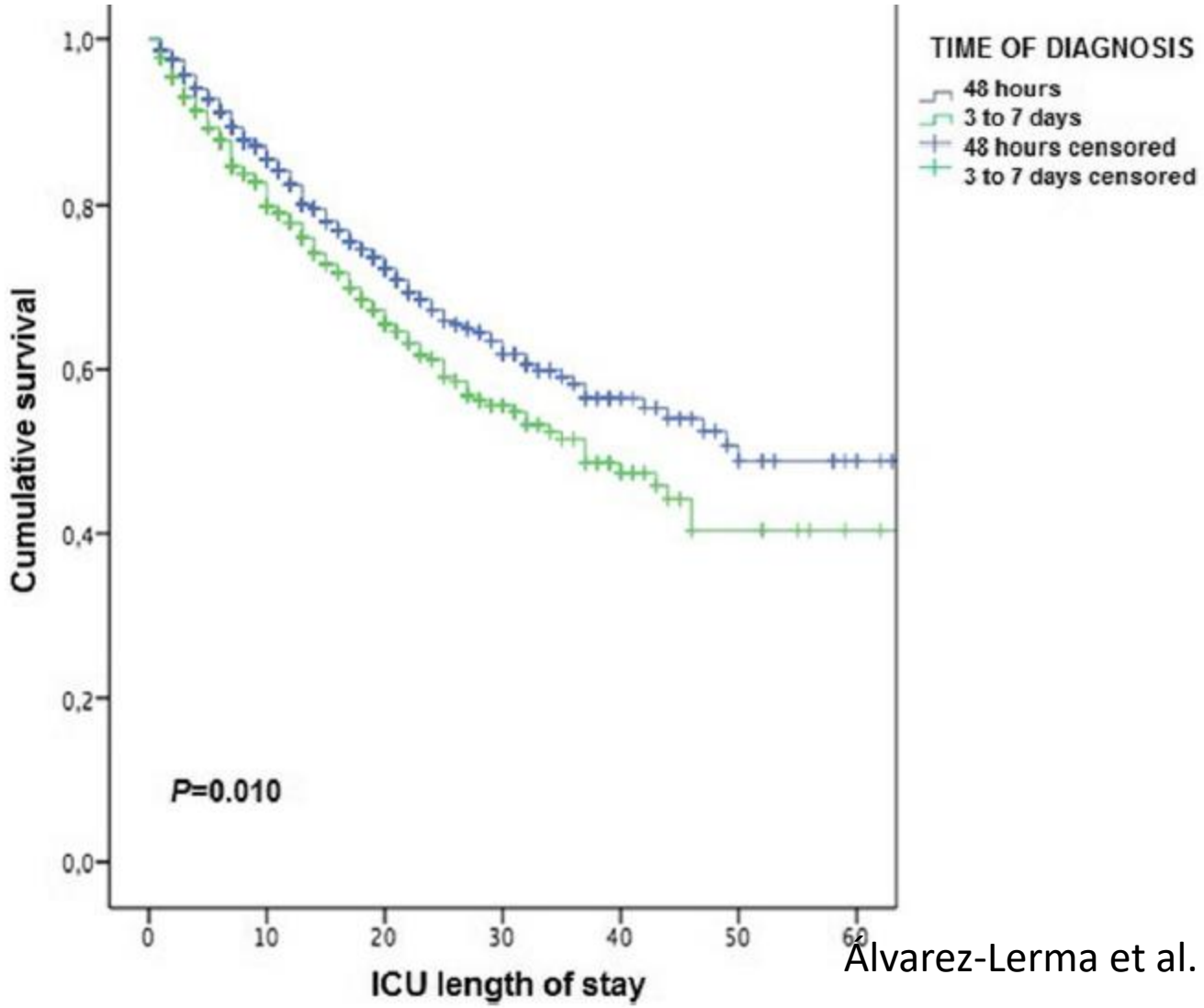
Álvarez-Lerma et al. Critical Care (2016) 20:337
DOI 10.1186/s13054-016-1512-1

Critical Care

RESEARCH Open Access

Delay in diagnosis of influenza A (H1N1)pdm09 virus infection in critically ill patients and impact on clinical outcome

Francisco Álvarez-Lerma[1,2,3*], Judith Marín-Corral[1,2], Clara Vila[1], Joan Ramón Masclans[1,2,4,5], Francisco Javier González de Molina[6], Ignacio Martín Loeches[7], Sandra Barbadillo[8], Alejandro Rodríguez[4,9] and on behalf of the H1N1 GETGAG/SEMICYUC Study Group



Álvarez-Lerma et al. Critical Care (2016) 20:337

Álvarez-Lerma et al. Critical Care (2016) 20:337
DOI 10.1186/s13054-016-1512-1

Critical Care

RESEARCH Open Access

Delay in diagnosis of influenza A (H1N1)pdm09 virus infection in critically ill patients and impact on clinical outcome

Francisco Álvarez-Lerma[1,2,3*], Judith Marín-Corral[1,2], Clara Vila[1], Joan Ramón Masclans[1,2,4,5], Francisco Javier González de Molina[6], Ignacio Martín Loeches[7], Sandra Barbadillo[8], Alejandro Rodríguez[4,9] and on behalf of the H1N1 GETGAG/SEMICYUC Study Group

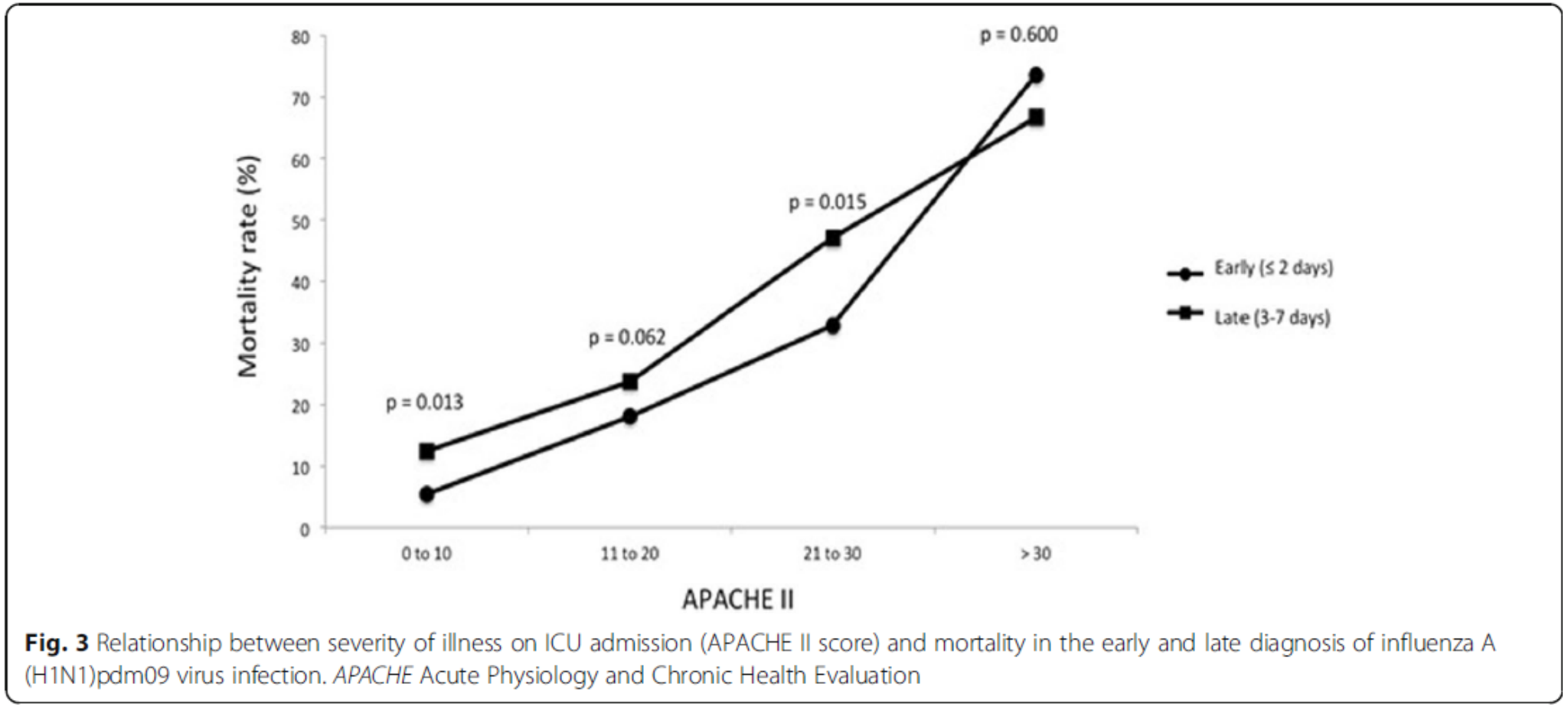


Fig. 3 Relationship between severity of illness on ICU admission (APACHE II score) and mortality in the early and late diagnosis of influenza A (H1N1)pdm09 virus infection. *APACHE* Acute Physiology and Chronic Health Evaluation

Álvarez-Lerma et al. Critical Care (2016) 20:337

To be investigated

Influenza virus strains:

- **Type A,** moderate to severe illness
  - all age groups
  - humans and other animals
  - sporadic pandemics/ epidemics (seasonal or interpandemic)
- **Type B**, (generally) milder disease
  - primarily affects children
  - humans only
  - epidemics (seasonal or interpandemic)
- **Type C**, rarely reported in humans
  - no epidemic

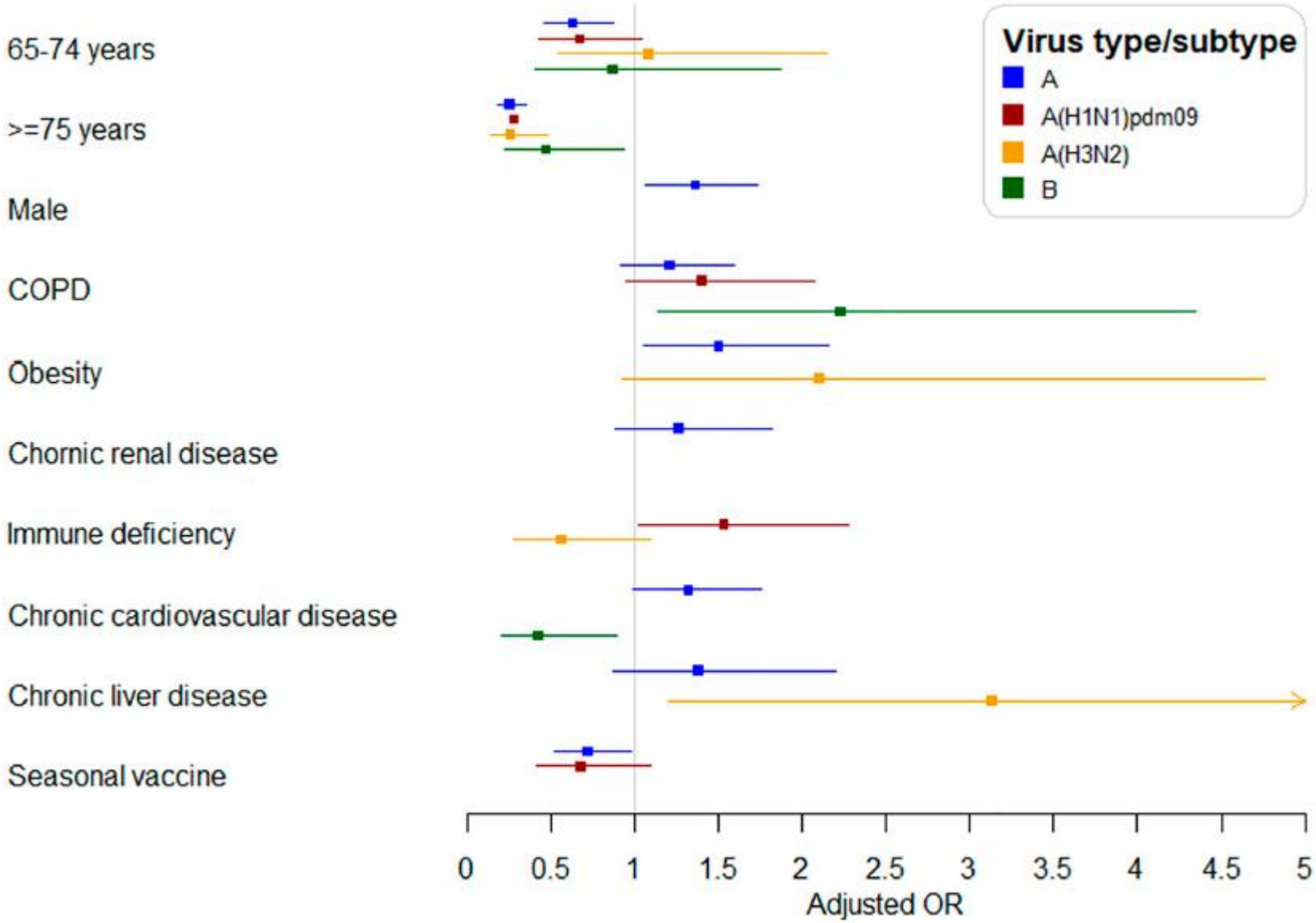
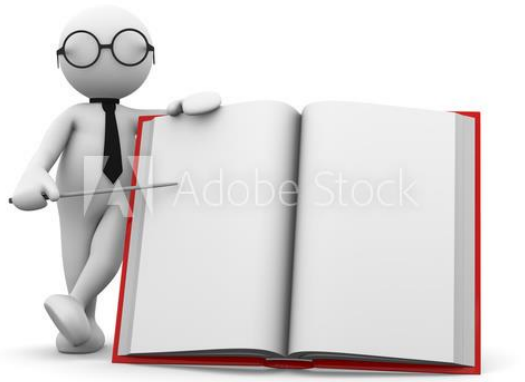


Fig 1. Factors associated with ICU admission in hospitalized patients according to influenza type and subtype.

Conclusioni (a 10 anni di distanza)

- E’ grave (e va riconosciuta precocemente?)
- Non è più grave col passare degli anni
- Trattiamo pz più anziani (gravi)
- Ha una mortalità pari a polmoniti ricoverate (normalizzata per fattori di rischio)
- Spesso disfunzione miocardica (impairment emodinamico)
- Molta ventilazione non invasiva (warning)
- Ha germi (per ora) ancora S nelle fasi iniziali
- Esiste un sistema di upgrade ECMO



Grazie a…

- Tutti i centri
- Il Centro di Coordinamento
- Carlotta Rossi
- Stefano Finazzi
- Guido Bertolini
- Daniele Poole
- Andrea Danieli

e tutti gli altri