

#### Age-Friendly Health Systems and the 4 Ms Kamal Masaki, MD Department of Geriatric Medicine John A. Burns School of Medicine University of Hawaii June 24, 2021

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CATHOLIC CHARITIES HAWAI'I CIRCLE OF CARE FOR DEMENTIA





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# Learning Objectives

- Understand about population aging and that older adults have unique needs
- Learn the concept of age-friendly health systems
- Know the 4 Ms:
  - What <u>Matters</u>
  - o <u>M</u>edication
  - o <u>Mentation</u>
  - <u>Mobility</u>
- Memory loss, dementia, caregiving

# What is Geriatrics?



#### What is Geriatrics?

- Care of older patients
- Traditionally age 65 years and older
- Currently a critical shortage specialty
- 30,000 geriatricians needed in the U.S. we have < 7,000 and the number is decreasing</li>
- For practical reasons, geriatrics is currently mostly care of the very frail elderly

# **Epidemiology of Aging**

- Over 50 million people age 65 years and older in U.S. (> 15% of population)
- Projections:
  - o 2020 56 million
  - o 2040 80 million
  - o 2060 95 million
- Hawaii longest life expectancy in the U.S.

# **U.S. Life Expectancy**

Years of Life Expectancy at Birth							
In the year:	Men	Women					
1900	47.1	50.7					
1990	71.8	78.8					
2000	74.1	79.5					
2010	75.7	80.8					
2020	75.7	82.3					
2050	79.7	85.6					

**Source: National Center for Health Statistics** 

### **U.S. Older Population**

Population age 65 and over and age 85 and over, selected years 1900–2008 and projected 2010–2050



NOTE: Data for 2010–2050 are projections of the population. Reference population: These data refer to the resident population. SOURCE: U.S. Census Bureau, Decennial Census, Population Estimates and Projections.

#### **Hawaii's Older Population**





U.S. Department of Commerce Economics and Statistics Administration U.S. CENSUS BUREAU census gov

United States

Source: National Population Projections, 2017 www.census.gov/programs-surveys /popproj.html

### **Characteristics of Aging**

- Susceptibility to disease increases
- Genetic <u>and</u> environmental factors influence rate of aging
- Great variability among elderly
- Ability to maintain homeostasis decreases



# Principles of Geriatric Assessment

- Goal Promote wellness, independence
- **Focus** Functional status
- Scope Physical, cognitive, psychologic, social domains
- **Approach** Interdisciplinary
- Success Maintaining or improving quality of life

# **Geriatric Approach to Care**

- Focus on the whole person, not just an organ system
- Enhance independence and quality of life
- Preventive care
- Early rehabilitation if possible
- Palliative care if necessary
- Interdisciplinary team approach



### **Age-Friendly Health Systems**

- Based on the premise that older people have unique needs
- AFHS Initiative created by:
  - The John A. Hartford Foundation
  - The Institute for Healthcare Improvement (IHI)
  - The American Hospital Association (AHA)
  - The Catholic Health Association of the US (CHA)
- Goal: To prevent harm, improve health outcomes, and lower costs

### **Age-Friendly Health Systems**

- A new way to organize care for older adults
- AFHS should be implemented in all settings, including home and community
- Will help meet goals of the IHI Triple Aim:

Improving individual healthcare experience

- Improving population health
- Reducing costs of care

### AFHS: The 4 Ms



#### 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.



### What <u>Matters</u>



Mhat

- Ask patients what matters most to them
   Healthcare goals
   Care preferences
- Advance healthcare directives
- POLST if appropriate
- Encourage discussions with family
- All other Ms should revolve around this

### **Advance Directives**

 All directives, instructions or even desires that a person may communicate concerning decisions about medical treatment

 Only applies under certain conditions

#### ADVANCE HEALTH CARE DIRECTIVE FORM

		Date:
Your Name: Last	First	Middle initial
Street Address	City	State Zip
PART 1: INDIVIDUAL INSTRUCT	IONS FOR HEALTH C	ARE
The following statements only appl • if I am close to death and life suppo • if I am in an unconscious state such unlikely that I will ever become conscious OR • if I have brain damage or a brain di cate health care decisions about my	y rt would only postpone the as an irreversible coma o sease that makes me pern self.	e moment of my death OR r a persistent vegetative state and it is nanently unable to make and communi-
INITIAL ONLY ONE (1) CHOICE IN H	ACH SECTION and CRO	SS OUT ALL THAT DO NOT APPLY.
YES, I do want to have my life p health care standards that apply OR NO, I do not want my life prolon	roionged as long as possib y to my condition. ged.	le within the limits of generally accepted
B. ARTIFICIAL NUTRITION AND HYD YES, I do want artificial nutritic OR	RATION (FOOD AND FLU on and hydration.	NDS) BY TUBE INTO STOMACH OR VEI
NO, I do not want artificial nutr	ition and hydration.	
C. RELIEF FROM PAIN YES, I do want treatment to reli	ieve my pain or discomfort	
NO, I do not want treatment to	relieve my pain or discomi	ort.
D. ETHICAL, RELIGIOUS, OR SPIRIT Is there a church, temple, spiritual grou	UAL INSTRUCTIONS (O up or a special person from	PTIONAL) 1 whom you wish to receive spiritual car
Name:		Phone
<b>6</b>		· · · · · · · · · · · · · · · · · · ·

(Hospice provides physical, psychosocial, emotional, and spiritual support and counseling for the patient and his/her family. Hospice is available in home, hospital, hospice-unit, and nursing home settings.)

E. DO YOU WANT HOSPICE CARE, IF APPROPRIATE? YES NO

#### **Format of Advance Directives**

- Can be either written or oral
- May be written as part of an Advance Directive form
- May even be written in a letter expressing a person's wishes
- May be expressed verbally to a physician who documents wishes in the medical record

#### **Durable Power of Attorney**

- Select one or more persons to be your agent and make health care decisions if you are unable
- Could be a spouse, adult child, friend or other trusted person
- Can't be an employee of the health care facility
- Document must be signed and witnessed or notarized





# **Provider Orders for Life Sustaining Treatment (POLST)**

- A physician or APRN's order
- Specifies the types of treatments that a seriously ill person wishes to receive NOW
- Particularly useful in the community for 1<sup>st</sup> responders and EMS

	HIPAA PERMITS DISCLOSURE OF POLST TO OTHER HEALTH CARE PROFESSIONALS AS NECESSARY						
	Physician Orders for Life-Sustaining Treatment (POLST)						
Jer	First follow these orders, the physician. This is a Physician of based on the person's curren - timedia and wishes. Any section not compli- full itestment for that section. Every treated with dignity and respect.	en contact Order Sheet cal condition etec implies one shall be	Patient 's Last Name First /Middle Name Date of Birth	Date Form	n Prepared		
A Check One	CARDIOPULMONARY RESUSCITATI Attempt Resuscitation/CPR (Section B: Full Treatment required) When not in cardiopulmonary arrest,	ON (CPR) Do Not Att	Person has no empt Resuscitation ers in B and C.	pulse and NDNR ( <u>A</u> ll	l is not breathing. Iow <u>N</u> atural <u>D</u> eath)		
B	MEDICAL INTERVENTIONS:	F	Person has pulse ai	nd/or is bre	athing.		
Check One	Comfort Measures Only Use med relieve pain and suffering. Use oxygen comfort. Transfer if comfort needs can Limited Additional Interventions antibiotics, and IV fluids as indicated. D continuous or bi-level positive airway p Full Treatment Includes care descri- mechanical ventilation, and defibrillation includes intensive care. Additional Orders:	Idation by any suction and includes car or not intubat pressure) Tra- ibed above. Uni/cardioversio	y route, positioning, we manual treatment of a current location. Te described above. Us e. May use less invasi ansfer to hospital if ind lise intubation, advance on as indicated. Trans	und care an inway obstruc- ie medical tre- ve airway su ficated. Avoid ed airway into fer to hospiti	d other measures to stion as needed for satment, pport (e.g. d intensive care, erventions, af if indicated.		
C Check One	ARTIFICIALLY ADMINISTERED NUT (See Directions on next page for information No artificial nutrition by tube.	RITION: AJ on nutrition 8 Defi Go	Ways offer food an & hydration) Ined trial period of artif al:	d liquid by and desire cial nutrition	mouth if feasible d. by tube		
D	SIGNATURES AND SUMMARY OF M Discussed with: Patient Patient's Surrogate (Health Care D Signature of Physician My signature below indicates to the best of my know and preferences.	IATURES AND SUMMARY OF MEDICAL CONDITION: Issed with: Ident  Patient's Surrogate (Health Care Decisionmaker) Parent of Minor Guardian ature of Physician proture below indicates to the best of my knowledge that these orders are consistent with the person's medical condition references.					
	Print Physician Name		Physician Phone Numb	er	Date		
	Physician Signature (required)		Physician License #				
	Signature of Patient, Surrogate, Parent of Minor or Guardian By signing this form, the legelty recognized decision maker acknowledges that this request regarding resuscitative measures is consistent with the known desires of, and in the best interests of, the individual who is the subject of the form.						
	Signature (required) Name (print) Relationship (write set it patient)				hip (write self it patient)		
	Summary of Medical Condition	10-	Office Use O	nly			

# **Advance Directives vs. POLST**

Details	Adv. Directives	POLST
For whom	For all adults	For persons with advanced illness (no age restriction)
Purpose	<ul> <li>•To express values</li> <li>•To appoint decision maker</li> <li>•Future wishes</li> </ul>	<ul> <li>Medical orders that turn a patient's wishes into action</li> <li>Applies today</li> </ul>
Guides EMS actions	NO	YES
Guides Rx decisions in the hospital	YES	YES



#### **Medication**



- The elderly use a disproportionate percentage of medications (>33% of prescription drugs)
- >90% of older people take at least 1 drug
- Polypharmacy is common
- Drug interactions and side effects more common



#### **Successful Drug Therapy**

- Correct drug
- Correct dosage
- Targets the correct condition
- Appropriate for the patient and their goals of care
- Failure in any of the above can lead to ADE (adverse drug events)

# **Adverse Drug Events**

- Responsible for 700,000 ER visits and 120,000 hospitalizations each year in the U.S.
- \$3.5 billion spent each year
- Many ADEs are preventable!



Elderly patients more prone to ADEs

#### **Risk Factors for ADEs**

- Advanced age
- Increased number of drugs (prescription or over-the-counter)
- Prior adverse drug event
- Use of alcohol
- Low body weight
- Poor liver or kidney function



#### **Rules for Drug Use in the Elderly**

- Start low and go slow
- Assess risk versus benefit
- Don't quit too soon
- Monitor closely for side effects
- Avoid starting 2 drugs at the same time
- Rollercoaster rule



# **Appropriate Drug Use**

- Is the medication necessary?
- What are the goals and end points?
- Do benefits outweigh risks?



- Are you treating effects of another drug?
- Could 1 drug be used for 2 conditions?
- Possible drug or disease interactions?



#### **Mentation**

- Prevent, identify, treat and manage:
  - o Dementia
  - Depression
  - o Delirium
  - Across all settings



# What is Depression?

- Medical condition that causes mood changes with persistent feelings of sadness and loss of interest
- Affects how you feel, think and act in daily life
- Affects functioning at work and home
- Causes problems with relationships
- Present most of the day, nearly day, for at least two weeks



# What is Delirium?

- Acute confusional state (hours/days)
- Clouding of consciousness
- Waxing and waning
- Severe attention deficit
- Altered sleep/wake cycle



 Very common in the hospital, particularly in those with underlying dementia

#### **Dementia Definition**

- Acquired deficits (not mental retardation)
- Deficit in memory
- Deficit in at least one other cognitive domain
- Affects social and occupational function
- Absence of delirium and major psychiatric disorders

# Mild Cognitive Impairment (MCI)

- Subjective cognitive complaint (pt or proxy)
- Cognitive deficit on testing in at least 1 domain (memory, language, attention, executive function, visuospatial)
- Normal social & occupational function (ie. NO DEMENTIA)
- High risk of converting to AD

# **Epidemiology of Dementia**

- 13% if age 65+ years, almost 50% in 85+ years
- Geometric increase in prevalence (after age 60, doubles every 5 years)
- Long duration of disease
- Major cause of disability, primary reason for institutionalization
- Over \$200 billion annually for care & over \$200 billion for lost productivity



#### **Prevalence Rates of Dementia**





Some forms are reversible (treatable)

### **Dementia Sub-Types**

#### White Populations

- Alzheimer's Disease
- Vascular Dementia
- Lewy Body Dementia
- Parkinson's Disease
- Fronto-Temporal Dementias
- Other causes (possibly reversible)



# **Dementia Treatment Strategies**

- Early diagnosis is key
- Treat the cause (if found)
- Treat complications (behavior, sleep)
- Safety, stable environment
- Family education, caregiver support
- Interdisciplinary team approach
- Community resources AA, EOA
- Planning for future financial / legal issues

### **Maintaining Brain Health**





# **Mobility**

- Maintain function and independence
  - Activities of daily living (ADLs)
  - Instrumental activities of daily living (IADLs)
- Prevent falls
- Interdisciplinary team care Role of OT, PT, SLP, others

#### WHAT ARE ADLs? The Activities of Daily Living



#### WHAT ARE IADLS?

The Instrumental Activities of Daily Living





# Fall Prevention <sup>–</sup>

- Falls are a serious threat to older people
- CDC's STEADI Program (STopping Elderly Accidents, Deaths & Injuries)
- Core Elements:

o Screen

Assess

Intervene



# **STEADI Program**

- Screen: Questions, balance/gait testing
- Assess: Identify risk factors
  - Medications/orthostatic hypotension
  - Home hazards
  - Vision, Feet/Footwear, Diet
  - Co-morbid conditions (osteoporosis, depression, etc.)

#### Intervene

- Prevention Education, Diet, Exercise programs for all
- Address risk factors
- PT, Home safety evaluation

### Summary

- For practical purposes, aging is a loss of the body's reserve capacity
- Normal aging should not interfere with daily activities
- With age, there are more risks and exposures, therefore more disease
- Our habits over a lifetime can influence our health

# **Avoid Sterotyping People**





# Summary: The 4 Ms



# **Thank You!**

# **Questions?**