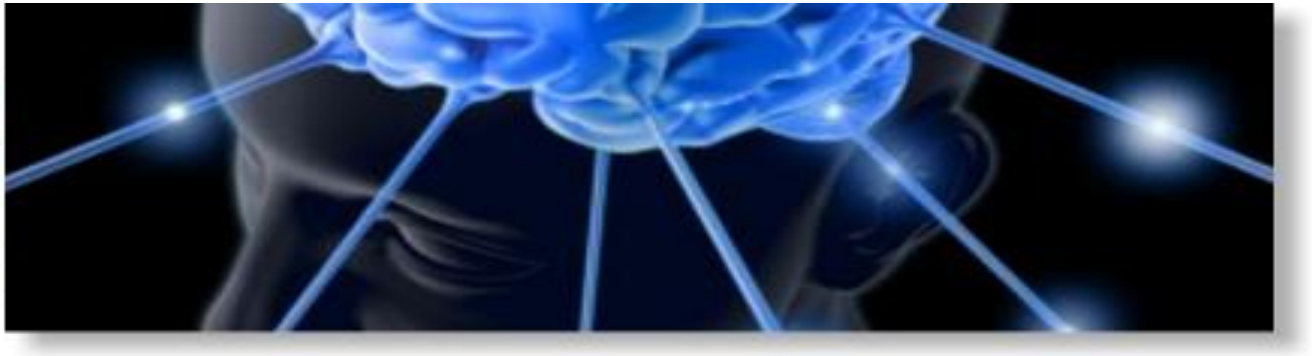
SIMPOSIO SIN-SIRN - STROKE UNIT E RIABILITAZIONE IN FASE ACUTA

Linee guida riabilitazione e ISO-SPREAD

Michela Coccia
Clinica di Neuroriabilitazione
AOU Ospedali Riuniti di Ancona

forward 20
1997/2017

SPREAD
Stroke Prevention And Educational Awareness Diffusion



Raccomandazione 14.1 Forte a favore

Entro le prime 48 ore dal ricovero è raccomandato attivare il team a cui compete la presa in carico riabilitativa del paziente che ha subito un ictus.

Raccomandazione 14.2a Forte a favore

E' raccomandato attivare tutte le procedure che possano condurre ad una precoce presa in carico riabilitativa già nelle fasi acute dell'ictus al fine di:

- ✓ **eseguire una valutazione clinico-funzionale,**
- ✓ **definire la prognosi funzionale,**
- ✓ **organizzare il percorso assistenziale,**
- ✓ **avviare attività di prevenzione di complicanze,**
- ✓ **promuovere il recupero funzionale.**

Raccomandazione 14.2b **Debole a favore**

Nella fase acuta dell'ictus è indicato valutare:

- ✓ **lo stato di coscienza,**
- ✓ **le competenze deglutitorie,**
- ✓ **l'efficienza cognitiva e comunicativa,**
- ✓ **lo stato nutrizionale,**
- ✓ **il rischio di decubiti,**
- ✓ **il rischio di caduta,**
- ✓ **le comorbidità,**
- ✓ **le esigenze del paziente in rapporto alle limitazioni dell'attività motoria,**
- ✓ **la disabilità globale e segmentaria attraverso strumenti di misura validati,**
- ✓ **il contesto socio-sanitario in cui è inserito**

Predictors and Outcomes of Dysphagia Screening After Acute Ischemic Stroke

Raed A. Joundi, MD, DPhil; Rosemary Martino, PhD; Gustavo Saposnik, MD, MSc; Vasily Giannakeas, MPH; Jiming Fang, PhD; Moira K. Kapral, MD, MSc

Background and Purpose—Guidelines advocate screening all acute stroke patients for dysphagia. However, limited data are available regarding how many and which patients are screened and how failing a swallowing screen affects patient outcomes. We sought to evaluate predictors of receiving dysphagia screening after acute ischemic stroke and outcomes after failing a screening test.

Methods—We used the Ontario Stroke Registry from April 1, 2010, to March 31, 2013, to identify patients hospitalized with acute ischemic stroke and determine predictors of documented dysphagia screening and outcomes after failing the screening test, including pneumonia, disability, and death.

Results—Among 7171 patients, 6677 patients were eligible to receive dysphagia screening within 72 hours, yet 1280 (19.2%) patients did not undergo documented screening. Patients with mild strokes were significantly less likely than those with more severe strokes to have documented screening (adjusted odds ratio, 0.51; 95% confidence interval [CI], 0.41–0.64). Failing dysphagia screening was associated with poor outcomes, including pneumonia (adjusted odds ratio, 4.71; 95% CI, 3.43–6.47), severe disability (adjusted odds ratio, 5.19; 95% CI, 4.48–6.02), discharge to long-term care (adjusted odds ratio, 2.79; 95% CI, 2.11–3.79), and 1-year mortality (adjusted hazard ratio, 2.42; 95% CI, 2.09–2.80). Associations were maintained in patients with mild strokes.

Conclusions—One in 5 patients with acute ischemic stroke did not have documented dysphagia screening, and patients with mild strokes were substantially less likely to have documented screening. Failing dysphagia screening was associated with poor outcomes, including in patients with mild strokes, highlighting the importance of dysphagia screening for all patients with acute ischemic stroke. (***Stroke*. 2017;48:00-00. DOI: 10.1161/STROKEAHA.116.015332.)**

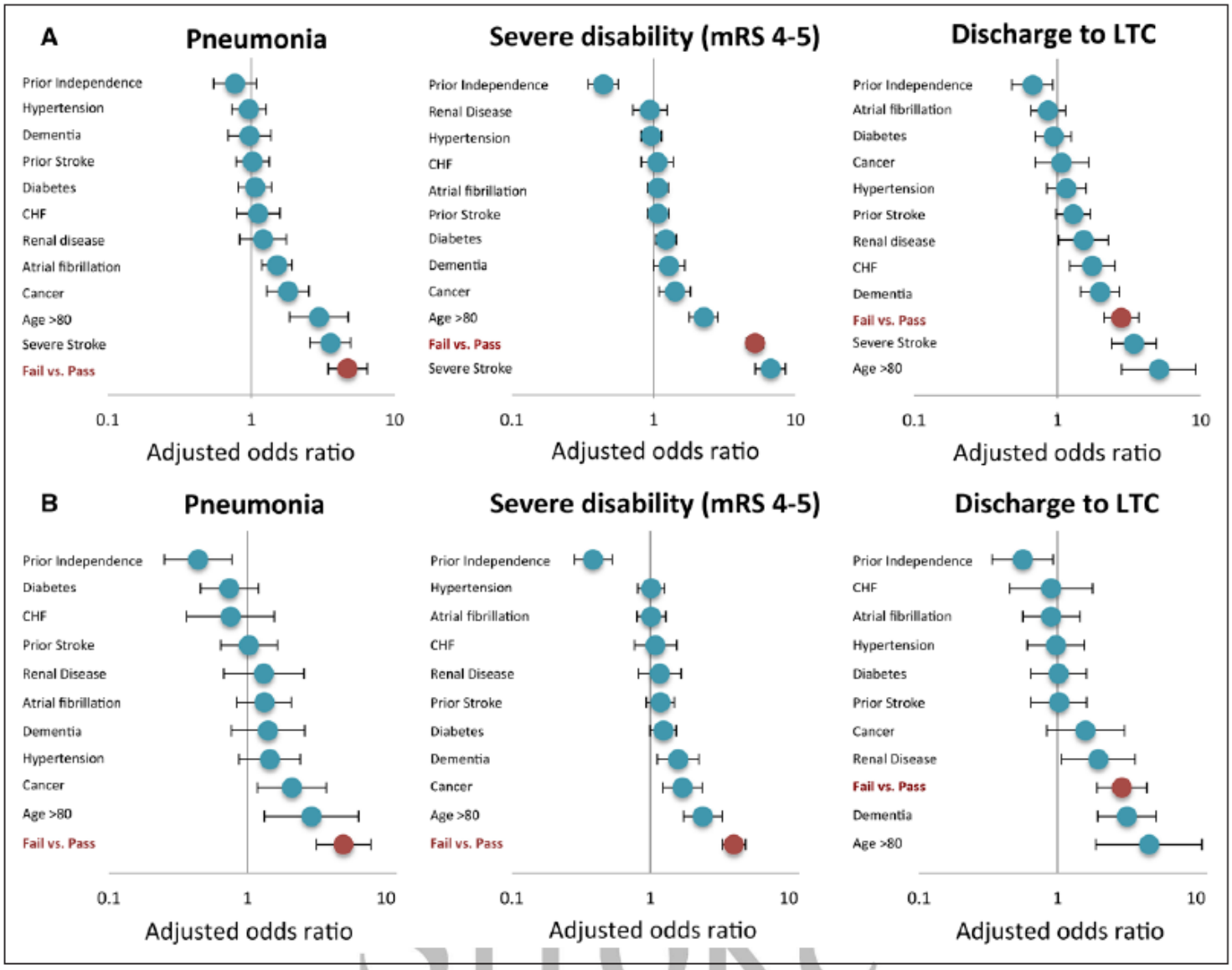


Figure 2. Association between failing dysphagia screening and outcomes. Adjusted odds ratios for fail vs pass are displayed in comparison to other major exposures, in predicting pneumonia, severe disability, and discharge to long-term care (LTC), for the entire cohort (**A**) or the subcohort of patients with mild strokes (**B**). mRS indicates modified Rankin Scale.

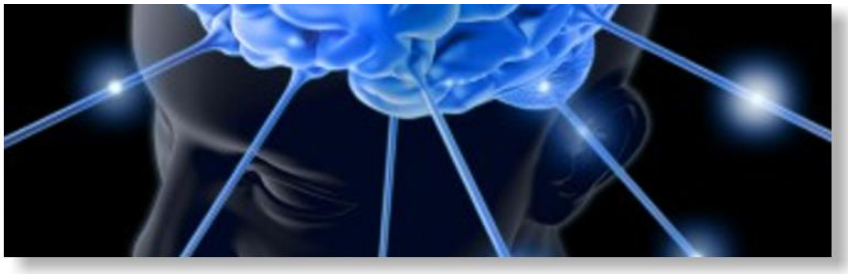
Dysphagia 2018

Screening for Dysphagia in Adult Patients with Stroke: Assessing the Accuracy of Informal Detection

Victoria Sherman[1,2] · Heather Flowers[2,3] · Moira K. Kapral[4,5] · Gordon Nicholson[2,6] · Frank Silver[5,7] · Rosemary Martino[1,2,8,9]

Abstract

Early identification of dysphagia by screening is recommended best practice for patients admitted to hospital with acute stroke. Screening can reduce the risk of pneumonia and promote stroke recovery, yet some institutions do not utilize a formal screening protocol. This study assessed the accuracy of informal dysphagia detection prior to implementation of a formal screening protocol. We conducted a secondary analysis of data captured between 2003 and 2008 from a sample of 250 adult stroke survivors admitted to a tertiary care centre. Using a priori criteria, patient medical records were reviewed for notation about dysphagia; if present, the date/time of notation, writer's profession, and suggestion of dysphagia presence. To assess accuracy of notations indicating dysphagia presence, we used speech language pathology (SLP) assessments as the criterion reference. There were 221 patient medical records available for review. Patients were male (56%), averaged 68 years (SD = 15.0), with a mean Canadian Neurological Scale score of 8.1 (SD = 3.0). First notations of swallowing by SLP were excluded. Of the remaining 170 patients, 147 (87%) had first notations (104 by nurses; 40 by physicians) within a median of 24.3 h from admission. Accuracy of detecting dysphagia from informal notations was low, with a sensitivity of 36.7% [95% CI, 24.9, 50.1], but specificity was high (94.2% [95% CI, 86.5, 97.9]). Informal identification methods, although timely, are suboptimal in their accuracy to detect dysphagia and leave patients with stroke at risk for poor health outcomes. Given these findings, we encourage the use of psychometrically validated formal screening protocols to identify dysphagia.



Raccomandazione 14.27 - Raccomandazione forte a favore

Nelle prime 24 ore dall'ictus è indicata una tempestiva valutazione del rischio di aspirazione, mediante la somministrazione di un **test di screening semplice**, quale il test della deglutizione dell'acqua, da parte di personale addestrato, a tutti i pazienti vigili, collaboranti e in grado di mantenere la stazione seduta a letto con appoggio.

Raccomandazione 14.28 - Raccomandazione forte a favore

In presenza di un disturbo della deglutizione sono indicati una valutazione clinica standardizzata del rischio di disfagia, l'intervento di un logopedista, l'adozione di misure idonee da parte del team assistenziale e, a seconda dei segni clinici, una valutazione strumentale più approfondita (FEES o VFS).

SYSTEMIC REVIEW ON HIGHLY QUALIFIED SCREENING TESTS FOR SWALLOWING DISORDERS FOLLOWING STROKE: VALIDITY AND RELIABILITY ISSUES

Poorjavad, 2014

- ✓ **ORAL PHARYNGEAL AND CLINICAL SWALLOWING EXAMINATION** (Daniels, 1997)
- ✓ **BEDSIDE ASPIRATION TEST** (Lim, 2001)
- ✓ **GUGGING SWALLOWING SCREEN** (Trapl, 2007)
- ✓ **THE TORONTO BEDSIDE SWALLOWING SCREENING TEST** (Martino, 2009)

SWALLOWING SCREENS AFTER ACUTE STROKE: A SYSTEMATIC REVIEW

Schepp, 2012

- ✓ **ACUTE STROKE DYSPHAGIA SCREEN** (Edmiaston, 2011)
- ✓ **MODIFIED MANN ASSESSMENT OF SWALLOWING ABILITY** (Antonios, 2010)
- ✓ **EMERGENCY PHISICIAN SWALLOWING SCREENING** (Turner-Lawrence, 2009)
- ✓ **THE TORONTO BEDSIDE SWALLOWING SCREENING TEST** (Martino, 2009)

(*Stroke*. 2012;43:892-897.)

Special Report

Valid Items for Screening Dysphagia Risk in Patients With Stroke

A Systematic Review

Stephanie K. Daniels, PhD; Jane A. Anderson, PhD; Pamela C. Willson, PhD

- ✓ **WATER SWALLOWING TEST (bicchiere: 50-90 ml)**
- ✓ **SEGNI DI ASPIRAZIONE SILENTE** (saturimetria perferica)
- ✓ **PREREQUISITI**

Curr Phys Med Rehabil Rep (2016) 4:287–294
DOI 10.1007/s40141-016-0137-2

SWALLOWING DISORDERS (RUTH E MARTIN, SECTION EDITOR)

Dysphagia Management and Stroke Units

David G. Smithard[1,2]

The swallow screen is not a diagnostic tool. The swallow screen does not provide the ability to make swallow management decision beyond able to swallow/not able to swallow safely

THE PURPOSE OF A SWALLOWING SCREEN IS TO IDENTIFY THOSE PATIENTS WHO DO NOT NEED A FORMAL EVALUATION AND WHO CAN SAFELY TAKE FOOD AND MEDICATION BY MOUTH

Screening Patients with Stroke for Rehabilitation Needs: Validation of the Post-Stroke Rehabilitation Guidelines

Dorothy F. Edwards, PhD, Michele G. Hahn, MSOT/OTR, Carolyn M. Baum, OTR/L, Monica S. Perlmutter, MA, OTR, Catherine Sheedy, RN, and Alexander W. Dromerick, MD

Neurorehabil Neural Repair 2006;20:42–48.

Table 3. Comparison of Impairments Noted by Testing and Chart Review

Domain/Measure	Frequency Noted in Chart, N (%)	Frequency Noted by Testing, N (%)	Percent Undetected Clinically[a]	$P <$[b]
Memory				
Short Blessed	22 (42)	32 (61)	31	0.001
Visual spatial neglect BIT				
Star Cancellation	11 (21)	28 (52)	61	0.001
Depression				
Geriatric Depression Scale	4 (8)	16 (31)	75	0.002
Aphasia				
FAST	4 (8)	19 (36)	79	0.005
Visual acuity				
MIS Vision Guide	14 (26)	37 (70)	62	0.006
Anomia				
Boston Naming Test	1 (0)	34 (65)	97	0.01
Hearing				
Sound Repetition	3 (6)	22 (42)	86	0.01

BIT = Behavioral Innatention Test; FAST = Frenchay Aphasia Screening Test.

a. χ^2 analyses comparing impairment identified by test performance and notation of impairment in patient chart.

b. Percent clinically undetected calculated by dividing the number of patients with impairment noted in charts by the number of patients with impairment detected by screening measure.

Post-stroke cognitive impairment is common even after successful clinical recovery

European Journal of Neurology 2015, **22:** 1288–1294

H. Jokinen, S. Melkas, R. Ylikoski, T. Pohjasvaara, M. Kaste, T. Erkinjuntti and M. Hietanen

Consecutive patients (n = 409), aged 55–85 years, from the acute Stroke Unit of the Helsinki University Hospital, Finland

In all, 83% patients showed impairment in at least one cognitive domain, whereas 50% patients were impaired in multiple (≥3) domains.

Even the patients with the most favourable clinical outcome (mRS=0-1), thus having no apparent functional disability, demonstrated a wide spectrum of cognitive deficits similar to the whole cohort (70% of patients).
These patients are typically discharged after short acute care and are expected to return to their previous lives .

The domain-specific cognitive impairments were related to functional disability at 15-month follow-up.

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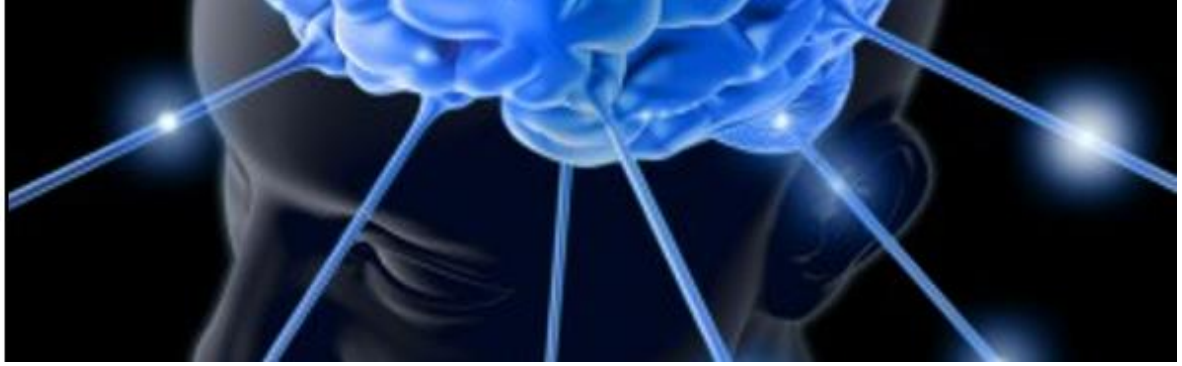


Raccomandazione 15.21 **GPP**

È opportuno che l'inquadramento neuropsicologico in fase acuta sia eseguito con test di rapida ed agevole somministrazione (possibile anche al letto del malato). Caratteristiche delle prove cognitive devono essere la taratura su popolazione italiana e la specificità.

Raccomandazione 15.22 **GPP**

Il "Montreal cognitive assessment" (MoCA) ed il "mini mental state examination" (MMSE) sono suggeriti anche in fase acuta dell'ictus in quanto consentono di effettuare un primo screening neuropsicologico. Il MoCA mostra una lieve superiorità rispetto al MMSE e presenta alcuni vantaggi quali la disponibilità della versione italiana ed il libero accesso.

Raccomandazione 15.19 **GPP**

La valutazione neuropsicologica più approfondita è comunque consigliata se l'osservazione clinica in fase di screening suggerisce la presenza di più deficit cognitivi.

MMSE VS MOCA

Nella fase acuta/screening cognitivo dell'ictus

- **1/3 dei pz con MMSE >24 ha un punteggio patologico al MoCA (<21), solo il 5% dei pz con MoCA nella norma ha punteggi patologici al MMSE *(Dong, 2010)***
- **MMSE patologico in 45 %vs MoCA 82% *(Godefroy, 2011)***
- **MMSE mostra un effetto soffitto ed una sensibilità minore per singoli domini: oltre ½ dei pazienti con punteggio normale al MMSE è alterato alla MoCA *(Pendlebury, 2010)***
- **MoCA è semplice e veloce da applicare ed individua una >% di pazienti cognitivamente compromessi *(Blackburn, 2013)***
- **MMSE identifica come non patologici 64% con sdr disesecutiva *(Nys, 2005)***
- **Non esiste attualmente un test di screening superiore all'altro, da preferire MoCA per la superiore sensibilità *(Lees, 2014)***

OCS
Oxford Cognitive Screen

Psychological Assessment
2015, Vol. 27, No. 3, 883–894

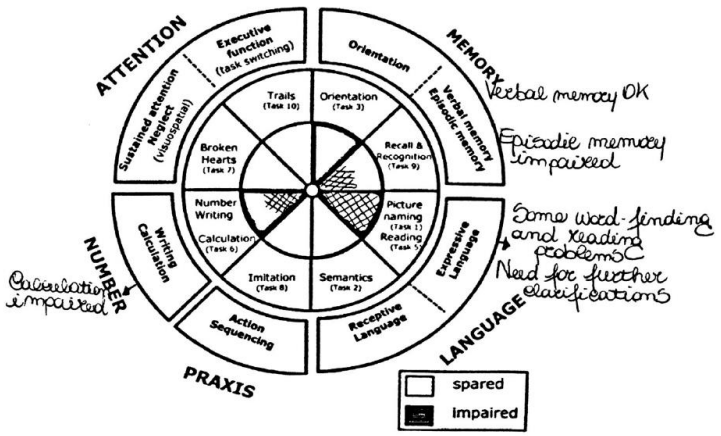
1040-3590/15/$12.00 http://dx.doi.org/10.1037/pas0000082

The Oxford Cognitive Screen (OCS): Validation of a Stroke-Specific Short Cognitive Screening Tool

Nele Demeyere, M. Jane Riddoch, and Elitsa D. Slavkova
University of Oxford

Wai-Ling Bickerton
University of Birmingham

Glyn W. Humphreys
University of Oxford



Neurol Sci (2016) 37:1713–1721
DOI 10.1007/s10072-016-2650-6

CrossMark

ORIGINAL ARTICLE

Italian normative data for a stroke specific cognitive screening tool: the Oxford Cognitive Screen (OCS)

M. Mancuso[1] · V. Varalta[2] · L. Sardella[1] · D. Capitani[3] · P. Zoccolotti[4,5] · G. Antonucci[4,5] · the Italian OCS Group

frontiers in Neurology

ORIGINAL RESEARCH
published: xx February 2018
doi: 10.3389/fneur.2018.00101

Using the Oxford Cognitive Screen to Detect Cognitive Impairment in Stroke Patients: A Comparison with the Mini-Mental State Examination

Mancuso M, Demeyere N, Abbruzzese L, Damora A, Varalta V, Pirrotta F, Antonucci G, Matano A, Caputo M, Caruso MG, Pontiggia G, Coccia M, Ciancarelli I, Zoccolotti P & Italian OCS Group

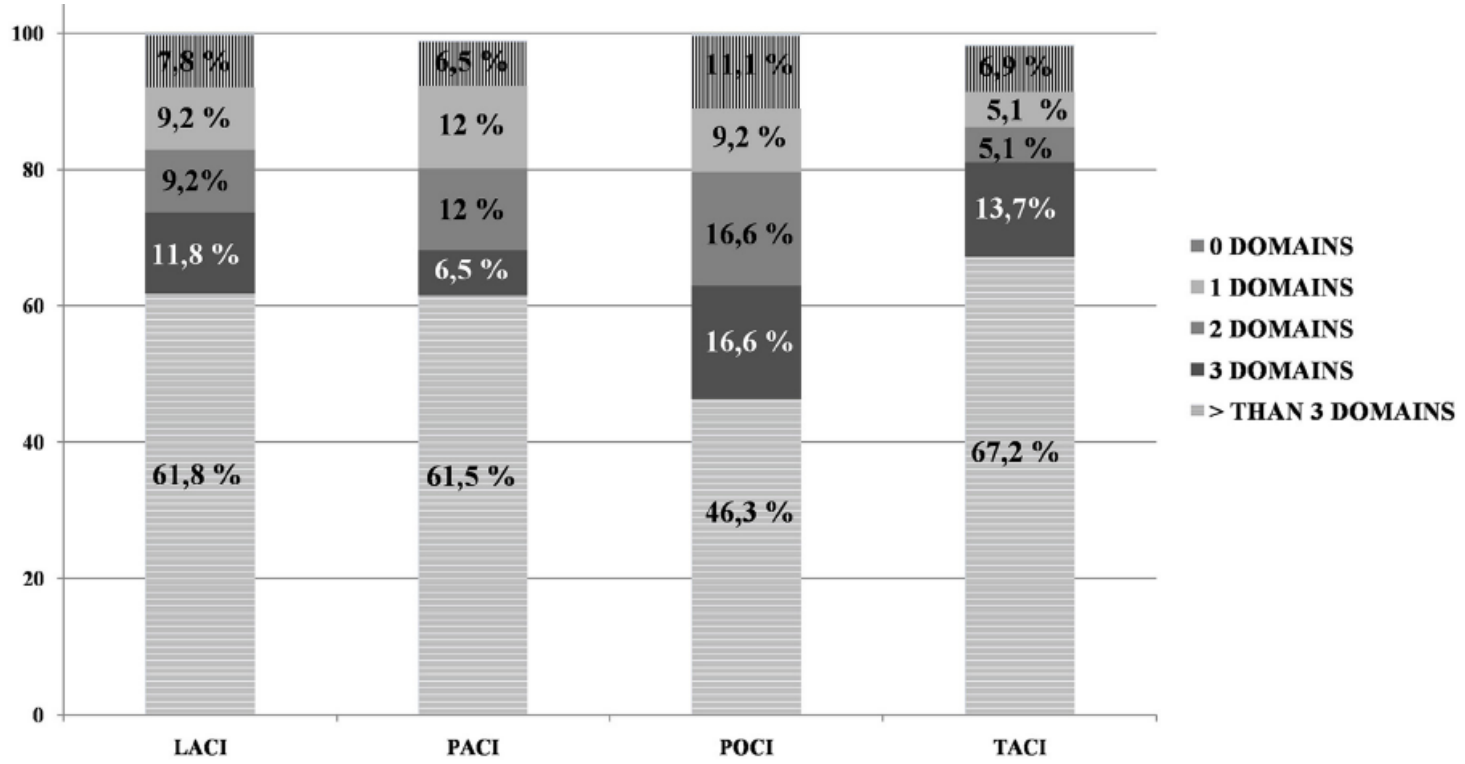


FIGURE 2 | Percentage of Oxford Cognitive Screen domain impairments for each of the four Bamford categories.

Prognosi

Raccomandazione 13.5 **Debole a favore**

È indicato, un triage del percorso riabilitativo che permetta l'identificazione precoce dei fattori prognostici funzionali per pianificare adeguatamente il percorso riabilitativo in accordo al progetto riabilitativo per ottimizzare le risorse e garantire l'appropriatezza.

Processo di valutazione prognostica finalizzato ad identificare i pazienti che possono trarre un beneficio ottimale dal trattamento riabilitativo, individuando le modalità ed il setting più adeguato per le caratteristiche di quello specifico caso

PROGNOSI FUNZIONALE NEL PZ CON ICTUS

	FATTORI INDIVIDUALI	FATTORI EXTRA-INDIVIDUALI
PRESISTENTI	✓ ETA' ✓ SESSO ✓ LIVELLO DI AUTONOMIA PREMORBOSA ✓ PRECEDENTI ICTUS ✓ COMORBIDITA'	✓ AMBIENTE SOCIOECONOMICO ✓ PRESENZA DI CONVIVENTI AUTONOMI ✓ REAZIONE EMOTIVO-AFFETTIVA DEL CAREGIVER
EMERGENTI	✓ SEDE E GRAVITA' DELLA LESIONE ENCEFALICA ✓ GRAVITA' E COMPLESSITA' DELL'ESRESSIONE CLINICA ✓ GRAVITA' DELLA FUNZIONE ✓ DEPRESSIONE E DISTURBI PSICHICI	✓ ORGANIZZAZIONE DEL SISTEMA SANITARIO ✓ ORGANIZZAZIONE DELL'ASSISTENZA ALL'ICTUS INFASE ACUTA ✓ Setting ✓ Tempestività della presa in carico riabilitativa ✓ Continuità dell'assistenza

Modalità di impostazione dei percorsi

- ✓ **GRADO DI DISABILITA’**
- ✓ **POTENZIALE DI RECUPERO**
- ✓ **POSSIBILITA’ DI PARTECIPARE AD UN TRAINING INTENSIVO (comorbidità, demenza)**

1. **Disabilità emendabile moderato-severa con esigenza di trattamento riabilitativo intensivo sotto controllo medico**

2. **Persistenza di instabilità clinica o grave comorbidità che richiedono assistenza medica**

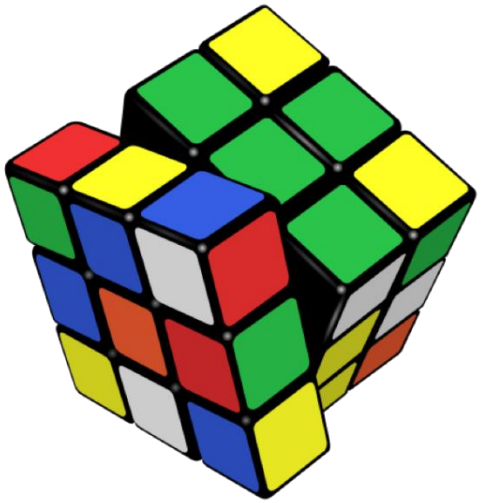
3. **Pazienti con DOC**

4. **Compromissione stabile non modificabile in maniera sensibile che richiede assistenza non erogabile a domicilio**

5. **Compromissione stabile non modificabile in maniera sensibile con possibilità di assistenza erogabile a domicilio**

6. **Limitazione funzionale emendabile in seguito a trattamento riabilitativo ma senza esigenza di assiduo controllo medico**

7. **Esiti di scarsa o nulla rilevanza**



Raccomandazione 13.12 **Forte a favore**

È raccomandata la riabilitazione in **unità di riabilitazione intensiva con competenze specifiche per l'ictus** solamente in ictus con disabilità moderata o grave, che necessitano di assistenza medica ed infermieristica continua, con prognosi funzionale favorevole, che non presentano demenza e che possono essere sottoposti a training intensivo (almeno 3 ore di attività riabilitativa individuale al giorno).

Raccomandazione 13.15 **Debole a favore**

È indicata la prosecuzione del trattamento riabilitativo presso i centri ambulatoriali di riabilitazione per i pazienti nei quali è motivato l'intervento di un team interdisciplinare, ma non è richiesto un approccio intensivo.

Raccomandazione 13.17 **Debole a favore**

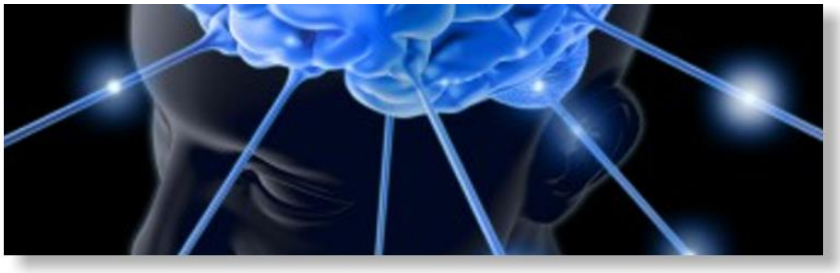
È indicata la riabilitazione domiciliare quando si rende necessaria un'attività di addestramento rivolta al paziente ed al caregiver per esercizi e mobilizzazioni autogestiti, per l'educazione all'utilizzo di ausili e protesi o per forme di terapia occupazionale.

Raccomandazione 13.18 **Forte a favore**

È raccomandata la riabilitazione estensiva nei pazienti con disabilità residua e severa comorbidità che non possono sostenere un trattamento di tipo intensivo.

Raccomandazione 13.19 **Debole a favore**

È indicato il ricovero in RSA di pazienti con grave disabilità, scarsa possibilità di recupero e necessità assistenziali non gestibili a domicilio.



Raccomandazione 14.2e Forte a favore

In pazienti con ictus è raccomandato già dalle prime 24 ore attuare interventi di mobilizzazione e attività riabilitative (a intensità moderata), se non sussistono controindicazioni al programma.

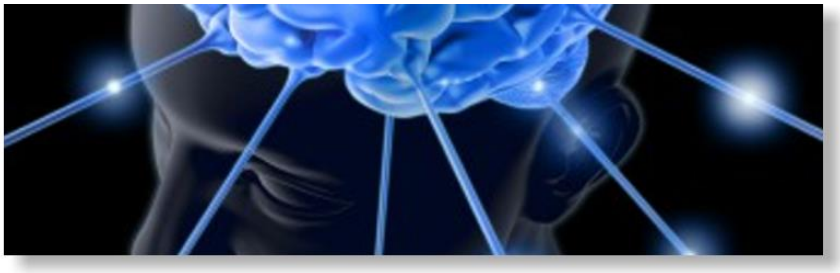
Efficacy and safety of very early mobilisation within 24 h of stroke onset (AVERT): a randomised controlled trial

Lancet 2015

*The AVERT Trial Collaboration group**

Findings Between July 18, 2006, and Oct 16, 2014, we randomly assigned 2104 patients to receive either very early mobilisation (n=1054) or usual care (n=1050); 2083 (99%) patients were included in the 3 month follow-up assessment. 965 (92%) patients were mobilised within 24 h in the very early mobilisation group compared with 623 (59%) patients in the usual care group. Fewer patients in the very early mobilisation group had a favourable outcome than those in the usual care group (n=480 [46%] *vs* n=525 [50%]; adjusted odds ratio [OR] 0·73, 95% CI 0·59–0·90; p=0·004). 88 (8%) patients died in the very early mobilisation group compared with 72 (7%) patients in the usual care group (OR 1·34, 95% CI 0·93–1·93, p=0·113). 201 (19%) patients in the very early mobilisation group and 208 (20%) of those in the usual care group had a non-fatal serious adverse event, with no reduction in immobility-related complications with very early mobilisation.

Interpretation First mobilisation took place within 24 h for most patients in this trial. The higher dose, very early mobilisation protocol was associated with a reduction in the odds of a favourable outcome at 3 months. Early mobilisation after stroke is recommended in many clinical practice guidelines worldwide, and our findings should affect clinical practice by refining present guidelines; however, clinical recommendations should be informed by future analyses of dose–response associations.



Sintesi 15.1

Lo studio AVERT (randomizzato, in singolo cieco) ha confrontato un trattamento riabilitativo definito “ad alta intensità” con un trattamento di controllo definito” usuale”. Lo studio ha concluso per una minor probabilità di prognosi favorevole nei pazienti del gruppo “ad alta intensità”. Occorre peraltro sottolineare che il tempo mediano alla prima mobilizzazione nel gruppo di controllo dell' AVERT è stato entro le 24 ore (differenza con il gruppo "intensivo" di 5 ore), ed il 93% dei pazienti del gruppo di controllo era stato mobilizzato entro 48 ore; il tempo mediano alla mobilizzazione nel gruppo di controllo si è ridotto di 28 minuti per anno dello studio (dato statisticamente significativo). La prognosi complessiva nello studio AVERT è stata favorevole per oltre il 50% dei pazienti, nonostante l'età media elevata ed il tasso di ictus gravi; è possibile che la mancata dimostrazione di una riduzione delle complicazioni legate all'immobilità nel gruppo trattato (come suggerito dagli Autori) sia dovuta al progressivo incremento dell'intervento precoce nel gruppo di controllo. Infatti, solo il 7% dei pazienti nel gruppo di controllo è restato a letto per più di 48 ore dopo l' ictus.

Int J Stroke. 2016 Apr;11(3):NP39. doi: 10.1177/1747493015621067. Epub 2016 Jan 5.

And yet it moves--AVERT enlightens translational stroke research.

Schmidt A[1], Minnerup J[2].

- ✓ **Physiotherapist- and nurse-facilitated mobility interventions delivered in the acute phase of care can change a patient's long-term outcome, so it critical that trialists carefully define and measure these interventions**
- ✓ **The difference achieved in frequency and dose was greater than the difference in time of first mobilization (18h vs 22)**
- ✓ **Short, frequent sessions may be preferable for many patients in the first weeks after stroke (The frequency of intervention may be a more important driver of outcome)**
- ✓ **The currently accepted philosophy of «more practice is always better» needs to be reconsidered particularly within the first days after stroke.**

THE ISSUE OF TIMING, FREQUENCY AND AMOUNT OF THERAPY IS MORE COMPLEX THAT PREVIOUSLY REALIZED.

A Very Early Rehabilitation Trial after stroke (AVERT): a Phase III, multicentre, randomised controlled trial

Peter Langhorne, Olivia Wu, Helen Rodgers, Ann Ashburn and Julie Bernhardt on behalf of the AVERT triallists' collaboration ***2017***

SHORTER, MORE FREQUENT MOBILISATION EARLY AFTER STROKE MAY BE ASSOCIATED WITH A MORE FAVOURABLE OUTCOME

Effects of physiatrist and registered therapist operating acute rehabilitation (PROr) in patients with stroke

Objective

Clinical evidence suggests that early mobilization of patients with acute stroke improves activity of daily living (ADL). The purpose of this study was to compare the utility of the physiatrist and registered therapist operating acute rehabilitation (PROr) applied early or late after acute stroke.

Subjects and methods

This study was prospective cohort study, assessment design. Patients with acute stroke (n = 227) admitted between June 2014 and April 2015 were divided into three groups based on the time of start of PROr: within 24 hours (VEM, n = 47), 24–48 hours (EM, n = 77), and more than 48 hours (OM, n = 103) from stroke onset. All groups were assessed for the number of deaths during hospitalization, and changes in the Glasgow Coma Scale (GCS), National Institute of Health Stroke Scale (NIHSS), and Functional Independence Measure (FIM) at hospital discharge.

Interventions

All patients were assessed by physiatrists, who evaluated the specific needs for rehabilitation, and then referred them to registered physical therapists and occupational therapists to provide early mobilization (longer than one hour per day per patient).

Effects of physiatrist and registered therapist operating acute rehabilitation (PROr) in patients with stroke

Discussion

The followings were the major findings of the present study; *1)* there were no significant differences among the three groups with regard to the number of deaths and recurrent stroke, *2)* the GCS at discharge showed a significantly better improvement in the VEM group compared with the EM and OM groups, *3)* the gains in total FIM and motor subscale during hospitalization showed significantly higher improvement in the VEM than EM and OM groups. *4)* How-

- ✓ **Mobilisation out of bed, resistance exercise, cardiopulmonary exercise, exercise of daily living, standing position, gait training**
- ✓ **The time of the start of rehabilitation relative to the onset of stroke did not significantly alter the number of deaths and recurrent stroke**

THE MAIN REASON FOR THE BENEFIT OBSERVED IN THIS STUDY WAS THE TEAM MANAGEMENT

Raccomandazione 14.2c Forte a favore

Nella fase acuta dell'ictus e durante tutta la degenza ospedaliera è raccomandato adottare tutte le procedure necessarie per promuovere:

- ✓ **mobilizzazione precoce, corretto posizionamento, variazione delle posture a letto (igiene posturale),**
- ✓ **precoce recupero della stazione seduta, corretto allineamento posturale e progressiva verticalizzazione che dovrebbe attestarsi entro 3 giorni dall'evento, in ogni caso prima possibile compatibilmente con le condizioni cliniche generali del paziente,**
- ✓ **la partecipazione alle attività quotidiane**

Original Article

CLINICAL REHABILITATION

Clinical Rehabilitation
1–13

Embedding an enriched environment in an acute stroke unit increases activity in people with stroke: a controlled before–after pilot study

Rosbergen et al

Stroke patients who are in an acute stroke unit spend the majority of their day inactive and alone.[1–3] Inactivity levels observed in hospitalized stroke patients range from 40% to 69%,[1] with more physical inactivity occurring within the first 14 days after stroke.[1] Time spent engaged in social and cog-

CLINICAL MESSAGES

- **An Enriched Environment may increase physical, social and cognitive activity levels in individual with stroke in the acute clinical setting**

- **Embedding an Enriched Environment in an acute stroke unit is attanaible within existing staffing levels**

BMJ Open
2017

Qualitative investigation of the perceptions and experiences of nursing and allied health professionals involved in the implementation of an enriched environment in an Australian acute stroke unit

Ingrid C M Rosbergen,[1,2] Sandra G Brauer,[1] Sarah Fitzhenry,[3] Rohan S Grimley,[4] Kathryn S Hayward[1,5,6,7]

Working differently

THE «ROAD TO RECOVERY HAS STARTED»

- Focus shifted to «acute care» vs «acute care and recovery»
- Improved psychological well-being
- Observed incresead activities levels
- Empowering patients and families

TO SUCCESSFULLY CREATE AN ENRICHED ENVIRONMENT «IT TAKES A TEAM»

- Impact on workload
- Team dynamics
- Importance of team education

«KEEPING IT GOING» REQUIRES BUILDING ROUTINE

- Changing work routines challenging
- Impacting contextual factors
- Sustaining work practices


TEAM IS BRAIN