L'anziano con decadimento cognitivo in geriatria

Alessandra Marengoni

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1. Outcome peggiore a breve e medio termine

Sampson E et al. Dementia in the acute hospital: Prospective cohort study of prevalence and mortality. *Br J Psych 2009 195, 61-6*

- 671 consecutive emergency admissions >70 to London GH
- Assessed within 72 hours by old age psychiatrist and screened with CAM , MMSE and structured clinical assessment
- **42.4% had dementia**
- **Only half had been diagnosed before admission**
- In Men 70-79, prevalence 16%
- In Men over 90, 48%
- In Women 70-79, prevalence 29%
- In Women over 90, 75%
- **"UTI" or "Pneumonia" were cause of admission in 41%**
- **Associated with higher mortality. For those with severe cognitive impairment adjusted mortality risk 4.02 (2.24, 7.36)**

Dementia in the acute hospital: the prevalence and clinical outcomes of acutely unwell patients with dementia

R. Briggs[1], A. Dyer[3], S. Nabeel[3], R. Collins[1,2], J. Doherty[1], T. Coughlan[1,2], D. O'Neill[1,2] and S. P. Kennelly[1,2]

Death or hospital readmission at 12-month

Covariate	Odds Ratio	z	p Value	95% CI
Age	1.04	1.60	0.109	0.99–1.10
Gender	0.86	–0.48	0.632	0.46–1.60
Prior stroke	0.74	–0.65	0.516	0.29–1.86
Heart disease	1.35	0.62	0.536	0.53–3.45
Lung disease	1.15	0.31	0.759	0.47–2.84
Diabetes	0.83	–0.44	0.658	0.37–1.87
Frailty	0.68	–1.06	0.287	0.33–1.38
Dementia	2.20	2.10	0.036	1.05–4.61

Characteristics and 3-months mortality rate of 3300 in patients affected by Low Respiratory Tract Infections (LRI) and dementia.

	Total (N=3300)	NoLRI-NoD (N=2566)	YLRI-NoD (N=265)	NoLRI-YD (N=345)	YLRI-YD (N=124)	*p*
	M±SD (%)	M±SD (%)	M±SD (%)	M±SD (%)	M±SD (%)	
Age (years)	79.2±8.0	78.4±7.7	80.0±8.2	83.2±7.7	83.4±8.4	*0.001*
Gender (males)(%)*	(38.3)	(24.5)	(24.5)	(24.5)	(19.3)	*0.001*
MMSE score	21.8±8.5	24.9±4.4	23.4±4.9	4.5±4.7	3.7±4.4	*0.001*
GDS score	4.6±3.5	4.6±3.5	4.2±3.1	---	---	*0.155*
Barthel Index (15 days bef)	78.7±27.9	86.5±19.8	76.2±26.6	45.7±34.5	30.2±28.7	*0.001*
Barthel Index (on adm)	60.1±38.1	71.8±32.2	48.6±37.1	22.0±29.2	5.5±14.2	*0.001*
IADL (functions lost)	3.3±2.9	2.6±2.6	3.4±2.9	6.3±2.4	7.0±1.6	*0.001*
Diseases (n)	5.1±2.0	5.1±1.9	5.3±2.0	5.2±2.2	5.4±2.3	*0.142*
Charlson Index	5.3±1.8	5.0±1.7	5.5±1.9	5.8±2.1	6.5±2.2	*0.001*
Drugs (n)	5.7±2.9	5.4±2.6	6.2±3.3	5.8±3.1	6.9±3.0	*0.194*
APACHE II score	10.6±5.9	9.1±4.9	13.7±4.9	13.0±6.8	18.3±6.6	*0.001*
APACHE II-APS subscore	4.4±5.2	3.1±3.9	6.1±5.1	6.5±6.4	10.9±6.9	*0.001*
Serum Albumin (g/dl)	3.7±0.7	3.8±0.6	3.4±0.6	3.3±0.7	3.1±0.6	*0.001*
Hemoglobin (g/dl)	12.5±2.3	12.6±2.3	12.2±2.2	12.0±2.5	11.9±2.5	*0.000*
Serum Cholesterol (mg/dl)	187.3±53.3	192.2±51.9	162.8±49.6	175.4±53.5	160.9±52.5	*0.001*
CPR (mg/dl)	4.4±7.4	2.9±5.7	9.1±10.4	7.3±9.6	11.1±9.1	*0.001*
Creatinine (mg/dl)	1.1±0.7	1.1±0.6	1.3±0.8	1.2±1.0	1.4±1.1	*0.000*
Length of stay (days)	6.5±3.7	6.5±3.6	7.8±4.1	5.8±4.0	5.4±3.9	*0.001*
3 mos mortality (%)*	(13.9)	(9.0)	(14.7)	(35.4)	(54.0)	*0.001*

JAMDA, 2008

maggior numero di eventi clinici intercorrenti

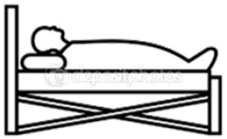
Cause legate a:

- Patologia di base/comorbide
- Personale medico/infermieristico
- Ambiente

Il registro RE.PO.SI

Polipatologia e politerapia

Correlati clinico-epidemiologici



Eventi clinici intercorrenti

Mortalità intraospedaliera

Outcomes clinici

Pazienti > 65 anni 2008, 2010, 2012, 2014, 2015, 2016

In-hospital death according to dementia diagnosis in acutely ill elderly patients: the REPOSI study

A. Marengoni[1], S. Corrao[2], A. Nobili[3], M. Tettamanti[3], L. Pasina[3], F. Salerno[4], A. Iorio[5], M. Marcucci[5], F. Bonometti[1] and P.M. Mannucci[6] on behalf of SIMI Investigators

Table 3 Odds ratio (OR) and 95% confidence intervals (CI) for in-hospital death due to the combined effect of dementia and adverse clinical events. *N* = Number

	All	*N* of deaths	OR	95% CI
No dementia and no events	720	10	1	—
No dementia and at least one event	384	45	10.80	4.87–24.08
Dementia and no events	64	3	4.25	1.00–19.16
Dementia and at least one event	53	8	20.74	6.94–61.96

Model adjusted for age, gender, education, number of drugs, the Charlson Index, length of hospital stay and vital parameters.

Adverse Clinical Events and Mortality During Hospitalization and 3 Months After Discharge in Cognitively Impaired Elderly Patients

Alessandra Marengoni,[1] Alessandro Nobili,[2] Valentina Romano,[1] Mauro Tettamanti,[2] Luca Pasina,[2] Sylvestre Djade,[2] Salvatore Corrao,[3] Francesco Salerno,[4] Alfonso Iorio,[5] Maura Marcucci,[6] and Pier Mannuccio Mannucci[7] on behalf of SIMI* Investigators

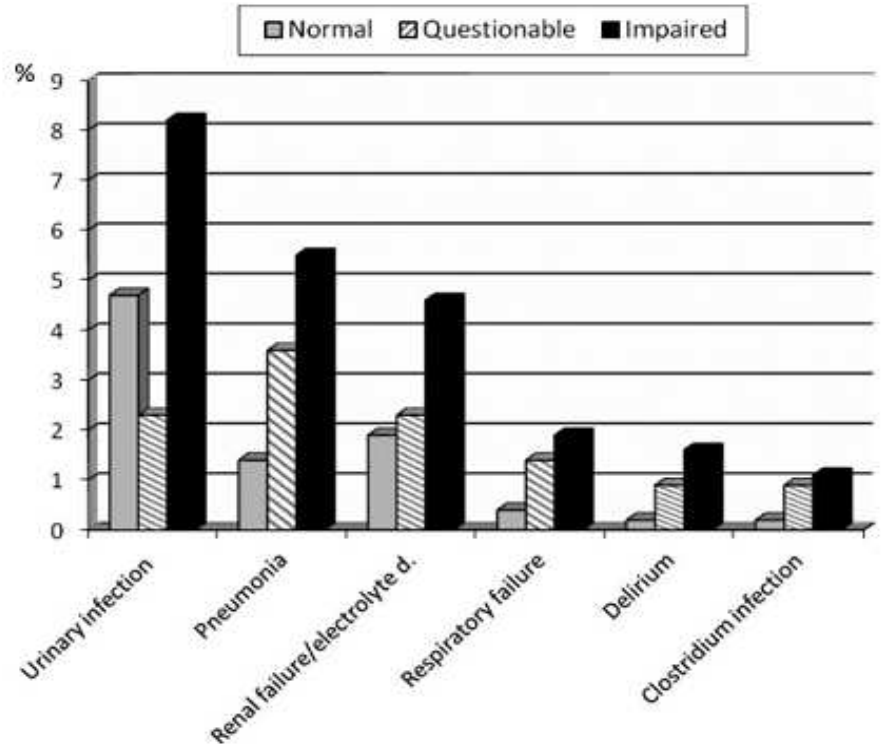


Figure 1. Prevalence of most frequent adverse clinical events according to cognitive status (normal = Short Blessed Test [SBT] 0–4, questionable = SBT 5–9, and impaired = SBT 10–28).

2. Demenza e malattie comorbide

Poblador-Plou *et al. BMC Psychiatry* 2014, **14**:84
http://www.biomedcentral.com/1471-244X/14/84

BMC Psychiatry

RESEARCH ARTICLE Open Access

Comorbidity of dementia: a cross-sectional study of primary care older patients

Beatriz Poblador-Plou[1,2,3], Amaia Calderón-Larrañaga[1,2,3,4*], Javier Marta-Moreno[1,5], Jorge Hancco-Saavedra[3], Antoni Sicras-Mainar[6], Michael Soljak[7] and Alexandra Prados-Torres[1,2,3,4]

Table 1 Study population

	Patients ≥65 without dementia			Patients ≥65 with dementia			p value
	Total	Men	Women	Total	Men	Women	
n (%)	68,844 (94.55)	28,176 (40.93)	40,668 (59.07)	3,971 (5.45)	1,185 (29.84)	2,786 (70.16)	0.000
Mean age (SD)	75.53 (7.28)	74.62 (6.85)	76.16 (7.51)	80.22 (7.09)	79.10 (6.94)	80.70 (7.10)	0.000
Number of diseases n (%)							
1	15,052 (21.86)	6,718 (23.84)	8,334 (20.49)	490 (12.34)*	137 (11.56)*	353 (12.67)*	0.000
2	15,934 (23.15)	6,730 (23.89)	9,204 (22.63)	717 (18.06)	218 (18.40)	499 (17.91)	0.000
3	12,795 (18.59)	5,085 (18.05)	7,710 (18.96)	856 (21.56)	260 (21.94)	596 (21.39)	0.000
4	8,500 (12.35)	3,203 (11.37)	5,297 (13.02)	700 (17.63)	222 (18.73)	478 (17.16)	0.000
5	4,604 (6.69)	1,634 (5.80)	2,970 (7.30)	555 (13.98)	151 (12.74)	404 (14.50)	0.000
≥6	3,831 (5.55)	1,320 (4.68)	2,511 (6.17)	653 (16.44)	197 (16.62)	456 (16.38)	0.000
Mean number of diseases (SD)	2.44 (1.75)	2.32 (1.69)	2.52 (1.79)	3.69 (1.95)	3.69 (1.94)	3.68 (1.96)	0.000

SD, standard deviation.
*Patients with dementia only.

Bauer et al. BMC Geriatrics 2014, 14:10
http://www.biomedcentral.com/1471-2318/14/10

BMC Geriatrics

RESEARCH ARTICLE Open Access

A claims data-based comparison of comorbidity in individuals with and without dementia

Kathrin Bauer[1], Larissa Schwarzkopf[1*], Elmar Graessel[2] and Rolf Holle[1]

In più
Anemia
Diabete
Disturbi elettrolitici
Depressione
Psicosi
Parkinson
Scompenso cardiaco
CVD
IRC
Fratture
Polmonite

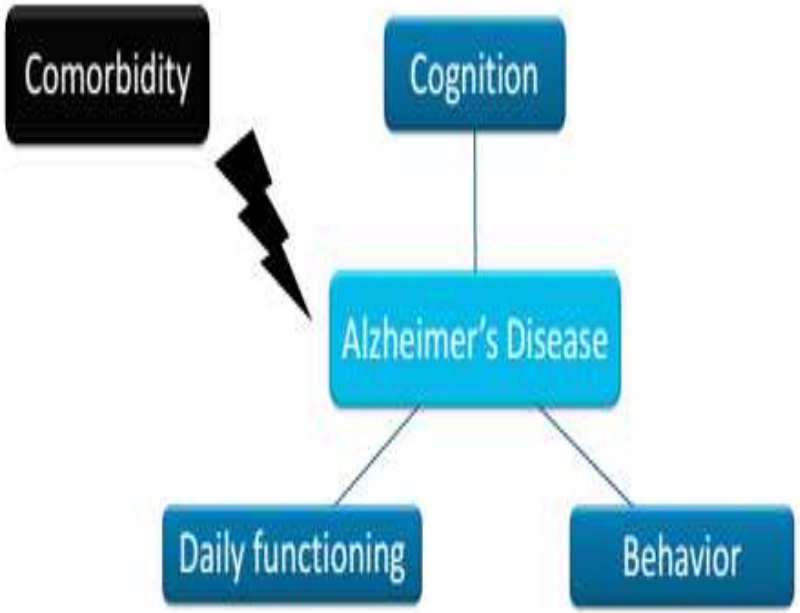
In meno
Neoplasie
Dislipidemie
Ipovisus
Ipertensione
Artrosi
Gotta
Dolore

Malattia di Parkinson, CVD, diabete, e forse depressione sono anche fattori di rischio per demenza

Disturbi idroelettrolitici da inadeguato apporto di liquidi, polmonite, incontinenza, disturbi pscichiatrici, cadute e fratture sono spesso sequele della demenza

Ipovisus e dolore per deficit di comunicazione

In presenza di demenza il medico può non considerare malattie meno gravi (dislipidemia) e decidere di non trattarle per non peggiorare la qualità della vita in proporzione a quello che sarebbe il beneficio del farmaco



Results

Cognition

- 7 out of 10 studies examining cognition found the presence of comorbidities to be related to decreased cognitive abilities (3 out of 4 cross-sectional and 4 out of 6 longitudinal)

Daily functioning

- 5 out of 7 studies examining daily functioning found comorbidities to be related to lower functional abilities (3 out of 4 cross-sectional and 2 out of 3 longitudinal)

Neuropsychiatric symptoms (NPS)

- 2 studies out of 3 studies examining NPS found comorbidities to be related to increased NPS (1 out of 2 cross-sectional and 1 longitudinal)

Haaksma et al., submitted

Hospital admissions for acute onset of behavioral symptoms in demented patients: what do they want to say?

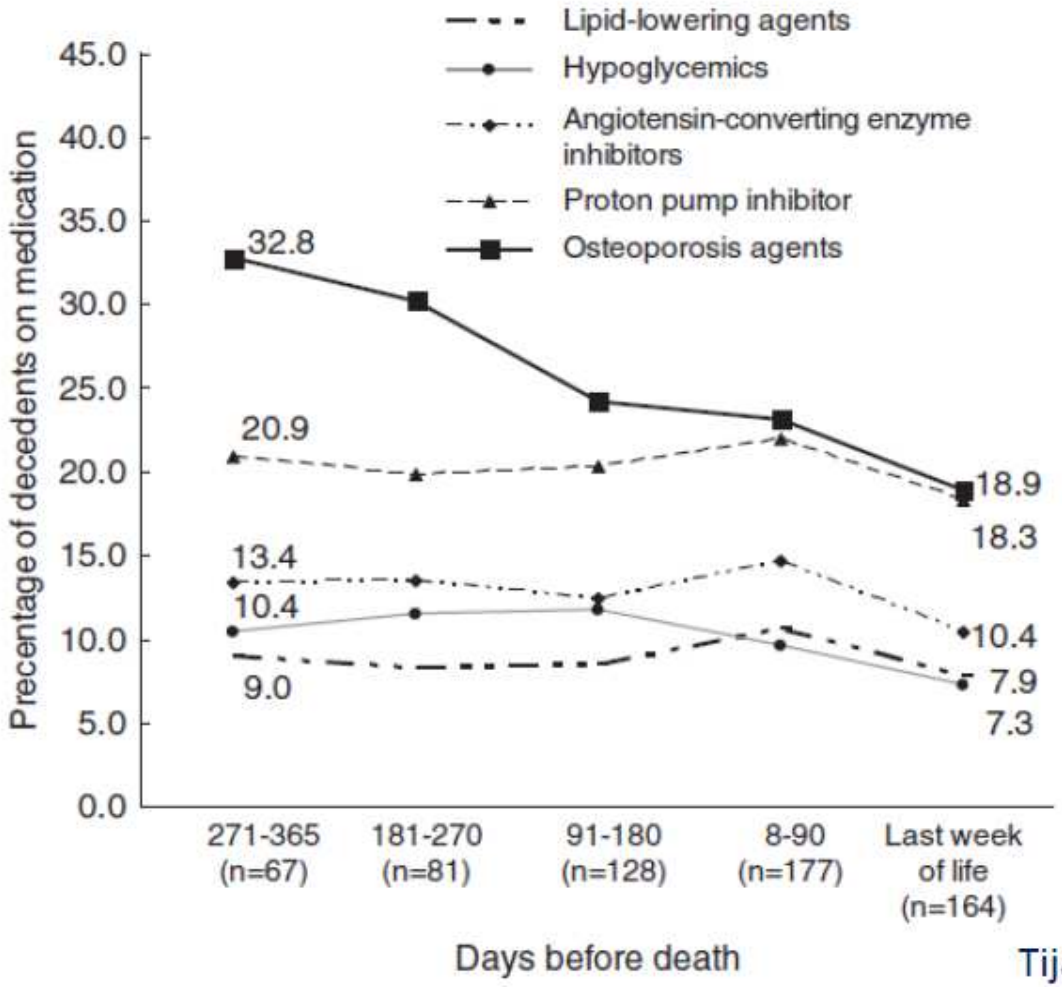
148 pazienti di cui 43 ricoverati per disturbi del comportamento quali, agitation (39.5%), anorexia (35%), depression/apathy (23%), hallucinations and delusions (19%), and aggression (18.5%). Seven patients had delirium.

The most frequent medical illnesses were: urinary infections (35%), adverse drug effects (14%), pneumonia (11%), vascular diseases (9%), oral candidiasis (7%), malignancy (7%), new dementia cases (5%), and uncontrolled diabetes (5%)

Marengoni et al. Int Psychog, 2004

3. Demenza e farmaci

Medication Use in Nursing Home Residents with Advanced Dementia



Tija et al, J Am Geriatr Soc 2010

JAMDA 15 (2014) 850.e11–850.e15

JAMDA

journal homepage: www.jamda.com

Original Study

Impact of Polypharmacy on Occurrence of Delirium in Elderly Emergency Patients

Christophe Hein MD [a,*], Adrien Forgues MD [a], Antoine Piau MD [a], Agnès Sommet MD, PhD [b,c], Bruno Vellas MD, PhD [a,c], Fati Nourhashémi MD, PhD [a,c]

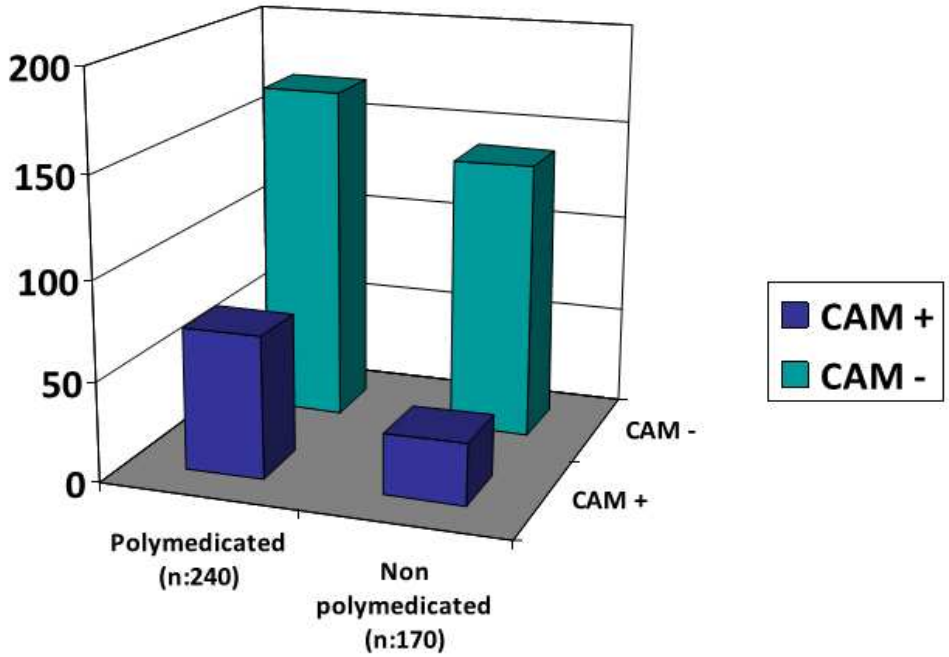


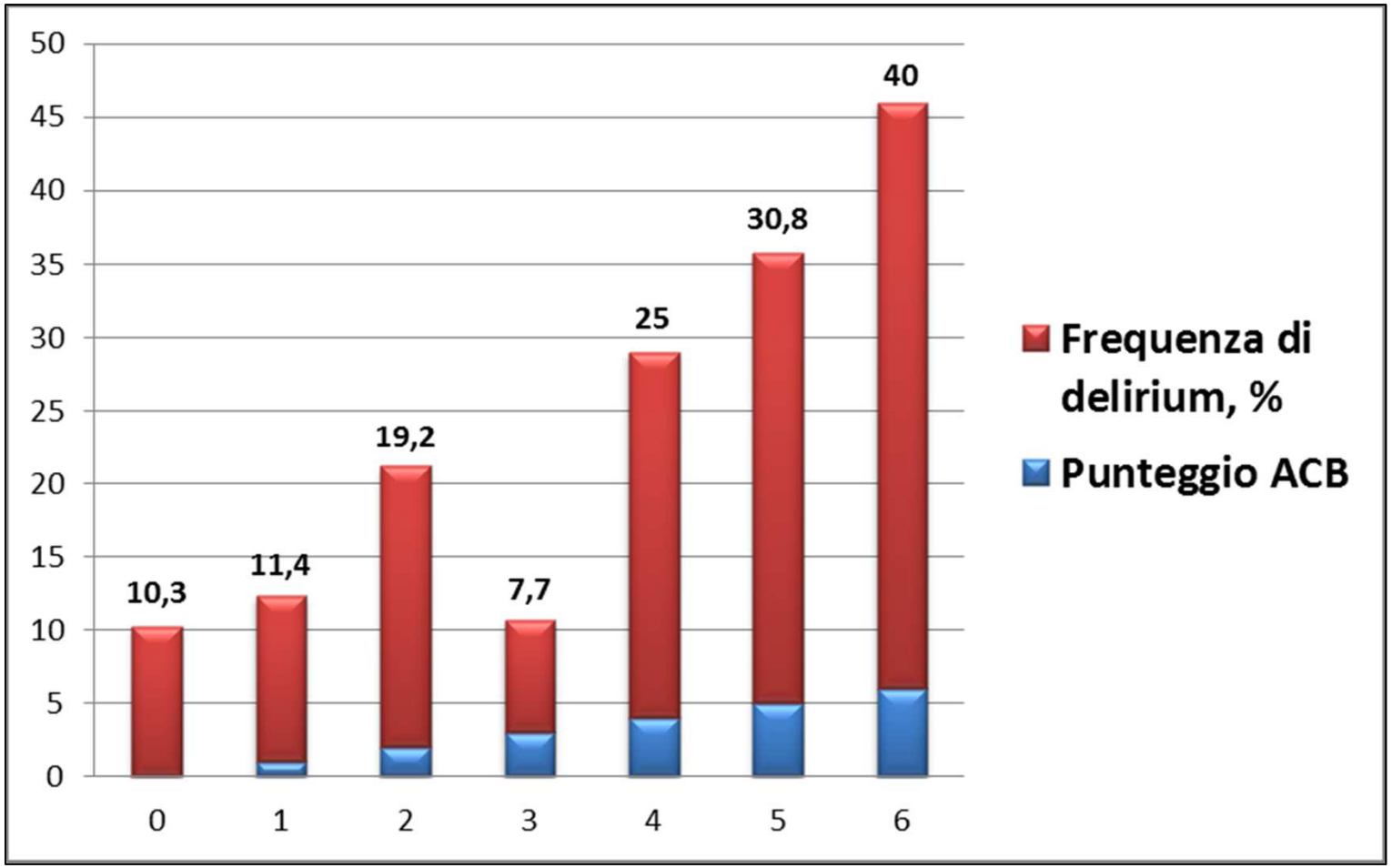
Fig. 1. Proportion of delirium and polypharmacy.

Multivariate Analysis of Risk Factors for Delirium (CAM+)

CAM+	OR	*P*	95% CI
Age	2.15	.016	(1.15–3.99)
Dementia	3.16	.001	(1.74–5.72)
Renal insufficiency	1.08	.798	(0.59–1.96)
Delirium-inducing drugs	0.74	.335	(0.40–1.35)
Polypharmacy	2.33	.010	(1.23–4.41)

CAM, Confusion Assessment Method.

Correlation between the ACB score and delirium



Risk Factors for Adverse Drug Reactions in Older Subjects Hospitalized in a Dedicated Dementia Unit

	ADR[a]				
Variables	df	Odds Ratio	95% CI	Wald χ^2	p
Age	1	1.0	0.9-1.0	1.87	0.17
Polypharmacy	1	4.0	1.1-14.1	4.61	0.03
Dependence for ADLs	1	2.6	1.1-6.5	4.50	0.03

Kanagaratnam L, Am J Geriatr Psychiatry. 2016 Sep 1

Intern Emerg Med
DOI 10.1007/s11739-014-1131-2

IM - ORIGINAL

The stigma of low opioid prescription in the hospitalized multimorbid elderly in Italy

Table 4 Univariate associations with opioid prescription at hospital discharge in the three samples of REPOSI

	Sample 2008		Sample 2010		Sample 2012	
	Opioids		Opioids		Opioids	
	No	Yes	No	Yes	No	Yes
Age, yrs, mean (SD)	79.2 (7.5)	77.7 (8.0)	78.9 (7.4)	78.6 (7.9)	79.3 (7.5)	78.7 (6.9)
Male, number (%)	506 (46.5)	29 (43.3)	540 (48.4)	25 (39.7)	523 (48.1)	40 (51.9)
Total drugs at discharge, mean (SD)	5.9 (2.8)	6.4 (3.3)	6.2 (2.8)	6.9 (3.0)*	6.3 (3.1)	7.1 (2.8)†
SBT, mean (SD)	–	–	9.6 (8.0)	8.4 (8.8)	9.1 (7.8)	8.6 (7.1)
Barthel Index, mean (SD)	–	–	78.4 (29.6)	72.9 (31.6)	74.9 (31.1)	68.1 (32.8)
Dementia diagnosis, number (%)	102 (9.4)	4 (6.0)	84 (7.5)	6 (9.5)	113 (10.4)	3 (3.9)
Severe constipation, number (%)	23 (2.1)	3 (4.5)	19 (1.7)	1 (1.6)	7 (0.6)	2 (2.6)*

* $p = 0.05$

† $p < 0.01$

4. Diagnosi

- **Nuova diagnosi**
- **Diagnosi di decadimento cognitivo lieve-moderato**
- **Diagnosi di decadimento cognitivo severo (advanced dementia)**

The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812 OCTOBER 15, 2009 VOL. 361 NO. 16

The Clinical Course of Advanced Dementia

Susan L. Mitchell, M.D., M.P.H., Joan M. Teno, M.D., Dan K. Kiely, M.P.H., Michele L. Shaffer, Ph.D., Richard N. Jones, Sc.D., Holly G. Prigerson, Ph.D., Ladislav Volicer, M.D., Ph.D., Jane L. Givens, M.D., M.S.C.E., and Mary Beth Hamel, M.D., M.P.H.

ABSTRACT

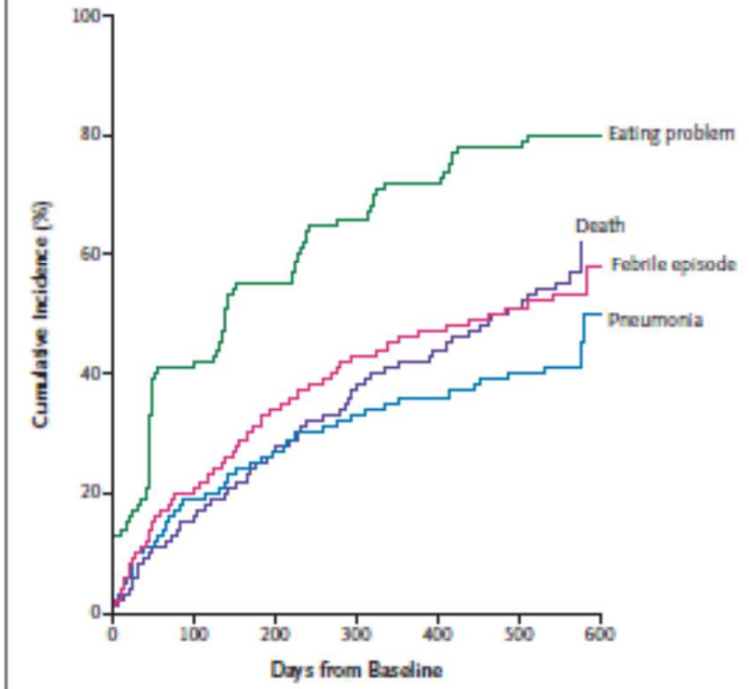
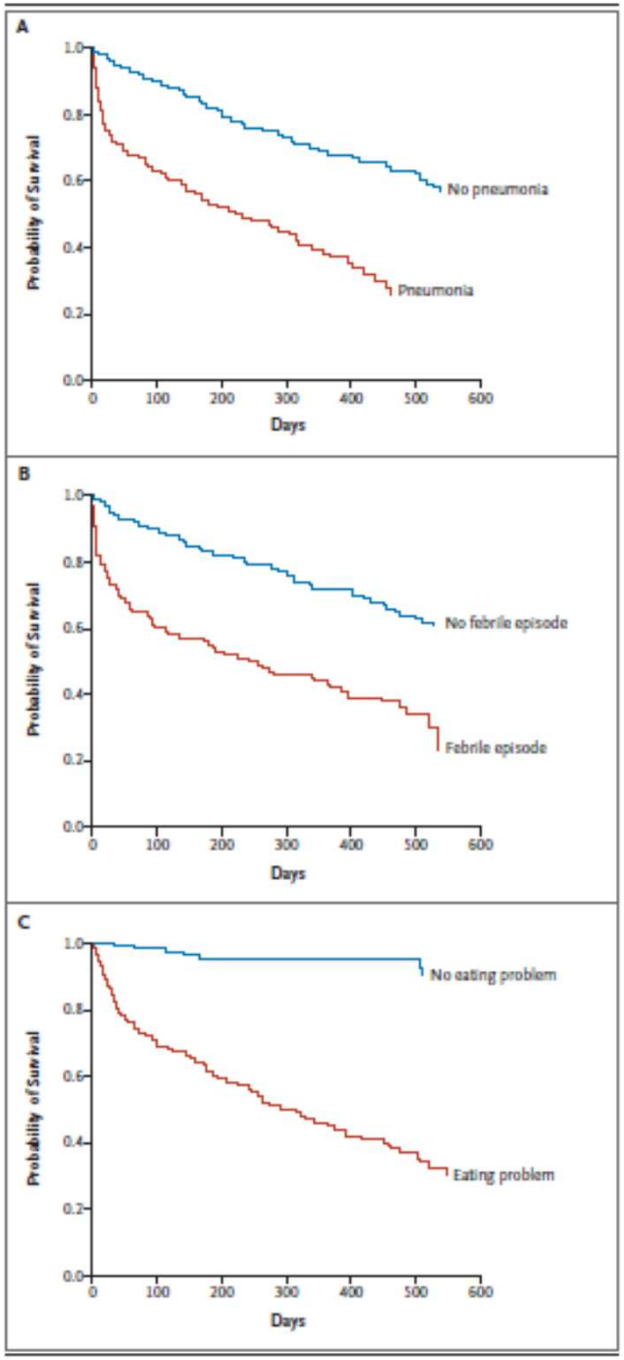


Figure 1. Overall Mortality and the Cumulative Incidences of Pneumonia, Febrile Episodes, and Eating Problems among Nursing Home Residents with Advanced Dementia.

Overall mortality for the nursing home residents during the 18-month course of the study is shown. The residents' median age was 86 years, and the median duration of dementia was 6 years; 85.4% of residents were women.



Advanced Care Planning

The optimum time for ACP is in a period of relative wellness

ACP should be part of routine care, perhaps initiated automatically at a certain age threshold.

A major concern is to ensure that ACP is carried out while the patient retains capacity; the initial diagnosis of early dementia, for example, may be an appropriate trigger for discussion of ACP.

5. Time for innovation in dementia care

''Dementia-friendly Hospitals: Care not Crisis''

An Educational Program Designed to Improve the Care of the Hospitalized Patient With Dementia

Alzheimer Dis Assoc Disord 2010;24:372–379

> The impetus for this program came out of the recognition that many of the Helpline calls received at the Alzheimer's Association St Louis Chapter dealt with the poor outcomes of hospital visits for patients with dementia.

1. **Revisione sintomi demenza, e diagnosi differenziale fra demenza, delirium e depressione**
2. **Difficoltà di comunicazione con pazienti affetti da demenza e diturbi comportamentali**
3. **Cadute, dolore, nutrizione e contenzioni**
4. **Discharge planning**

TABLE 3. Evaluations of Attitudes and Practices Toward Hospitalized Dementia Patients Before and at the End of the Workshop

	Disagree		Neutral		Agree		
	N	%	N	%	N	%	*P*
Is it difficult to work with dementia patients?							< 0.001
Pretest	54	13.6	94	23.7	226	56.9	
Posttest	106	26.7	82	20.7	174	43.8	
I do not have enough time to provide comprehensive care							< 0.001
Pretest	122	30.7	102	25.7	148	37.3	
Posttest	162	40.8	90	22.7	107	27.0	
I believe in help from family members and caregivers							NS
Pretest	10	2.5	8	2.0	358	90.2	
Posttest	14	3.5	0	0.0	347	87.4	
I have received sufficient training to take care of dementia patients							0.02
Pretest	170	42.8	113	28.5	91	22.9	
Posttest	21	5.3	43	10.8	295	74.3	
Admission procedures should be no different than for patients without dementia							< 0.001
Pretest	296	74.6	35	8.8	45	11.3	
Posttest	307	77.3	17	4.3	36	9.1	
I rarely see a diagnosis of a dementia disorder upon hospital admission							< 0.001
Pretest	224	56.4	62	15.6	84	21.2	
Posttest	202	50.9	67	16.9	86	21.7	

6. Time for undergraduate education in dementia

We need interprofessional undergraduate healthcare education that enables future healthcare professionals to be able to understand and manage the people with the long-term conditions who current systems often fail

Use of Tablet Devices in the Management of Agitation Among Inpatients with Dementia: An Open-Label Study

- Visual and touch

- La severità della demenza correlava inversamente con complessità delle app

- L'età correlava inversamente con la durata e la frequenza di utilizzo

- Tutti avevano una riduzione della agitazione indipendentemente dalla severità della demenza

Am J Geriatr Psychiatry 2016

- Revisione terapia farmacologica
- Utilizzo PDTA delirium e formazione/disseminazione
- Diagnosi di decadimento cognitivo non noto con follow-up
- Comunicazione con caregivers
- Reparto aperto 8-20 h