



**SIMPOSIO INTERSOCIETARIO FADOI- SIGG  
LA COMPLESSITÀ DEL MALATO ANZIANO  
RICOVERATO IN OSPEDALE  
Firenze 30 novembre 2007**



# **Delirium: aspetti eziopatogenetici, terapeutici e gestionali**

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- Few ill health situations are more **degrading** to people of any age than loss of reasoning, faculties, and personhood. These are the unpleasant consequences of delirium...
- It is characterised by recent onset of fluctuating inattention and confusion, linked to one or more triggering factors.
- **Delirium** is a major burden to healthcare services and **has been largely ignored by health service planners and practitioners.**
- Moreover, healthcare systems and services often unintentionally stimulate or substantially aggravate the development of delirium in older people.
- This might be understandable if delirium was unavoidable or untreatable, but the **existing evidence base for delirium is sufficiently robust for prevention or attenuation of the condition to be a realistic proposition.**
- There is a pressing need to take this action...

# SINONIMI DI DELIRIUM

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- Stato confusionale acuto
- Sindrome organica cerebrale
- Encefalopatia tossica
- Encefalopatia metabolica
- Psicosi tossica
- Psicosi esogena
- Sundowning

## DSM-IV requires the following essential criteria for a diagnosis of delirium

- **Disturbance of consciousness** (i.e. reduced clarity of awareness of the environment) with reduced ability to focus, sustain, or shift attention.
- **Change in cognition** (e.g. memory deficit, disorientation, language disturbance and perceptual disturbance) that is not better accounted for by a preexisting, established, or evolving dementia.
- **Development over a short period of time** (usually hours to days) and disturbance **tends to fluctuate** during the course of the day.
- There is **evidence** from the history, physical examination, or laboratory findings that the **disturbance is caused by the direct physiological consequences of a general medical condition.**

La diagnosi di **DELIRIUM** è clinica

# VARIABILI CLINICHE

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Il delirium rappresenta una sindrome eterogenea dal punto di vista sintomatologico

- **DELIRIUM IPERCINETICO** (25%): allucinazioni, deliri, agitazione psicomotoria, disorientamento TS
- **DELIRIUM IPOCINETICO** (25%): confusione, sedazione, sopore
- **DELIRIUM MISTO** (35%): alternanza delle caratteristiche
- Nel 15% dei casi l'attività psicomotoria è **normale**

Kiely et al, Association between psychomotor activity delirium subtypes and mortality among newly admitted postacute facility. *Journ Gerontol* 2007;2:174-179

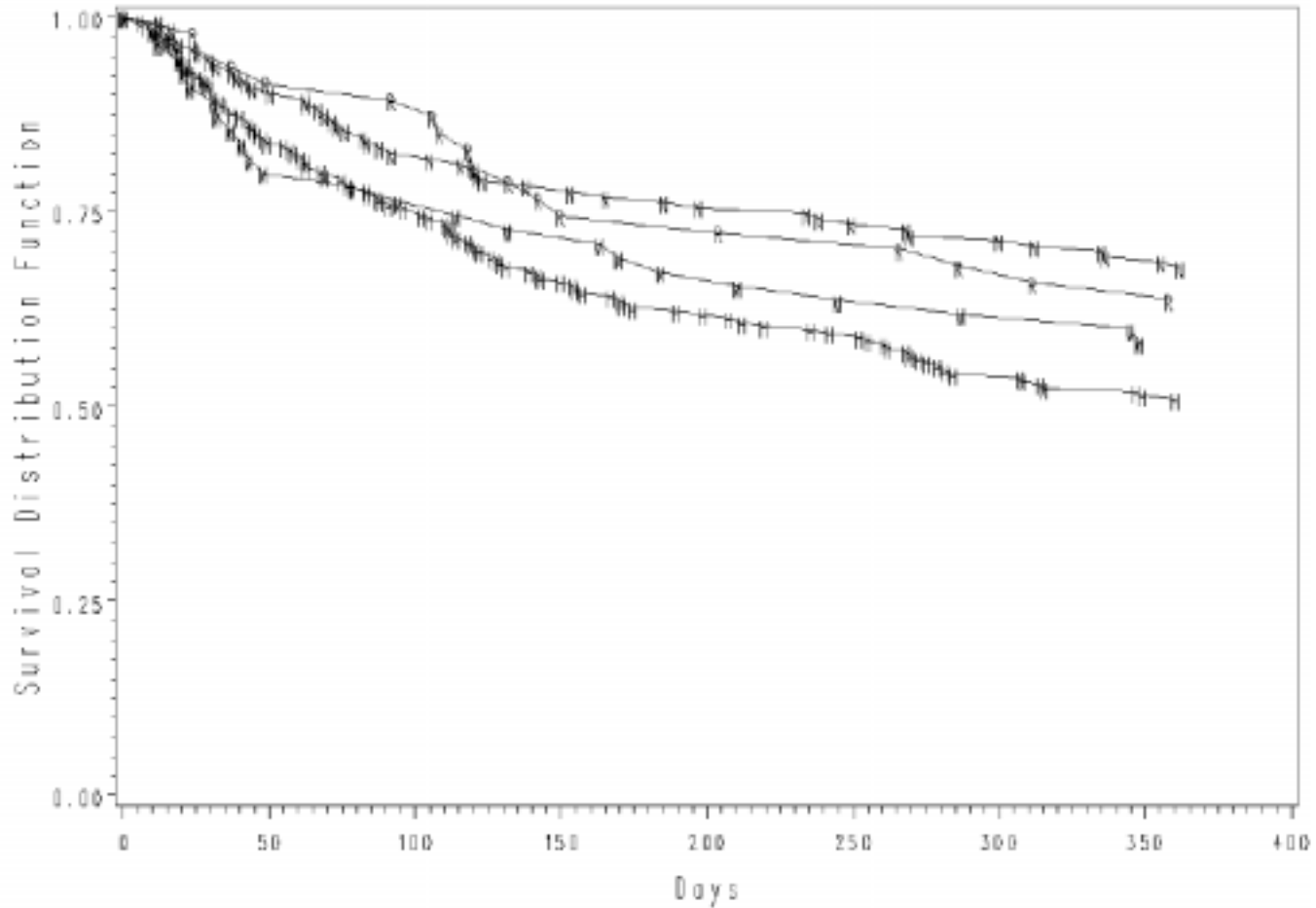
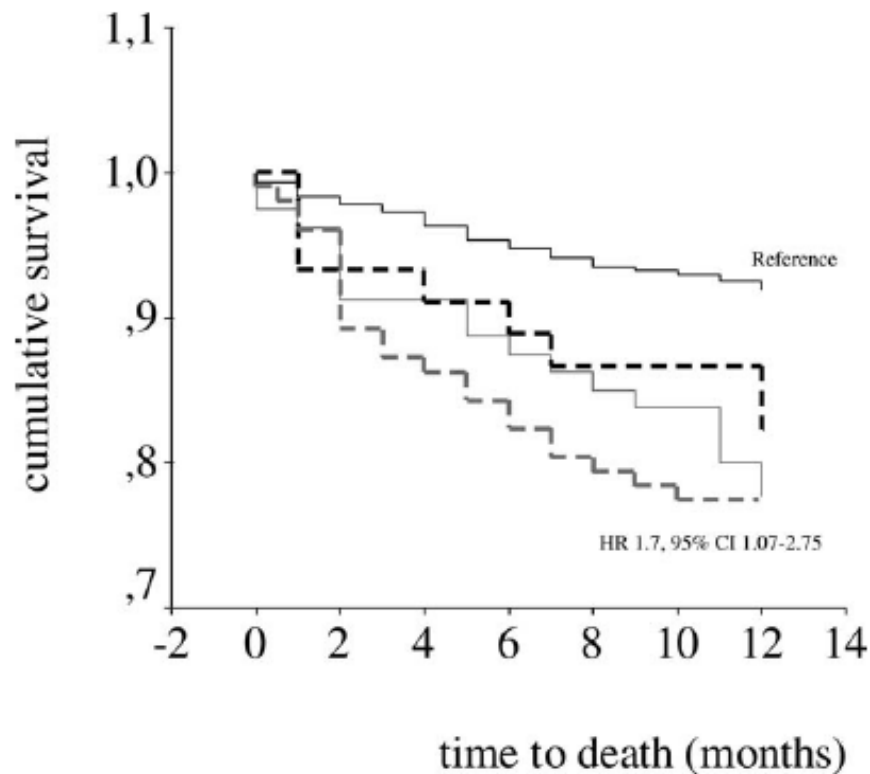


Figure 1. Kaplan-Meier survival curves for the three psychomotor disturbance subtypes (hypoactive, hyperactive, mixed) and the normal (no psychomotor disturbances) psychomotor activity group. Differences in the survival trajectory of the delirium subtypes were statistically significant (log-rank = 10.9;  $p = .01$ ). N = Normal; M = mixed; H = hypoactive; R = hyperactive.



black solid line= no delirium; black dotted line= hyperactive

grey solid line= mixed; grey dotted line= hypoactive

Figure 1. Kaplan-Meier survival curves for the three delirium subtypes (hypoactive, hyperactive, mixed) and individuals without delirium. Hazard ratio (HR) and 95% confidence interval (CI) were computed in a Cox regression model where age, gender, and comorbidity were covariates; those without delirium were the reference group.

# EPIDEMIOLOGY

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**Delirium is common in hospitals and nursing homes. At admission to hospital 10-20 % of elderly (+65) have delirium, and 10-30% develop delirium while at hospital**

- Elderly in medical departments 10-25%
- Elderly patients in surgical department 7-52 %
- Elderly patients with hip fractures 20-30 %
- Elderly patients with stroke 13–50 %
- Elderly after coronary surgery 23-34 %
- Patients in ICU (all ages) 40 %
- Nursing home patients 20-40%
- Elderly patients in ICU 70%

# Delirium gives poor outcomes

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- **LOS doubled**

Gustafson 1988, Williams-Russo 1992, Jitapunkul 1992, Levkoff 1992, Marcantonio 1994, O'Keeffe and Lavan 1997, McCusker 2003

- **Institutional care 2.8 –7.3 times more frequent**

Francis 1990, Jitapunkul 1992, Levkoff 1992, Marcantonio 1994, George 1997, O'Keeffe and Lavan 1997

- **Mortality increased**

Francis 1990, Jitapunkul 1992, Francis and Kapoor 1992, Pompei 1994, George 1997, McCusker 2002

- In hospital 8-35% (vs 1-8%)
- At 6 mnts. 15-31% (vs 10-15%)
- At 12 mnts. 38-48% (vs 14-21%)
- At 5 years 72% (vs 35%)

## Delirium in 1508 elderly patients consecutively admitted to ACU unit

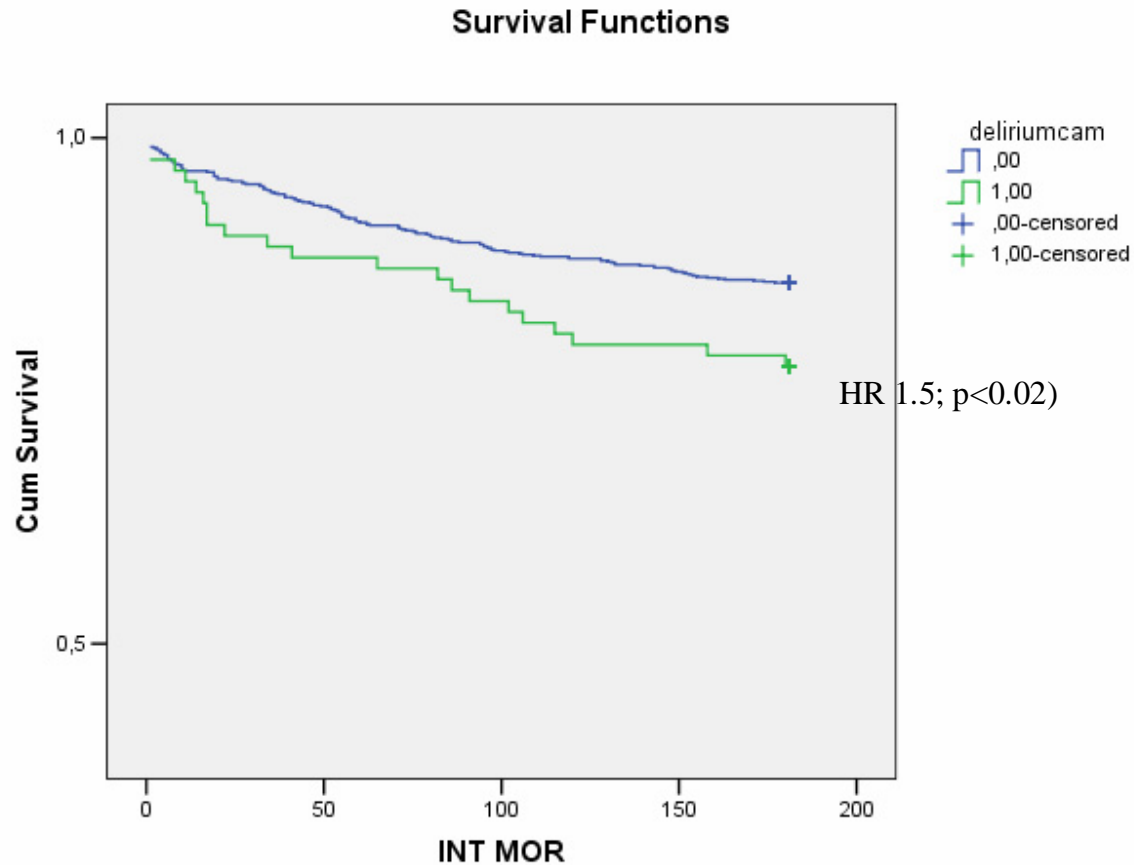
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- Overall prevalence of delirium among patients aged 65 years or more admitted to our ACU was **19.1%**
- The length of delirium episode was **3.8±1.8** days.
- **Demented** patients in delirious group are **41.0%** of the sample, while in the total sample of elderly patients the proportion of demented was 13.3%.
- **Prevalent delirium** was detected in **9.4%** of over 65 and **9.8%** had an **incident delirium**

## Delirium in elderly admitted to ACU unit

- In the total sample of delirious subjects, the **mixed subtype** was the more prevalent (48%), while 41% were of **hyperactive subtype** and 11% of **hypoactive**.
- In the delirium and dementia group, mixed variant was more prevalent (61%), while hyperactive variant was 34%.
- In patients without dementia, hyperactive variant was 46% while mixed variant was 38%. The differences versus demented patients were not statistically significant.
- In-hospital mortality: 9% vs 5%; OR 1.8,  $p < 0.01$

## Survival curves of the 6-month mortality rate



Cox regression model. Comorbidity as covariate

# Delirium Superimposed on Dementia Predicts 12-Month Survival in Elderly Patients Discharged From a Postacute Rehabilitation Facility

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**Background.** Delirium superimposed on dementia (DSD) is highly prevalent and associated with high mortality among hospitalized elderly patients, yet little is known about the effect of DSD on midterm mortality. The purpose of this study was to assess 12-month survival in patients with DSD and matched groups with dementia alone, delirium alone, or neither delirium nor dementia.

**Methods.** Among 1278 consecutively admitted elderly participants (aged  $\geq 65$  years) to our Rehabilitation Unit between January 2002 and May 2005, four matched samples of 47 participants each (DSD, dementia alone, delirium alone, or neither delirium nor dementia) were selected. Matching was based on age, gender, and reason for admission. Postdischarge 12-month survival was assessed in the four groups with Kaplan–Meyer analysis and compared with Cox proportional hazard regression models adjusted for confounders.

**Results.** Survival was significantly lower for DSD patients than for the other three groups. After adjustment for comorbidity and Barthel Index score before admission, patients with DSD had significantly higher mortality (hazard ratio, 2.3; 95% confidence interval, 1.1–5.5;  $p = .04$ ) than did patients with neither delirium nor dementia.

**Conclusions.** Demented patients who experienced delirium during hospitalization had a more than twofold increased risk of mortality in the 12 months following discharge than did patients with dementia alone, with delirium alone, or with neither dementia nor delirium.

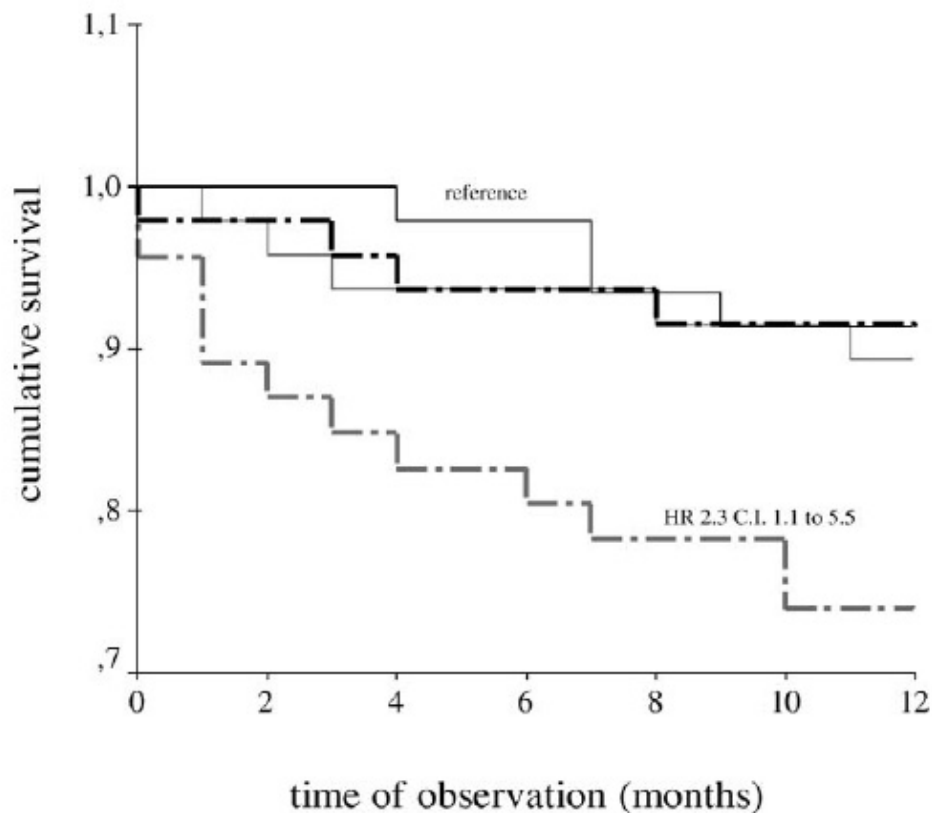


Figure 1. Survival of patients with neither delirium nor dementia, dementia alone, delirium alone, or delirium superimposed on dementia. Hazard ratio (HR) and 95% confidence interval (C.I.) were computed in Cox regression models where comorbidity and Barthel Index before admission were covariates, and patients with neither delirium nor dementia made up the reference group. *Black solid line* = no delirium, no dementia; *black dotted line* = dementia; *grey solid line* = delirium; *grey dotted line* = delirium superimposed on dementia.

Rockwood K, Cosway S, et al.  
The risk of dementia and death after delirium.  
Age Ageing. 1999 Oct;28(6):551-6.

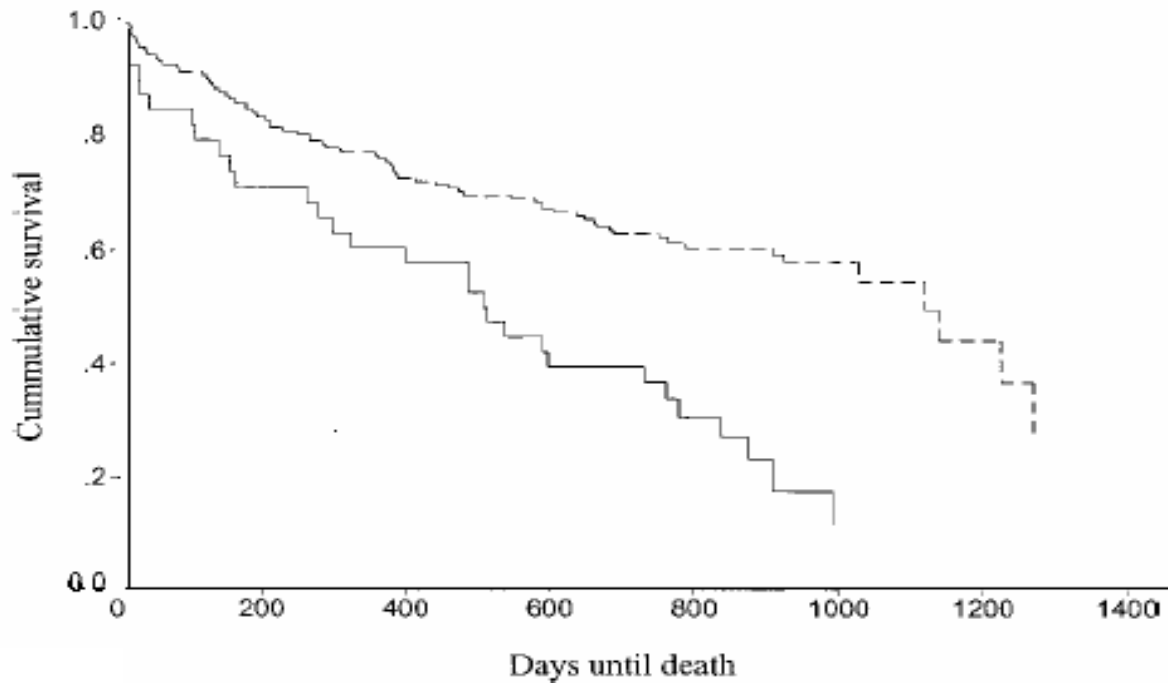


Figure 2. Survival time for subjects with (—) and without (---) delirium at baseline.

# COMPLICANZE INTRAOSPEDALIERE

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Il delirium è il più forte predittore di rischio di sviluppare una complicanza durante il ricovero ospedaliero

|                             | <b>delirium<br/>N/N<br/>(%)</b> | <b>No delirium<br/>N/N<br/>(%)</b> | <b>unadjusted<br/>odds ratios<br/>(95%CI)</b> |
|-----------------------------|---------------------------------|------------------------------------|---|
| <b>urinary incontinence</b> | <b>48/78<br/>(62)</b>           | <b>38/128<br/>(30)</b>             | <b>3.8<br/>(2.1-6.9)</b>                      |
| <b>falls</b>                | <b>19/94<br/>(20)</b>           | <b>9/131<br/>(7)</b>               | <b>3.4<br/>(1.5-7.7)</b>                      |
| <b>pressure sores</b>       | <b>6/83<br/>(7)</b>             | <b>2/119<br/>(2)</b>               | <b>4.5<br/>(0.9-23.2)</b>                     |
| <b>any complications</b>    | <b>56/94<br/>(60)</b>           | <b>44/131<br/>(34)</b>             | <b>2.7<br/>(1.7-5.0)</b>                      |



- Delirium in elderly admitted to ACU unit

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Istituzionalizzazione a 6 mesi:

18% vs 7.4%; OR 2.4,  $p < 0.001$

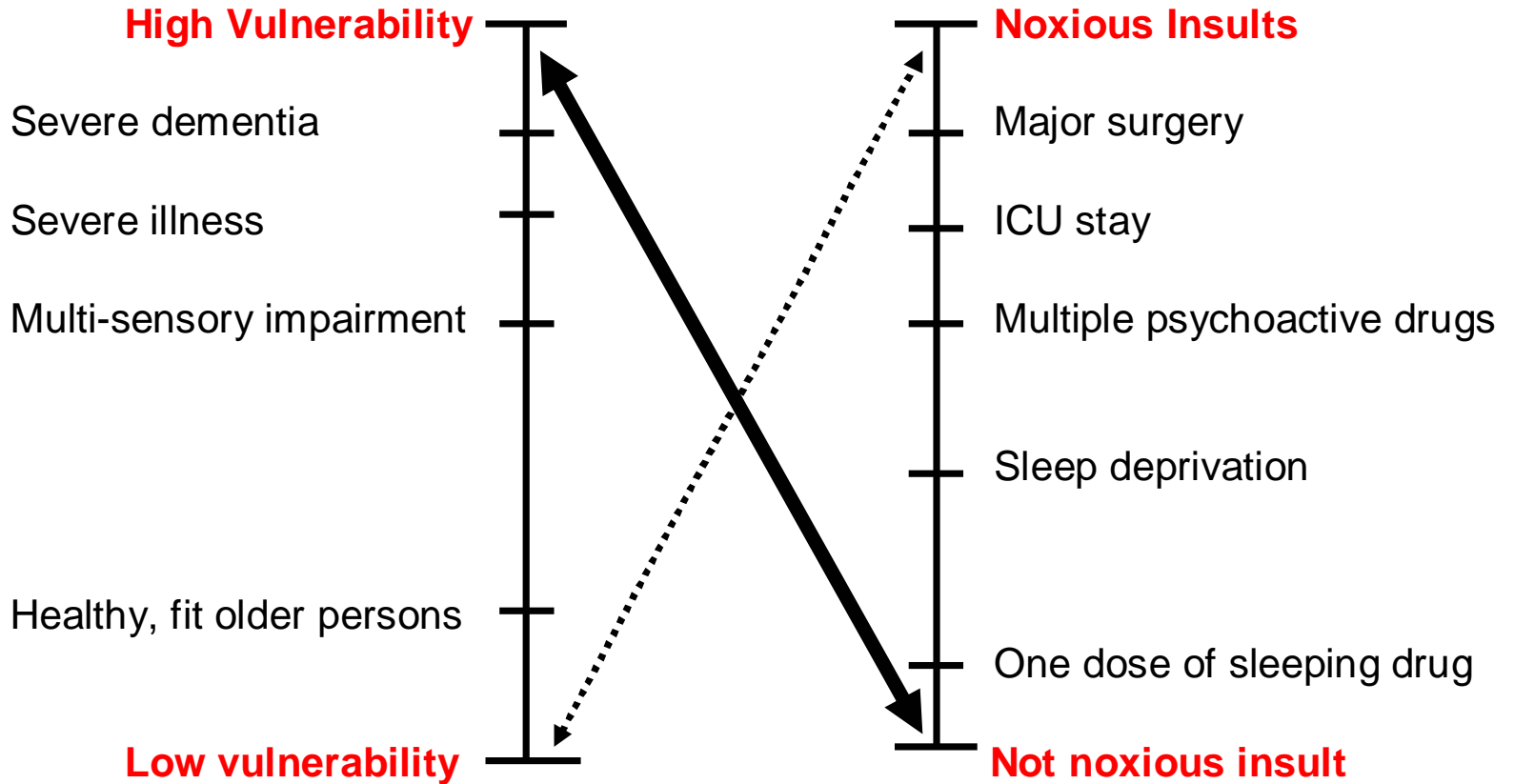
Utilizzo di una badante a 6 mesi:

33.3% vs 13%; OR 2.6,  $p < 0.001$

- 
- Il delirium **NON** è un processo benigno
  - Il 50% circa dei pazienti con delirium non ottiene una diagnosi corretta

**Predisposing Factors/Vulnerability**

**Precipitating Factors/Insults**



Inouye S JAMA 1996

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**Table 2. Predisposing Factors for Delirium.**

|   |
|---|
| Demographic characteristics                 |
| Age of 65 years or older                    |
| Male sex                                    |
| Cognitive status                            |
| Dementia                                    |
| Cognitive impairment                        |
| History of delirium                         |
| Depression                                  |
| Functional status                           |
| Functional dependence                       |
| Immobility                                  |
| Low level of activity                       |
| History of falls                            |
| Sensory impairment                          |
| Visual impairment                           |
| Hearing impairment                          |
| Decreased oral intake                       |
| Dehydration                                 |
| Malnutrition                                |
| Drugs                                       |
| Treatment with multiple psychoactive drugs  |
| Treatment with many drugs                   |
| Alcohol abuse                               |
| Coexisting medical conditions               |
| Severe illness                              |
| Multiple coexisting conditions              |
| Chronic renal or hepatic disease            |
| History of stroke                           |
| Neurologic disease                          |
| Metabolic derangements                      |
| Fracture or trauma                          |
| Terminal illness                            |
| Infection with human immunodeficiency virus |

**Table 3. Precipitating Factors or Insults That Can Contribute to Delirium.**

|  |
|--|
| Drugs  |
| Sedative hypnotics   |
| Narcotics  |
| Anticholinergic drugs  |
| Treatment with multiple drugs                                  |
| Alcohol or drug withdrawal                                     |
| Primary neurologic diseases                                    |
| Stroke, particularly nondominant hemispheric                   |
| Intracranial bleeding  |
| Meningitis or encephalitis                                     |
| Intercurrent illnesses   |
| Infections   |
| Iatrogenic complications                                       |
| Severe acute illness   |
| Hypoxia  |
| Shock  |
| Fever or hypothermia   |
| Anemia   |
| Dehydration  |
| Poor nutritional status  |
| Low serum albumin level  |
| Metabolic derangements (e.g., electrolyte, glucose, acid-base) |
| Surgery  |
| Orthopedic surgery   |
| Cardiac surgery  |
| Prolonged cardiopulmonary bypass                               |
| Noncardiac surgery   |
| Environmental  |
| Admission to an intensive care unit                            |
| Use of physical restraints                                     |
| Use of bladder catheter  |
| Use of multiple procedures                                     |
| Pain   |
| Emotional stress   |
| Prolonged sleep deprivation                                    |

# *Delirium in the elderly can be prevented!*

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|                  | N           | R/NR | abs.risc<br>OR  | severity | LOS               |
|------------------|-------------|------|-----------------|----------|-------------------|
| Gustafson 1991   | 103<br>+111 | NR   | -13.7%          | ↓↓↓      | 11.6 v.s.<br>17.4 |
| Inouye 1999      | 852         | NR   | -5.1%<br>OR 0.6 | ↓↓↓      | ±                 |
| Marcantonio 2001 | 126         | R    | -18%<br>OR 0.6  | ↓        | ±                 |
| Milisen 2001     | 120         | NR   | ±               | ↓        | ±                 |

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# Prevention of delirium; intervention program

1) Gustafson 1991, 2) Inouye 1999, 3) Marcantonio 2001, 4) Milisen 2001

|  | 1) | 2) | 3) | 4) |
|--|----|----|----|----|
| <b>cognition, orientation</b>          | +  | +  | +  | +  |
| <b>mobility</b>                        |    | +  | +  | +  |
| <b>eyes and ears</b>                   |    | +  | +  | +  |
| <b>sleep <del>wake</del> disorders</b> |    | +  |    | +  |
| <b>fluid / electrolytes</b>            |    | +  | +  | +  |
| <b>pain relief</b>                     |    |    | +  | +  |
| <b>geriatric consultation</b>          | +  |    | +  | +  |
| <b>early surgery</b>                   | +  |    |    |    |
| <b>CNS oxygenation</b>                 | +  |    | +  |    |
| <b>prevention of complications</b>     | +  |    | +  |    |
| <b>medication check up</b>             |    |    | +  |    |
| <b>bladder and bowel</b>               | +  |    | +  |    |
| <b>nutrition</b>                       |    |    | +  |    |

# A Multifactorial Intervention to Reduce Prevalence of Delirium and Shorten Hospital Length of Stay

*Bruce J. Naughton, MD,\*<sup>‡</sup> Susan Saltzman, ND,\*<sup>‡</sup> Fadi Ramadan, MD,\*<sup>‡</sup> Noshi Chadha, MD,\*<sup>‡</sup>  
Roger Priore, ScD,\* and Joseph M. Mylotte, MD\*<sup>‡</sup><sup>§</sup>*

*J Am Geriatr Soc 53:18–23, 2005.*

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- **CONCLUSION:** A multifactorial intervention designed to reduce delirium in older adults was associated with improved psychotropic medication use, less delirium and hospitals savings

# Haloperidol Prophylaxis for Elderly Hip-Surgery Patients at Risk for Delirium: A Randomized Placebo-Controlled Study

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Ralph Vreeswijk, RN, MSc,\* Toine C. G. Egberts, PhD,‡ Bart J. Burger, MD, PhD,\*  
Piet Eikelenboom, MD, PhD,§¶ and Willem A. van Gool, MD, PhD||*

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**INTERVENTION:** Haloperidol 1.5 mg/d or placebo was started preoperatively and continued for up to 3 days postoperatively.

**CONCLUSION:** Low-dose haloperidol prophylactic treatment demonstrated no efficacy in reducing the incidence of postoperative delirium. It did have a positive effect on the severity and duration of delirium. Moreover, haloperidol reduced the number of days patients stayed in the hospital, and the therapy was well tolerated.

# Donepezil in the Prevention and Treatment of Post-Surgical Delirium

*Benjamin Liptzin, M.D., Agnes Laki, M.P.H., C.H.E.S.  
Jane L. Garb, M.S., Richard Fingeroth, M.D.  
Robert Krusbell, M.D.*

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**Objective:** *Delirium is a frequent complication of major surgery in older persons. The authors evaluated the possible benefit of donepezil versus placebo in the prevention and treatment of postoperative delirium in an older population without dementia undergoing elective total joint-replacement surgery. Methods:* A sample of 80 patients participated in this randomized, double-blind, placebo-controlled trial of donepezil. Each participant was evaluated before surgery and then received donepezil or placebo for 14 days before surgery and 14 days afterward. Postoperative delirium was assessed with the Delirium Symptom Interview, Confusion Assessment Method, daily medical record, nurse-observation reviews, and DSM-IV diagnostic criteria for delirium. Subsyndromal delirium was also assessed for each participant. **Results:** *Delirium, diagnosed by DSM-IV criteria, was found on at least 1 postoperative day in 18.8% of subjects, but there were no significant differences between the donepezil and placebo groups. When delirium was present, it lasted only 1 day, and there was no difference between the groups. Subsyndromal delirium was found on at least 1 postoperative day for 68.8% of subjects, and, when this occurred, lasted 2 days or less, on average. There was no difference between the groups in the occurrence or duration of subsyndromal delirium. There was no difference between the groups in disposition to home or to another facility. Conclusions:* This pilot study was unable to demonstrate a benefit for donepezil in preventing or treating delirium in a relatively young and cognitively-intact group of elderly patients undergoing elective orthopedic surgery. Furthermore, postoperative delirium was not a major problem in this population. (Am J Geriatr Psychiatry 2005; 13:1100-1106)

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Cochrane Database Syst Rev. 2007 Apr 18;(2):CD005563.

## Interventions for preventing delirium in hospitalised patients

Siddiqi N, Stockdale R, Britton A, Holmes J.

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- Research evidence on effectiveness of interventions to prevent delirium is sparse.
- **Programme of proactive geriatric consultation** may reduce delirium incidence and severity in patients undergoing surgery for hip fracture.
- **Prophylactic low dose haloperidol** may reduce severity and duration of delirium episodes and shorten length of hospital admission in hip surgery.
- Further studies of delirium prevention are needed.

## CLINICAL CHARACTERISTICS AND RISK FACTORS OF DELIRIUM IN DEMENTED AND NOT DEMENTED ELDERLY MEDICAL INPATIENTS

A. MARGIOTTA<sup>1,2</sup>, A. BIANCHETTI<sup>1,2</sup>, P. RANIERI<sup>1,2</sup>, M. TRABUCCHI<sup>2,3</sup>

**Table 1**

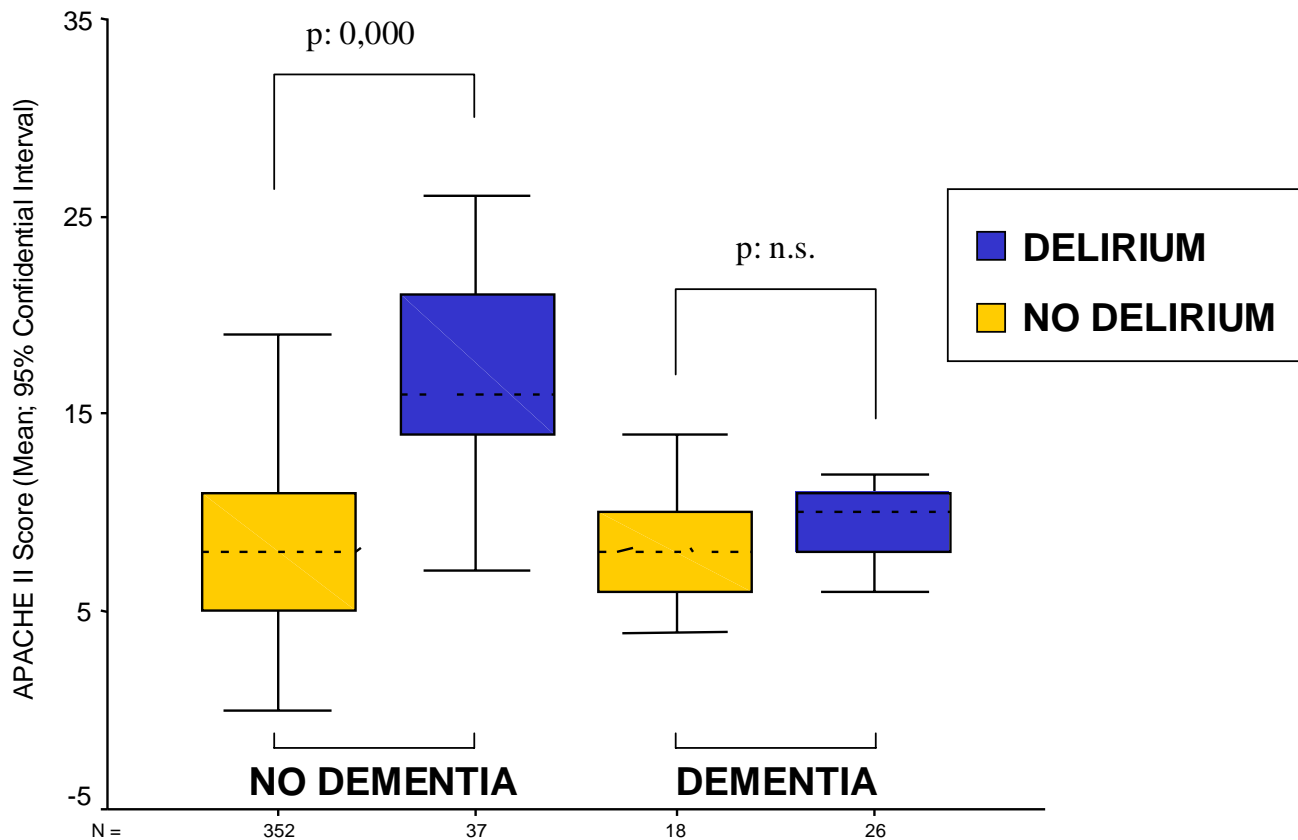
Clinical Variables in a Population of 330 Elderly Inpatients Admitted to an ACU, According to the Absence or the Presence of Delirium.

|   | Not delirious<br>(n = 267) | Delirious<br>(n = 63) | p*   |
|---|----------------------------|-----------------------|------|
| Age (years)   | 79.8 (8.5)                 | 81.6 (7.2)            | .112 |
| Hospital stay (days)  | 9.3 (2.6)                  | 10.5 (4.5)            | .004 |
| Barthel Index (one month before admission) <sup>1</sup>               | 80.7 (29.8)                | 70.7 (21.7)           | .013 |
| Barthel Index (on admission) <sup>1</sup>                             | 65.2 (36.8)                | 30.6 (21.6)           | .001 |
| Functional Loss <sup>2</sup>  | 15.3 (21.7)                | 40.1 (19.0)           | .001 |
| Instrumental Activities of Daily Living (functions lost) <sup>1</sup> | 3.2 (3.1)                  | 4.5 (2.4)             | .002 |
| Mini Mental State Examination <sup>1</sup>                            | 22.1 (7.0)                 | 16.9 (6.8)            | .000 |
| Acute Physiology Age and Chronic Health Evaluation <sup>2</sup>       | 8.9 (5.0)                  | 14.1 (5.6)            | .000 |

Mean; Standard Deviation; Functional Loss = Barthel Index score one month before admission – Barthel Index score on admission

1 Student t test for unpaired samples; 2 Lower score indicates greater severity; 3 Higher score indicates greater severity

# RISK FACTORS FOR DELIRIUM ACCORDING TO DIAGNOSIS OF DEMENTIA



The NEW ENGLAND JOURNAL of MEDICINE

REVIEW ARTICLE

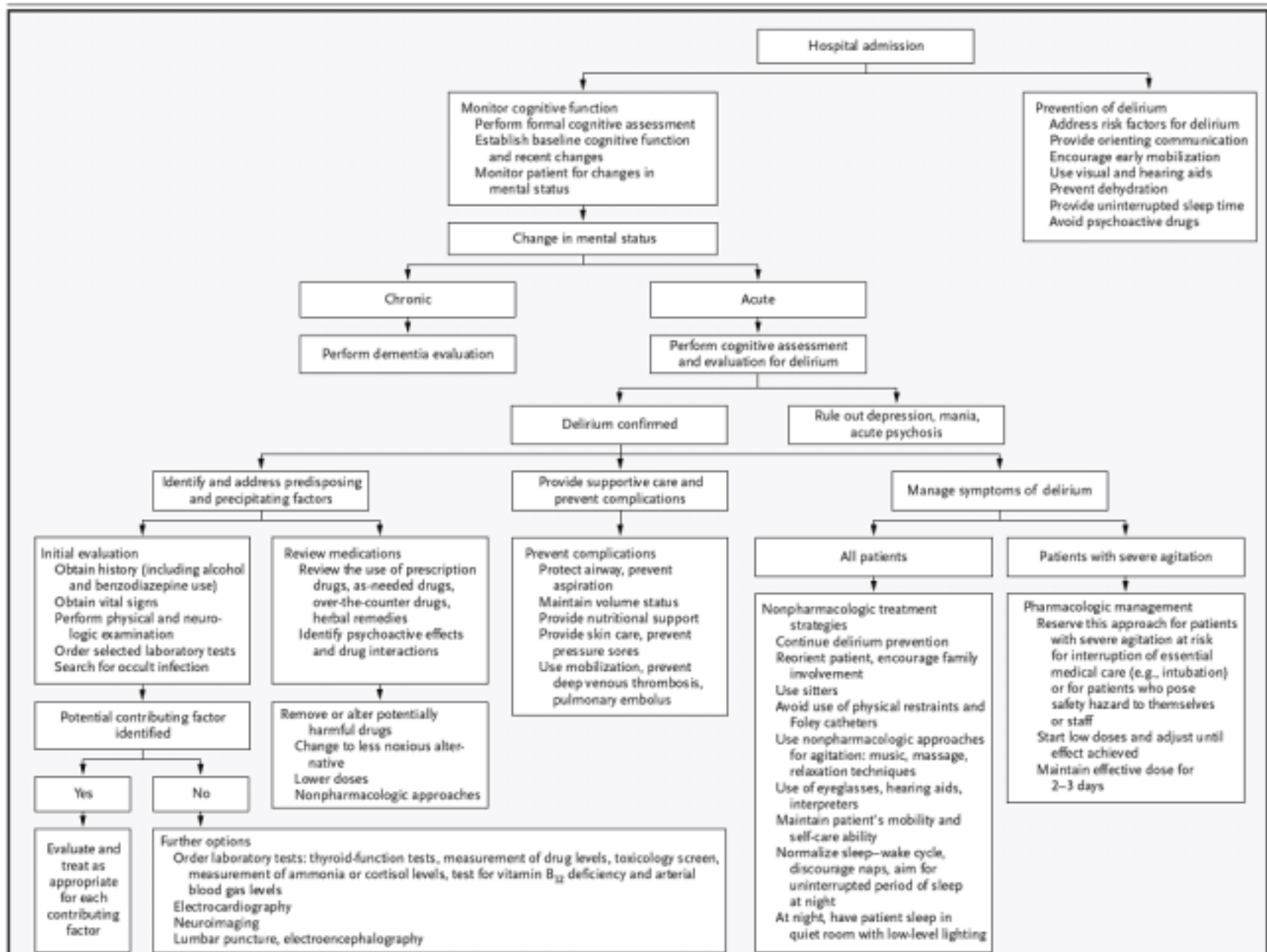
CURRENT CONCEPTS

# Delirium in Older Persons

Sharon K. Inouye, M.D., M.P.H.

N Engl J Med 2006;354:1157-65.

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**Table 4. Pharmacologic Treatment of Delirium.**

| Class and Drug  | Dose   | Adverse Effects   | Comments   |
|---|--|---|--|
| Antipsychotic<br>Haloperidol                                      | 0.5–1.0 mg twice daily orally, with additional doses every 4 hr as needed (peak effect, 4–6 hr)<br>0.5–1.0 mg intramuscularly; observe after 30–60 min and repeat if needed (peak effect, 20–40 min) | Extrapyramidal symptoms, especially if dose is >3 mg per day<br>Prolonged corrected QT interval on electrocardiogram<br>Avoid in patients with withdrawal syndrome, hepatic insufficiency, neuroleptic malignant syndrome | Usually agent of choice<br>Effectiveness demonstrated in randomized, controlled trials <sup>20,37</sup><br>Avoid intravenous use because of short duration of action   |
| Atypical antipsychotic<br>Risperidone<br>Olanzapine<br>Quetiapine | 0.5 mg twice daily<br>2.5–5.0 mg once daily<br>2.5–5.0 mg once daily   | Extrapyramidal effects equivalent to or slightly less than those with haloperidol<br>Prolonged corrected QT interval on electrocardiogram   | Tested only in small uncontrolled studies<br>Associated with increased mortality rate among older patients with dementia   |
| Benzodiazepine<br>Lorazepam                                       | 0.5–1.0 mg orally, with additional doses every 4 hr as needed*   | Paradoxical excitation, respiratory depression, oversedation  | Second-line agent<br>Associated with prolongation and worsening of delirium symptoms demonstrated in clinical trial <sup>37</sup><br>Reserve for use in patients undergoing sedative and alcohol withdrawal, those with Parkinson's disease, and those with neuroleptic malignant syndrome |
| Antidepressant<br>Trazodone                                       | 25–150 mg orally at bedtime  | Oversedation  | Tested only in uncontrolled studies  |

\* Intravenous use of lorazepam should be reserved for emergencies.

# DELIRIUM E DELIRIUM SUBSINDROMICO

Table 5. Comparison of the Prevalence of DSI Delirium Symptoms Across Delirium Subgroups

| Delirium Symptoms                          | Delirium<br>(n = 335) | Subsyndromal<br>(2 <sup>+</sup> symp.; n = 271) | Subsyndromal<br>(1 symp.; n = 850) | No Delirium<br>(n = 696) | p Value |
|--|-----------------------|---|------------------------------------|--------------------------|---------|
| Disorientation (%)                         | 91.0                  | 65.3  | 41.9                               | 14.7                     | .0001   |
| Sleep disturbance (%)                      | 59.4                  | 42.4  | 43.5                               | 46.9                     | .0001   |
| Perceptual disturbance (%)                 | 37.1                  | 17.8  | 8.0                                | 6.2                      | .0001   |
| Attention disturbance (%) <sup>a</sup>     | 100.0                 | 94.8  | 78.9                               | 0.0                      | .0001   |
| Consciousness disturbance (%) <sup>b</sup> | 38.2                  | 6.3   | 0.9                                | 0.0                      | .0001   |
| Incoherent speech (%) <sup>b</sup>         | 93.4                  | 70.1  | 16.8                               | 0.0                      | .0001   |
| Abnormal psychomotor activity (%)          | 64.5                  | 31.7  | 21.4                               | 11.0                     | .0001   |
| Fluctuating behavior (%) <sup>a</sup>      | 81.8                  | 23.0  | 0.8                                | 0.0                      | .0001   |

## Delirium subsindromico

|  | <b>No delirium</b><br>(n: 145) | <b>Delirium Subsindromico</b><br>(n: 48) | p*    | <b>Delirium</b><br>(n: 18) | p**   |
|--|--------------------------------|--|-------|----------------------------|-------|
| Età (anni)                               | 78,9±7,4                       | 81,8±8,2                                 | 0,022 | 84,2±5,3                   | n.s.  |
| Degenza (giorni)                         | 7,9±4,0                        | 9,7±6,3                                  | 0,027 | 8,4±2,9                    | n.s.  |
| MMSE (Mini Mental State Examination)     | 22,6±5,1                       | 18,6±5,4                                 | 0,000 | 12,3±6,2                   | 0,002 |
| GDS (Geriatric Depression Scale)         | 4,6±3,4                        | 5,9±3,6                                  | n.s.  | 6,0±3,6                    | n.s.  |
| IADL (funzioni perse)                    | 3,1±3,1                        | 4,9±3,0                                  | 0,000 | 6,5±2,1                    | 0,050 |
| Barthel Index premorbo                   | 86,1±21,7                      | 66,6±29,4                                | 0,000 | 46,7±31,1                  | 0,019 |
| Barthel Index ingresso                   | 69,7±32,3                      | 31,2±30,1                                | 0,000 | 11,7±17,4                  | 0,002 |
| Barthel Index dimissione                 | 80,4±26,7                      | 53,5±32,3                                | 0,000 | 29,7±25,6                  | 0,008 |
| Declino funzionale (BI premor.-BI ingr.) | 16,4±20,7                      | 35,4±28,5                                | 0,000 | 35,0±26,6                  | n.s.  |
| APS (Acute Physiologic Score)            | 3,7±3,2                        | 5,0±4,4                                  | 0,032 | 5,0±4,4                    | n.s.  |
| Charlson Index                           | 3,5±1,8                        | 4,4±2,4                                  | 0,007 | 5,6±3,3                    | n.s.  |
| N° farmaci (terapia al domicilio)        | 5,2±2,8                        | 4,5±2,6                                  | n.s.  | 5,5±2,3                    | n.s.  |
| Demenza (%)                              | 6,8                            | 36,6                                     | 0,000 | 77,7                       | 0,000 |

p\* T-Test per variabili indipendenti fra No delirium e DSS, tranne che per la voce “Demenza”: test Chi-quadrato. p\*\* T-Test per variabili indipendenti fra DSS e D, tranne che per la voce “Demenza”: test Chi-quadrato.

## Le “10 regole d’oro” da rispettare per una corretta gestione diagnostico-terapeutica del delirium.

- 1) Diagnosticare il delirium utilizzando i criteri del DSM IV
  - 2) Il riconoscimento del delirium può essere facilitato dall’uso routinario di strumenti che valutino lo stato mentale (MMSE, SPSMQ o altri). La somministrazione ripetuta a distanza di tempo può facilitare il riconoscimento di un delirium incidente
  - 3) Deve essere conosciuto lo stato cognitivo e funzionale pre-morboso. Questa informazione è ottenibile dai famigliari o dai badanti.
  - 4) I fattori predisponenti (es: demenza, malattia severa, deprivazione sensoriale, alcoolismo) devono essere identificati e tenuti sempre in considerazione
  - 5) I fattori precipitanti (infezioni, somministrazione o sospensione di farmaci) devono essere trattati e prevenuti
  - 6) La contenzione (fisica e farmacologica) deve essere evitata
  - 7) I farmaci psicotropi devono essere utilizzati solo in presenza di potenziali rischi del paziente per sé o per gli altri. Deve essere utilizzata un’unica molecola (preferibilmente l’aloperidolo) alla minima dose efficace
  - 8) La terapia farmacologica deve essere periodicamente rivista
  - 9) L’ambiente deve essere il più possibile confortevole, tranquillo e con adeguata illuminazione. Orologi, calendari e fotografie devono essere presenti per favorire l’orientamento
  - 10) Il trattamento deve essere di tipo multidisciplinare e deve essere formulato un piano di dimissione per la cura del soggetto al proprio domicilio e per il supporto dei caregivers
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# Conclusioni

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- Il delirium è una sindrome con espressioni cliniche eterogenee (ipo, iper, misto, subsindromico...), il cui significato clinico in termini prognostici può essere chiarito solo dopo una attenta ed approfondita valutazione
- In termini generali il delirium si associa ad una prognosi clinica peggiore
- Il delirium ipocinetico tende ad essere misconosciuto, ma sembra associarsi a prognosi peggiore
- Il trattamento si va sempre più arricchendo di indicazioni non farmacologiche e farmacologiche, anche se la mancanza di ampi trial rende “empirico” l’approccio al singolo paziente