

10 Essential Geriatric Medicine Clinical Skills



GERO900
Geriatric Clerkship

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10 Essential Geriatric Medicine Clinical Skills

- 1) **ADL and IADL Assessment**
- 2) **Mini-Mental State Exam (MMSE)**
- 3) **Life Expectancy Estimate**
- 4) **Geriatric Depression Scale (GDS)**
- 5) **Decision-Making Capacity Assessment**
- 6) **Mobility Status Assessment (*Get Up & Go, Righting Reflex, Romberg*)**
- 7) **Nutritional Status Assessment**
- 8) **Medication Review with Recommendations**
- 9) **Pressure Ulcer Risk Assessment, Staging and Treatment Recommendations**
- 10) **Urinary Incontinence Assessment with Management Recommendations**

In Orientation, you will receive an orange pocket card listing the 12 Essential Skills above. Geriatric medicine Preceptors must initial and date each skill as you complete them during your six-week rotation.

Please note that completing a form and having it reviewed by your Preceptor fulfill some of the required skills. These forms are identified by “Required Form” in the document header. Other skills are completed after reviewing the supporting information following and demonstrating the associated skill to your Preceptor.

In addition to the above skills, the following procedures/diagnoses are considered especially relevant to your Geriatrics experience. Each student should seek to see and log at least 2 – 3 patients for each procedure/diagnosis that follows:

- | | |
|--------------------------------|------------------------|
| ✓ Wound Care / Dressing Change | ✓ Pressure Ulcer |
| ✓ Malnutrition | ✓ Arthritis |
| ✓ Delirium | ✓ Gait Ataxia |
| ✓ Dementia | ✓ Malaise / Fatigue |
| ✓ Depression / Mood Disorder | ✓ Failure to Thrive |
| ✓ Visual Loss / Blind | ✓ Weight Loss |
| ✓ Hearing Loss/ Deaf | ✓ Chronic Pain |
| ✓ Bowel Incontinence | ✓ Abuse / Mistreatment |
| ✓ Urinary Incontinence | ✓ Medication Review |
| ✓ Chronic Ulcer | ✓ End of Life Care |

Activities of Daily Living

Katz Index of Activities of Daily Living (REQUIRED FORM)

Abbreviations: I=Independent; A=Assistance; D=Dependent

1. BATHING (sponge/shower/tub):

I: Receives no assistance (gets in and out of tub if tub is usual bathing method)

A: Receives assistance in bathing any one part of the body (back, leg, etc.)

D: Receives assistance in bathing more than one part of the body (or not bathed)

2. DRESSING

I: Able to get clothes and get completely dressed without assistance.

A: Able to get clothes and get completely dressed without assistance except for tying shoes.

D: Receives assistance in getting clothes or in getting dressed, or stays partly or completely underdressed.

3. TOILETING

I: Goes to “toilet room,” cleans self and arranges clothes without assistance.

(May use object for support such as cane, walker or wheelchair and may manage night bedpan or commode, emptying in the morning.)

A: Receives assistance in going to “toilet room” or in cleansing self or in arranging clothes after elimination or in use of night bedpan/commode.

D: Doesn't go to room termed “toilet” for the elimination process.

4. TRANSFER

I: Moves in and out of bed as well as in and out of chair without assistance

(May use object for support such as cane or walker.)

A: Moves in and out of bed or chair with assistance.

D: Doesn't get out of bed.

5. CONTINENCE

I: Controls urination and bowel movement completely by self.

A: Has occasional “accidents.”

D: Supervision helps keep urine or bowel control; catheter is used or is incontinent.

6. FEEDING

I: Feeds self without assistance.

A: Feeds self except for getting assistance in cutting meat or buttering bread.

D: Receives assistance in feeding or is fed partly or completely by using tubes or intravenous fluids.

Activities of Daily Living

Instrumental Activities of Daily Living (REQUIRED FORM)

1. TELEPHONE:

I: Able to look up numbers, dial, receive and make calls without assistance.

A: Able to answer phone or dial operator in an emergency but requires special phone or help in getting number for dialing.

D: Unable to use the telephone.

2. TRAVELING:

I: Able to drive own car or travel alone on bus or taxi.

A: Able to travel but not alone.

D: Unable to travel.

3. SHOPPING:

I: Able to take care of all shopping with transportation provided.

A: Able to shop but not alone.

D: Unable to shop.

4. PREPARING MEALS:

I: Able to plan and cook full meals.

A: Able to prepare light foods but unable to cook full meals alone.

D: Unable to prepare any meals.

5. HOUSEWORK:

I: Able to do heavy housework (scrub floors, etc.)

A: Able to do light housework but needs help with heavy tasks.

D: Unable to do any housework.

6. MEDICATIONS:

I: Able to take medications in the right dose at the right time.

A: Able to take medications but needs reminding or someone to prepare it.

D: Unable to take medications.

7. MONEY:

I: Able to manage buying needs, write checks, pay bills.

A: Able to manage daily buying needs but needs help managing checkbook, paying bills.

D: Unable to manage money.

Mini Mental State Exam (MMSE)

(REQUIRED FORM)

Name: _____

Interviewer: _____

Date: _____

MAXIMUM SCORESCOREORIENTATION

5 () What is the: (year) (season) (date) (day) (month)

5 () Where are we: (state) (county) (town) (facility) (floor)

REGISTRATION

3 () Name three objects and have person repeat them back. Give one point for each correct answer on the first trial.

1. _____ 2. _____ 3. _____

Then repeat objects (up to 6 x) until all three are learned.

Number of trials: _____

ATTENTION & CALCULATION

5 () Serial 7's. Count backwards from 100 by serial 7's. One point for each correct answer. Stop after 5 answers. [93 86 79 72 65]

Alternatively spell "world" backwards [D-L-R-O-W]

RECALL

3 () Ask for the names of the three objects learned above. Give one point for each correct answer.

LANGUAGE

9 () Name: a pen (1 point); a watch (1 point)

Repeat the following: "No ifs, ands or buts." (1 point)

Follow a three-stage command: "Take this paper in your [non-dominant] hand, fold it in half and put it on the floor." (3 points; 1 point per command)

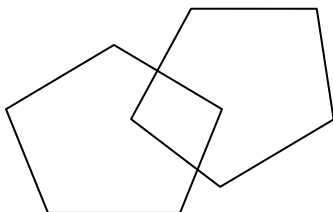
Read to self and then do: "Close your eyes" (1 point)

Write a sentence [subject, verb and makes sense] (1 point)

Copy design [5-sided geometric figure; 2 points must intersect] (1 point)

Score *[out of 30]* _____

Alert Overtly Anxious Concentration Difficulty Drowsy

**CLOSE YOUR EYES**

Sentence: _____

Life Expectancy Estimate

Objective Criteria for End-Stage Disease

(Life Expectancy of six months or less)

DEBILITY / DECLINE IN HEALTH STATUS

No specific number of criteria must be met. They are listed in the order of their power to predict poor survival.

- 1) Progression of disease as documented by symptoms, signs and test results.
- 2) Decline in Karnofsky Performance Status or Palliative performance score / Adapted Karnofsky.
- 3) Weight loss.
- 4) Dependence on assistance for *two or more* activities of daily living:
 - Feeding
 - Ambulation
 - Continence
 - Transfer
 - Bathing
 - Dressing
- 5) Dysphagia leading to inadequate nutritional intake.
- 6) Decline in systolic blood pressure or progressive postural hypotension.
- 7) Increasing need for skilled service.
- 8) Decline in Functional Assessment Staging (FAST) for dementia.
- 9) Progressive stage 3-4 pressure ulcers in spite of optimal care.

DEMENTIA

Patients will be considered to be in the terminal stage of dementia if they meet at least four of the following criteria:

A. Patients with dementia must show all of the following characteristics of Stage Seven or beyond, according to Functional Assessment Staging Scale.

- 1) Unable to ambulate without assistance.
- 2) Unable to dress without assistance.
- 3) Unable to bathe without assistance.
- 4) Urinary and fecal incontinence (*intermittent or consistent*)
- 5) No meaningful verbal communication (*stereotypical phrases only or the ability to speak is limited to six or fewer intelligible words*)

B. Patients must have had one of the following within the past 12 months:

- 1) Aspiration pneumonia
- 2) Pyelonephritis or other upper urinary tract infection
- 3) Septicemia
- 4) Decubitus ulcers, multiple, stage 3 or 4
- 5) Fever, recurrent after antibiotics
- 6) Inability to maintain sufficient fluid or caloric intake with 10% weight loss during the previous six months or with a serum albumin <2.5 gm/dl.

Karnofsky Performance Status Scale

Rating of 50% or less with HIV Disease and 40% or less with Stroke/Coma is a predictor of poor survival.

Able to carry on normal activity and to work; no special care needed	100	Normal; no complaints; no evidence of disease.
	90	Able to carry on normal activity; minor signs or symptoms of disease.
	80	Normal activity with effort; some signs or symptoms of disease.
Unable to work; able to live at home and care for most personal needs; varying amount of assistance needed.	70	Cares for self; unable to carry on normal activity or do active work.
	60	Requires occasional assistance, but is able to care for most of his/her personal needs.
	50	Requires considerable assistance and frequent medical care.
Unable to care for self; requires equivalent of institutional or hospital care; diseases may be progressing rapidly.	40	Disabled; requires special care and assistance.
	30	Severely disabled; hospital admission is indicated although death not imminent.
	20	Very sick. Hospital admission necessary; active supportive treatment necessary.
	10	Moribund; fatal processes progressing rapidly.
	0	Dead

Functional Assessment Staging (FAST)

Staging 7 or beyond indicates end stage dementia.

- 1) No difficulty either subjectively or objectively.
- 2) Complains of forgetting location of objects. Subjective work difficulties.
- 3) Decreased job functioning evident to co-workers. Difficulty in traveling to new locations. Decreased organizational capacity.
- 4) Decreased ability to perform complex tasks, e.g., planning dinner for guests, handling personal finances (such as forgetting to pay bills), difficulty shopping, etc.
- 5) Requires assistance in choosing proper clothing to wear for the day, season or occasion, e.g., patient may wear the same clothing repeatedly unless supervised.
- 6)
 - a. Improperly putting on clothes without assistance or cueing (e.g., may put street clothes on over night clothes, or put shoes on wrong feet, or have difficulty buttoning clothing) occasionally or more frequently over the past weeks.
 - b. Unable to bathe properly (e.g., difficulty adjusting bath water temperature) occasionally or more frequently over the past weeks.
 - c. Inability to handle mechanics of toileting (e.g., forgets to flush the toilet, does not wipe properly or properly dispose of toilet tissue) occasionally or more frequently over the past weeks.
 - d. Urinary incontinence (occasionally or more frequently over the past weeks).
 - e. Fecal incontinence (occasionally or more frequently over the past weeks).
- 7)
 - a. Ability to speak is limited to approximately half a dozen intelligible, different words or fewer in the course of an average day or in the course of an intensive interview.
 - b. Speech ability is limited to the use of a single intelligible word in an average day or in the course of an intensive interview.
 - c. Ambulatory ability is lost (cannot walk without personal assistance).
 - d. Cannot sit up without assistance (e.g., the individual will fall over if there are not lateral rests/arms on the chair).
 - e. Loss of ability to smile.
 - f. Loss of ability to hold head independently.

HEART DISEASE

Patients will be considered in the terminal stage of heart disease if they meet the following criteria:

Factors 1 and 2 must be present. Factors from 3 will add supporting documentation.

1. **At the time of initial certification or re-certification for hospice, the patient is already optimally treated with diuretics and vasodilators (usually ACEI) and other recommended drugs.** (“Optimally treated” means that patients not on vasodilators or other drugs have medical reasons for refusing these drugs, e.g., hypotension or advanced renal disease.)
2. **The patient has significant symptoms of recurrent heart failure (CHF) at rest, and is classified as New York Heart Association (NYHA) Class IV.** (Class IV patients with heart disease have an inability to carry on any physical activity without discomfort. Symptoms of heart failure or of the anginal syndrome may be present even at rest. If any physical activity is undertaken, discomfort is increased.) Significant heart failure may be documented by an ejection fraction of $\leq 20\%$, but is not required if not already available.
3. **Documentation of the following factors will support eligibility for hospice care:**
 - a. Treatment-resistant symptomatic supraventricular or ventricular arrhythmias.
 - b. History of cardiac arrest or resuscitation.
 - c. History of unexplained syncope.
 - d. Brain embolism of cardiac origin.
 - e. Concomitant HIV disease.
 - f. Angina pectoris, at rest
 - g. History of previous myocardial infarction

LIVER DISEASE

1 and 2 must be present.

- 1) The patient should show both a and b:
 - a. PT > 5 seconds over control or INR > 1.5
 - b. Serum albumin < 2.5 gm/dl
- 2) End stage liver disease is present and the patient shows at least one of the following:
 - a. Ascites
 - b. Spontaneous bacterial peritonitis
 - c. Hepatorenal syndrome: elevated BUN/CR, oliguria
 - d. Hepatic encephalopathy
 - e. Recurrent variceal bleeding

Factors which will add supporting documentation:

- ✓ Progressive malnutrition
- ✓ Muscle wasting w/ reduced strength and endurance
- ✓ Continued active alcoholism (>80 gm ethanol/day)
- ✓ Hepatocellular carcinoma
- ✓ HBsAg (Hepatitis B) positively
- ✓ Hepatitis C refractory to interferon treatment

Patients awaiting liver transplant who otherwise fit the above criteria may be certified for the Medicare hospice benefit, but if a donor organ is procured, the patient must be discharged from hospice.

Life Expectancy Estimate *(continued)*

PULMONARY DISEASE

Patients will be considered in the terminal stage of pulmonary disease if they meet the following criteria. The criteria refer to patients with various forms of advanced pulmonary disease who will eventually follow a final, common pathway for end-stage pulmonary disease.

Factors 1, 2 and 3 must be present. Presence of factors 4, 5 and/or 6 will lend supporting documentation:

- 1. Severe chronic lung disease as documented by both a and b:**
 - a. Disabling dyspnea at rest, poorly or unresponsive to bronchodilators, resulting in decreased functional capacity, e.g., bed-to-chair existence, fatigue and cough. (Documentation of Forced Expiratory Volume in one second (FEV1), after bronchodilator, less than 30% of predicted is objective evidence for disabling dyspnea, but it is not necessary to obtain.)
 - b. Progression of end-stage pulmonary disease, as evidence by increasing visits to the emergency department or hospitalizations for pulmonary infections and/or respiratory failure. (Documentation of serial decrease of FEV1 > 40 ml/yr is objective evidence for disease progression, but it is not necessary to obtain.)

- 2. Hypoxemia at rest on room air, as evidence by $pO_2 \leq 55$ mmHg and oxygen saturation $\leq 88\%$ on supplemental oxygen. (These values may be obtained from recent hospital records.)**

- 3. Hypercapnia, as evidence by $p(CO_2) \leq 50$ mmHg. (This value may be obtained from recent hospital records.)**

- 4. Cor pulmonale and right heart failure (RHF) secondary to pulmonary disease (e.g., not secondary to left heart disease or valvulopathy.)**

Factors which will add supporting documentation:

- ✓ Unintentional progressive weight loss of greater than 10% of body weight over the preceding six months.
- ✓ Resting tachycardia > 100/min.

Life Expectancy Estimate *(continued)*

RENAL DISEASE

1, 2 and 3 must be present

1. The patient is not seeking dialysis or renal transplant
2. Creatinine clearance <10cc/min (<15cc/min for diabetics)
3. Serum creatinine >8.0mg/dl (>6.0 mg/dl for diabetics)

Factors lending supporting evidence for acute renal disease:

- Mechanical ventilation
- Malignancy (other organ system)
- Chronic lung disease
- Advanced cardiac disease
- Advanced liver disease
- Sepsis
- Immunosuppression/AIDS
- Albumin<3.5 mg/dl
- Cachexia
- Platelet count < 25,000
- Disseminated intravascular coagulation
- Gastrointestinal bleeding

Factors lending supporting evidence for chronic renal disease

- Uremia
- Oliguria < 400cc/day
- Intractable hyperkalemia (>7.0mg/dl) not responsive to treatment
- Uremic pericarditis
- Hepatorenal syndrome
- Intractable fluid overload not responsive to treatment

Life Expectancy Estimate *(continued)*

STROKE AND COMA

Acute phase of hemorrhagic or ischemic stroke

1, 2 OR 3 must be present

- 1) Coma or persistent vegetative state beyond 3 days.
- 2) In post anoxic stroke, coma or severe obtundation accompanied by severe myoclonus beyond 3 days.
- 3) Dysphagia which prevents sufficient intake of foods and fluids to sustain life and no artificial nutrition/hydration.

Chronic phase of hemorrhagic or ischemic stroke

1, 2 OR 3 must be present

- 1) Post stroke dementia (all of the following):
 - a. Stage seven or beyond according to the FAST scale
 - b. Unable to ambulate without assistance
 - c. Unable to dress with assistance
 - d. Unable to bathe without assistance
 - e. Urinary and fecal incontinence, intermittent or constant
 - f. Ability to speak six or few intelligible words
- 2) Poor functional status with karnofsky score 40% or less
- 3) Poor nutritional status with >10% weight loss during the previous six months or serum albumin <2.5 gm/dl.

Coma (any etiology): Any 3 must be present, day 3 of coma

- 1) Abnormal brain stem response
- 2) Absent verbal response
- 3) Absent withdrawal response to pain
- 4) Serum creatinine > 1.5 mg/dl
- 5) Age over 70 years

GERIATRIC DEPRESSION SCALE

(short form)

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

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 people? Yes No
11. Do you think it is wonderful to be alive now? 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

Answers underlined indicate depression. Each answer counts as 1 point.

Scores: Normal = 0 – 5; Mildly Depressed = 6 – 10; Very Depressed = 11 – 15

Decision-Making Capacity Assessment

COMPETENCY & DECISION-MAKING CAPACITY

Clinicians often use the terms “competency” and “decision-making capacity” interchangeably, but “competency” is a legal concept while “decision-making capacity” is a clinical concept. Persons found by a court to be incapable of making the decisions needed for handling their affairs adequately and safely are declared “incompetent.” This declaration changes their legal status, removing their legal right to make decisions. The court appoints someone to make these decisions for them. Incompetency is always a judicial determination; “incompetency” is by definition legal incompetency.

The capacity to make (medical) decisions, however, is the ability to understand the nature and consequences (including risks and benefits) of medical interventions and to make and communicate decisions based on that understanding. While courts use clinical information to determine competency, clinicians more often evaluate a person’s decision-making capacity. A person is either (legally) competent or incompetent to make medical decisions, but decision-making capacity can be partial, allowing people to make simple but not complex decisions.

ASSESSING DECISION-MAKING CAPACITY (DMC)

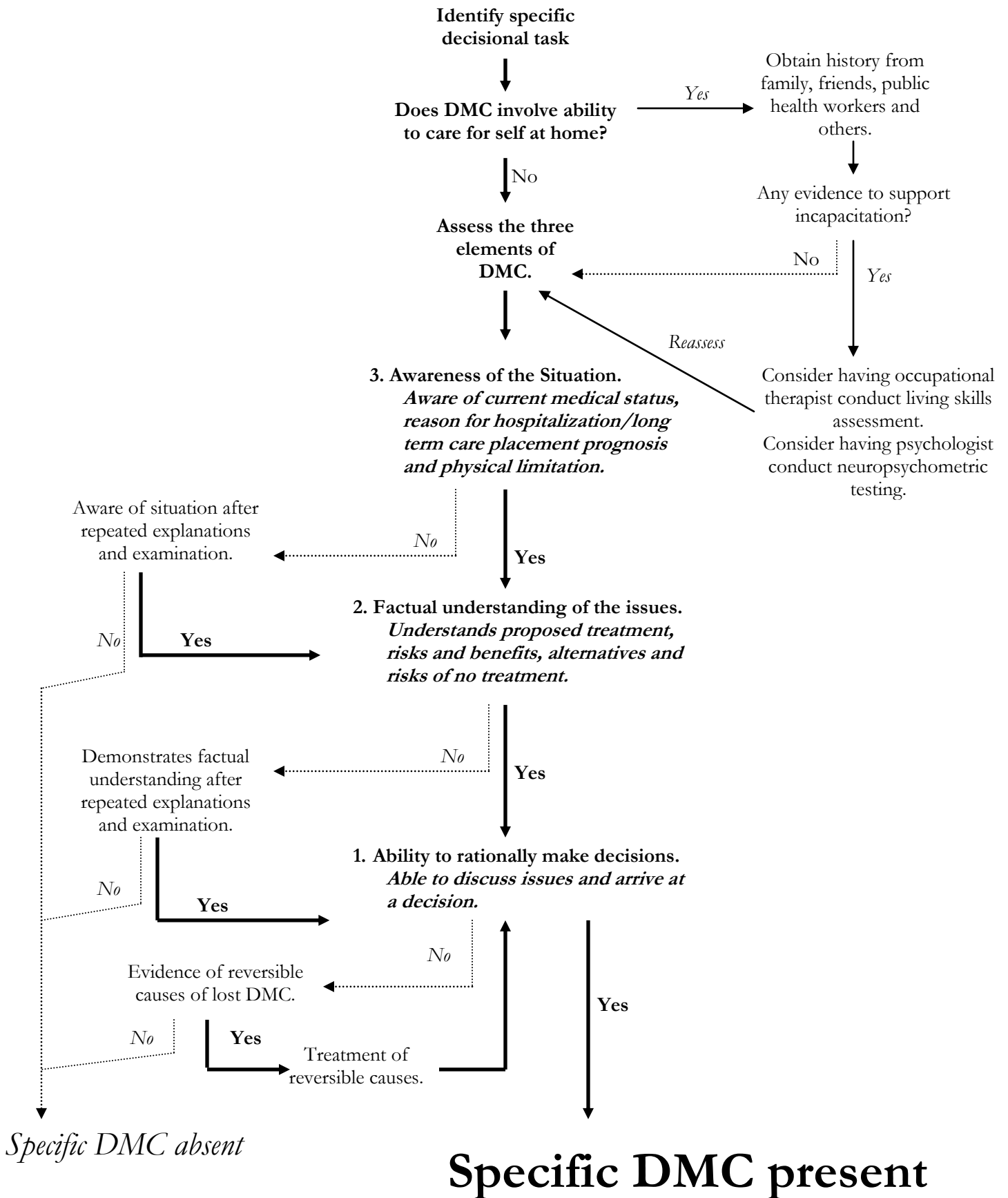
Clinicians often assess a patient’s decision-making capacity (DMC) in order to guide medical treatment or choice of living situation or to assist in a determination of competency. DMC is essentially the ability to give informed consent for medical intervention. A cognitively impaired person’s ability to make decisions can be task-specific and situational. It may wax and wane as a result of the primary cognitive impairment and may reflect acute illness superimposed on that impairment. It may be affected by medications, anxiety or even time of day.

DMC thus will vary with the complexity as well as with the risks and benefits of the diagnostic procedure or treatment in question. A resident may possess the capacity to consent (or refuse) to have blood drawn, for example, yet may lack the capacity to understand – and thus to consent to (or refuse) – a chemotherapy regimen for cancer.

DMC has several components, including: the ability to communicate choices, to understand relevant information, to understand a situation and its consequences and to manipulate information rationally.^{1,2} To make medical decisions, a person must understand the nature of the illness for which a particular treatment is offered, the natural course of the illness without treatment and the nature and consequences of the treatment. This understanding needn’t be physiologically sophisticated. All decision-making must be consistent with the resident’s belief system, especially when beliefs are particularly strong or unusual³ or when life-saving or life-prolonging treatment is desired or refused.

The capacity to make medical decisions can be evaluated with open-ended questions about the specific illness and about the likely result of different treatments (and of no treatment). The clinician might also assess the patient’s cognitive status using standardized instruments such as the mini-mental status exam (MMSE⁴ – which when used alone is not sufficient for delineating decision-making capacity) or the Hopkins Competency Assessment Test⁵. Evaluation DMC might also test judgment, semantic knowledge (naming), verbal recall and simple reasoning.⁶

ASSESSING DECISION-MAKING CAPACITY (DMC)



Mobility Status Assessment (*Get Up & Go, Righting Reflex & Romberg*)

The “Get Up and Go” Test for Gait Assessment in Elderly Patients

Instructions for the Patient:

- ▣ Get up (without use of armrests, if possible)
- ▣ Stand still momentarily
- ▣ Walk forward 10 ft. (3 m)
- ▣ Turn around and walk back to chair
- ▣ Turn and be seated

Factors to note:

- Sitting balance
- Transfers from sitting to standing
- Pace and stability of walking
- Ability to turn without staggering

Next Steps:

- ⇒ Further evaluation required if test not performed in 20 seconds
- ⇒ Proceed with Tinetti Balance and Gait Evaluation

Righting Reflex Assessment

Required Form

INSTRUCTIONS:

- The examiner stands behind the patient and tugs at the pelvis.
- The normal response is to promptly bring one foot backward under the body and sometimes to bring both arms forward.
- Abnormal reactions include a complete lack of response, sometimes called the “timber” reaction, or multiple, small ineffective steps.
- Lack of a righting response suggests a central nervous system condition that affects the basic postural organization, and is often a poor prognostic sign for recovery of balance function.
- An intact righting response implies an excellent basis for recovery of function if other contributors to instability and/or falls are identified and treated.
- All causes of an absent righting reflex are CNS (i.e., extra pyramidal disease such as Parkinson’s, Lewy Body disease.)

Romberg Test for Balance

Required

Instruct patient to:

- 1) Stand with feet together
- 2) Hold arms out to sides
- 3) Look up toward ceiling
- 4) Close eyes

Nutritional Status Assessment Form – Ambulatory Setting

Required Form

Determine your nutritional health.

The warning signs of poor nutritional health are often overlooked. Use this checklist to find out if you or someone you know is at risk.

Read the statement below. Circle the number in the “Yes” column for those that apply to you or someone you know.

Total the resulting nutritional score.

I have an illness or condition that made me change the kind and/or amount of food I eat.	2
I eat fewer than 2 meals per day.	3
I eat few fruits, vegetables or milk products.	2
I have 3 or more drinks of beer, liquor or wine almost every day.	2
I have tooth or mouth problems that make it hard for me to eat.	2
I don't always have enough money to buy the food I need.	4
I eat alone most of the time.	1
I take 2 or more different prescribed or over-the-counter drugs per day.	1
Without wanting to, I have lost or gained 10 pounds in the last 6 months.	2
I am not always physically able to shop, cook and/or feed myself.	2
TOTAL:	

Total Your Nutritional Score

- 0 – 2** **Good! Recheck** your nutritional score in 6 months.
- 3 – 5** **You are at moderate nutritional risk.** See what can be done to improve your eating habits and lifestyle. Your office on aging, senior nutrition program, senior citizens center or health department can help. Recheck your nutritional score in 3 months.
- 6 or more** **You are at high nutritional risk.** Bring this checklist the next time you see your doctor, dietician or other qualified health or social service professional. Talk with them about any problems you may have. Ask for help to improve your nutritional health.

NOTE: Remember that warning signs suggest risk, but do not represent diagnosis of any condition.

Diagnosis of Undernutrition

Weight and weight loss – primary diagnostic indicator for undernutrition.

Parameters for Undernutrition

- Weight loss – 5lbs. loss; 5% loss in 30 days; 10% loss in 180 days.
- Quantification of food intake <75% of meals for three consecutive days.
- Albumin level <3.5 g/dl
- Cholesterol < 160 mg/dl
- Body Mass Index $\frac{\text{weight in kg}}{\text{height in meters}^2}$ = Underweight <22; Overweight >28

Long Term Care Malnutrition Risk Assessment Form – Nursing Home Setting

Required Form

Name:		Date:	Examiner:
PARAMETER	POINTS	RESIDENT STATUS/CONDITION	SCORE
A. Level of Consciousness/Mental Status	0	Alert (oriented x 3) or comatose	
	1	Slow to respond – disoriented X 1	
	2	Lethargic – disoriented X 2	
	3	Comatose, depressed, constant wanderer – disoriented X 3	
B. Self-Feeding Ability	0	Feeds self	
	1	Feeds self with verbal cues.	
	2	Feeds self slowly and only part of meal.	
	3	Fed by staff or tube feed.	
C. Weight Status	0	Stable within last 3 months.	
	1	Explained weight changes (i.e., edema, diet, surgery, etc.)	
	2	<5% weight loss in 1 month or <10% in past 6 months.	
	3	>5% weight loss in 1 month or >10% in past 6 months.	
D. Oral Health Status	0	Teeth/Dentures – good condition	
	1	Lost dentures or several missing teeth.	
	2	Edentulous	
	3	Difficulty swallowing or frequent choking.	
E. Food Intake	0	Excellent – eats 75 – 100% most meals.	
	1	Good – eats 50 – 75% most meals.	
	2	Fair – eats 25 – 50% most meals.	
	3	Poor – eats less than 25% most meals; refuses some meals.	
F. Fluid Intake	0	2000cc or more daily.	
	1	1000 – 2000cc daily.	
	2	500 – 1000cc daily.	
	3	Less than 500cc daily.	
G. Snacks/Supplements	0	Takes as offered.	
	1	Takes most of the time – greater than 50%.	
	2	Takes occasionally but less than 50%.	
	3	Refuses to take.	
H. Food Preferences	0	Few food dislikes.	
	1	Many food dislikes/complaints.	
	2	Specific food-related allergies/intolerances.	
	3	Limited access to culturally accepted foods.	
<i>Respond below based on the following types of medications: Chemotherapy, Steroids, Cardiac glycosides, Psychoactives, Diuretics, Antibiotics, overuse of Antacids or Laxatives.</i>			
I. Medications	0	None currently taken.	
	1	Takes 1 of these drugs.	
	2	Takes 2 of these drugs.	
	3	Takes 3 or more of these drugs.	

Long Term Care Malnutrition Risk Assessment - continued

J. Lab Values	0	Albumin 3.5 – 5.0, all other lab values normal.	
	1	Albumin 3.2 – 3.4; 1 – 2 other lab values abnormal.	
	2	Albumin 2.9 – 3.1; 3 – 5 other lab values abnormal.	
	3	Albumin <2.8; 5 or more other lab values abnormal.	
<i>Respond below based on the following list of diseases: Osteoporosis, Diabetes, COPD, Arthritis, Anemia, Cancer, Kidney disease, Malabsorption syndrome, Alcohol use, GI surgery, Prolonged nausea, Diarrhea, Vomiting, Depression.</i>			
K. Predisposing Conditions	1	1 present	
	2	2 – 3 present	
	3	4 or more present	
Total score of 10 or above represents HIGH RISK.			TOTAL SCORE:

Medication Review with Recommendations

Principles of Medication Management in Older Adults

- Assessment and evaluation of problem – make a diagnosis before prescribing.
- Select appropriate treatment – Carefully weigh the risks vs. benefits.
- Consider drug-drug and drug-disease interactions.
- Start low and go slow.
- Monitor for desired effect and outcome.
- Monitor for adverse effects, labwork, drug levels.
- Assess for ongoing need at each visit and eliminate medications no longer necessary.
- Simplify medication schedules to increase compliance.
- Suspect medication as etiology of any major change in status.
- Discuss the benefits of the medication and consequences of noncompliance.
- Inform the patient about potential reactions.

Compliance – Factors that reduce compliance:

- Multiple medications.
- Frequent dosing schedules.
- Complicated dosing instructions.
- Expensive medications.

“Unnecessary drug” is any drug when used:

- In excessive dose or duration (includes duplicate therapy).
- Without adequate monitoring.
- Without adequate indications for its use.
- In the presence of adverse consequences.
- Any combination of above.

Commonly Prescribed Drugs and the Risks Associated

Digoxin

- Adverse effects include: nausea/vomiting, anorexia, visual changes, cardiac arrhythmias and conduction disturbances.
- Vd is reduced because of decreased muscle mass.
- Clearance is delayed with decreased creatinine clearance.
- Low K⁺, Mg⁺ and high Ca⁺ all may potentiate digitalis toxicity.
- Use ECG to help identify toxicity, serum levels are not reliable.

Thiazides

- May cause low K⁺ and Na⁺ resulting in Delirium or Arrhythmias.
- In combination with K⁺ sparing diuretics or ACE inhibitors, it may lead to hyperkalemia.
- May increase carbohydrate intolerance and increase Uric Acid levels – exacerbates diabetes and gout.

Beta Blockers

- Decreased effect secondary to decrease receptor response.
- Claudication and high blood pressure may worsen because alpha receptors are left unopposed.
- Patients with diabetes may experience hypoglycemia because of blocking the gluconeogenesis and may impair the tachycardia response in hypoglycemia, leading to a delay in the recognition of an insulin reaction.

Calcium Channel Blockers

- Negative inotropic effect and delay AV conduction.
- Use cautiously in patients with CHF.
- Minor adverse effects are flushing, headache and peripheral edema.
- Usually well-tolerated but are costly.
- Use if can treat more than one problem with one drug (i.e., high blood pressure and coronary artery disease).

Neuroleptics

- Block neurotransmitters and receptors – Epinephrine, Dopamine, Alpha and Beta Receptors.
- May result in effects of hypotension, dry mouth, sedation, constipation, etc.
- Extrapyramidal symptoms are common.
- Decreasing dose or discontinuation should always be considered in patient taking neuroleptic meds.

Benzodiazepines

- 40% of prescriptions of benzodiazepines are for patients over 65 years old.
- Used if primarily for anxiety, insomnia or agitation.
- Often work well for sleep at first, but lose efficacy with chronic use.
- Some have active metabolites – Daizepam and Flurazepam.
- Long term treatment and long-acting formulations should be avoided.

NSAIDS

- Variable effects within this class.
- Most are used inappropriately for rheumatological problems that can be treated with Tylenol.
- Gastritis and occult bleeding are most common.
- First symptom is usually Upper GI hemorrhage.
- Also can have acute tubular necrosis and acute renal failure.
- May increase the serum concentration of Digoxin.
- May decrease effectiveness of B-Blockers and Thiazides.

H2-Blocker

- Competes for the P-450 enzymes – reduces metabolism of Warfarin, Phenytoin, Tegretol.
- Adverse effects include: headache, nausea/vomiting, dermatologic reaction, dizziness, rare anemias and leukopenias, cimetidine occasionally has reversible CNS disturbances.

Pressure Ulcer Risk Assessment with Preventative Recommendations

Risk Factors

- A. **Immobility** – (Sores very rare in ambulatory patients.) Limits ability to reposition. Examples: paralysis, fractures, Parkinson’s disease and physical restraints.
- B. **Sensory Deficit** – Limited ability to sense need to reposition. Examples: neuropathies, spinal cord lesions, stroke, coma or chemical restraints.
- C. **Malnutrition**
- D. **Incontinence** – bowel or bladder.
- E. **Thin Body Habitus** – more prone to develop pressure ulcers over bony prominences than obese or average-weight patients.
- F. **Depression** – more prone to self-neglect.
- G. **Age** – Thinner skin is less resistant to shear forces, diminished barrier function and decreased vascularity.

Long Term Care Pressure Ulcer Risk Assessment

Required Form

<i>Name:</i>		<i>Date:</i>	<i>Examiner:</i>
RISK FACTOR	POINTS	DESCRIPTION	SCORE
SENSORY PERCEPTION <i>Ability to respond meaningfully to pressure-related discomfort.</i>	1	Completely Limited: Unresponsive (does not moan, flinch or grasp) to painful stimuli, due to diminished level of consciousness or sedation OR limited ability to feel pain over most of body surface.	
	2	Very Limited: Responds only to painful stimuli. Cannot communicate discomfort except by moaning or restlessness. OR has a sensory impairment which limits the ability to feel pain or discomfort over 1/2 of body.	
	3	Slightly Limited: Responds well to verbal commands but cannot always communicate discomfort or need to be turned. OR has some sensory impairment limits ability to feel pain or discomfort in 1 or 2 extremities.	
	4	Impairment: Responds to verbal commands. Has no sensory deficit which would limit ability to feel or voice pain or discomfort.	
MOISTURE <i>Degree to which skin is exposed to moisture.</i>	1	Constantly Moist: Skin is dept moist almost constantly by perspiration, urine, etc. Dampness is detected every time patient is moved or turned.	
	2	Often Moist: Skin is often but not always moist. Linen must be changed at least once per shift.	
	3	Occasionally Moist: Skin is occasionally moist, requiring an extra linen change approximately once per day.	
	4	Rarely Moist: Skin is usually dry; linen only requires changing at routine intervals.	
ACTIVITY <i>Degree of physical activity.</i>	1	Bedfast: Confined to bed.	
	2	Chairfast: Ability to walk severely limited or nonexistent. Cannot bear own weight and/or must be assisted into chair/wheelchair.	
	3	Walks Occasionally: Walks occasionally during day but for very short distances, with or without assistance. Spends majority of each shift in bed or chair.	
	4	Walks Frequently: Walks outside the room at least twice a day and inside room at least once every 2 hours during waking hours.	
MOBILITY <i>Ability to change and control position body position</i>	1	Completely Immobile: Does not make even slight changes in body or extremity position with out assistance.	
	2	Very Limited: Makes occasional slight changes in body or extremity position but unable to make frequent or significant changes independently.	
	3	Slightly Limited: Makes frequent though slight changes in body or extremity position independently.	
	4	No Limitations: Makes major and frequent changes in position without assistance.	
NUTRITION <i>Usual food intake pattern:</i> <i>NPO¹: nothing by mouth</i> <i>IV²: intravenously</i> <i>TPN³: total parenteral nutrition</i>	1	Very Poor: never eats a complete meal; Rarely eats more than 1/3 of any food offered. Eats 2 servings or less of protein (meat or dairy products) per day. Takes fluids poorly. Does not take a liquid dietary supplement OR is NPO ¹ or IV ² for more than 5 days.	
	2	Probably Inadequate: Rarely eats a complete meal and generally eats only about 1/2 of any food offered. Protein intake includes only 3 servings of meat or dairy products per day. Occasionally will take dietary supplement OR receives less than optimum amount of liquid diet or tube feeding.	
	3	Adequate: Eats over half of most meals. Eats a total of 4 servings of protein (meat, dairy products) per day. Occasionally will refuse a meal but will usually take a supplement if offered. OR is on a tube feeding or TPN ³ regimen, which probably meets most of nutritional needs.	
	4	Excellent: Eats most of every meal. Never refuses a meal. Usually eats a total of 4 or more servings of meat and dairy products per day. Occasionally eats between meals. Does not require supplementation.	

Long Term Care Pressure Ulcer Risk Assessment

Continued

FRICITION & SHEAR	1	Problem: Requires moderate to maximum assistance in moving. Complete lifting without sliding against sheets is impossible. Frequently slides down in bed or chair requiring frequent repositioning with maximum assistance. Spasticity, contractures or agitation leads to almost constant friction.
	2	Potential Problem: Moves feebly or requires minimum assistance. During a move, skin probably slides to some extent against sheets, chair restraints or other devices. Maintains relatively good position in chair or bed most of the time but occasionally slides down.
	3	No Apparent Problem: Moves in bed and in chair independently and has sufficient muscle strength to life up completely during move. Maintains good position in bed or chair at all times.

HIGH RISK: Total Score < 12

MODERATE RISK: Total Score 13 – 14

LOW RISK: Total Score 15 – 16 if under 75 years of age;
18 if over 75 years of age

TOTAL SCORE:

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Pressure Ulcer Staging with Treatment Recommendations

Classification

National Pressure Ulcer Advisory Panel (NPUAP)/Agency for Health Care Policy and Research (AHCPR). Pressure ulcers are staged according to the degree of tissue damage observed.

- **STAGE I:** Nonblanchable erythema of intact skin: the heralding lesion of skin ulceration. In individuals with darker skin, discoloration of the skin, warmth, edema, induration or hardness may also be indicators.
- **STAGE II:** Partial-thickness skin loss involving epidermis or dermis, or both. The ulcer is superficial and presents clinically as an abrasion, blister or shallow crater.
- **STAGE III:** Full-thickness skin loss involving damage or necrosis of subcutaneous tissue, which may extend down to but not through underlying fascia. The ulcer present clinically as a deep crater with or without undermining of adjacent tissue.
- **STAGE IV:** Full-thickness skin loss with extensive destruction, tissue necrosis or damage to muscle, bone or supporting structures (such as tendon and joint capsule). Undermining and sinus tracts also may be associated with STAGE IV pressure ulcers.

Pressure Ulcer Staging with Treatment Recommendations

General Interventions

A. Principles of Wound Care

- Relieve pain
- Moist wound environment (dry skin, moist wound)
- Protect wound
- Remove necrotic debris
- Wound enhancers
- Deal with bacterial infections
- Maximize arterial flow (pressure ulcer is an ischemic injury)

B. Classification of Wound Care products and rational approach to their use

- Things that cover the wound to protect, provide moist environment
- Things that go in the wound for a specific purpose (absorb fluid, fill in dead space, tissue enhancer, debridement)

C. Wound Care products

- Gauze
- Impregnated gauze pads
- Transparent films
- Hydrogels
- Hydrocolloids
- Alginates
- Foams
- Wound fillers
- Composite dressings

D. Wound Care product cautions

- Gauze allows indiscriminate debridement
- Wet gauze will get other things wet and dries out
- Topical antibiotics and peroxide are cytotoxic

E. Debridement: methods, indications

- Surgical (sharp)
- Nonsurgical
 - Mechanical
 - Gauze, whirlpool, etc.
 - Autolytic
 - Enzymatic

Pressure Ulcer Staging with Treatment Recommendations

*Continued***F. Relieve Pressure**

- Minimizing pressure over an area with skin breakdown through turning and repositioning every 2 hours remains the foundation for treating pressure ulcers
- Trapeze apparatus: aids patient in self-repositioning
- Barrier dressings: Tegaderm, DuoDerm, OpCit, Tegaserb
- Standard cushioning: foam, pillows and heel protectors
- Mattresses: convoluted foam (egg crate), Ultra-form, Geo-Matt
- Alternating air-loss mattresses: Dyna-Care, Sof-Care
- Low air-loss mattresses: Micro-Air, Acucair
- Low air-loss bed: Flexicair, KinAir
- Air-fluidized beds: Clinitron, Fluid-Air

G. Remove necrotic debris (debridement)

- Mechanical debridement has been traditionally accomplished with a scalpel and forceps or with saline-soaked gauze allowed to dry before removal (wet-to-dry dressing)
- Precautions must be taken against debridement of healthy tissue which may increase both patient discomfort and risk of bacteremia
- Chemical debridement is available in the form of such products as: Grandulex and Elase which use proteolytic enzymes to accomplish removal of necrotic tissue. Care to preserve healthy tissue continue to be important.
- CO₂ laser vaporization debridement; costly.
- Gentler debridement may also be provided by whirlpool therapy and/or water propulsion devices.

H. Control local infection

- Systemic antibiotics should be avoided unless an abscess is likely or expanding cellulitis is present.
- The use of topical antiseptics such as H₂O₂, KCIO₂ (Dakin's Solution), acetic acid, povodine-iodine (Betadine) remains controversial because all include chemicals that destroy or inhibit the growth of fibroblasts in vitro. However, it must be noted that bacterial colonization also prevents the growth of fibroblasts in vitro and therefore wound healing.
- Many authors therefore still continue to endorse short-term use (4 to 5 days) of Betadine solution in wounds with purulent or odoriferous discharge.
- Many antibiotic ointments including: Bactroban, Silvadene and Flagyl are recommended by multiple authors. However, they are more expensive and no data yet support greater efficacy than povodine-iodine solution in short term use.

Pressure Ulcer Staging with Treatment Recommendations

*Continued***I. Promote granulation & protect healthy tissue**

- Removal of necrotic tissue must occur to promote granulation
- After infection control is established, a moist environment must be maintained which facilitates migration of fibroblasts and epithelial cells, and growth factors present in serous exudate
- Transparent semi-permeable dressing (Tegaderm, OpCit) and hydrocolloid dressings (Duoderm, Tegaserb) aid in trapping serous exudate and result in both better wound healing and reduction in bacterial counts
- Caution in packing deeper wounds with items such as copolymer starches, gels, salt-impregnated gauzes, and calcium alginates to guard against creating excessive internal pressure and damaging tissue
- Frequency of dressing changes can vary from the TID to every 2 or 3 days, depending upon wound discharge and the choice of dressing.

J. Address the patient's condition

- Optimal nutritional support: 35 to 40 kcal/kg/day for patients with severe pressure ulcers.
- Many authors endorse supplements of ascorbic acid and zinc, although little experimental data supports their use.
- Attempt to limit wound hindering components of co-morbidities; e.g. anemia, incontinence, etc.
- Utilize physical therapy when possible and appropriate.

K. Surgical Intervention

- There are no accepted criteria for deciding which patients to refer to a surgeon, nor have long term outcomes been published for older individuals who have undergone myocutaneous flaps.
- Basically, consult your surgeon and let him/her decide.
- No significant studies comparing costs of surgery and recovery with conservative long-term medical management have been documented to date.

Pressure Ulcer Staging with Treatment Recommendations*Continued*

L. Therapeutic Recommendations

- a. **Stage I and Stage II – Partial thickness wounds**
 - Wet saline dressing
 - Thin film polymer dressing
 - Hydrocolloid dressing

- b. **Stage III and Stage IV – Full thickness wounds**
 - With necrosis
 - Debridement surgical, autolytic, enzymatic
 - Wound enhancer²
 - With dead space/exudate
 - Pack with wet to wet gauze
 - Synthetic absorptive dressing

- c. **Identification and treatment of Associated Infection**
 - Sometimes it is difficult to determine whether cellulitis is present. Wound craters often have purulent debris. Local wound care, without antibiotics, is indicated for this type of wound. Cellulitis is identified by surrounding erythema induration and tenderness. Cellulitis should be treated with antibiotics.
 - Wound cultures seldom are indicated and only as a biopsy to treat cellulitis refractory to empiric antibiotics

Clinical Presentations, Causes and Treatments of Urinary Incontinence

TYPE	CAUSES	TREATMENTS
Stress	In women, urethral hypermobility or	<ul style="list-style-type: none"> ▪ Frequency toileting ▪ Pelvic muscle exercises (Kegel)

	<p>displacement of urethra and bladder during physical exercise.</p> <p>In women and men, intrinsic sphincter deficiency due to surgery or injury or sacral/infrapalmar cord lesions.</p>	<ul style="list-style-type: none"> ▪ Biofeedback/cones? ▪ Bladder retraining (scheduled toileting) ▪ Phenylpropanoamine 75 mg BID or TID ▪ Conjugated estrogen .625mg QD po Progesterone or estrogen .5 ▪ Surgical bladder neck suspension (women) ▪ Artificial sphincter implantation
Urge	<p>Detrusor over activity due to urologic disorders (prostatic hyperplasia, bladder tumor) – may be associated with impaired bladder contractility</p> <p>Detrusor over activity due to neurologic disorders (stroke, MS, Parkinson's, Supra-spinal cord lesions)</p> <p>Poor bladder compliance (radiation cystitis)</p> <p>Hypersensitive bladder (unknown etiology)</p>	<ul style="list-style-type: none"> ▪ Treat infection, if present ▪ Minimize aggravating factors: <ul style="list-style-type: none"> ○ Caffeine, ETOH, diuretics, hyperglycemia ▪ Estrogen (postmenopausal women) ▪ Treat BPH in men ▪ Smooth muscle relaxants ▪ Urge incontinence associated with non-infectious hematuria warrants cystoscopy ▪ Bladder retraining (scheduled toileting) ▪ Pelvic muscle exercises (Kegel) ▪ Biofeedback ▪ Oxybutynin 2.5-5mg BID or TID (smooth muscle relaxation). N ▪ Detrol 1-2mg BID ▪ Imipramine 25-50 mg BID or TID ▪ Anticholinergics ▪ Surgical removal of lesion
Overflow	<p>Outflow obstruction (enlarged prostate, stricture or prolapsed cystocele)</p> <p>Acontractile bladder (idiopathic, diabetic neuropathy, low spinal cord injury)</p>	<ul style="list-style-type: none"> ▪ Look for and discontinue any medications which may have caused it ▪ Cystoscopy is usually necessary, and may be therapeutic if stricture present ▪ Doxazosin 1-4mg hs, other alpha-antagonists ▪ Surgical correction of obstruction ▪ Intermittent or choice catheter drainage
Functional	<p>Dementia or delirium</p> <p>Physical functional impairment (e.g., illness, mobility disorders)</p> <p>Environmental barriers (e.g. restraints)</p> <p>Psychological (e.g. depression, anger)</p>	<ul style="list-style-type: none"> ▪ Treat reversible antecedents ▪ Frequent, prompted voiding ▪ Fluid schedule ▪ Bedside commode or urinal ▪ Catheters ▪ Exercise program with prompted voiding ▪ Environmental manipulation ▪ Absorbent pads and cloths ▪ External collection devices