De 3 D's van de psychogeriatrie.
Dementie – Depressie - Delier

8ste Vlaamse Nefrologiedag

NBVN & ORPADT
5 maart 2014

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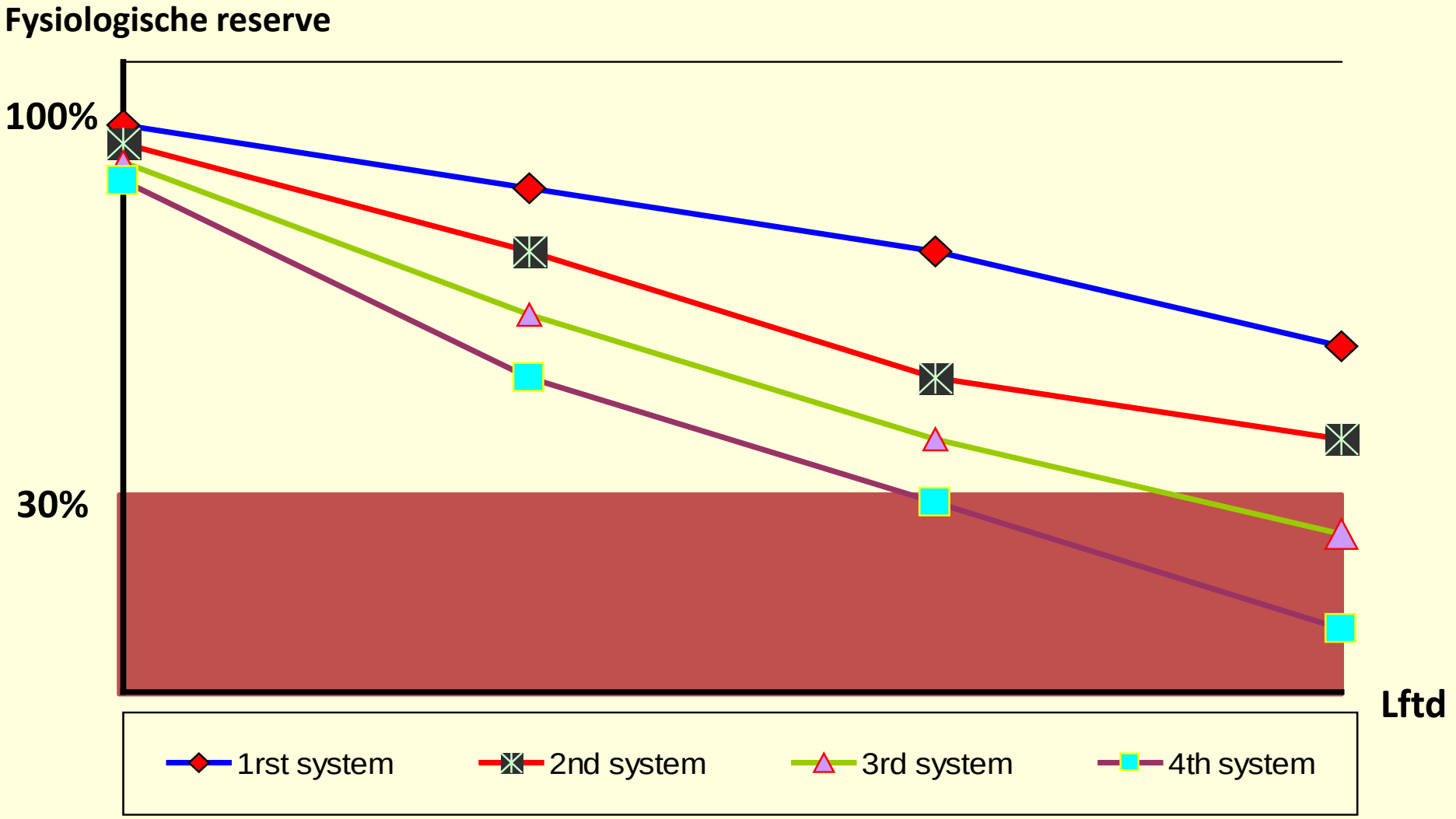
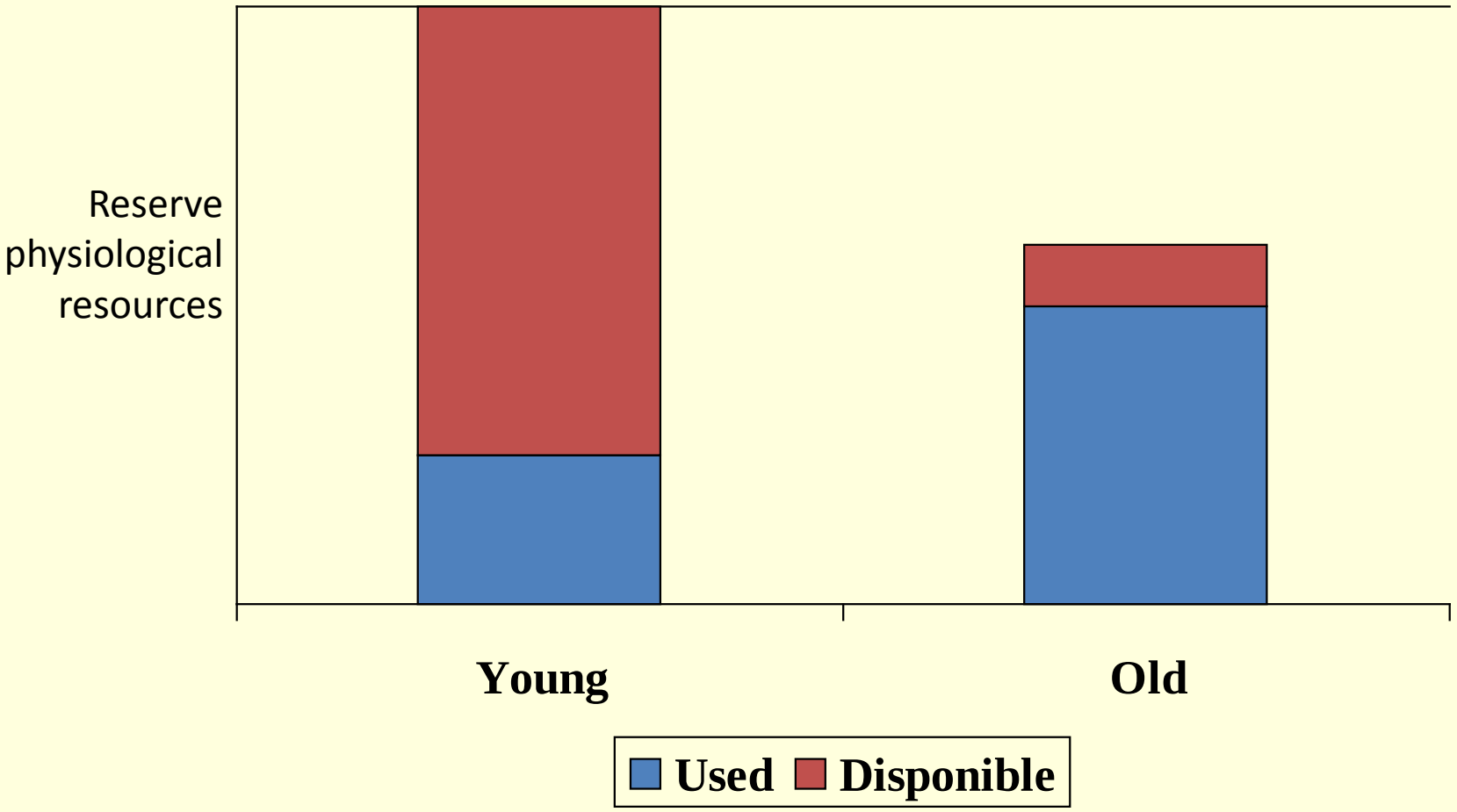
Diensthoofd Geriatrie

AZ StJan Brugge-Oostende

Inhoud

- Inleiding
  - Principes in Geriatrie
  - Het begrip Geriatrisch Syndroom
- Dementie
- Depressie
- Delier
- Take home messages


Fysiologische reserve
100%
30%
Lftd
1rst system
2nd system
3rd system
4th system


Reserve physiological resources
Young
Old
Used
Disponible

Principes in Geriatrie

Resnik NM in Principles of Internal medicine14th Ed 1998

1) **Atypische presentatie van ziekte**.

"Een nieuwe ziekte heeft een invloed op het orgaan dat het meest vatbaar is door vooraf bestaande fysiologische en pathologische veranderingen - the weakest link."

- "the Giants of Geriatrics" or the four "I's"
  - instability and fall
  - impaired cognition (dementia and delirium)
  - infection
  - incontinence

Voor de meeste Geriatrische Syndromen is de differentiaal diagnose dezelfde.

Principes in Geriatrie

Resnik NM in Principles of Internal medicine14th Ed 1998

2) Minder fysiologische reserve
3) Meerdere systemen kunnen tegelijk beperkt zijn
4) Bevindingen abnormaal bij jonge patiënten kunnen relatief banaal zijn bij ouderen
5) **Multifactoriële origine**
6) Behandeling en preventie minstens een even goed effect

Het Geriatrisch Syndroom

Het "klassiek" syndroom

- zeldzaam
- een ziekte (groep symptomen)
- één pathofysiologische pathway
- geen overlap tussen etiologische factoren van verschillende syndromen
- één per patiënt

Het Geriatrisch Syndroom

- hoge prevalentie
- één symptoom
- multifactoriële origine
- belangrijke overlap tussen etiologische factoren van verschillende GS
- meer dan één GS per patient

Many conditions have been called GS...

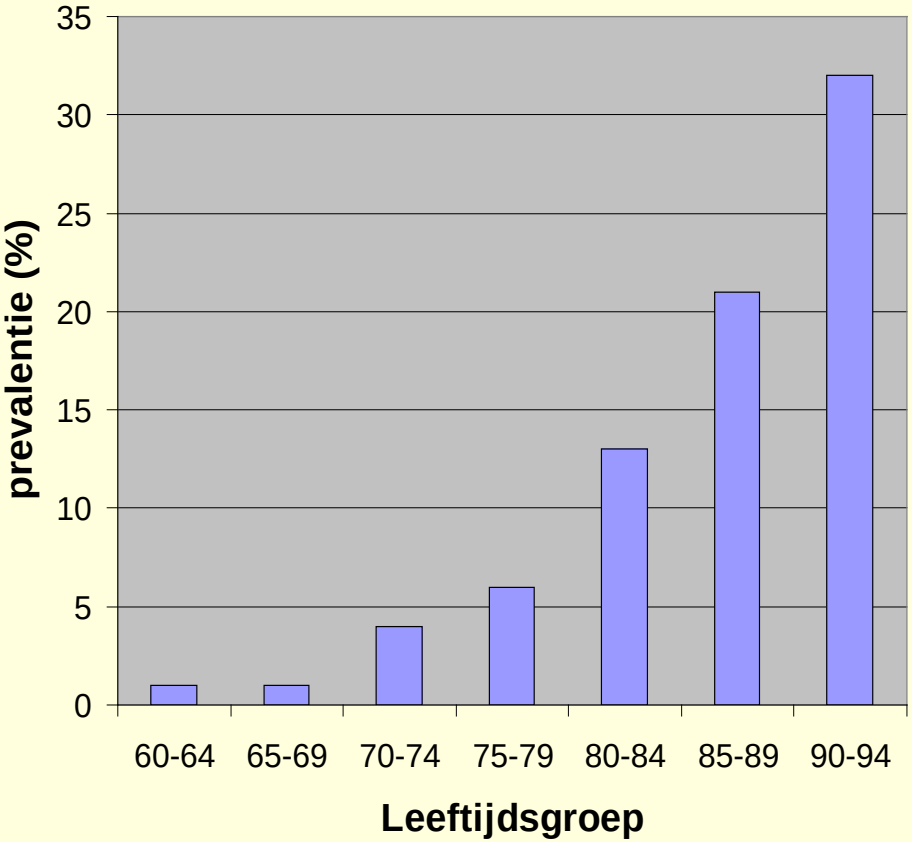
Flacker et al JAGS 2003;51:574-576.

- **delirium**
- **dementia**
- **depression**
- dizziness
- emesis
- falls
- gait disorders
- hearing loss
- insomnia
- urinary incontinence
- language disorders
- functional dependency
- lower extremity problems
- oral and dental problems
- malnutrition
- osteoporosis
- pain
- pressure ulcers
- silent myocardial pectoris
- sexual dysfunction
- syncope
- vision loss


DEMENTIA
DELIRIUM
DEPRESSION

	Delier	***Dementie***	***Depressie***
begin	acuut (in uren tot dagen)	sluipend	geleidelijk (meestal in enkele weken)
beloop	symptomen fluctueren over het etmaal (doorgaans meer uitgesproken in avond en nacht)	langzaam progressief	Dag schommelingen: doorgaans zijn de klachten 's morgens erger dan 's avonds
bewustzijn en aandacht	gedaald bewustzijn met gestoorde aandacht	in beginstadium: bewustzijn en aandacht ongestoord	bewustzijn en aandacht ongestoord (interesseverlies kan beoordeling bemoeilijken)
oriëntatie geheugen	gestoord kortetermijn-geheugen gestoord	gestoord korte- en langetermijn-geheugen gestoord	ongestoord geheugen intact
hallucinaties en wanen	doorgaans aanwezig (vluchtig en inhoudelijk niet-complex)	doorgaans afwezig in beginstadia	bij klein aantal patiënten aanwezig (psychotische depressie)

Dementie



het risico om te dementeren
voor vrouwen **1/3**
voor mannen **1/6**

Collateral damage

- Lijdensdruk voor patiënt
- Belasting voor partner en familie
  - zorgstress
  - relatiestress
  - netwerkstress
- Belasting voor de maatschappij
  - mantelzorg
  - financieel

Er zijn twee types cognitief functionele aandoeningen

Het eerste syndroom wordt gekenmerkt door:

- Problemen en beperkingen in **geheugen**, herkenning, taal, uitvoeren van praktisch taken en verwerken van sensoriële (voornamelijk visuele) indrukken.
- De capaciteit om te plannen en te implementeren kan ook aangetast zijn maar in evenredigheid met overige verlies.
- Dit **posterior brain syndrome** vindt zijn origine in leasies in de posterior cortical association regions.

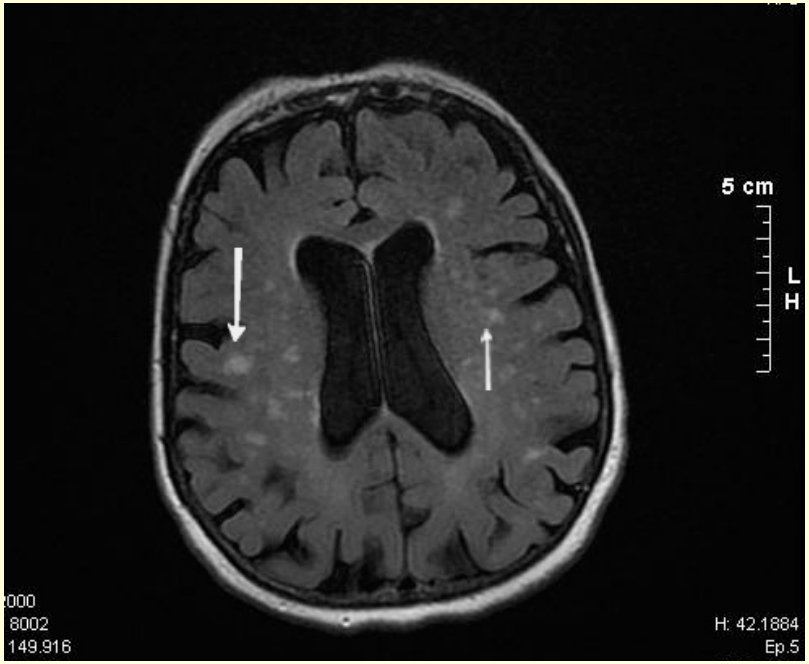
Klassiek voorbeeld is de **ZIEKTE VAN ALZHEIMER**

Er zijn twee types cognitief functionele aandoeningen

Het tweede syndroom wordt gekenmerkt door

- Een mentale traagheid, verlies van initiatief, niet meer kunnen plannen en uitvoeren (ie, **executieve functies**), en **persoonlijkheidsveranderingen**.
- Er kunnen ook geheugenstoornissen zijn maar niet zo uitgesproken als bij het posterior brain syndrome. Herkenning en interpretatie blijven relatief intact.
- Frequent **gangstoornissen** zoals bij de Ziekte van Parkinson
- Dit **anterior brain syndrome** vindt zijn origine in primaire laesies in the frontale subcorticale regio's van het brein.

Klassiek voorbeeld is de **VASCULAIRE DEMENTIE**



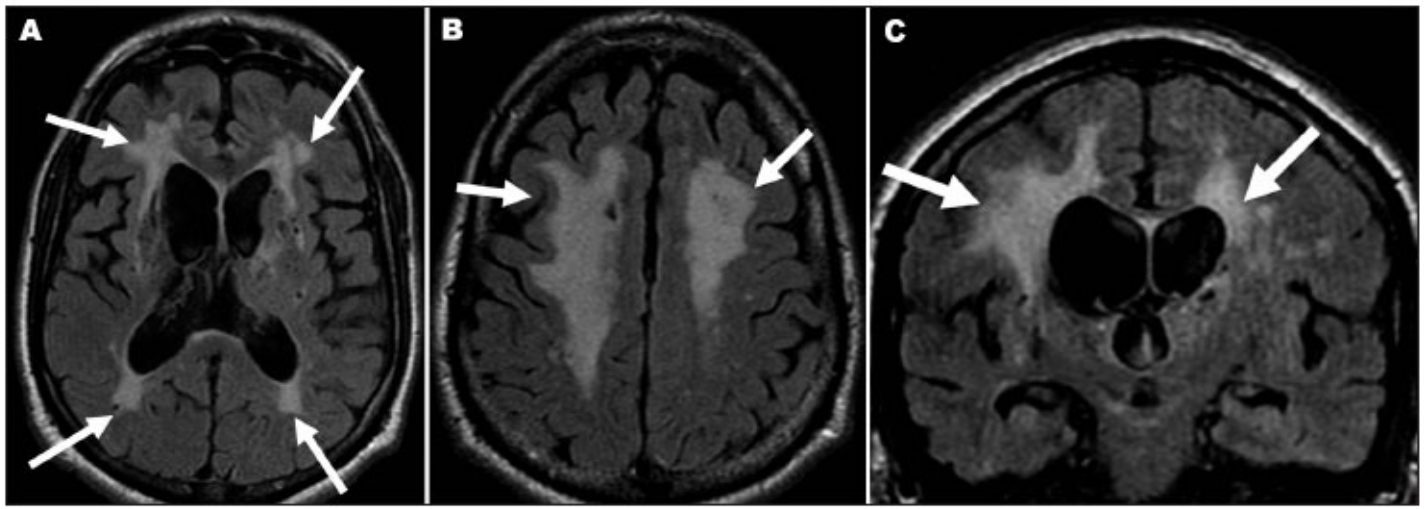
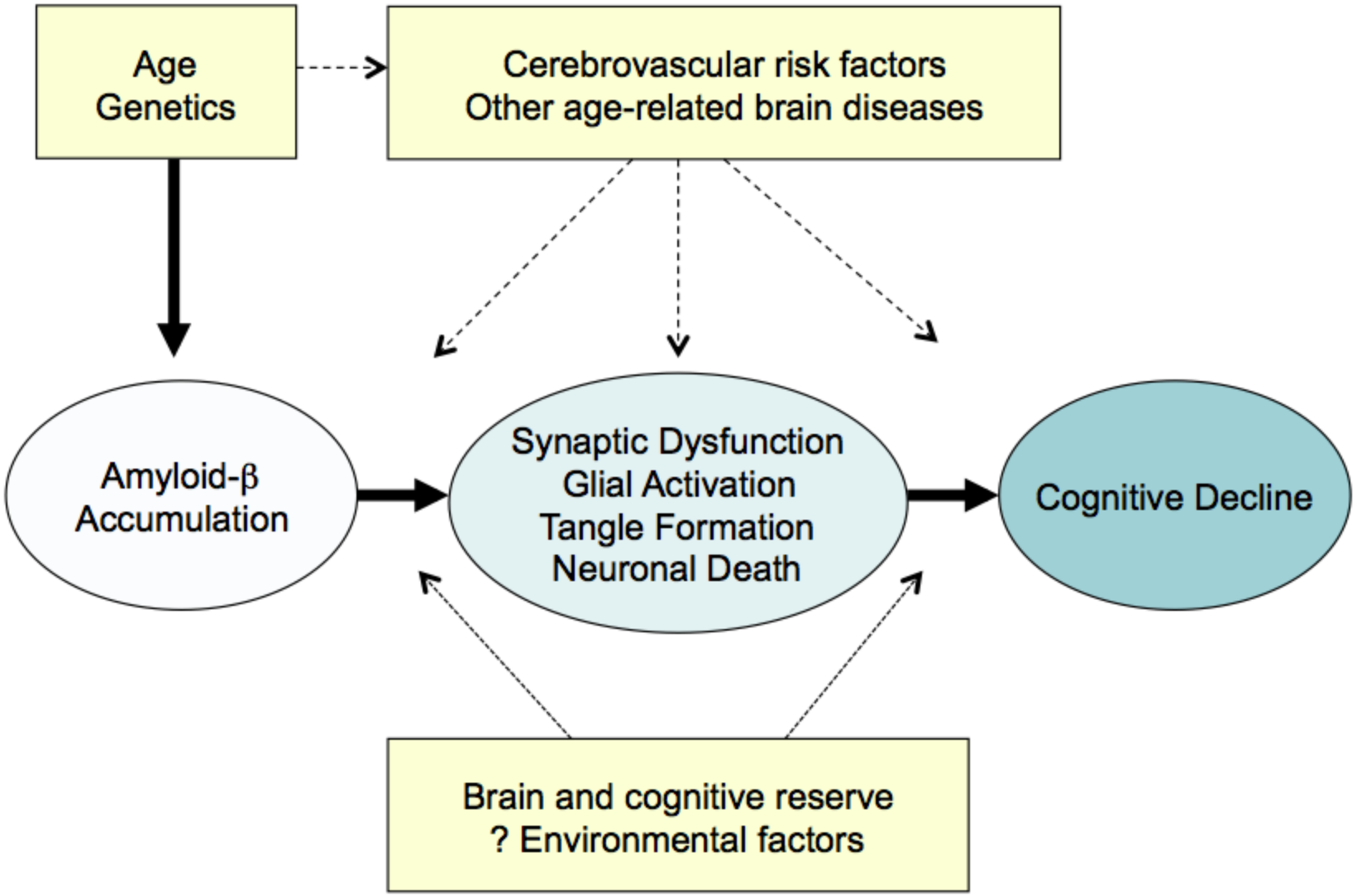


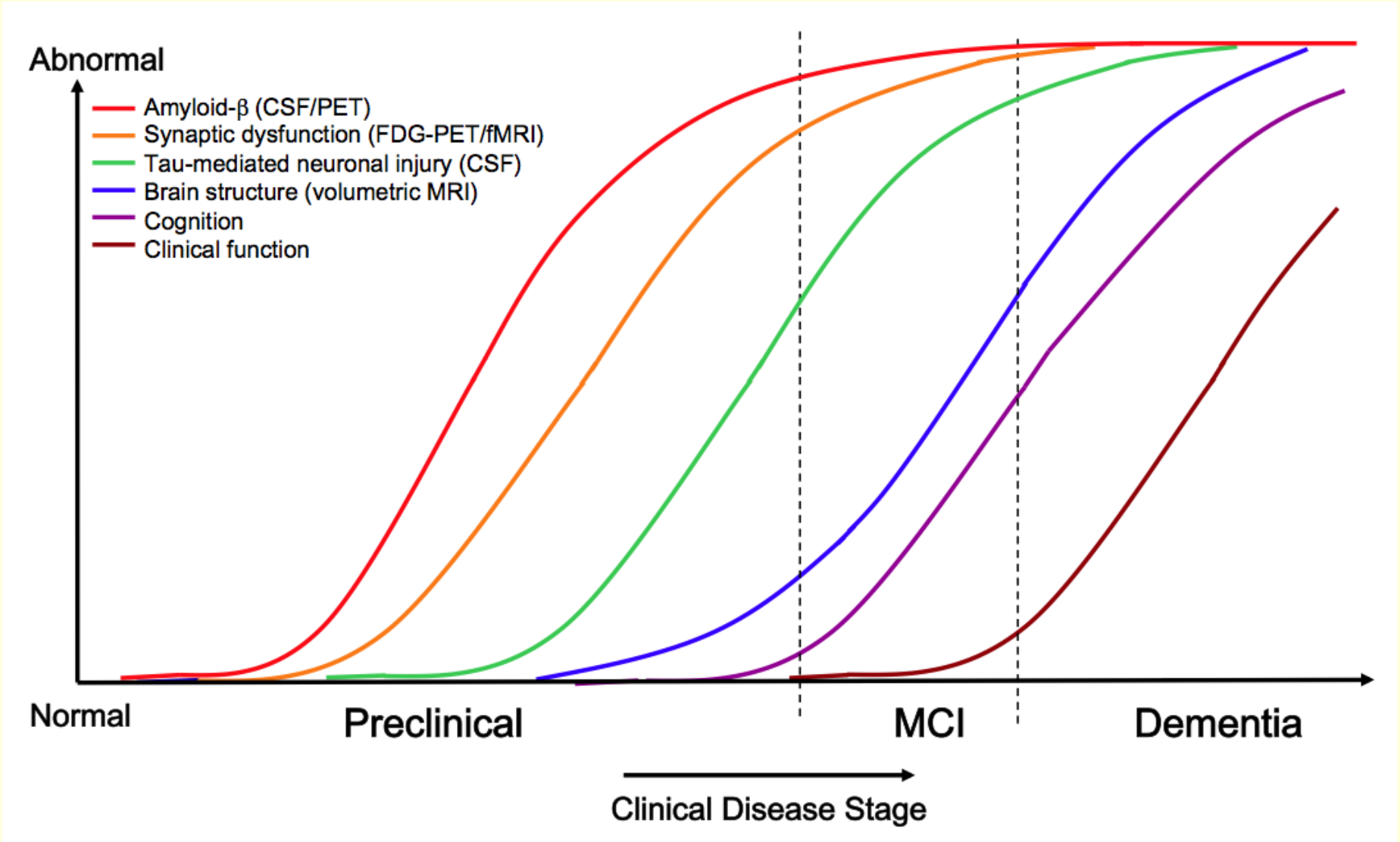
Fig 1. Flair MRI of a patient with higher score in Fazekas scale; white matter lesions (WML) are shown by arrows: [A] periventricular WML affecting anterior and posterior horns, bilaterally (axial section); diffuse ([B] axial section) and deep WML ([C] coronal section. Courtesy of Hospital Pró-Cardíaco, RJ.

Mixed-type dementia

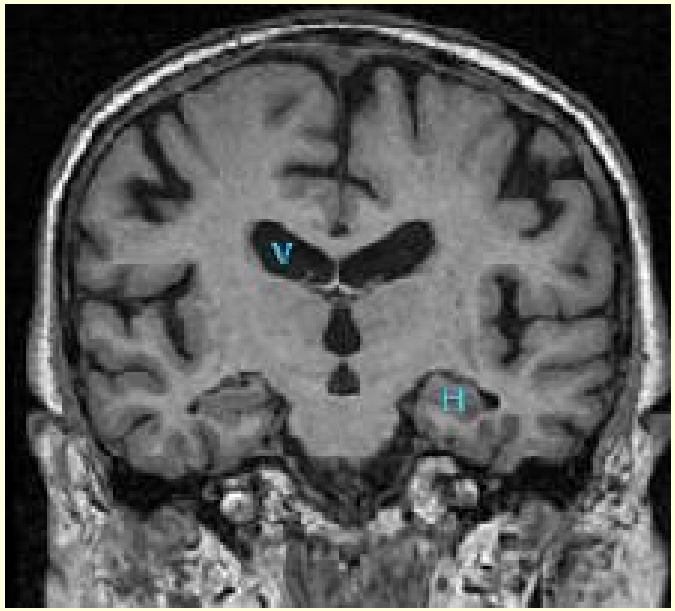
- **Longitudinal epidemiological studies have shown that hypertension, diabetes, atrial fibrillation, and smoking are risk factors for AD as well as VaD.**
- Ischemic processes have proven not only to co-exist with AD, but to potentiate its development: cfr The “Nun study”.
- Mixed dementia accounts for 20–40% of dementia cases.
- Only 57% of deceased elderly nuns diagnosed with AD based on a neuropathological examination turned out to have dementia.
- 93% of those who had AD and lacunae in subcortical brain regions had dementia.

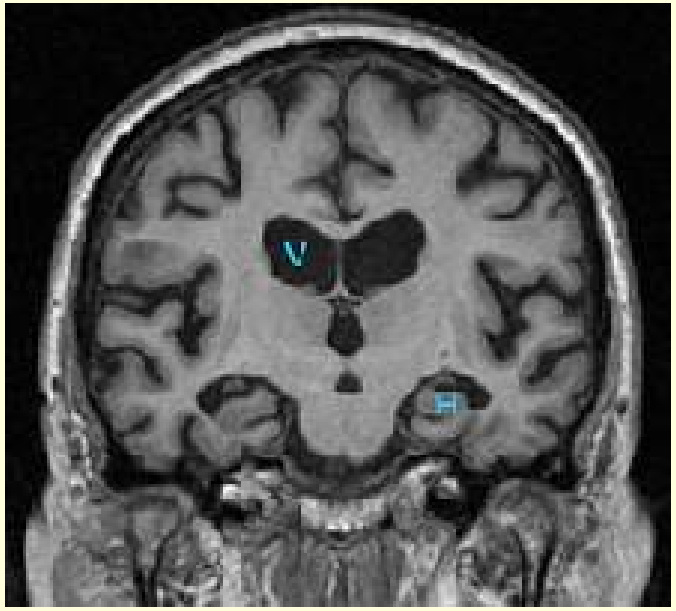
Hypothetical model of AD pathophysiological cascade

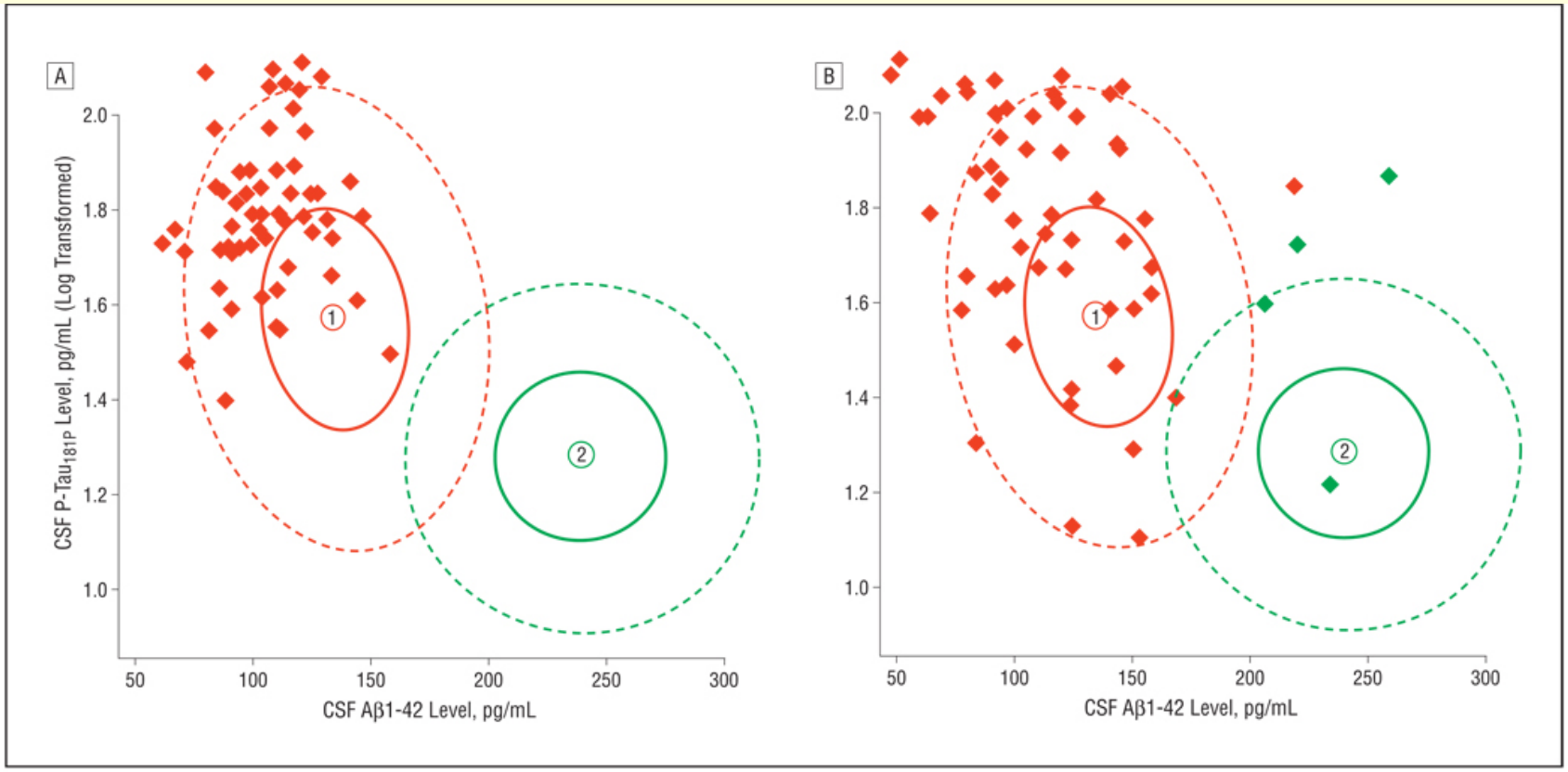



Abnormal
Amyloid-β (CSF/PET)
Synaptic dysfunction (FDG-PET/fMRI)
Tau-mediated neuronal injury (CSF)
Brain structure (volumetric MRI)
Cognition
Clinical function
Normal
Preclinical
MCI
Dementia
Clinical Disease Stage

Atrofie van de hippocampus

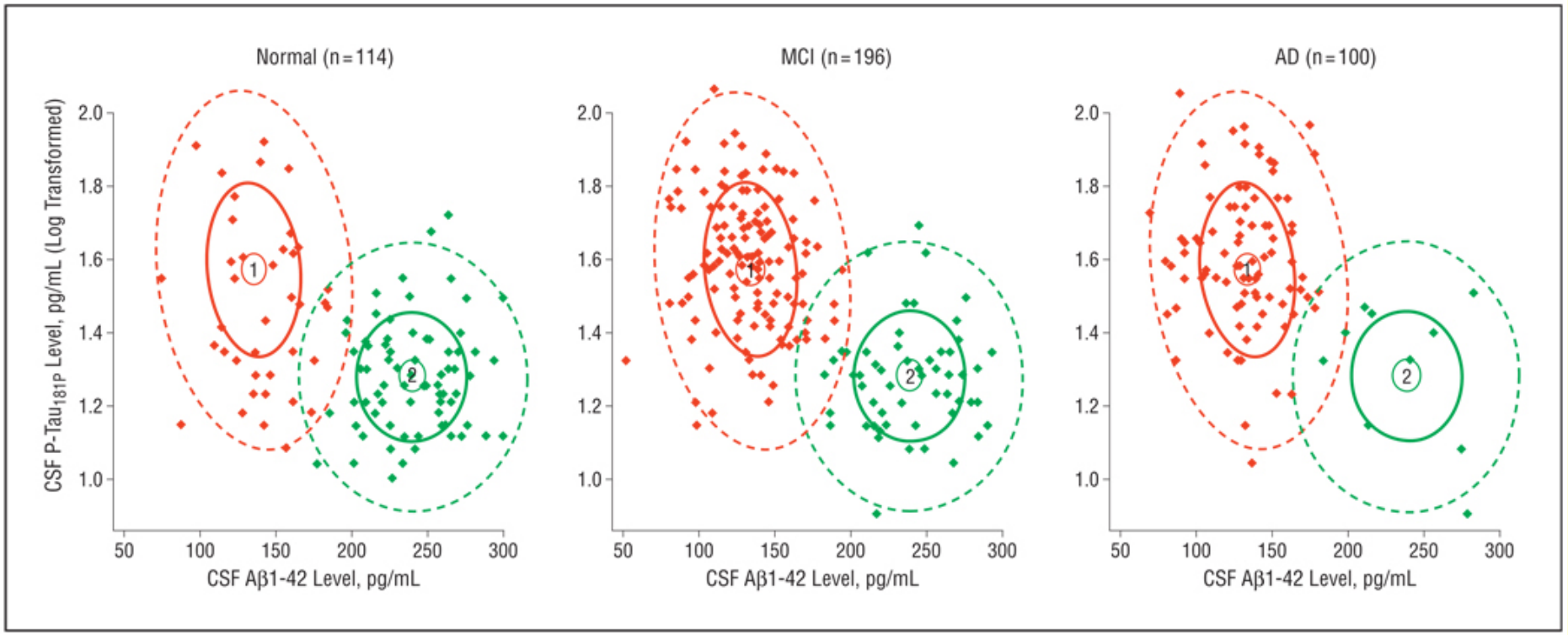






MCI patiënten die evolueerden naar AD 5 jaar na het CSF

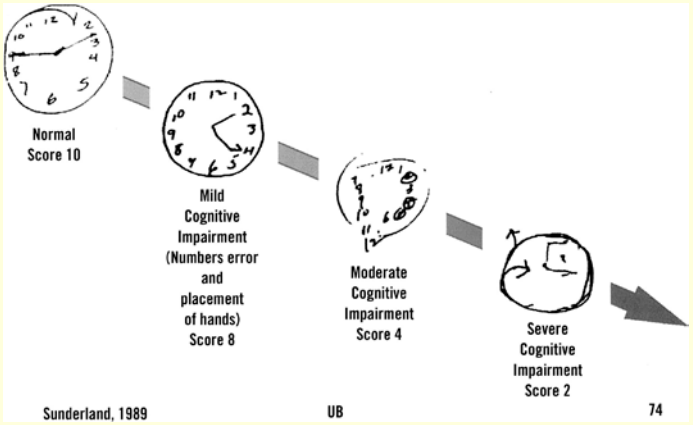
Autopsie bevestigde AD

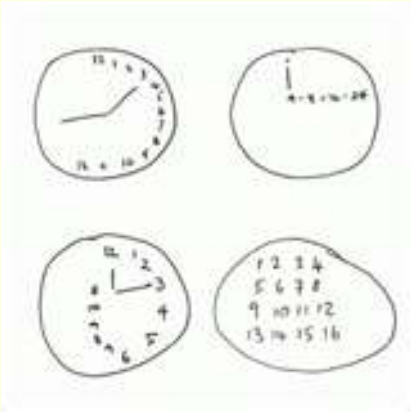

Normal (n=114)
MCI (n=196)
AD (n=100)
CSF P-Tau181P Level, pg/mL (Log Transformed)
2.0
1.8
1.6
1.4
1.2
1.0
50
100
150
200
250
300
CSF Aβ1-42 Level, pg/mL
1
2

Dementie en hemodialyse

- Het belang van screening
  - MMSE gestandaardiseerde vragenlijst
  - Clock Drawing Test
- Gehospitaliseerde pat > 75 jr
  - Liaison Geriatrie:

    “comprehensive geriatric assessment”
- Vroegtijdige, accurate diagnostiek
  - G DagZH/Geheugenkliniek
- Hulp bij het probleem van
  - wilsbekwaamheid
  - Vroegtijdige Zorgplanning / DNR codering





Differentiating Dementia and Depression

Characteristic	*Dementia*	*Depression*
Onset	Insidious, indeterminate	Relatively rapid, associated with mood changes
Duration of symptoms	Usually long	Usually short
Orientation, mood, behavior, affect	Impaired, inconsistent, fluctuating	Intact, diurnal variation depressed/anxious, complaints worse than on testing
Cognitive impairment	Consistent; stable or worsening	Inconsistent, fluctuating
Neurologic defects	Often present (e.g., agnosia, dysphasia, apraxia)	Absent
Disabilities	Concealed by patient	Highlighted by patient
Depressive symptoms	Present	Present
Memory impairment	Doesn't remember recent events, often unaware of memory loss. Onset of memory loss occurs before mood change.	Concentration poor, patient complains of memory loss of recent and remote events, follows onset of depressed mood
Psychiatric history	None	Often, history of depression
Answers to questions	Near answers	"Don't know" answers
Performance	Tries hard but is unconcerned about losses	Does not try hard but is more distressed by losses
Associations	Unsociability, uncooperativeness, hostility, emotional instability, reduced alertness, confusion, disorientation	Appetite and sleep disturbances, suicidal thoughts

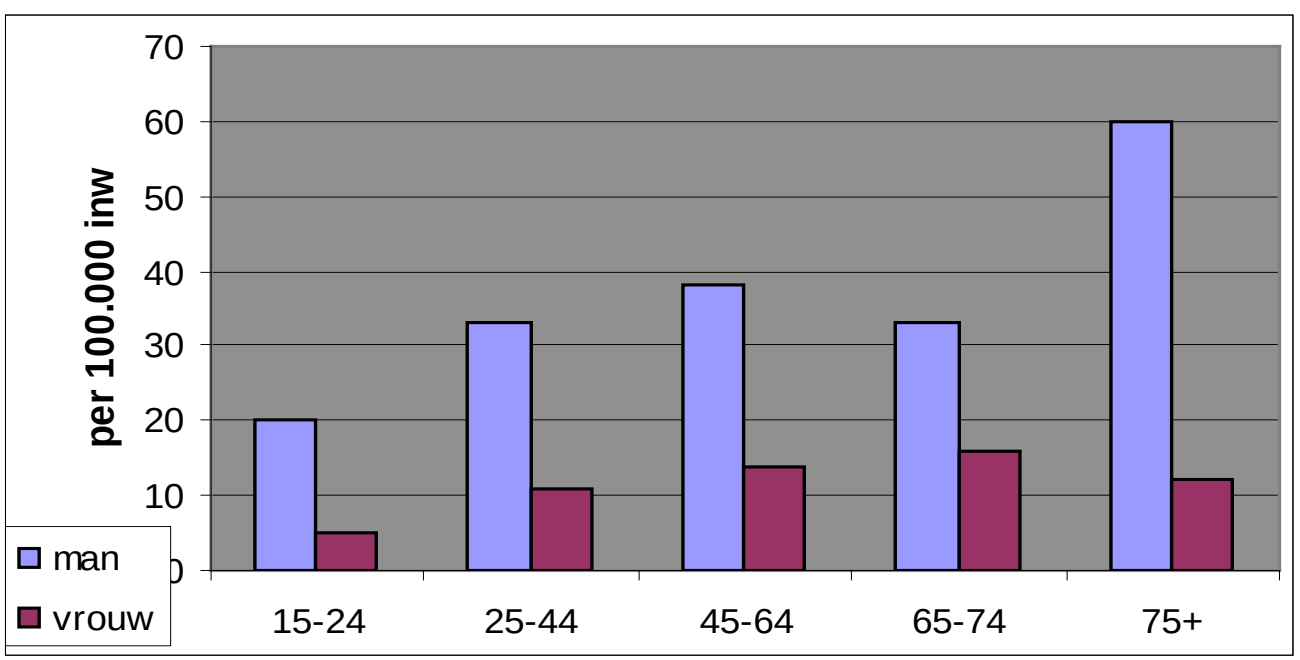
Depressie bij ouderen

Studie population Older than 65	Prevalence of depression (%)	Reference
Total population	10-15%	Copeland et al, 1987 Livingston et al, 1990
Outhospital patients	13-40%	Evans et al, 1993 Gottfries et al, 1997
Hospitalised patients	10-45%	Rapp et al, 1988
Nursing home patients	44%	Katz et al, 1989
Patients in houses for elderly	30%	Harrison et al, 1990 Philips et al, 1991

Klinische implicaties van **depressie**

- Suïcide
- Globale mortaliteit
- Functionele weerslag

Vlaams Gewest 1999
Disease specific mortality
“Suïcide”



Depressie: multifactorieel in origine

RISK FACTORS

Depression in the elderly can be triggered by:

- Social isolation
- Bereavement
- Pain and physical illness
- Multiple adverse events or changes in circumstances
- Family history or past episodes of depression
- Alcohol abuse
- Financial crisis
- Being a victim of crime
- Moving accommodation
- Illness of or separation from a loved one
- Poor social support and loneliness
- Lower socio-economic status

TABLE 4

PREVALENCE RATES OF DEPRESSION IN VARIOUS MEDICAL CONDITIONS[22-25]

Older cancer patients	25%
Post-stroke patients	5% to 50%
Post-MI Patients	30%
Alzheimer's patients	33%
Parkinson's patients	50%

MI=myocardial infarction.

Rao M. *Primary Psychiatry.* Vol 15, No 9. 2008.

Table 1: Symptoms of Depression

- Depressed or sad mood
- Loss of interest or pleasure
- Loss of appetite and/or weight, or overeating and/or weight gain
- Fatigue or loss of energy
- Difficulty sleeping or oversleeping
- Difficulty concentrating, making decisions, or remembering
- Irritability, restlessness, or lethargy
- Feelings of worthlessness or guilt
- Frequent thoughts of death, suicidal ideation, or a suicide attempt

Adapted from Reference 5

Anhedonie

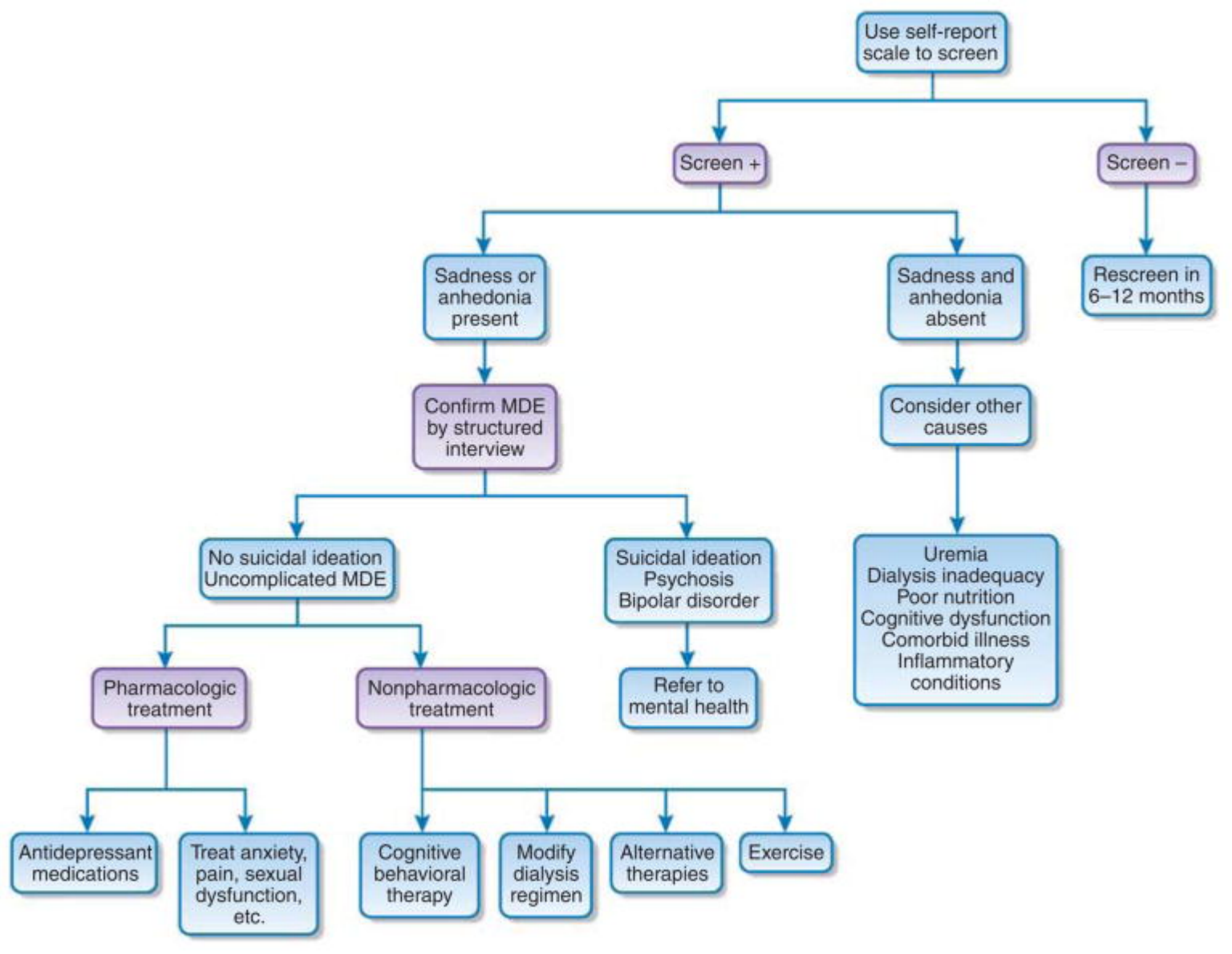
lichamelijk

psychiatrisch

cognitie

Table 2: Symptoms That May Indicate Late-life Depression[6]

- Irritability
- Agitation/anxiety/worrying
- Somatic complaints
- Cognitive impairment
- Diminished initiative and problem-solving capacities
- Deterioration in self-care
- Alcohol or substance abuse
- Social withdrawal
- Excessive guilt
- Paranoia
- Decreased concentration/indecisiveness
- Obsessions and compulsions
- Marital discord



Kidney Int. Jun 2010; 77(11): 1010–1019.

Table 3: General Advice for Starting Older Patients on Pharmacotherapy

• Start low. The APA advises starting at a low dose, generally about half the normal starting dose for adults. The dose can very slowly and gradually be increased to recommended levels.
• Consider alternatives. Try a drug for 2 to 6 weeks at the recommended dose to see if symptoms subside. If the drug doesn't work, or if side effects become bothersome, adjust the dose or consider another medication. Other options are to augment the initial medication with a second drug or to consider ECT.
• Maintain treatment. As many as 38% of elderly people who experience an initial bout of depression will suffer a recurrence in 3 to 6 years. For this reason, maintenance therapy is vital. Recommendations about how long to continue taking a drug after remission vary, from 6 months to 2 years—or even indefinitely.

Adapted from Reference 12

Depressie en hemodialyse

- Het belang van screening!
  - Geriatric Depression Scale
    - 30 item, 15 item, 5 item
  - één vraag:”Ben je depressief?”
- Diagnostiek door Ouderenpsychiater, Geriater en/of psycholoog:
  - Risicofactoren, uitlokkende factoren
  - Begeleiding, niet farmacologisch
  - Behandeling

Table 2 Geriatric Depression Scale (GDS)[19]

Instructions: Choose the best answer for how you have felt over the past week.

1. **Are you basically satisfied with your life?**
2. **Have you dropped many of your activities and interests?**
3. **Do you feel your life is empty?**
4. **Do you often get bored?**
5. Are you hopeful about the future?
6. Are you bothered by thoughts you can't get out of your head?
7. **Are you in good spirits most of the time?**
8. **Are you afraid something bad is going to happen to you?**
9. **Do you feel happy most of the time?**
10. **Do you often feel helpless?**
11. Do you often get restless and fidgety?
12. **Do you prefer to stay at home, rather than going out and doing new things?**
13. Do you frequently worry about the future?
14. **Do you feel you have more problems with your memory than most?**
15. **Do you think it is wonderful to be alive now?**
16. Do you often feel down-hearted and blue (sad)?
17. **Do you feel pretty worthless the way you are?**
18. Do you worry a lot about the past?
19. Do you find life very exciting?
20. Is it hard for you to start on new projects (plans)?
21. **Do you feel full of energy?**
22. **Do you feel that your situation is hopeless?**
23. **Do you think most people are better off (in their lives) than you are?**
24. Do you frequently get upset over little things?
25. Do you frequently feel like crying?
26. Do you have trouble concentrating?
27. Do you enjoy getting up in the morning?
28. Do you prefer to avoid social gatherings (get-togethers)?
29. Is it easy for you to make decisions?
30. Is your mind as clear as it used to be?

Questions in bold constitute the 15-item version.
Yes answers = 1; no = 0. Cut-off scores for possible depression at different levels of GDS: ≥ 11 (GDS30)[19]; ≥ 5 (GDS15)[20]; ≥ 2 (GDS4).[20]

Cognitive Disorders in the Elderly

Features Distinguishing Delirium and Dementia

SmartDraw

	Delirium	Dementia
Key features	• Acute onset • Fluctuating course • Disorganized thinking • Altered level of consciousness • Inattention, distractibility • Underlying medical cause	• Cognitive deficits in multiple domains, including memory • Progressive deterioration (months/years) • Cognitive impairment interferes with activities of daily living • No disorder of alertness
Presentation	• An acute disorder usually associated with medical illness, medications, etc. • More slowly progressive cognitive impairment • Includes most dementias, benign senescent forgetfulness • Impaired cognition associated with affective disorders or psychoses	• Patients rarely seek medical care for symptoms • Lack of insight common • Usually brought in by family, friends • Delay in diagnosis common • Caregivers may gradually take on more care for the patient, "masking" the true magnitude of the deficits
Onset	Acute	Insidious
Duration	Days/weeks	Months/years
Attention	Distracted	Usually normal
Level of consciousness	Increased/unchanged/ decreased	Usually normal
Cognition	Disorganized	Impoverished

Delirum as a target for hospital improvement

Inouye et al. Am J Med 1999;106:565-573.

Delirium: A symptom of how hospital care is failing older persons and a window to improve quality of hospital care.

- Delirium serves as a useful outcome measure to assess quality of care in hospitalized elderly persons.
  - high prevalence,
  - poor outcome,
  - greater cost,
  - 50% is preventable!

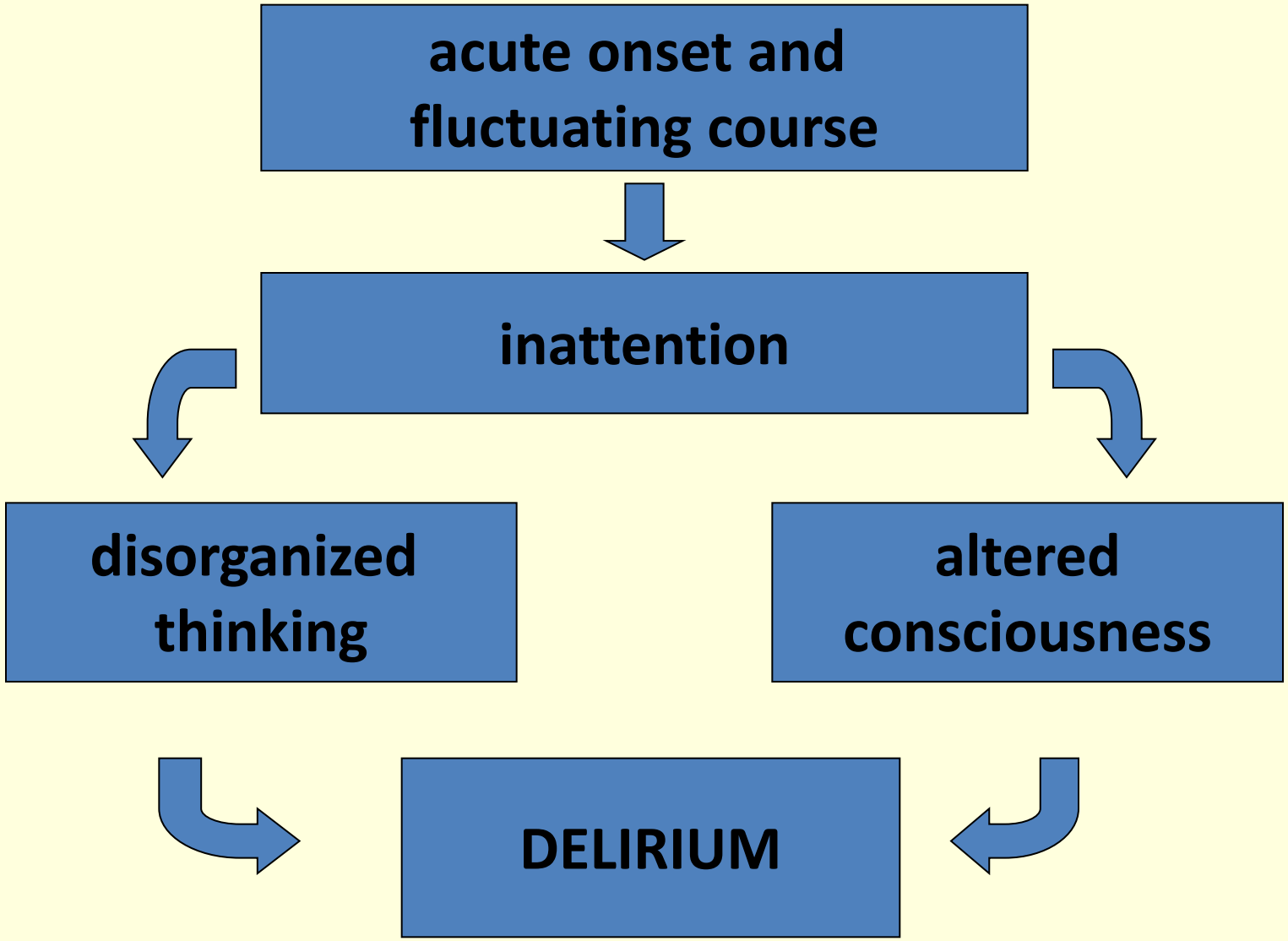
Confusion Assessment Method

Inouye et al Clarifying confusion: the confusion assessment method. Ann Intern Med 1990;113:941-948.

- acute onset and fluctuating course
  - hours to days,
  - family, caregiver or nurse.
- inattention
  - difficulty focusing attention, easily distractible, difficulty keeping track of conversation
- disorganised thinking
  - disorganized thinking or incoherent, unclear or illogical flow of ideas, unpredictable switching from subject to subject
- consious disturbance
  - alert (normal), vigilant, lethargic, stupor, coma

Confusion Assessment Method

Inouye et al Clarifying confusion: the confusion assessment method. Ann Intern Med 1990;113:941-948.



OBSERVATIES De patiënt:		dag dienst			late dienst			nacht dienst			TOTAAL SCORE DEZE DAG (0 - 39)
		nooit	soms - altijd	weet niet	nooit	soms - altijd	weet niet	nooit	soms - altijd	weet niet	
1	zakt weg tijdens gesprek of bezigheden	0	1	-	0	1	-	0	1	-	
2	is snel afgeleid door prikkels uit de omgeving	0	1	-	0	1	-	0	1	-	
3	heeft aandacht voor gesprek of handeling	1	0	-	1	0	-	1	0	-	
4	maakt vraag of antwoord niet af	0	1	-	0	1	-	0	1	-	
5	geeft antwoorden die niet passen bij de vraag	0	1	-	0	1	-	0	1	-	
6	reageert traag op opdrachten	0	1	-	0	1	-	0	1	-	
7	denkt ergens anders te zijn	0	1	-	0	1	-	0	1	-	
8	beseft wel welk dagdeel het is	1	0	-	1	0	-	1	0	-	
9	herinnert zich recente gebeurtenis	1	0	-	1	0	-	1	0	-	
10	is plukkerig, rommelig, rusteloos	0	1	-	0	1	-	0	1	-	
11	trekt aan infuus, sonde, catheter enz.	0	1	-	0	1	-	0	1	-	
12	is snel of plotseling geëmotioneerd	0	1	-	0	1	-	0	1	-	
13	ziet/hoort dingen die er niet zijn	0	1	-	0	1	-	0	1	-	
TOTAAL SCORE PER DIENST (0 - 13)											
DOS SCHAAL EINDSCORE = TOTAAL SCORE DEZE DAG / 3											

⇓

DOS SCHAAL eindscore	< 3	geen delier
	≥ 3	waarschijnlijk delier

DOS
Delirium Observatie Screening

M.J. Schuurmans, UMC Utrecht, 2001

The four “I”s of delirium

Crausman. JAGS 2004;52:645.

- Intermittent impairment of cognition
- Inattention
- Incoherent thoughts
- Impaired consciousness

“Typically, it only takes two “I”s to see delirium.”

“Alternatively, one can note that it only takes two “I”s to spell delirium”

“The “I”s see what the mind does not know”

Identification of high risk patients

- Risk factors
  - malnutrition and deficiencies
  - intoxication by drugs and alcohol
  - withdrawal
  - cardiovascular an respiratory diseases
  - anemia (sudden onset)
  - endocrine and metabolic diseases
  - brain diseases
- Contributing factors
- Causes

Identification of high risk patients

- Risk factors
- Contributing factors
  - age > 60
  - visual and hearing impairment
  - selfneglectance
  - use/misuse of alcohol and drugs in the past
  - cerebral damage
  - polypharmacia
  - dementia
  - delirium in medical history
  - psychiatric diseases in medical history
- Causes

Identification of high risk patients

- Risk factors
- Contributing factors
- Causes
  - emotional stress
  - lack of sleep – disruption of sleeping pattern
  - sensory deprivation – overstimulation
  - urinary rentention – constipation
  - pain
  - fever
  - forced immobility

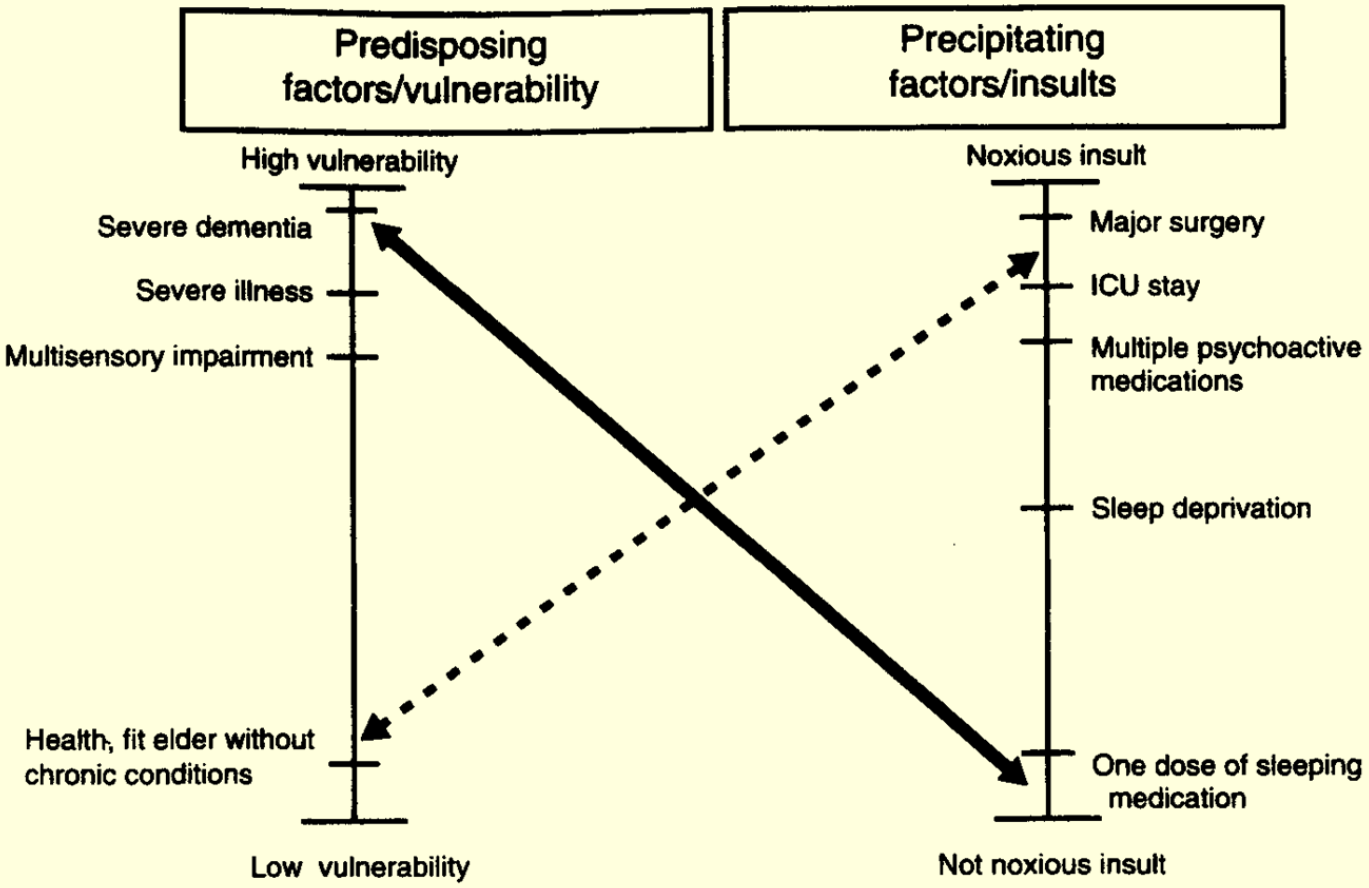


Fig. 6.2 Multifactorial model of delirium.

Detection of delirium in hospital settings

Laurila et al. Gen Hosp psychiatry 2004;26:31-35

219 patients in acute hospitals

Golden standard: Delirium defined by researchers n=77

detected by nurses n=64

physicians n=31

Management

- Treating primary conditions leading to delirium
- Removing all treatable contributing factors
- Maintaining behavioural control
  - nonpharmacological
    - eg. deliriumroom (Flaherty et al. JAGS 2003;51:1031-1035)
  - pharmacological
    - neurolepics: haloperidol (Haldol 2 x 1 mg)
    - benzodiazepines: lorazepam (Temesta exp)
- Supporting the patient and his family

Environmental and supportive measures in delirium BMJ 2002;325:644-647.

- education of all who interact with patients
- reality of orientation techniques
  - firm, clear communication
  - preferably by the same member of staff
  - use clock and calandars
- creating an evironment that optimises stimulation
  - adequate lighting, reducing unnecessary noices, mobilising patient whenever possible
- correcting sensory impairments
  - hearing aids, glasses...
- making environnement safe

Prognosis of delirium (DSM-IV) compared to other patients in hospitals / nursing homes

Prognostic variable	Delirium (N=106)	No delirium (N= 319)	P value
Mortality / 1 year (%)	35	22	0.006
Mortality / 2 years (%)	58	43	0.005
Days in acute hospitals / 1 year	36.3	29.5	0.006
Proportion permanently institutionalized / 2 years (%)	44	24	<0.0001
Permanently institutionalized or dead / 2 years (%)	78	54	<0.0001

Take home message

- De 3 D’s zijn leeftijdgerelateerd en komen frequent voor bij oudere patiënten.
- Atypische presentatie
  - Belang van screening
- Komen frequent tegelijk voor
- Ernstige medische problematiek die hun consequenties hebben!
- Belang van vroegdiagnose door er attent attent voor te zijn.
  - Cruciale plaats van verpleegkundige!

Similar behavioral symptoms can mask the true problem

Delirium

- Rapid onset over minutes to days
- Consciousness is 'clouded'. The person has difficulty in:
  - focusing their mind on something,
  - shifting their mind to something else or
  - maintaining attention.
- Poor recall for immediate and recent events
- Disorientation in time, place or person
- Rapid shifts from
- over to under-activity
- slow reactions
- unusually rapid or slow speech OR
- a stronger than usual startle reaction
- Disturbed sleeping/waking cycle, confusion worse at night and/or unpleasant dreams and/or hallucinations and/or delusions (often persecutory)
- Symptoms usually fluctuate over the course of the day
- A physical cause, e.g. a urinary tract infection, is usually identifiable.

Depression

- Mental decline is relatively rapid
- Difficulty concentrating, remembering details, and making decisions
- Fatigue and decreased energy
- Feelings of guilt, worthlessness, and/or helplessness
- Feelings of hopelessness and/or pessimism
- Insomnia, early-morning wakefulness, or excessive sleeping
- Irritability, restlessness
- Loss of interest in activities or hobbies once pleasurable, including sex
- Overeating or appetite loss
- Persistent aches or pains, headaches, cramps, or digestive problems that do not ease even with treatment
- Persistent sad, anxious, or "empty" feelings
- Thoughts of suicide, suicide attempts

Dementia

- Mental decline happens slowly
- Memory loss. This is usually the earliest and most noticeable symptom.
- Trouble recalling recent events or recognizing people and places.
- Trouble finding the right words.
- Problems planning and carrying out tasks, such as balancing a checkbook, following a recipe, or writing a letter.
- Trouble exercising judgment, such as knowing what to do in an emergency.
- Trouble controlling moods or behaviors. Depression is common, and agitation or aggression may occur.
- Not keeping up personal care such as grooming or bathing.

If you or a loved one have these symptoms, don't play doctor, see one!