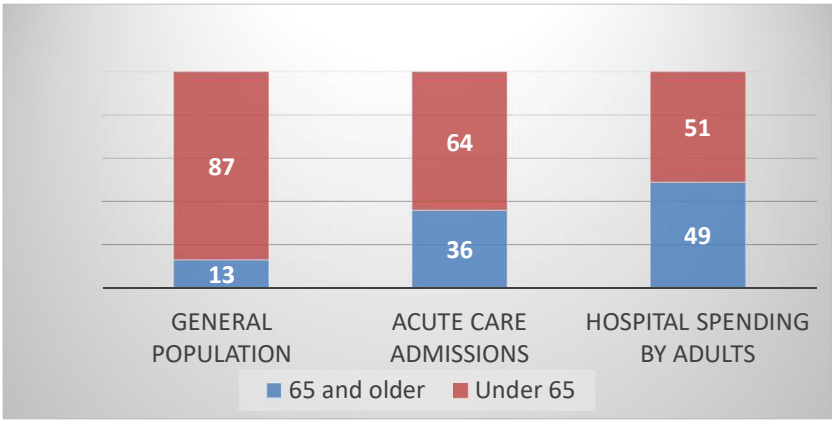
Successful Hospitalizations: Tips and Tricks for the Older Adult

Priscilla Yee, MD
Geriatrician
Hospitalist

DISPROPORTIONATE NEED FOR HOSPITAL CARE OF OLDER ADULTS

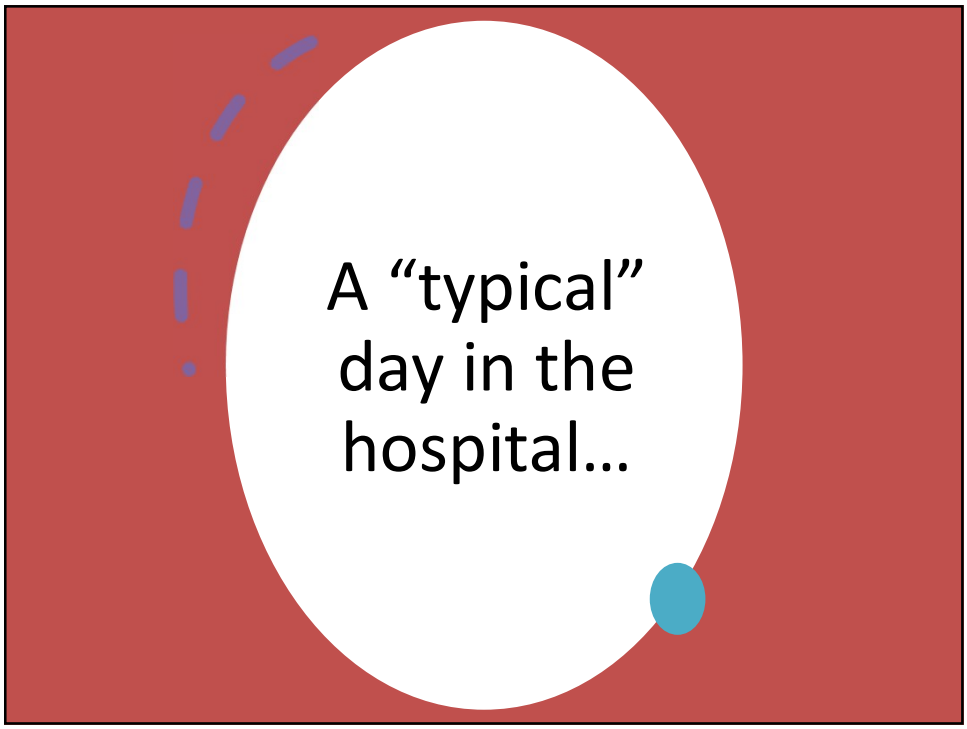


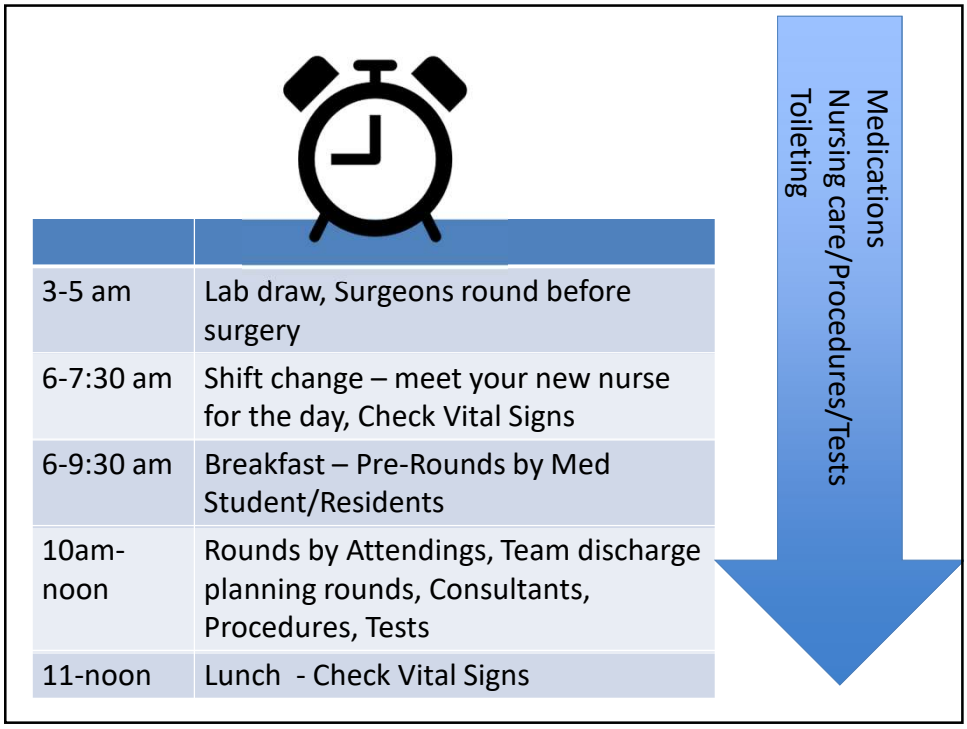
OBJECTIVES

- Highlight common Geriatric problems related to hospitalizations
- Provide tips and tricks to help achieve better outcomes for older hospitalized adults

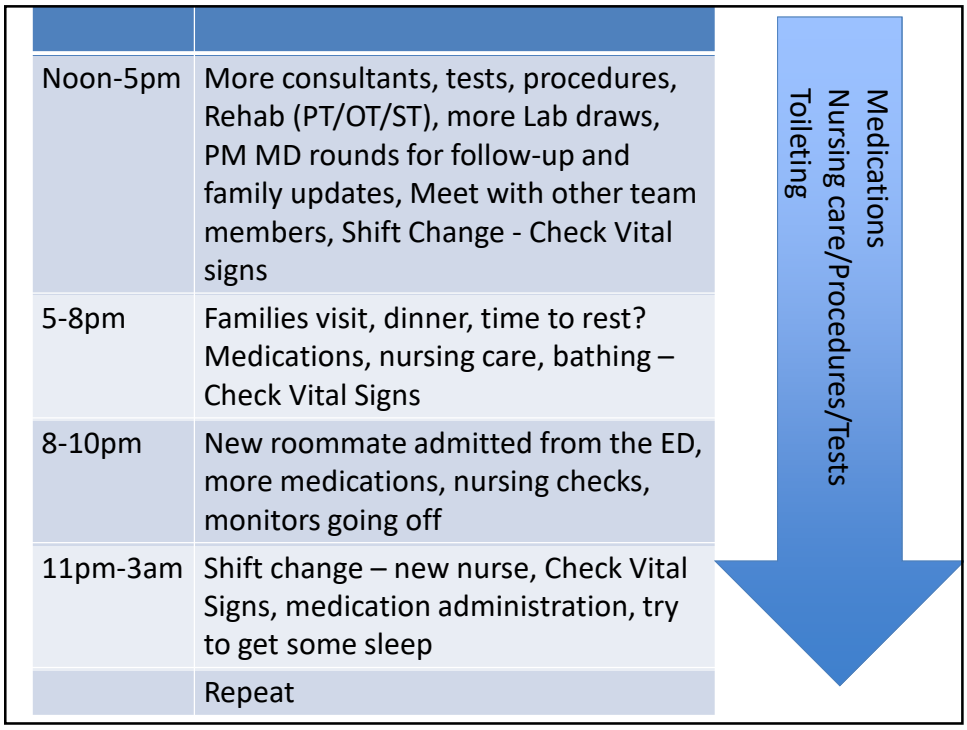
Describe a "typical" day in your life…

6-8 am (depending)	Wake up, eat breakfast, drink coffee, watch political morning news program of choice on the iPad
8-9 am	Meet up with friend for a walk and daily gossip; Social rounds with people in the neighborhood
10 am	Activity of the day – monthly field trip with other active older adults, tai chi, yoga class, Mah Jong, or gardening
Noon	Lunch at home or out with friends
1-3 pm	Nap, errands, think about what to cook for dinner, bake a loaf of sourdough bread
4-5 pm	Cook dinner, pack up and head on over to see the grandkids
6-8 pm	Dinner and playtime with grandkids
8 pm-10 pm (or whenever)	Wind down, read, listen to spouse snore softly while watching TV





3-5 am	Lab draw, Surgeons round before surgery
6-7:30 am	Shift change – meet your new nurse for the day, Check Vital Signs
6-9:30 am	Breakfast – Pre-Rounds by Med Student/Residents
10am-noon	Rounds by Attendings, Team discharge planning rounds, Consultants, Procedures, Tests
11-noon	Lunch - Check Vital Signs



Noon-5pm	More consultants, tests, procedures, Rehab (PT/OT/ST), more Lab draws, PM MD rounds for follow-up and family updates, Meet with other team members, Shift Change - Check Vital signs
5-8pm	Families visit, dinner, time to rest? Medications, nursing care, bathing – Check Vital Signs
8-10pm	New roommate admitted from the ED, more medications, nursing checks, monitors going off
11pm-3am	Shift change – new nurse, Check Vital Signs, medication administration, try to get some sleep
	Repeat

Hospitalization-Associated Disability

"She Was Probably Able to Ambulate, but I'm Not Sure"

Kenneth E. Covinsky, MD, MPH
Edgar Pierluissi, MD
C. Bree Johnston, MD, MPH

In older patients, acute medical illness that requires hospitalization is a sentinel event that often precipitates disability. This results in the subsequent inability to live independently and complete basic activities of daily living (ADLs). This hospitalization-associated disability occurs in approximately one-third of patients older than 70 years of age and may be triggered even when the illness that necessitated the hospitalization is successfully treated.

THE PATIENT'S STORY

Ms N is a 70-year-old woman admitted to the medical service of an urban public hospital. She reported experiencing left labial pain and hematuria for 3 days. In the emergency department, she was in acute renal failure (serum

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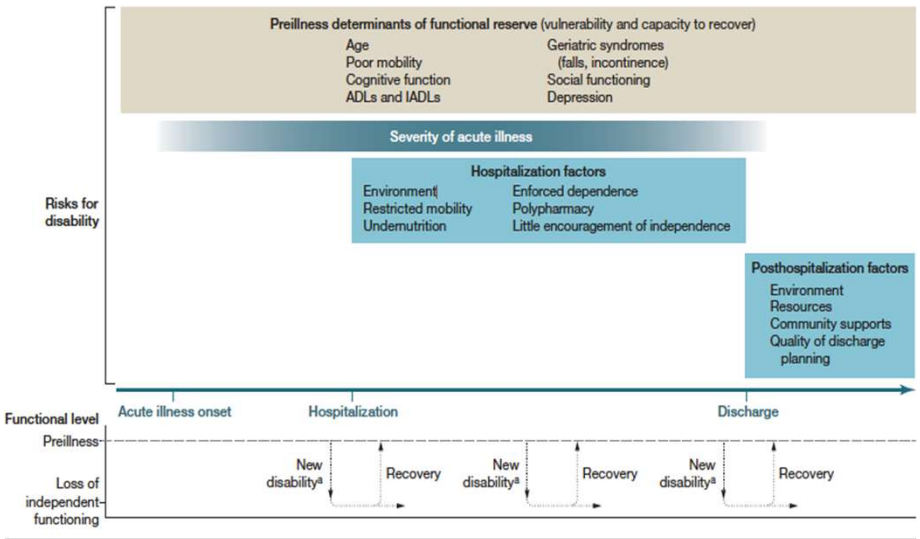
Hospital Associated Disability



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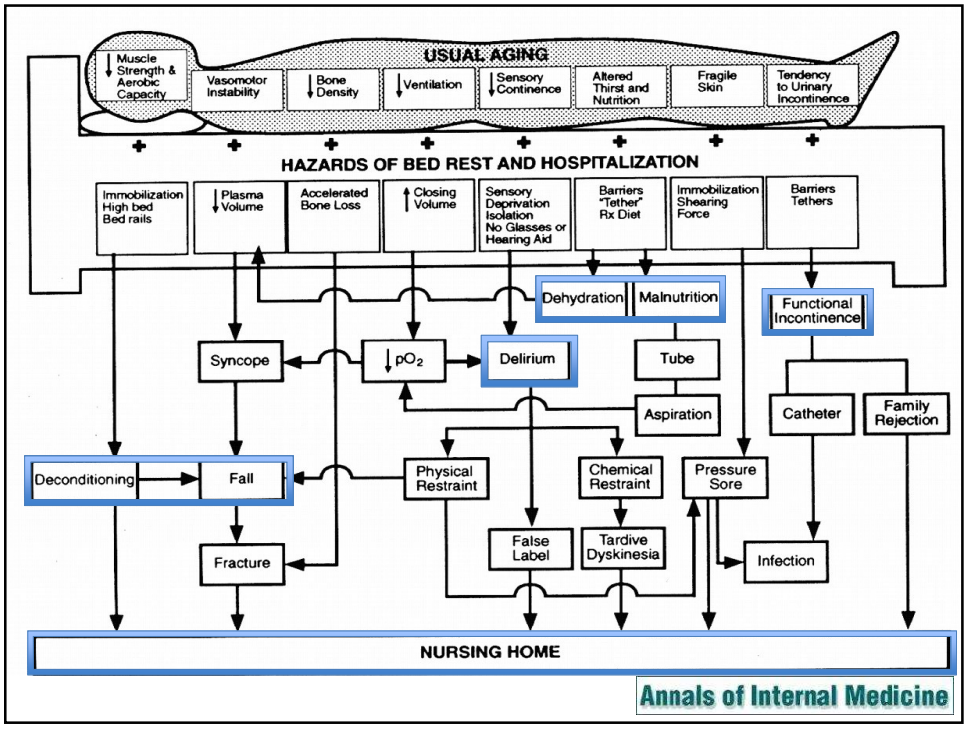


Common Geriatric Syndromes:

Falls	**Urinary Incontinence**	**Dementia**	**Delirium**
Sensory Impairment	Weight Loss / Nutrition	Functional Impairment	**Polypharmacy**
Depression / Isolation	Frailty	Pressure Injury	Sleep disorders

Opportunities for Intervention during Hospital Stay:

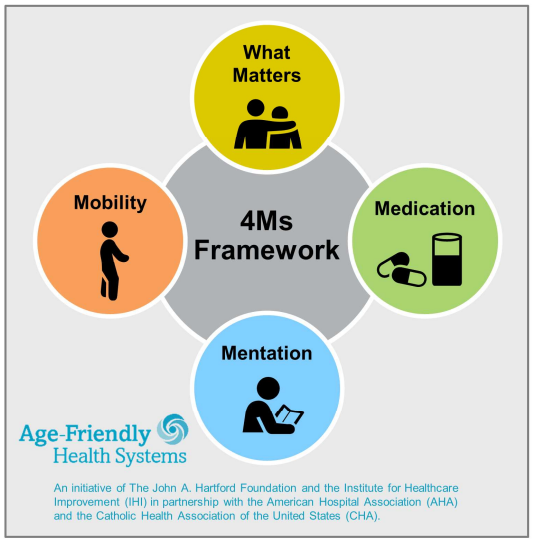
Optimal care of older adults in the hospital requires systematically managing the acute problems and their effects on Geriatric Syndromes

Comprehensive Geriatric Assessment:

- Functional Status – ADLs, IADLs, mobility
- History of Falls
- Urinary/Fecal Continence
- Cognitive status
- Mood Disorders
- Pain
- Sensory deficits (vision/hearing difficulties)
- Medication Review – Polypharmacy
- Social situation, financial support
- Goals of Care / Advance Care Planning

Comprehensive Geriatric Assessment

- Reduces the risks, and consequences, of common hazards of hospitalization:
  - Deteriorating functional status
  - Adverse drug reactions
- Includes the evaluation of function at the level of the organ system, the whole person, and the person's environment
- Can identify need for targeted interventions

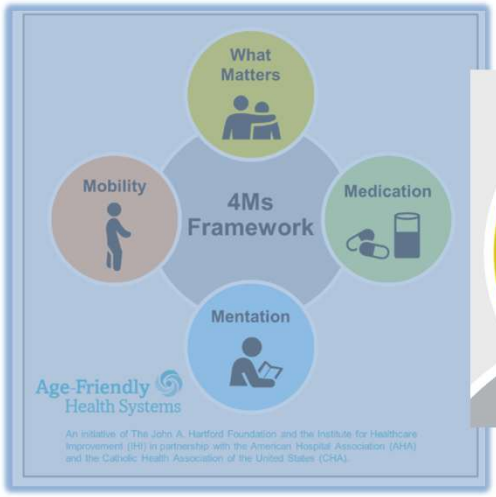


What Matters
Know and align care with each older adult's specific health outcome goals and care preferences including, but not limited to, end-of-life care, and across settings of care.

Medication
If medication is necessary, use Age-Friendly medication that does not interfere with What Matters to the older adult, Mobility, or Mentation across settings of care.

Mentation
Prevent, identify, treat, and manage dementia, depression, and delirium across settings of care.

Mobility
Ensure that older adults move safely every day in order to maintain function and do What Matters.



Tip #1:

Share your goals and priorities DAILY and often...

Share What Matters Most to you with your health care team –

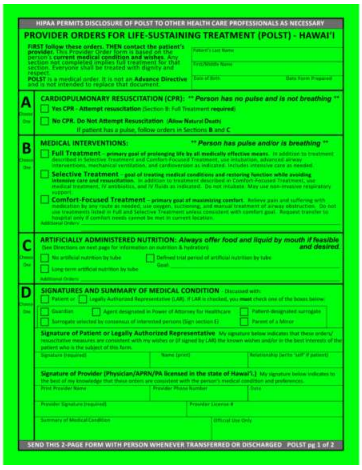
"What is the most important thing we can help you with today? What is your goal for today? "

"Today I'd like to get my pain under control so I can try going for a walk."

Engage family/care partners with your goals and values.

Tip #2:

Bring copies of legal documents that reflect your wishes...



HIPAA PERMITS DISCLOSURE OF POLST TO OTHER HEALTH CARE PROFESSIONALS AS NECESSARY

PROVIDER ORDERS FOR LIFE-SUSTAINING TREATMENT (POLST) - HAWAI'I

FIRST follow these orders, THEN contact the patient's physician, advanced practice registered nurse. Patient's current medical condition and wishes. Any section not completed implies full treatment for that section. Everyone shall be treated with dignity and respect.

POLST is a medical order. It is not an Advance Directive and is not intended to replace that document.

Patient's Last Name | First/Middle Name | Date of Birth | Date Form Prepared

A CARDIOPULMONARY RESUSCITATION (CPR): *** Person has no pulse and is not breathing ***

☐ Yes CPR - Attempt resuscitation (Section B Full Treatment required)

☐ No CPR. Do Not Attempt Resuscitation (Allow Natural Death)

If patient has a pulse, follow orders in Sections B and C

B MEDICAL INTERVENTIONS: *** Person has pulse and/or is breathing ***

☐ Full Treatment - primary goal of prolonging life by all medically effective means. In addition to treatment described in Selective Treatment and Comfort-Focused Treatment, use intubation, advanced airway interventions, mechanical ventilation, and cardioversion as indicated. Includes intensive care as needed.

☐ Selective Treatment - goal of treating medical conditions and restoring function while avoiding intensive care and resuscitation. In addition to treatment described in Comfort-Focused Treatment, use medical treatment, antibiotics, and IV fluids as indicated. Do not intubate. May use non-invasive respiratory support.

☐ Comfort-Focused Treatment - primary goal of maximizing comfort. Relieve pain and suffering with medication by any route as needed, use oxygen, suctioning, and manual treatment of airway obstruction. Do not use treatments listed in Full and Selective Treatment unless consistent with comfort goal. Request transfer to hospital only if comfort needs cannot be met in current location.

Additional Orders:

C ARTIFICIALLY ADMINISTERED NUTRITION: *Always offer food and liquid by mouth if feasible and desired.*

(See Directions on next page for information on nutrition & hydration)

☐ No artificial nutrition by tube ☐ Defined trial period of artificial nutrition by tube

☐ Long-term artificial nutrition by tube Goal:

Additional Orders:

D SIGNATURES AND SUMMARY OF MEDICAL CONDITION - Discussed with:

☐ Patient or ☐ Legally Authorized Representative (LAR). If LAR is checked, you must check one of the boxes below.

☐ Guardian ☐ Agent designated in Power of Attorney for Healthcare ☐ Patient-designated surrogate

☐ Surrogate selected by consensus of interested persons (Sign section E) ☐ Parent of a Minor

Signature of Patient or Legally Authorized Representative My signature below indicates that these orders/ Healthcare treatments are consistent with my wishes or (if signed by LAR) the known wishes and/or in the best interests of the patient who is the subject of this form.

Signature (required) | Name (print) | Relationship (write "self" if patient)

Signature of Provider (Physician/APRN/PA licensed in the state of Hawai'i.) My signature below indicates to the best of my knowledge that these orders are consistent with the patient's medical condition and preferences.

Print Provider Name | Provider Phone Number | Date

Provider Signature (required) | Provider License #

Summary of Medical Condition | Official Use Only

SEND THIS 2-PAGE FORM WITH PERSON WHENEVER TRANSFERRED OR DISCHARGED POLST pg 1 of 2

HAWAIʻI ADVANCE HEALTH CARE DIRECTIVE

My name is: _____

Last | First | Middle initial | Date of Birth | Date

PART 1: HEALTH CARE POWER OF ATTORNEY – DESIGNATION OF AGENT:

I designate the following individual as my agent to make health care decisions for me:

Name and relationship of individual designated as health care agent

Street Address | City | State | Zip

Home Phone | Cell Phone | E-mail

If I revoke my agent's authority or if my agent is not willing, able, or reasonably available to make decisions for me, I designate the following individual as my alternate agent:

Name and relationship of individual designated as health care agent

Street Address | City | State | Zip

Home Phone | Cell Phone | E-mail

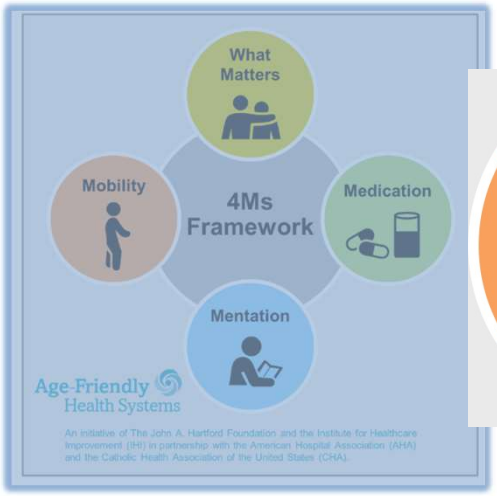
AGENT'S AUTHORITY AND OBLIGATION:

My healthcare agent should make decisions as I have instructed in Part 2 of this form or as I may otherwise provide orally or in writing. If there are decisions for which I have not provided instructions, I want my agent to make such decisions as I would have chosen to do, basing them on my values, goals, and preferences rather than those of my agent. If a guardian of my person needs to be appointed for me by a court, I nominate my agent.

WHEN AGENT'S AUTHORITY BECOMES EFFECTIVE:

My agent's authority becomes effective when my primary physician determines that I am unable to make my own health care decisions unless I mark the following box.

__ ☐ If I mark this box, my agent's authority to make health care decisions for me takes effect immediately. However, I always retain the right to make my own decisions about my health care. I can revoke this authority at any time as long as I have mental capacity.



JAMA. 2007 Apr 25;297(16):1772-4. doi: 10.1001/jama.297.16.1772-b.

Effect of 10 days of bed rest on skeletal muscle in healthy older adults

Patrick Kortebein, Arny Ferrando, Juan Lombeida, Robert Wolfe, William J Evans

PMID: 17456818 DOI: 10.1001/jama.297.16.1772-b

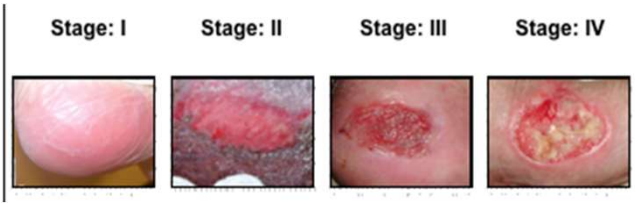
Table. Effects of 10 Days of Bed Rest in Older Adults

	No. of Participants (N = 12)*	Mean (95% Confidence Interval)			P Value
		Bed Rest			
		Before	After	Change	
Muscle fractional synthetic rate, % per h†	10	0.077 (0.059 to 0.095)	0.051 (0.035 to 0.067)	−0.027 (−0.007 to −0.047)	.02
% Change				−30.0 (−7.0 to −54.0)	
DEXA lean mass, kg‡	10				
Whole body		48.05 (40.61 to 55.49)	46.51 (39.57 to 53.45)	−1.50 (−0.62 to −2.48)	.004
% Change				−3.2 (−1.4 to −5.0)	
Lower Extremity		15.01 (12.41 to 17.61)	14.06 (11.85 to 16.27)	−0.95 (−0.42 to −1.48)	.003
% Change				−6.3 (−3.1 to −9.5)	
Isokinetic muscle strength, Nm per s§	11	120 (96 to 145)	101 (81 to 121)	−19 (−11 to −30)	.001
% Change				−15.6 (−8.0 to −23.1)	

Abbreviation: DEXA, dual-energy x-ray absorptiometry; Nm, Newton meter.
*One participant was excluded from all analyses because of insufficient protein intake.
†Because of a technical error, the muscle fractional synthesis rate measurement was excluded for 1 participant.
‡One participant was excluded from the DEXA analysis because the scan before bed rest was not administered.
§Isokinetic knee extension at 60° per second.

Mobilization Prevents PRESSURE INJURY (Bedsores)

- Incidence of hospital acquired pressure injury: 7–9%; 60% acquired in acute care setting
- Preventive interventions: daily skin inspection, specialized foam or sheepskin overlay, dynamic support mattress, frequent repositioning, attention to nutrition, skin moisturizer



Functional Impairment

- Nearly 50% of new-onset disability in frail older adults is attributable to a hospitalization ☹
- Risk factors for new-onset, hospitalization-associated disability in hospitalized elders ≥ 70 years in validated clinical index:
  - Age, baseline IADL dependencies, mobility 2 weeks pre-admission, metastatic cancer or stroke, albumin < 3.0 g/dL
  - Higher scores predicted more severe disability, greater likelihood of nursing home placement, and worse survival

Functional Impairments

- ~15% of patients ≥70 years old decline during hospitalization in ability to perform ADLs
- Another 23% leave the hospital without recovering pre-hospitalization abilities
- 15% of those admitted from home are discharged to a nursing home ☹
- **Optimal hospital care includes promotion or maintenance of independent functioning – Encourage and Support ADLs**

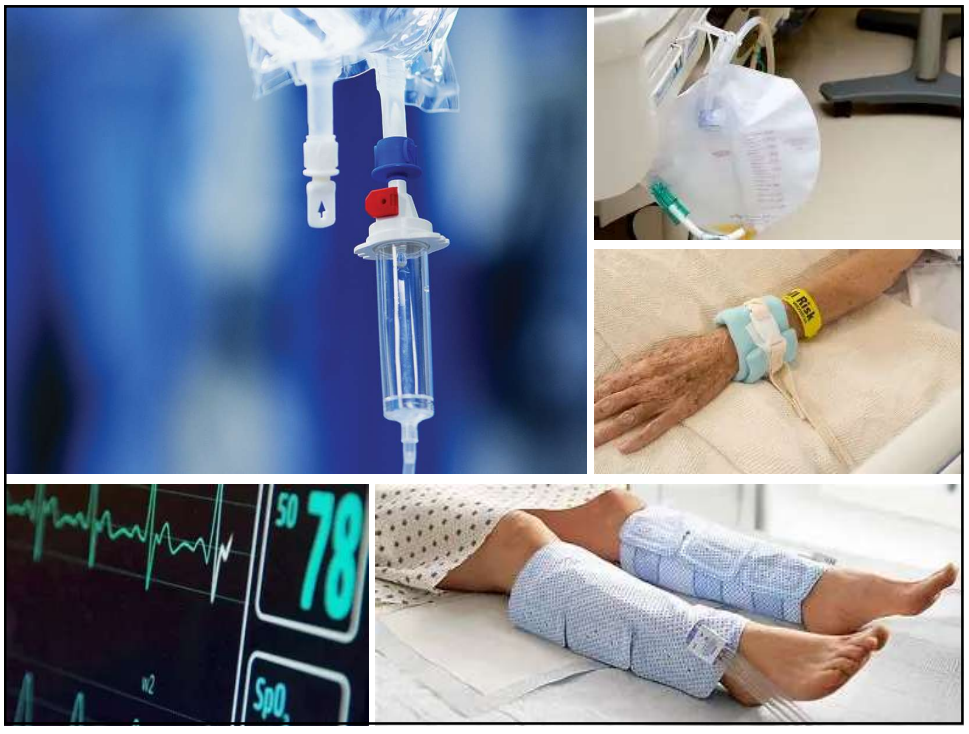
Tip #3:
Set goals for mobility & Get out of Bed!

- **Up in a chair for all meals**

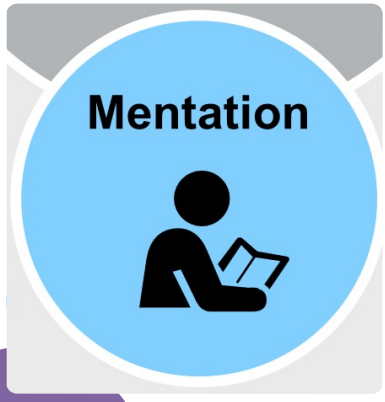
- **Walk at least 3 times daily**

- **Ask the team for help if you need to prevent falls. If you feel weaker, ask to see Physical Therapy**

- **Minimize the use of "tethers"**

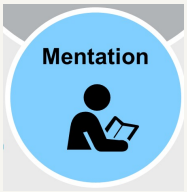


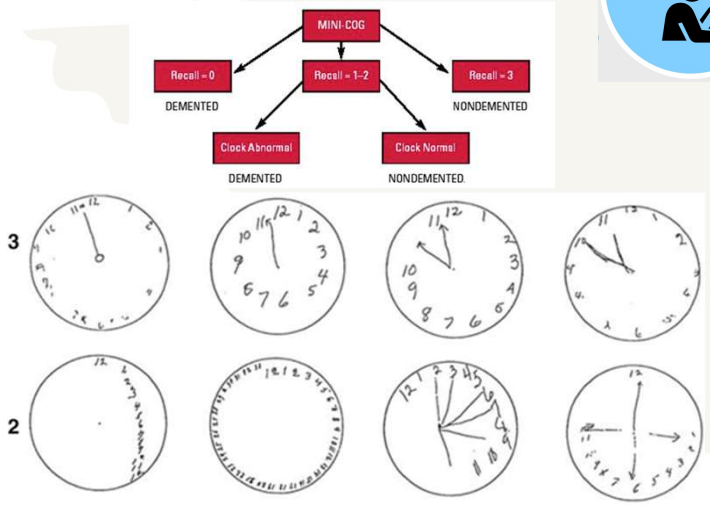
COGNITIVE IMPAIRMENT



- Hospitalization rate of older persons with dementia **3×** that of those who are cognitively intact
- Require more nursing care, have longer hospitalizations, and are more likely to develop delirium
- Cognitive impairment is a risk factor for delirium, falls, use of restraints, therapy non-adherence, and feeding tube placement

Mini-Cog



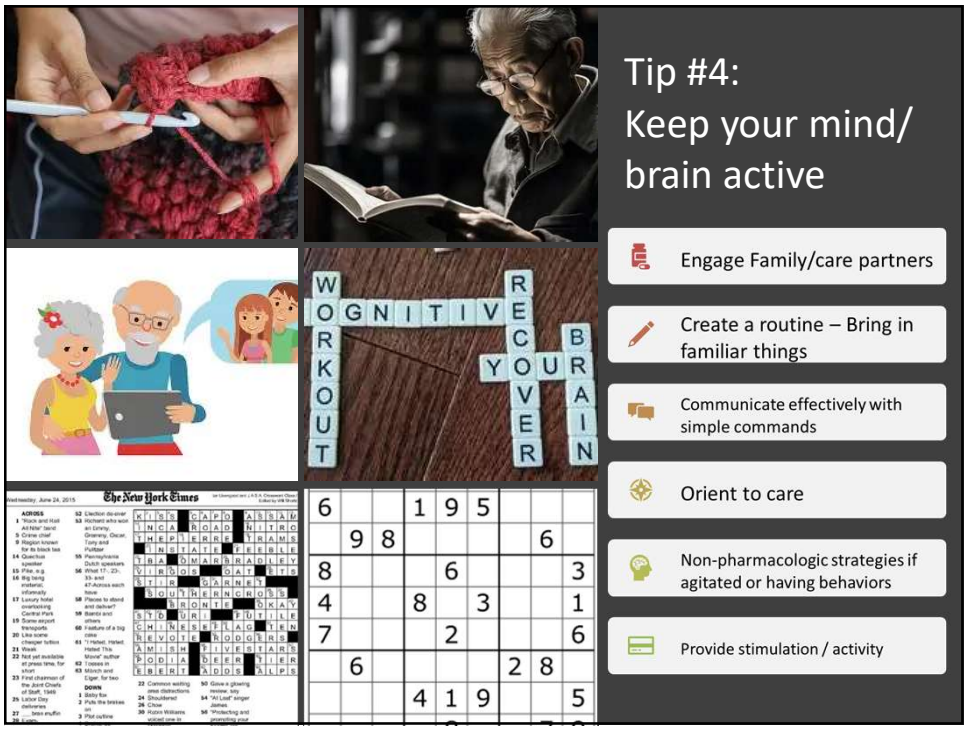


Borson S. The mini-cog: a cognitive "vitals signs" measure for dementia screening in multi-lingual elderly. Int J Geriatr Psychiatry 2000; 15(11):1021.

Tip # 4:
Stimulate and Activate the Brain

Especially if the patient has cognitive impairment

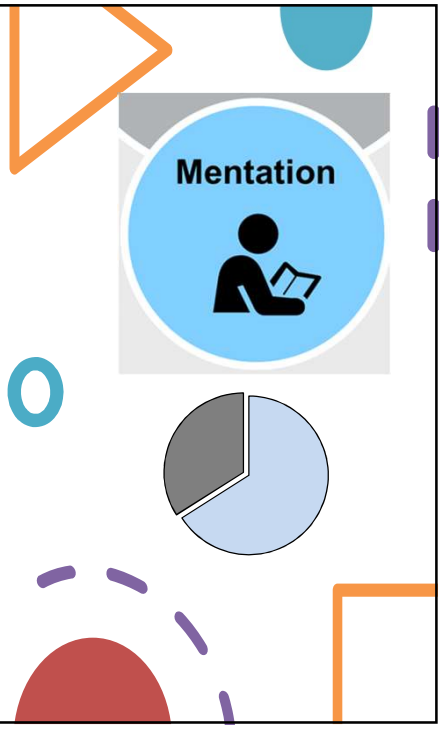
- Engage Family/care partners
- Create a routine – Bring in familiar things
- Communicate effectively with simple commands
- Orient to care
- Non-pharmacologic strategies if agitated or having behaviors
- Provide stimulation / activity



Engage family and care partners

DEPRESSION

- Major or minor depression occurs in ~33% of hospitalized patients ≥65 years but is often undiagnosed
- Depression is associated with increased risk of dependence in ADLs, increased risk of nursing-home placement, and shorter survival



DEPRESSION cont..

- **Patients may be asked if they feel down, depressed, or hopeless, or whether they have lost interest or pleasure in doing things**
- A positive response can be followed up by a formal assessment for an affective disorder
- Psychotherapeutic interventions are often effective in initial management – ie. Cognitive therapy

Tip #5: Acknowledge if you are feeling depressed. Untreated depression can have a negative impact on your overall recovery.

Geriatric Depression Scale (short form)

Instructions: Circle the answer that best describes how you 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 things?	yes	no
10. Do you feel that you have more problems with memory than most?	yes	no
11. Do you think it is wonderful to be alive now?	yes	no
12. Do you feel 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 Score _____

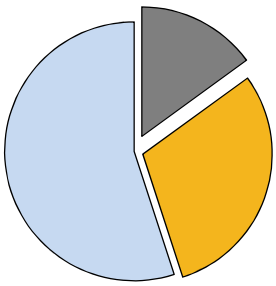
DELIRIUM

ACUTE and fluctuating disturbance in attention, awareness, cognition, and overall mental state that can develop rapidly over hours or days

Predictor of prolonged hospital stay if it arises during hospitalization

Associated with in-hospital death and nursing-home placement

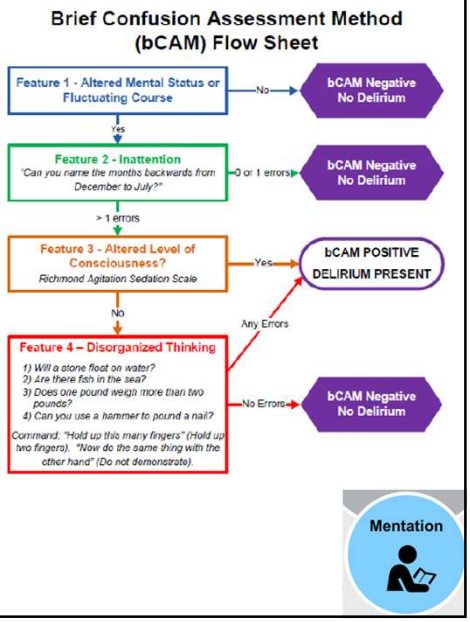
Present in 10-15% of older adults on admission



Develops in 15% of older adults during hospital stay

Screening / Assessments for Delirium

- Confusion Assessment Method (CAM)
- UB2
- NuDESC (**NURSING** Delirium Screening Scale)
- 4AT
- Much, much more!



HOSPITAL ELDER LIFE PROGRAM

A multi-component intervention to prevent delirium

Consists of protocols to manage **6 risk factors** for delirium:

- Cognitive impairment
- Sleep
- Immobility
- Visual impairment
- Hearing impairment
- Dehydration

In a prospective controlled study, the incidence of delirium was reduced by one third, from 15.0% to 9.9%

Incident delirium can be reduced by 1/3 by managing:

1) Cognitive impairment

2) Sleep Deprivation

3) Immobility

SLEEP DISTURBANCE

- >1/3 of hospitalized older patients experience sleep difficulty in the hospital
- Intrinsic (drug withdrawal, medical illness) and extrinsic (noise, processes-of-care) factors
- Sedatives/sleep aids provide a poor benefit-to-harm ratio
  - Number needed to treat = 13
  - Number needed to harm = 6
- Nonpharmacologic protocols can be effective

Tip #6: Pack your glasses, dentures, and hearing aids to help prevent delirium.

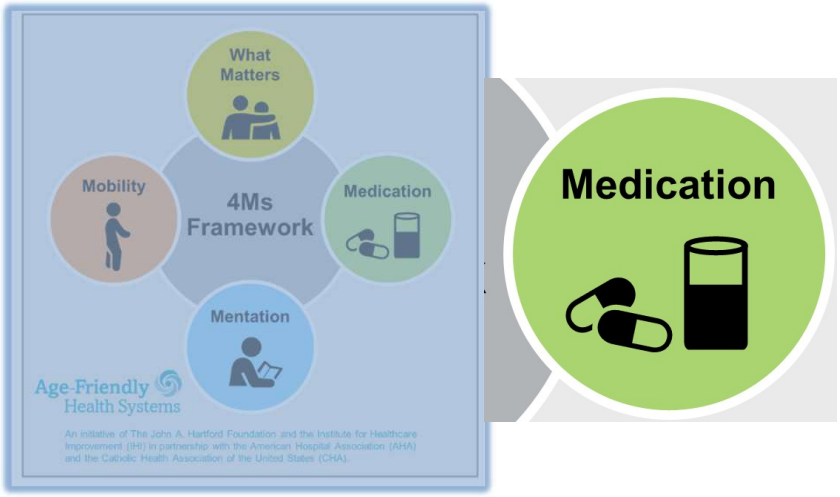
NUTRITION

- On admission:
  - Severe protein-calorie malnutrition is present in approximately 15% of patients ≥70 years
  - Moderate malnutrition is present in another 25%
- 25% of older patients suffer further nutritional depletion during hospitalization
- Malnutrition is associated with increased risk of death, dependence, and institutionalization

NUTRITION

- Factors that affect nutrition include:
  - Difficulty with chewing and/or swallowing
  - Insufficient time or encouragement to eat
  - Medications that impair appetite
  - Difficult access to food
  - Consistency of food

Tip #7: Meet with the hospital dietitian. Consider supplements, honor food preferences, liberalize diet if feasible. Eat small frequent meals.



Tip #8:

Bring an accurate list of ALL your medications

- Regularly scheduled
- As needed
- Vitamins/Supplements

ADVERSE DRUG EVENTS (ADE)

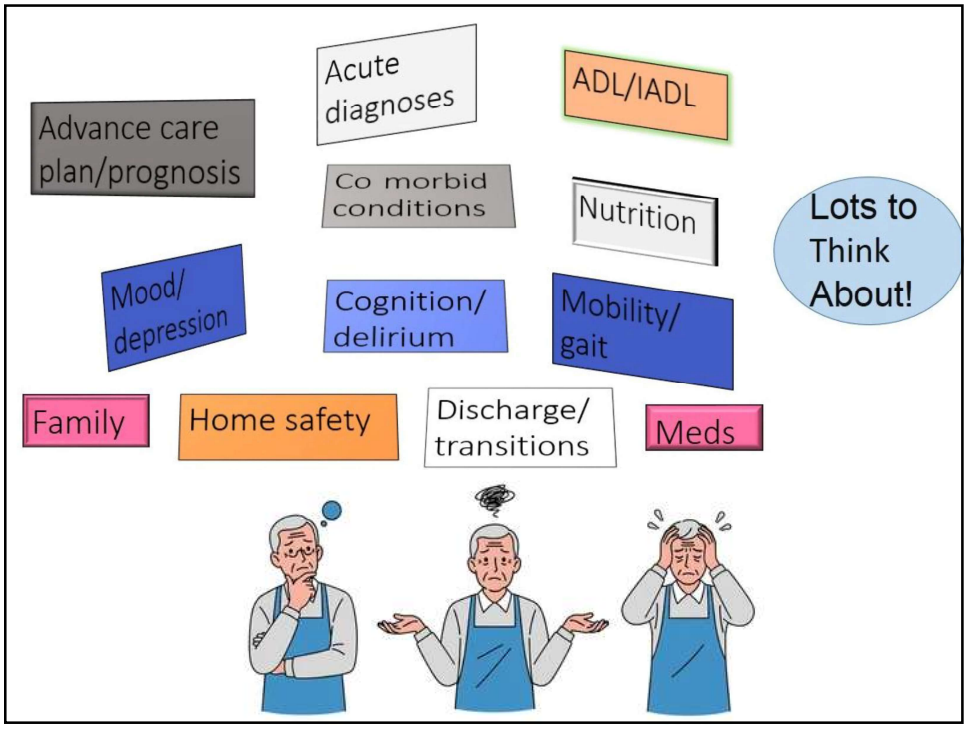
- In-hospital incidence of ADE is 6.7%
- A risk index predicts ADE in hospitalized older adults using the following factors:

Number of drugs	History of adverse drug reactions
Liver disease	≥4 conditions
Heart Failure	Renal failure

Start low, & go SLOW

"Doctor, he seems more confused or drowsy after I gave him the medication.."

➢ Consider side-effects that medications may have on mentation, mobility



The Acute Care for Elders (ACE) Mission:

- Prevent disability by promoting mobility and independence
- Prevent delirium
- Address geriatric syndromes

1338 THE NEW ENGLAND JOURNAL OF MEDICINE May 18, 1995

SPECIAL ARTICLES

A RANDOMIZED TRIAL OF CARE IN A HOSPITAL MEDICAL UNIT ESPECIALLY DESIGNED TO IMPROVE THE FUNCTIONAL OUTCOMES OF ACUTELY ILL OLDER PATIENTS

C. Seth Landefeld, M.D., Robert M. Palmer, M.D., Denise M. Kresevic, M.S.N., Richard H. Fortinsky, Ph.D., and Jerome Kowal, M.D.

Improved Functional Status

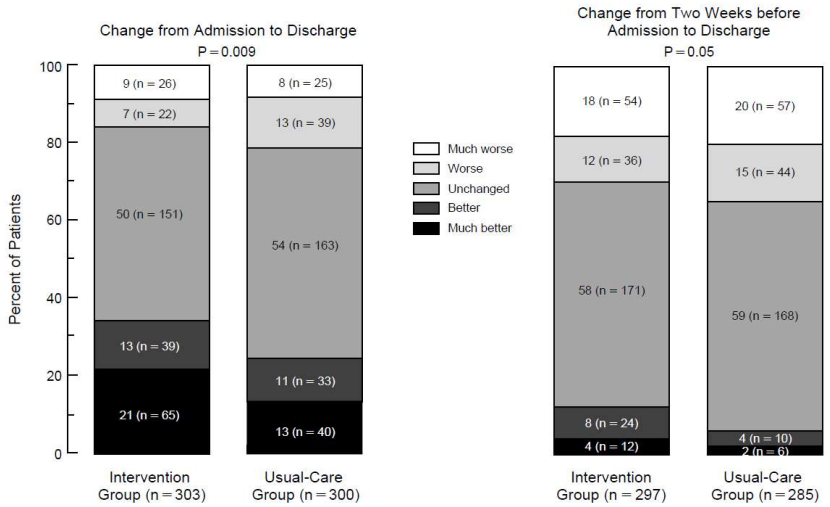
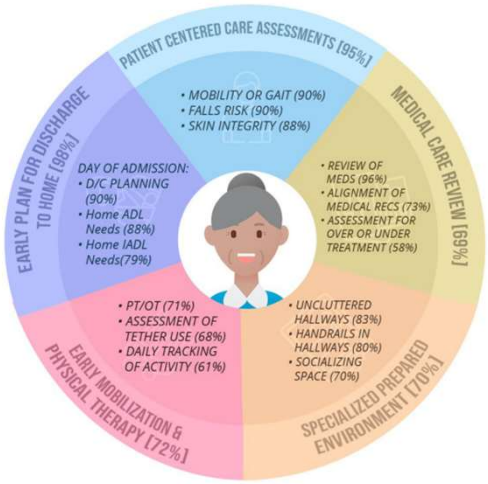


Figure 1. Change in Patients' Ability to Perform Basic Activities of Daily Living from Admission to Discharge and from Two Weeks before Admission to Discharge, According to Treatment Group.

Landefeld et al. "A Randomized Trial of care in a hospital Medical unit especially designed to improve the functional outcomes of Acutely Ill Older Patients". NEJM Vol 332:20. May 18,1995.

ACE UNIT MODEL OF CARE

- Help acutely ill older patients achieve or maintain independence in ADLs
- In randomized trials, improved ADL function at end of hospitalization; increased patient, family, and clinician satisfaction; and reduced costs
- As of 2022, only 43 active ACE units were identified in the United States



Rogers SE, Flood KL, Kuang QY, Harrison JD, Malone ML, Cremer J, Palmer RM. The current landscape of Acute Care for Elders units in the United States. J Am Geriatr Soc. 2022 Oct;70(10):3012-3020. doi: 10.1111/jgs.17892. Epub 2022 Jun 6. PMID: 35666631; PMCID: PMC9588489.

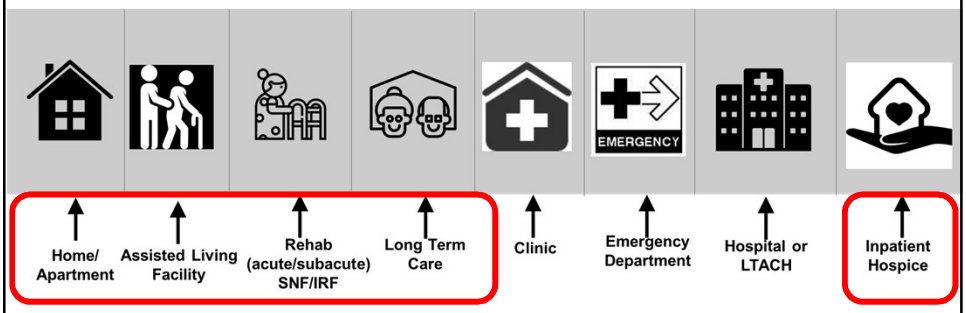
"HOME HOSPITAL" CARE

- Has been demonstrated to be safe and feasible for some acutely ill older people who would otherwise have been hospitalized
- Common features are the provision of care by a multidisciplinary team, availability of 24-hour coverage, and a safe home environment, intensive resources that are not yet widely available

TRANSITIONS FROM THE HOSPITAL

- Aim to maximize the chance that patients will maintain the benefits of hospitalization
- Can reduce the risk of early readmission and the use of emergency services
- **Ideally begin at admission**, with a projection of medical, nursing, rehabilitative, and functional support required at the time of discharge

What are the options?



TRANSITION HOME

- **Tip #9:** Make sure you or your caregiver are informed of:
  - Follow-up appointments
  - Warning symptoms or signs to watch for, with instructions on whom to contact
  - Instructions
    - Wound care, medications, etc.
  - Home care services (eg, RN, PT/OT, SW)
  - Reconciled medication list –
    - What to continue, stop, change

TRANSITION TO ANOTHER INSTITUTION

- Sometimes, you might need a little more time to recover….
  - Continued Physical, Occupational, Speech Therapy needs
  - IV medications
  - Wound Care
  - Needing more help with ADLs than able to provide at home
  - Close monitoring and supervision in a supportive environment
- **Tip #10:** Talk with your family about what you would want. Work with the healthcare team to create a plan centered around

Mahalo

? Questions ?
Discussion