**Learning Objectives**

- Describe the purpose and principles of comprehensive geriatric assessment (CGA).
- Identify domains of CGA.
- Apply principles of CGA in practice.

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I have no financial conflicts of interest or disclosures.
Individualized Aging

Significance

• Every day
  • 100 people turn 100
  • 10,000 people turn 65
  • +85 age continues to rapidly increase
  • 40-65% of hospitalized patients are 65+
  • Older adults experience 3 to 4 times as many hospital days per 1000 compared to general population

Preventing Functional Decline in Hospitalized Older Adults

• Covinsky & colleagues (2011) conducted a literature review of risk factors that identified older adults who were most likely to develop a hospital associated disability.
  • Functional Decline definition – consequence of physiologic changes due to aging and immobility that result in the inability to perform activities of daily living that ensure patient independence.
Hospital Associated Disability

**Incidence**
- Affects 1/3 of patients older than 70.
- A leading complication of hospitalization of older adults.
- **Hospital-associated disability** is described as a sentinel event—loss of 1 of the basic ADLs needed to live independently
  - Bathing, dressing, rising from bed or chair, using the toilet, eating or walking across the room
- Even though hospitalization may improve the acute illness, **functional loss** may be gained!

**Hospital Associated Disability Causes**
- May be insidious and gradual precipitated by acute illness.
- No single cause, vulnerable adults with multiple impairments accumulated.
- Patients not mobilized while hospitalization.
- For every 1 day in bed it takes 3 days to regain function/strength.
- **Age** is the most potent risk factor—more than 50% of age 85 and older will leave the hospital with a new ADL disability

**Hospital Associated Disability Results**
- **Human and Financial Costs**
  - Increased illness and death
  - Decreased Quality of Life
  - Decreased Autonomy
  - Increased Dependence
  - Increased LOS and institutionalization

**Prevention**
- Identify at risk—functional abilities assessed on admission and daily including cognition, vision, hearing and social support and psychological well-being.
- Involve caregivers/family in this process!!
- Clinicians should view functional status as a **VITAL SIGN** that guides care and serve as a guidepost of clinical well-being.

**Key interventions to promote physical activity**
- Leadership support
- **ACE**—Acute Care of Elders Units and GEM units—key is interdisciplinary care rather than isolated consultations
- Hospital Elder Life Program (HELP) Volunteers
- Walking Teams
- Assess and intervene every shift
- Family engagement
- Communicate every shift the functional status of patient with all involved in care = prioritize it!
Dispel the Myths


When to see a geriatrician

https://www.youtube.com/watch?v=3_kW0oOcWGCY

Comprehensive Geriatric Assessment (CGA)

- Geriatric model of care for 35 + years
- Optimizes patients’ medical treatment to develop a coordinated and integrated plan and follow-up.
- Provides caregivers with resources to support the patient along the continuum of care.
- Provides primary care providers with geriatric knowledge and best practices.

CGA

- A comprehensive evaluation of all the spheres of an older adults life, which are vital to maintaining independence and promoting health.
- Standardized assessment tools provide an objective measure of these areas of function.
- Geriatric assessment is provided by an interdisciplinary team approach.
-apid geriatric screening is
CGA

• Mutual delineation of problems.
• Goal setting and planning with patients/families and professionals working together.
• Patient/family education and follow-up are key elements.

Team Members

• Family/Patient
• Geriatrician
• Social Worker
• Pharmacist
• Neuropsychologist and/or Geriatric Psychiatrist; Psychologist, LMHP
• Geriatric Nurse, APRN and or PA
• Add hoc members (PT/OT, Therapeutic Recreation, RD, Chaplain)

Key Domains of CGA

- Living Arrangements
- Advance Directives
- Functional Status/gait balance
- Medication
- Social & Financial
- Sensory & Communication
- Family & or caregivers
- Cognition & Mood
- History & Physical Exam
- Safety, driving, falls
- Oral and dental care
- Nutritional status – weight is very important!
- Values assessment
- Interest and hobby assessment
- Spiritual assessment
- Cultural assessment
- Physical or chemical restraint use
- Elder mistreatment
- Health promotion
- Disease prevention
Standardized Assessment Tools: Examples

- Geriatric Depression Scale
- Mini-Cog, MMSE, Montreal Cognitive Assessment MoCA; Short Portable Mental Status Questionnaire (SPMSQ)
- Zarit Caregiver Burden Interview
- Index of Independence in Activities of Daily Living (Katz)
- Lawton Instrumental Activities of Daily Living
- Barthel Index of Activities of Daily Living
- Timed Get Up and Go; Tinetti Mobility Assessment
- Beer’s List – Medication Review
- Pain Assessments
- “FRAIL” Questionnaire Screening Tool

CGA Types

- Outpatient
  - Comprehensive Geriatric Assessment Clinic
  - Geriatric Evaluation and Management Clinic (GEM)
- Inpatient
  - Acute Care for Elders (ACE) Unit
  - Geriatric Evaluation and Management Unit (GEMU)
  - Comanagement of certain diagnoses/surgeries
- LTC
  - APRNs starting to visit in nursing homes

CGA Outpatient Programs Omaha

- https://www.youtube.com/watch?v=-eHPugoC5sE

- Methodist Geriatric Evaluation and Management Clinic
- UNMC Home Instead Center for Successful Aging Geriatric Assessment Clinic
- OVAMC Geriatric Evaluation and Management Clinic
Typical Outpatient CGA Referral

- Family refers patient due to concerns of patient memory loss and safety - #1 issue.
- Appointment made; gathering of past medical records.
- Home visit for home evaluation if possible.
- Patient and family/caregivers attend full visit.
- Interdisciplinary assessment of all domains.

Rapid Geriatric Assessment

- Most often done in a physician office without full CGA team
  https://www.youtube.com/watch?v=1kik48fwQNY
- Handout available online

Typical Outpatient CGA Referral

- Team meets to discuss identified problems and develop a plan of care; discuss immediate needs.
- Follow-up family/patient team meeting - 2 weeks.
- Coordination of care and referral needs based on assessment and available resources in patient's community.
- Recommendations provided to primary care providers.
- Follow-ups in CGA clinic 6 months or as needed.

Geriatric Service Line at Methodist Hospital

- ACE
- GEM
- HELP
- GRN
- ED
- AgeWISE
- NICHE
Future Work

• Increase ACE units and geriatric assessment teams.
• Co-management of surgical high risk older adults using CGA principles.
• Strive to increase practitioners to become trained and certified in geriatrics.

Summary

• CGA improves patient outcomes both in the community and inpatients on ACE units.
• Focus on promoting functional abilities to decrease hospital associated disability.
• Support family caregivers to decrease burden.

References


References

References


Literature Review

- Average hospitalized geriatric patient is increasingly more frail, vulnerable, and dependent.
- Purpose: to determine if ACE unit continues to offer the same benefit to the frail, often bedbound; to determine if ACE is able to maintain standard hospital quality indicators.
- Measures: ALOS, case mix index, case mix adjusted average length of stay average direct costs per case, readmission rates. Patient satisfaction, quality and safety data.
- ACE unit resulted in a statistically significant decrease in ALOS and CMI adj LOS with a simultaneous increase in Health Care Financing Administration CMI, indicating that the unit was serving a sicker, more frail population.
- The readmission rate was 11.95%. The decrease in length of stay, readmission rate, and direct cost translates into a decrease in cost per case.
- ACE unit successfully met hospital quality indicators.


- RCT n=632, LOS was significantly shorter - 6.7 days per patient versus 7.3 days per patient-among those receiving care in ACE compared to usual care.
- Difference produced lower total inpatient costs-$9,477 per patient versus $10,451 per patient-while maintaining patients' functional abilities and not increasing hospital readmission rates.
- ACE units can provide hospitals with effective strategies for lowering costs while preserving quality of care for hospitalized elders.

• Polypharmacy and contra-indications to indicated drugs may also frequently be present.

• Purpose: describe prevalence of under-treatment with respect to frequently indicated medications before and after outpatient CGA and prevalence of contraindications to these medications.

• Five times more drugs were initiated for a new diagnosis than for correction of under-treatment.

• Conclusions: Under-treatment is significantly reduced after CGA. Patients with contraindications to indicated medicines are more frequently under-treated.

• CGA lead to an increase in Polypharmacy, mainly because of new conditions being diagnosed and despite frequent discontinuation of medications.


Postop compilations and increased LOS after elective surgery, are more common in older than in younger persons but are correlated less with older age itself than with frailty and higher comorbidity in this population.

• Geriatric assessment tools and comorbidity scores are validated predictors of postoperative complication risk.

• Risk factors geriatric assessments identify are potentially modifiable through optimization of functional impairments and medical comorbidities.

• Evidence is slowly building for better outcomes for older adults undergoing elective surgery who receive collaborative pre and postsurgical care from geriatrics teams.

• Perioperative Clinical Practice Guidelines developed in 2014.


Purpose: Identify advantages of CGA over usual care in the management of fragility hip fractures in terms of reducing the related mortality and disability.

Method: An overview of publications on the topic was conducted using the MEDLINE and EMBASE databases.

Results: Several models of geriatric and orthopedic co-management have been developed in recent years, characterized by a variable degree of integration, and have been shown to reduce complications, disability and mortality in elderly hip-fracture patients. Preoperatively, CGA should identify the comorbidities that need to be treated in view of surgery, so as to reduce the related risks.

After surgery, CGA should deal with medical complications and assure patients an early mobilization in order to reduce short-term mortality and contain functional decline. Before discharge, the orthogeriatric team should develop a tailored program to promote the patient’s functional recovery and satisfactory quality of life, also covering the secondary prevention of fragility fractures by improving bone quality and reducing the risk of falls.

Conclusions: Fragility hip fractures in the elderly people need to be managed by different professionals working in close cooperation and adopting a CGA.

Saint Louis University
Rapid Geriatric Assessment*

*There is no copyright on these screening tools and they may be incorporated into the Electronic Health Record without permission and at no cost.

The Simple “FRAIL” Questionnaire Screening Tool
(3 or greater = frailty; 1 or 2 = prefrail)

**Fatigue:** Are you fatigued?
**Resistance:** Cannot walk up one flight of stairs?
**Aerobic:** Cannot walk one block?
**Illnesses:** Do you have more than 5 illnesses?
**Loss of weight:** Have you lost more than 5% of your weight in the last 6 months?


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SNAQ (Simplified Nutritional Assessment Questionnaire)

**My appetite is**
- a. very poor
- b. poor
- c. average
- d. good
- e. very good

**Food tastes**
- a. very bad
- b. bad
- c. average
- d. good
- e. very good

**When I eat**
- a. I feel full after eating only a few mouthfuls
- b. I feel full after eating about a third of a meal
- c. I feel full after eating over half a meal
- d. I feel full after eating most of the meal
- e. I hardly ever feel full

**Normally I eat**
- a. less than one meal a day
- b. one meal a day
- c. two meals a day
- d. three meals a day
- e. more than three meals a day


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Table 1: SARC-F Screen for Sarcopenia

<table>
<thead>
<tr>
<th>Component</th>
<th>Question</th>
<th>Scoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strength</td>
<td>How much difficulty do you have in lifting and carrying 10 pounds?</td>
<td>None = 0, Some = 1, A lot or unable = 2</td>
</tr>
<tr>
<td>Assistance walking</td>
<td>How much difficulty do you have walking across a room?</td>
<td>None = 0, Some = 1, A lot, use aids, or unable = 2</td>
</tr>
<tr>
<td>Rise from a chair</td>
<td>How much difficulty do you have transferring from a chair or bed?</td>
<td>None = 0, Some = 1, A lot or unable without help = 2</td>
</tr>
<tr>
<td>Climb stairs</td>
<td>How much difficulty do you have climbing a flight of ten stairs?</td>
<td>None = 0, Some = 1, A lot or unable = 2</td>
</tr>
<tr>
<td>Falls</td>
<td>How many times have you fallen in the last year?</td>
<td>None = 0, 1-3 falls = 1, 4 or more falls = 2</td>
</tr>
</tbody>
</table>


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Rapid Cognitive Screen (RCS)

1. Please remember these five objects. I will ask you what they are later. [Read each object to patient using approx. 1 second intervals.]

   **Apple**
   **Pen**
   **Tie**
   **House**
   **Car**

2. [Give patient pencil and the blank sheet with clock face.] This is a clock face. Please put in the hour markers and the time at ten minutes to eleven o’clock. [2 pts/hr markers ok; 2 pts/time correct]

3. What were the five objects I asked you to remember? [1 pt/ea]

4. I’m going to tell you a story. Please listen carefully because afterwards, I’m going to ask you about it.

   Jill was a very successful stockbroker. She made a lot of money on the stock market. She then met Jack, a devastatingly handsome man. She married him and had three children. They lived in Chicago. She then stopped work and stayed at home to bring up her children. When they were teenagers, she went back to work. She and Jack lived happily ever after.

   What state did she live in? [1 pt]