SISTEMA SANITARIO REGIONALE
AZIENDA OSPEDALIERA UNIVERSITARIA
POLICLINICO UMBERTO I

Comprehensive Geriatric Assessment

Internal Medicine and General Surgery

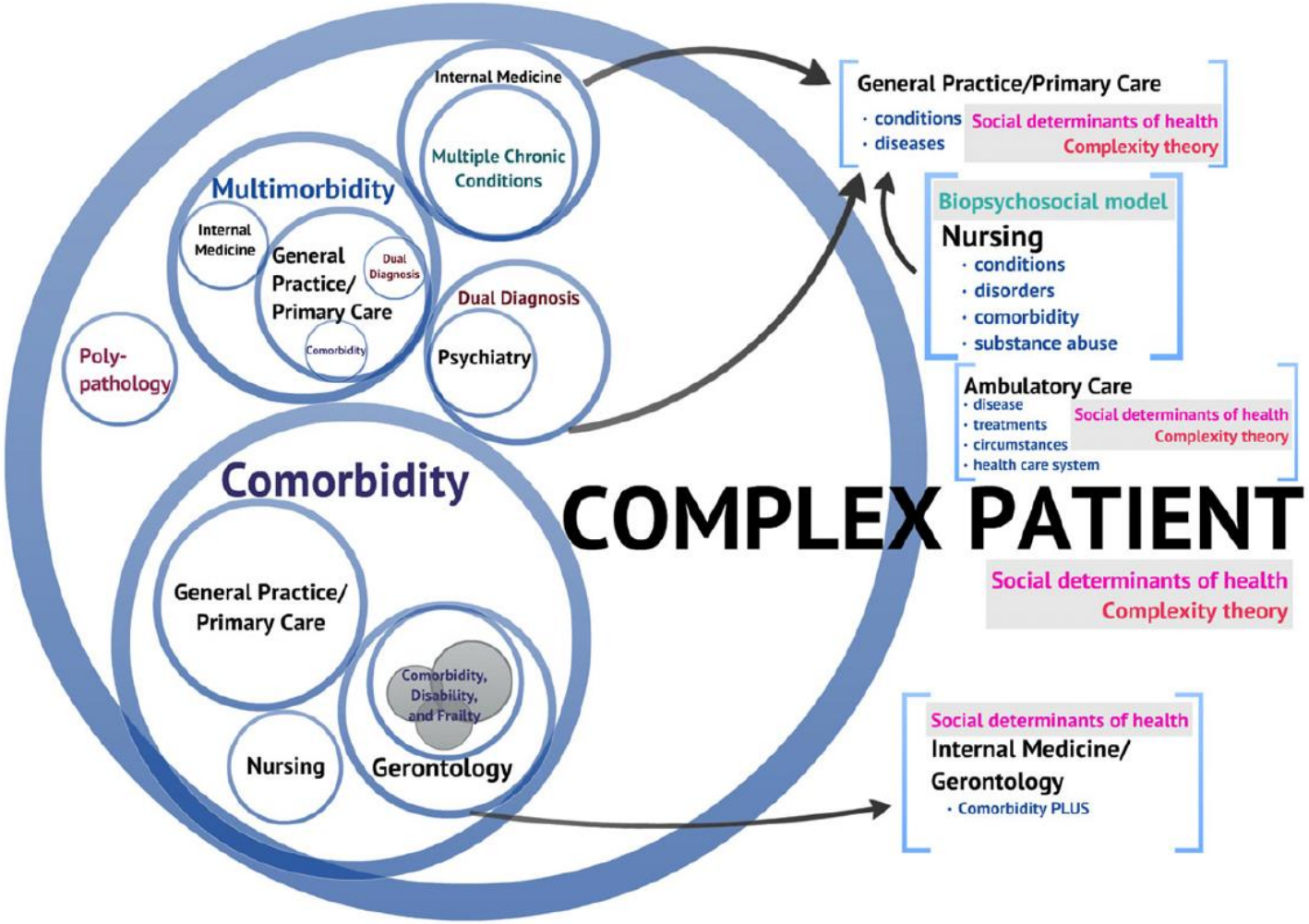
Geriatric Sciences

CDL «F» AA 2023-2024

Prof Gianfranco Piccirillo

Dott.ssa Federica Moscucci

Geriatric medicine: «complexity science»



Nursing and Health Sciences (2017) 19, 13–21

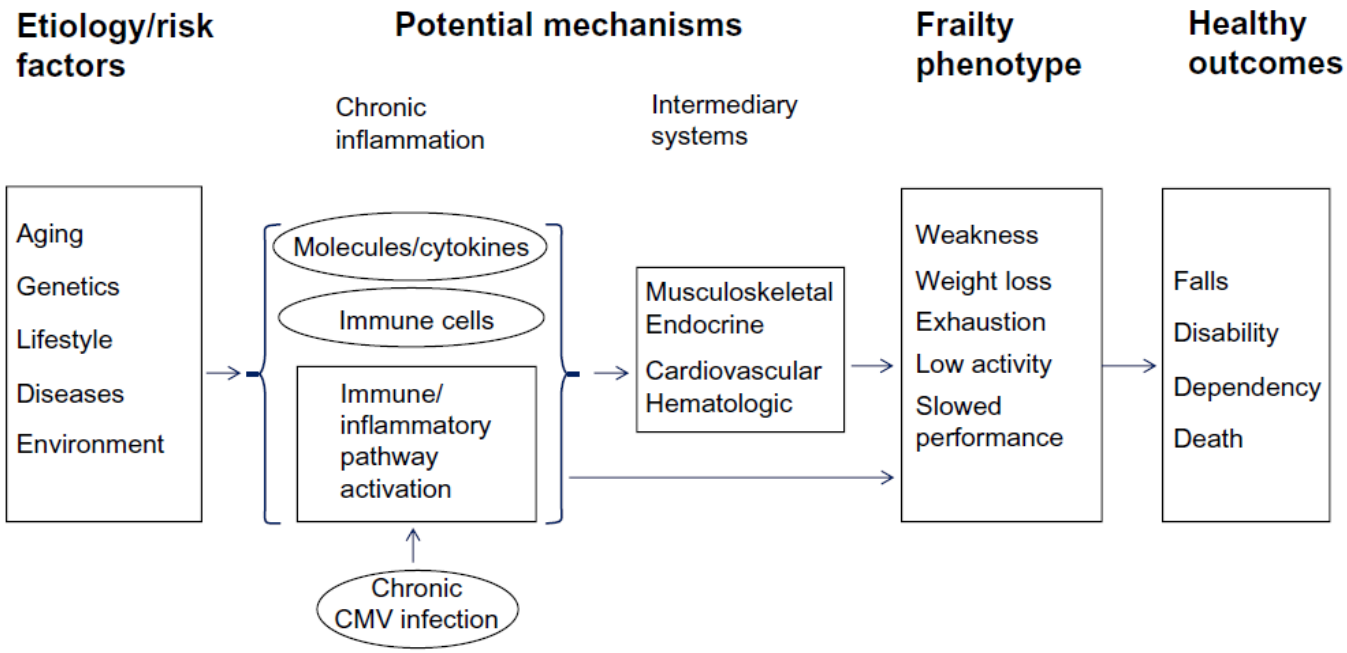
Frailty

- Frailty is a common and important geriatric syndrome characterized by age-associated declines in physiologic reserve and function across multiorgan systems, leading to increased vulnerability for adverse health outcomes

- Clinical syndrome meeting three or more of five phenotypic criteria: **weakness, slowness, low level of physical activity, self-reported exhaustion, and unintentional weight loss.** **FRAIL (Fatigue, Resistance, Ambulation, Illnesses, Loss of weight)**

- Chronic inflammation is likely a key pathophysiologic process that contributes to the frailty syndrome directly and indirectly through other intermediate physiologic systems, such as the musculoskeletal, endocrine, and hematologic systems.

Clinical Interventions in Aging 2014:9 433–441



Clinical Interventions in Aging 2014:9 433–441

Diagnosis

As frailty is conceptualized as a vulnerable state associated with high risk for increased **morbidity and mortality** when exposed to a stressor, the frailty syndrome is considered a useful clinical tool for risk stratification in the highly heterogeneous elderly population.

Frailty index

The FI was developed by Rockwood et al based on a comprehensive geriatric assessment by counting the number of deficits accumulated, including diseases, physical and cognitive impairments, psychosocial risk factors, and common geriatric syndromes other than frailty.

CLINICAL FRAILTY SCALE

1 **VERY FIT** — People who are robust, active, energetic and motivated. They tend to exercise regularly and are among the fittest for their age.

2 **FIT** — People who have **no active disease symptoms** but are less fit than category 1. Often, they exercise or are very **active occasionally**, e.g., seasonally.

3 **MANAGING WELL** — People whose **medical problems are well controlled**, even if occasionally symptomatic, but often are **not regularly active** beyond routine walking.

4 **LIVING WITH VERY MILD FRAILTY** — Previously "vulnerable," this category marks early transition from complete independence. While **not dependent** on others for daily help, often **symptoms limit activities**. A common complaint is being "slowed up" and/or being tired during the day.

5 **LIVING WITH MILD FRAILTY** — People who often have **more evident slowing**, and need help with **high order instrumental activities of daily living** (finances, transportation, heavy housework). Typically, mild frailty progressively impairs shopping and walking outside alone, meal preparation, medications and begins to restrict light housework.

6 **LIVING WITH MODERATE FRAILTY** — People who need help with **all outside activities** and with **keeping house**. Inside, they often have problems with stairs and need **help with bathing** and might need minimal assistance (cuing, standby) with dressing.

7 **LIVING WITH SEVERE FRAILTY** — **Completely dependent for personal care**, from whatever cause (physical or cognitive). Even so, they seem stable and not at high risk of dying (within ~6 months).

8 **LIVING WITH VERY SEVERE FRAILTY** — Completely dependent for personal care and approaching end of life. Typically, they could not recover even from a minor illness.

9 **TERMINALLY ILL** — Approaching the end of life. This category applies to people with a **life expectancy <6 months**, who are **not otherwise living with severe frailty.** (Many terminally ill people can still exercise until very close to death.)

SCORING FRAILTY IN PEOPLE WITH DEMENTIA

The degree of frailty generally corresponds to the degree of dementia. Common **symptoms in mild dementia** include forgetting the details of a recent event, though still remembering the event itself, repeating the same question/story and social withdrawal.

In **moderate dementia**, recent memory is very impaired, even though they seemingly can remember their past life events well. They can do personal care with prompting.

In **severe dementia**, they cannot do personal care without help.

In **very severe dementia** they are often bedfast. Many are virtually mute.

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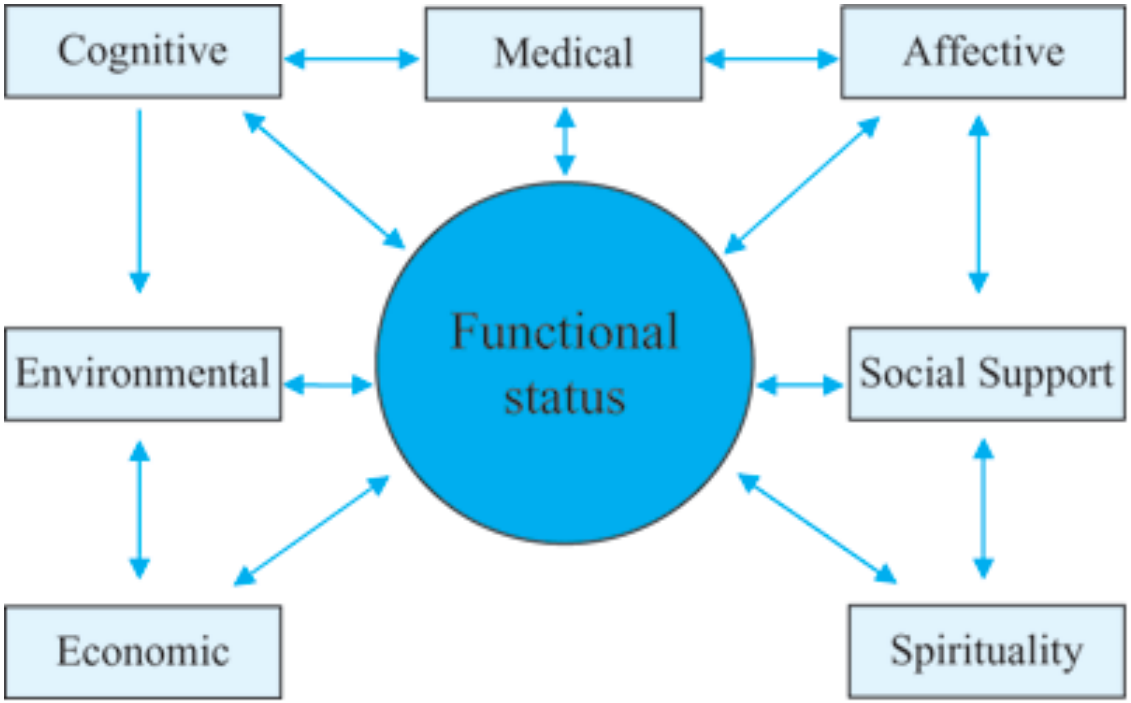
Rockwood K et al. A global clinical measure of fitness and frailty in elderly people. CMAJ 2005;173:489–495.

Geriatric Assessment: not a mere clinical evaluation



Source: Halter JB, Ouslander JG, Tinetti ME, Studenski S, High KP, Asthana S: *Hazzard's Geriatric Medicine and Gerontology, 6th Edition:* http://www.accessmedicine.com

Components of Geriatric Assessment

medical history

physical examination

Search for specific conditions

Considerable impact on function

Geriatric Assessment

A comprehensive geriatric assessment (CGA) is a **systematic, multidisciplinary evaluation of older adult patients** with the goal of **identifying and managing geriatric conditions and syndromes**. It focuses on various medical, social, and environmental issues. A CGA ideally is performed as an in-person outpatient visit, either in a clinical setting or the home of the patient. The physician, family members and/or caregivers, and a social worker are key contributors. Involvement of family members or caregivers particularly is important if cognitive issues or mood disorders are of concern. Physical therapists, occupational therapists, nurses, speech-language pathologists, dietitians, audiologists, and pharmacists also can provide additional expertise.

Many questionnaires and assessment tools are available to simplify data gathering, including assessments of functional status, frailty, mobility, fall risk, nutritional status, polypharmacy, and cognition. These assessments can be completed by patients, family members, or caregivers with assistance from members of the medical team. CGAs should be guided by the Geriatric 5M's framework: **mind, mobility, medications, multicomplexity, and matters most**.

Kim, FP Essent. 2022 Oct;521:15-20.

Purposes

1) Management of clinical conditions

2) Legal/insurance problem

Cognitive assessment

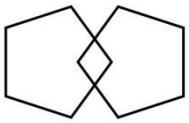
- Mini mental state examination (MMSE)

MINI MENTAL STATE EXAMINATION (MMSE)

Name:

DOB:

Hospital Number:

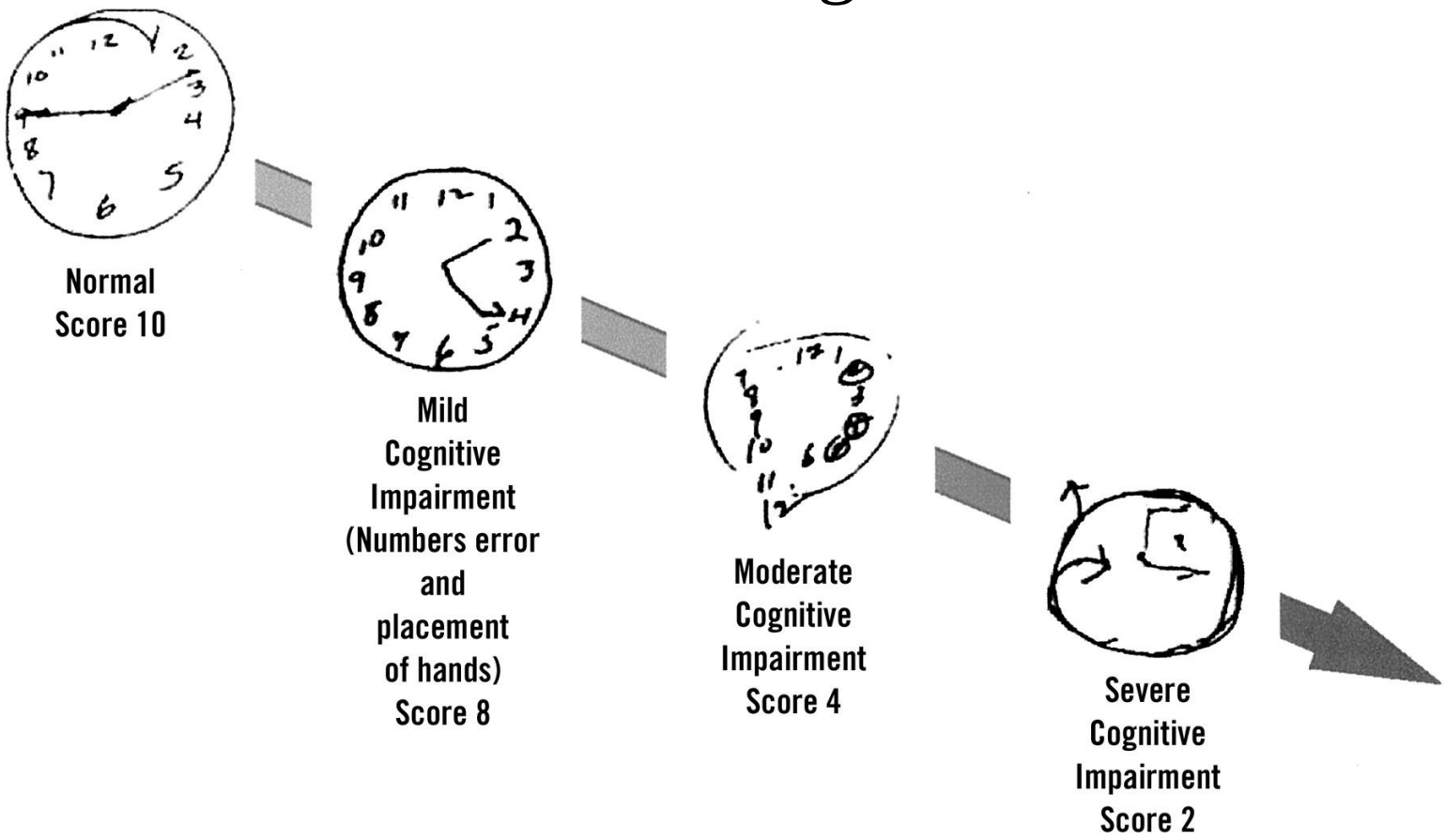
One point for each answer	DATE:		
ORIENTATION Year Season Month Date Time	...../ 5	...../ 5	...../ 5
Country Town District Hospital Ward/Floor	...../ 5	...../ 5	...../ 5
REGISTRATION Examiner names three objects (e.g. apple, table, penny) and asks the patient to repeat (1 point for each correct. THEN the patient learns the 3 names repeating until correct).	...../ 3	...../ 3	...../ 3
ATTENTION AND CALCULATION Subtract 7 from 100, then repeat from result. Continue five times: 100, 93, 86, 79, 65. (Alternative: spell "WORLD" backwards: DLROW).	...../ 5	...../ 5	...../ 5
RECALL Ask for the names of the three objects learned earlier.	...../ 3	...../ 3	...../ 3
LANGUAGE Name two objects (e.g. pen, watch).	...../ 2	...../ 2	...../ 2
Repeat "No ifs, ands, or buts".	...../ 1	...../ 1	...../ 1
Give a three-stage command. Score 1 for each stage. (e.g. "Place index finger of right hand on your nose and then on your left ear").	...../ 3	...../ 3	...../ 3
Ask the patient to read and obey a written command on a piece of paper. The written instruction is: "Close your eyes".	...../ 1	...../ 1	...../ 1
Ask the patient to write a sentence. Score 1 if it is sensible and has a subject and a verb.	...../ 1	...../ 1	...../ 1
COPYING: Ask the patient to copy a pair of intersecting pentagons 	...../ 1	...../ 1	...../ 1
TOTAL:	...../ 30	...../ 30	...../ 30

MMSE scoring
24-30: no cognitive impairment
18-23: mild cognitive impairment
0-17: severe cognitive impairment

OME Oxford Medical Education

Cognitive assessment

Clock drawing test



Affective Assessment

Geriatric Depression Scale (Short Form)

Patient's Name: _____ Date: _____

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

No.	Question	Answer	Score
1.	Are you basically satisfied with your life?	YES / NO	
2.	Have you dropped many of your activities and interests?	YES / NO	
3.	Do you feel that your life is empty?	YES / NO	
4.	Do you often get bored?	YES / NO	
5.	Are you in good spirits most of the time?	YES / NO	
6.	Are you afraid that something bad is going to happen to you?	YES / NO	
7.	Do you feel happy most of the time?	YES / NO	
8.	Do you often feel helpless?	YES / NO	
9.	Do you prefer to stay at home, rather than going out and doing new things?	YES / NO	
10.	Do you feel you have more problems with memory than most?	YES / NO	
11.	Do you think it is wonderful to be alive?	YES / NO	
12.	Do you feel pretty worthless the way you are now?	YES / NO	
13.	Do you feel full of energy?	YES / NO	
14.	Do you feel that your situation is hopeless?	YES / NO	
15.	Do you think that most people are better off than you are?	YES / NO	
		TOTAL	

Scoring:

Assign one point for each of these answers:

1. NO	4. YES	7. NO	10. YES	13. NO
2. YES	5. NO	8. YES	11. NO	14. YES
3. YES	6. YES	9. YES	12. YES	15. YES

A score of 0 to 5 is normal. A score above 5 suggests depression.

Source:

- Yesavage J.A., Brink T.L., Rose T.L. et al. Development and validation of a geriatric depression screening scale: a preliminary report. J. Psychiatr. Res. 1983; 17:37-49.

Assessment of function

Three levels:

1) Basic Activities of Daily Living (BADLs)

2) Instrumental or Intermediate Activities of Daily Living (IADLs)

3) Advanced Activity of Daily Living (AADLs).

Assessment of function

- Measurement of functional status fundamental in geriatric medicine

- Summary of measure of the overall impact health conditions in the context of patient's environment and social support system.

Assessment of functions

KATZ INDEX OF INDEPENDENCE IN ACTIVITIES OF DAILY LIVING*

Activities *POINTS (1 OR 0)*	***Independence*** *(1 POINT)* *NO supervision, direction, or personal assistance*	***Dependence*** *(0 POINT)* *WITH supervision, direction, personal assistance, or total care*
BATHING Points: _____	(1 point) Bathes self completely or needs help in bathing only a single part of the body such as the back, genital area, or disabled extremity.	(0 points) Needs help with bathing more than one part of the body, getting in or out of bathtub or shower. Requires total bathing.
DRESSING Points: _____	(1 point) Gets clothes from closets and drawers and puts on clothes and outer garments complete with fasteners. May have help tying shoes.	(0 points) Needs help with dressing self or needs to be completely dressed.
TOILETING Points: _____	(1 point) Goes to toilet, gets on and off, arranges clothes, and cleans genital area without help.	(0 points) Needs help transferring to the toilet, cleaning self, or uses bedpan or commode.
TRANSFERRING Points: _____	(1 point) Moves in and out of bed or chair unassisted. Mechanical transferring aides are acceptable.	(0 points) Needs help in moving from bed to chair or requires a complete transfer.
CONTINENCE Points: _____	(1 point) Exercises complete self-control over urination and defecation.	(0 points) Is partially or totally incontinent of bowel or bladder.
FEEDING Points: _____	(1 point) Gets food from plate into mouth without help. Preparation of food may be done by another person.	(0 points) Needs partial or total help with feeding or requires parenteral feeding.
TOTAL POINTS: _____	*6 = High (client independent)*	*0 = Low (client very dependent)*

* *Slightly adapted with permission from Gerontological Society of America. Katz, S., Down, T.D., Cash, H.R., et al. (1970). Progress in the development of the index of ADL.* The Gerontologist, 10, *20-30.*

Assessment of function

Instrumental Activities of Daily Living (IADL)

Instructions: Circle the scoring point for the statement that most closely corresponds to the patient's current functional ability for each task. The examiner should complete the scale based on information about the patient from the patient him-/herself, informants (such as the patient's family member or other caregiver), and recent records.

A. Ability to use telephone	Score
1. Operates telephone on own initiative; looks up and dials numbers, etc.	1
2. Dials a few well-known numbers	1
3. Answers telephone but does not dial	1
4. Does not use telephone at all	0

B. Shopping	
1. Takes care of all shopping needs independently	1
2. Shops independently for small purchases	0
3. Needs to be accompanied on any shopping trip	0
4. Completely unable to shop	0

C. Food preparation	
1. Plans, prepares, and serves adequate meals independently	1
2. Prepares adequate meals if supplied with ingredients	0
3. Heats and serves prepared meals, or prepares meals but does not maintain adequate diet	0
4. Needs to have meals prepared and served	0

D. Housekeeping	
1. Maintains house alone or with occasional assistance (e.g., "heavy work domestic help")	1
2. Performs light daily tasks such as dishwashing, bed making	1
3. Performs light daily tasks but cannot maintain acceptable level of cleanliness	1
4. Needs help with all home maintenance tasks	1
5. Does not participate in any housekeeping tasks	0

E. Laundry	Score
1. Does personal laundry completely	1
2. Launders small items; rinses stockings, etc.	1
3. All laundry must be done by others	0

F. Mode of transportation	
1. Travels independently on public transportation or drives own car	1
2. Arranges own travel via taxi, but does not otherwise use public transportation	1
3. Travels on public transportation when assisted or accompanied by another	1
4. Travel limited to taxi or automobile with assistance of another	0
5. Does not travel at all	0

G. Responsibility for own medications	
1. Is responsible for taking medication in correct dosages at correct time	1
2. Takes responsibility if medication is prepared in advance in separate dosages	0
3. Is not capable of dispensing own medication	0

H. Ability to handle finances	
1. Manages financial matters independently (budgets, writes checks, pays rent and bills, goes to bank), collects and keeps track of income	1
2. Manages day-to-day purchases, but needs help with banking, major purchases, etc.	1
3. Incapable of handling money	0

(Lawton & Brody, 1969)

Scoring: The patient receives a score of 1 for each item labeled A – H if his or her competence is rated at some minimal level or higher. Add the total points circled for A – H. The total score may range from 0 – 8. A lower score indicates a higher level of dependence.

(Advance)AADL

- Using internet, everyday technology, household devices, and sophisticated kitchen activities beyond preparing daily meals, etc

- Fulfill societal, community and family roles

- Participate in recreational or occupational task

Administrable in 10-15 years

Other test…

Barthel Index

Barthel Index of Activities of Daily Living

Instructions: Choose the scoring point for the statement that most closely corresponds to the patient's current level of ability for each of the following 10 items. Record actual, not potential, functioning. Information can be obtained from the patient's self-report, from a separate party who is familiar with the patient's abilities (such as a relative), or from observation. Refer to the Guidelines section on the following page for detailed information on scoring and interpretation.

The Barthel Index

Bowels
0 = incontinent (or needs to be given enemata)
1 = occasional accident (once/week)
2 = continent
Patient's Score: _____

Bladder
0 = incontinent, or catheterized and unable to manage
1 = occasional accident (max. once per 24 hours)
2 = continent (for over 7 days)
Patient's Score: _____

Grooming
0 = needs help with personal care
1 = independent face/hair/teeth/shaving (implements provided)
Patient's Score: _____

Toilet use
0 = dependent
1 = needs some help, but can do something alone
2 = independent (on and off, dressing, wiping)
Patient's Score: _____

Feeding
0 = unable
1 = needs help cutting, spreading butter, etc.
2 = independent (food provided within reach)
Patient's Score: _____

Transfer
0 = unable – no sitting balance
1 = major help (one or two people, physical), can sit
2 = minor help (verbal or physical)
3 = independent
Patient's Score: _____

Mobility
0 = immobile
1 = wheelchair independent, including corners, etc.
2 = walks with help of one person (verbal or physical)
3 = independent (but may use any aid, e.g., stick)
Patient's Score: _____

Dressing
0 = dependent
1 = needs help, but can do about half unaided
2 = independent (including buttons, zips, laces, etc.)
Patient's Score: _____

Stairs
0 = unable
1 = needs help (verbal, physical, carrying aid)
2 = independent up and down
Patient's Score: _____

Bathing
0 = dependent
1 = independent (or in shower)
Patient's Score: _____

Total Score: _____

(Collin et al., 1988)

Scoring:

Sum the patient's scores for each item. Total possible scores range from 0 – 20, with lower scores indicating increased disability. If used to measure improvement after rehabilitation, changes of more than two points in the total score reflect a probable genuine change, and change on one item from fully dependent to independent is also likely to be reliable.

Malnutrition

Weight loss

Weight gain

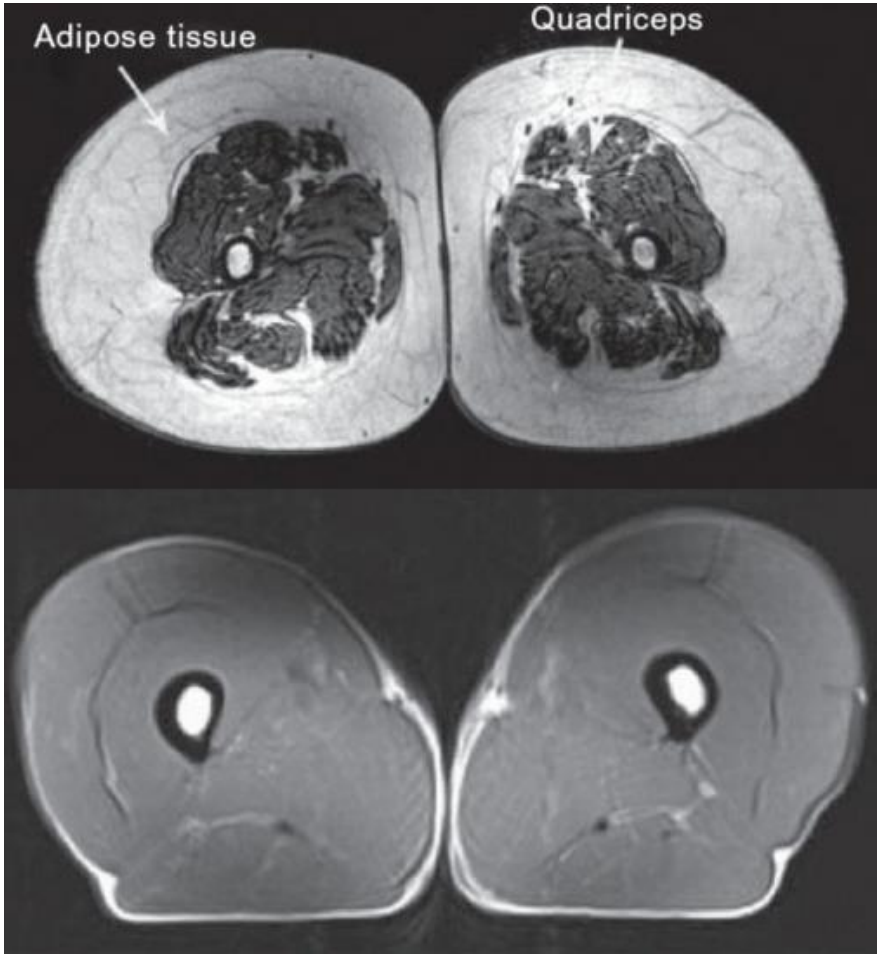
Lorenz Formula

The Lorenz formula was launched in 1929 and has two versions. One fore males and the other for females. You need to know your height and weight before you apply it. Here is the equation:

Female: W(kg)= H(cm) – 100 -[H(cm) – 150]/2

Male: W(kg)= H(cm) – 100 -[H(cm) – 150]/4

MRI evaluation



73 years old Female
(BMI = 24.5 kg/m2)

21 years old Female
(BMI = 24.3 kg/m2)

Malnutrition

- ***Protein energy undernutrition***: clinical (wasting, low body mass index) and biomedical (albumin or other protein) evidence of insufficient intake;

- ***Serum albumin*** and ***low cholesterol*** are prognostic factors for mortality in community-dwelling, hospitalized and institutionalized elderly

Malnutrition

Mini
Nutritional
Assessment

Screening

A Has food intake declined over the past 3 months due to loss of appetite, digestive problems, chewing or swallowing difficulties?
0 = severe decrease in food intake
1 = moderate decrease in food intake
2 = no decrease in food intake ☐

B Weight loss during the last 3 months
0 = weight loss greater than 3kg (6.6lbs)
1 = does not know
2 = weight loss between 1 and 3kg (2.2 and 6.6 lbs)
3 = no weight loss ☐

C Mobility
0 = bed or chair bound
1 = able to get out of bed / chair but does not go out
2 = goes out ☐

D Has suffered psychological stress or acute disease in the past 3 months?
0 = yes 2 = no ☐

E Neuropsychological problems
0 = severe dementia or depression
1 = mild dementia
2 = no psychological problems ☐

F Body Mass Index (BMI) = weight in kg / (height in m)² ☐
0 = BMI less than 19
1 = BMI 19 to less than 21
2 = BMI 21 to less than 23
3 = BMI 23 or greater ☐

Screening score (subtotal max. 14 points) ☐☐
12-14 points: ☐ Normal nutritional status
8-11 points: ☐ At risk of malnutrition
0-7 points: ☐ Malnourished
For a more in-depth assessment, continue with questions G-R

Assessment

G Lives independently (not in nursing home or hospital)
1 = yes 0 = no ☐

H Takes more than 3 prescription drugs per day
0 = yes 1 = no ☐

I Pressure sores or skin ulcers
0 = yes 1 = no ☐

J How many full meals does the patient eat daily?
0 = 1 meal
1 = 2 meals
2 = 3 meals ☐

K Selected consumption markers for protein intake
- At least one serving of dairy products (milk, cheese, yoghurt) per day yes ☐ no ☐
- Two or more servings of legumes or eggs per week yes ☐ no ☐
- Meat, fish or poultry every day yes ☐ no ☐

0.0 = if 0 or 1 yes
0.5 = if 2 yes
1.0 = if 3 yes ☐.☐

L Consumes two or more servings of fruit or vegetables per day?
0 = no 1 = yes ☐

M How much fluid (water, juice, coffee, tea, milk...) is consumed per day?
0.0 = less than 3 cups
0.5 = 3 to 5 cups
1.0 = more than 5 cups ☐.☐

N Mode of feeding
0 = unable to eat without assistance
1 = self-fed with some difficulty
2 = self-fed without any problem ☐

O Self view of nutritional status
0 = views self as being malnourished
1 = is uncertain of nutritional state
2 = views self as having no nutritional problem ☐

P In comparison with other people of the same age, how does the patient consider his / her health status?
0.0 = not as good
0.5 = does not know
1.0 = as good
2.0 = better ☐.☐

Q Mid-arm circumference (MAC) in cm
0.0 = MAC less than 21
0.5 = MAC 21 to 22
1.0 = MAC greater than 22 ☐.☐

R Calf circumference (CC) in cm
0 = CC less than 31
1 = CC 31 or greater ☐

Assessment (max. 16 points) ☐☐.☐
Screening score ☐☐.☐
Total Assessment (max. 30 points) ☐☐.☐

Malnutrition Indicator Score
24 to 30 points ☐ Normal nutritional status
17 to 23.5 points ☐ At risk of malnutrition
Less than 17 points ☐ Malnourished

Save Print Reset

References
1. Vellas B, Villars H, Abellan G, *et al.* Overview of the MNA® - Its History and Challenges. *J Nutr Health Aging.* 2006; 10:456-465.
2. Rubenstein LZ, Harker JO, Salva A, Guigoz Y, Vellas B. Screening for Undernutrition in Geriatric Practice: Developing the Short-Form Mini Nutritional Assessment (MNA-SF). *J. Geront.* 2001; 56A: M366-377
3. Guigoz Y. The Mini-Nutritional Assessment (MNA®) Review of the Literature - What does it tell us? *J Nutr Health Aging.* 2006; 10:466-487.

For more information: www.mna-elderly.com

Balance and Gait Impairments and Falling

- Falls are indipendently associated with functional and mobility decline.
- Elderly evaluation:
  - Number of falls in the last year
  - Multifactorial falls assessment
  - Testing balance, gait, lower extremity strength

Balance and Gait

TINETTI BALANCE & GAIT ASSESSMENT

BODYWORKShfr.com

For both assessments, enter the date of each exam and circle your rating for each item. Indicate totals at the bottom of each section.

BALANCE ASSESSMENT

To perform this assessment, seat the patient in a hard, armless chair.

Evaluated Function	Description of Behavior	Date: ___	Date: ___
Sitting Balance	Leans or slides in chair	0	0
	Steady, safe	1	1
Rises From Chair	Unable to rise without help	0	0
	Able to rise using arms to help	1	1
	Able to rise without using arms to help	2	2
Attempts To Rise	Unable to rise without help	0	0
	Able to rise, requires more than one attempt	1	1
	Able to rise, requires one attempt	2	2
Standing Balance (1st 5 Seconds)	Unsteady (staggers, moves feet, trunk sways)	0	0
	Steady, but uses walker or other support	1	1
	Steady without walker or other support	2	2
Standing Balance	Unsteady	0	0
	Steady, but with wide stance and uses support	1	1
	Narrow stance without support	2	2
Nudged	Begins to fall	0	0
	Staggers, grabs, catches self	1	1
	Steady	2	2
Eyes Closed	Unsteady	0	0
	Steady	1	1
Turning 360 Degrees	Discontinuous steps	0	0
	Continuous steps	1	1
	Unsteady (grabs, staggers)	0	0
	Steady	1	1
Sitting Down (Getting Seated)	Unsafe (misjudged distance, falls into chair)	0	0
	Uses arms or not a smooth motion	1	1
	Safe, smooth motion	2	2
	Balance Score Potential Points: 16	___/16	___/16

GAIT ASSESSMENT

Stand with the patient. Walk across the room (+/- aids) at a usual pace, then rapidly

Evaluated Function	Description of Behavior	Date: ___	Date: ___
Indication of Gait	Any hesitancy or multiple attempts	0	0
	No hesitancy	1	1
Step Length & Height	Step to	0	0
	Step through right	1	1
	Step through left	1	1
Foot Clearance	Foot drop	0	0
	Left foot clears the floor	1	1
	Right foot clears the floor	1	1
Step Symmetry	Right and left step length are not equal	0	0
	Right and left step length appear equal	1	1
Step Continuity	Stopping of discontinuity between steps	0	0
	Steps appear continuous	1	1
Path	Marked deviation	0	0
	Mild/moderate deviation or uses a walking aid	1	1
	Straight without a walking aid	2	2
Trunk	Marked sway or uses a walking aid	0	0
	No sway, flexes knees/back/uses arms to balance	1	1
	No sway, no flexion of knees or back use of arms, or walking aid	2	2
Walking Time	Heels apart	0	0
	Heels almost touching while walking	1	1
	Gait Score Potential Points: 12	___/12	___/12

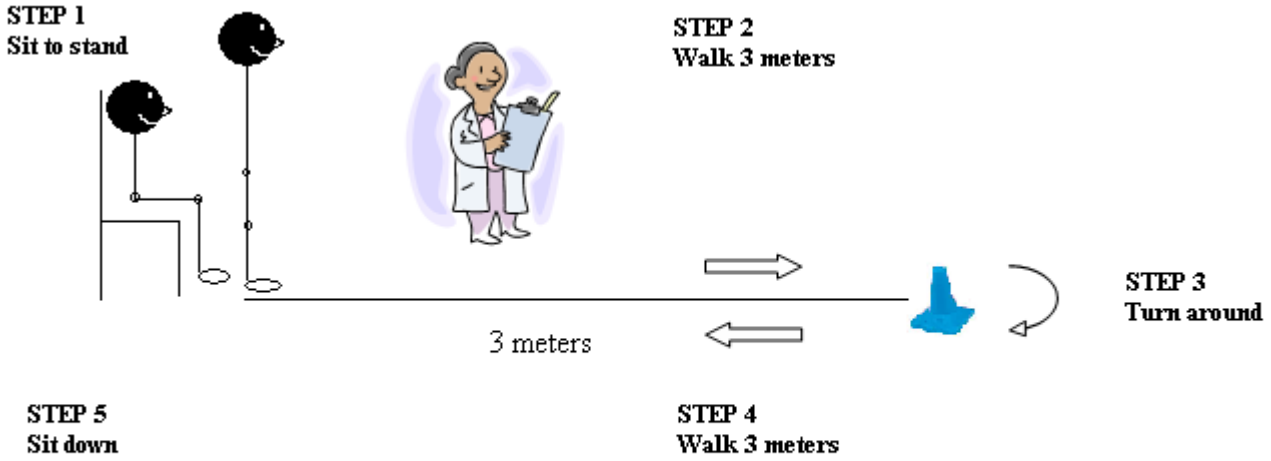
Combined Score Potential Points For Balance & Gait ___/28 ___/28

Risk of Falls: 18 Points or Less = High Risk, 19-23 Points = Moderate Risk, 24 or More Points = Low Risk

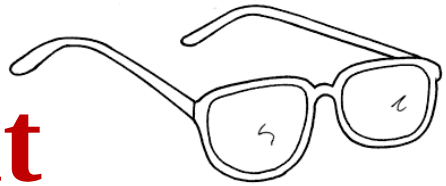
AFFIX STICKER

Balance and Gait

- Up and go test
- Stability during 360-degree turn
- Maintein a side-byside, semitandem, full-tandem stance for 10 seconds
- Resistence to a nudge
- Asking arising from a hard armless chair without the use of hands



Visual impairment



Common but under-reported problem

Major eye disease in elderly:

1) Cataract
2) Age related macular degeneration
3) Diabetic retinopathy
4) gluacoma

PRESBYOPIA

Visual impairment

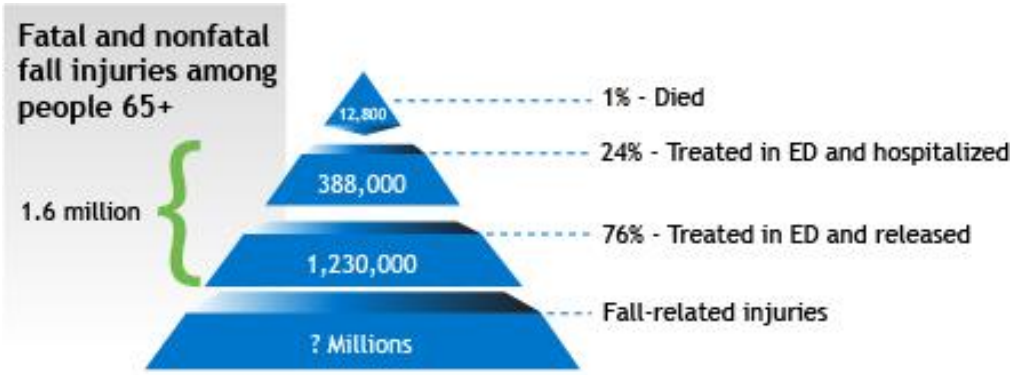
High risk of:

-Fall

-Functional and cognitive decline

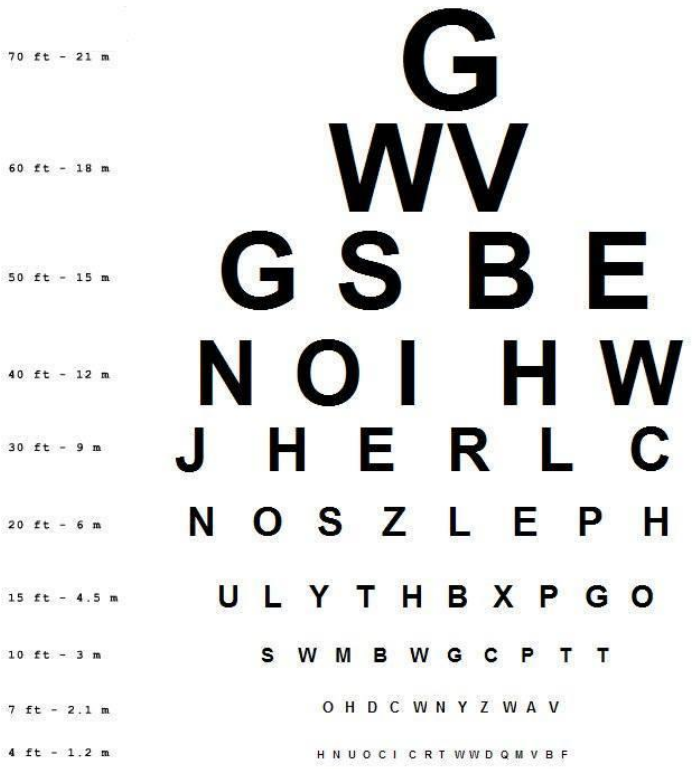
-Immobility

-Depression



Visual impairment

Sellen Eye Chart

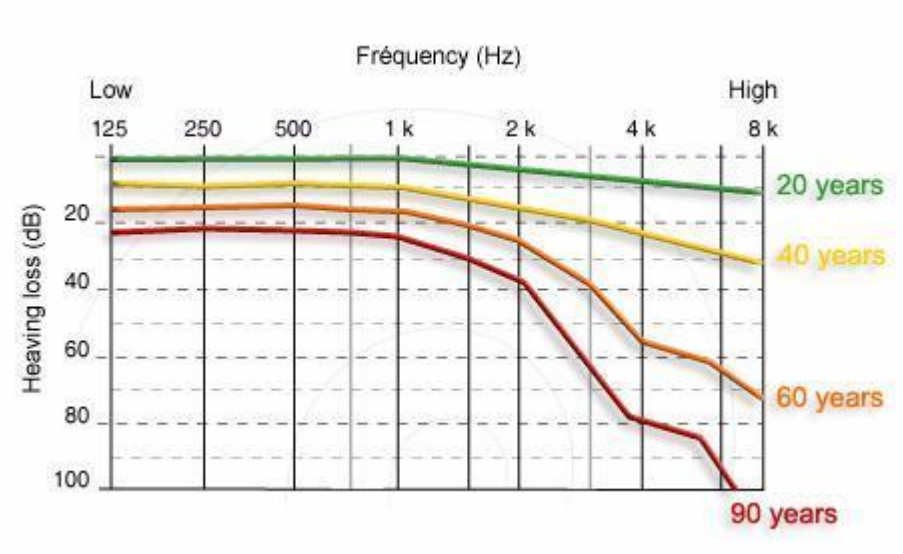


National Eye Institute Visual Functioning Questionnaire - 25 (VFQ-25)

Hearing Impairment

One third of over 65 complains hearing problems

Reduced cognitive,emotional, social and physical function



Hearing Impairment

QUESTION/TEST	TIME TO ADMINISTER	COMMENTS
Audioscope	1–2 minutes	Sensitivity 87–90%, specificity 70–90%
Single question: “Do you feel you have a hearing loss?”	<1 minute	Sensitivity 75–81%, specificity 64–70%
Whisper test	1 minute	Sensitivity 80–100%, specificity 82–89%
Hearing handicap	2 minutes	Sensitivity 48–63%, specificity 75–86% at cutpoint >8
Inventory for the elderly NHANES* battery	<2 minutes	Sensitivity 80%, specificity 80% at cutpoint of >3
Age >70 = 1		
Male sex = 1		
12th grade education = 1		
Previously saw doctor about trouble hearing =1		
Without hearing aid, cannot hear whisper across the room = 1		
Without hearing aid, cannot hear normal voice across the room = 2		

Hazzard's Geriatric Medicine and Gerontology

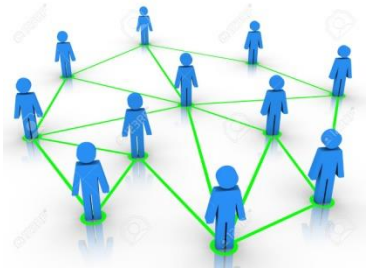
Polipharmacy

Multiple providers→polipharmacy

- Frequent adverse drugs riactions
- Reduced adherence
- Inappropriate medication usage

Providing AID

ASSESSMENT OF SOCIAL SUPPORT:
-Loneliness/social net
-Isolation
-No more driving licence



ECONOMIC ASSESSMENT:
-retirement
-disability pension
-special needs

ENVIRONMENTAL ASSESSMENT:
-home architectural barrier (stairs, carpets, etc)
-home lightning;
-isolated house.

Geriatric Assessment

OLISTIC MEDICINE

DISCUSSION IN TEAM

PLANNING INTERVENTION

Aging?

"productively and profitably by purchasing an inner peace that consists of an intuitive system of continuous adjustment to the exigencies of daily living"

Hernst Hemingway