Minnesota Metropolitan Regional Trauma Advisory Committee has put together a resource document with a variety of geriatric trauma resources and considerations.

Purpose:

Provide a resource with a variety of geriatric care options for any level of Trauma Center. This resource includes multiple strategies on how to manage/care for geriatric trauma patients. Per the American College of Surgeons 2022 Standards, Resources for Optimal Care of the Injured Patient, Level I and II trauma centers must have care protocols for injured older adult.

Table of Contents/Protocols:

Contents

Identification of vulnerable geriatric patients

- **Tools:**
  - **Identification of Seniors At-Risk Tool (ISAR)**
    - 6 question survey
      - >1 positive response is considered high-risk
      - >= 2 has been associated with a greater likelihood of functional decline, nursing home admission, long-term hospitalization, or death.
  - **Frailty Score**
    - 5 criteria are evaluated
      - Patient receives 1 point for each criterion met
        - 0-1 = Not frail
        - 2-3 = Intermediate frail (Pre-frail)
        - 4-5 = Frail
  - **FRAIL**
    - 5 questions
      - Scoring: ≥3/5 criteria met indicates frailty
        1-2/5 indicates pre-or-intermediate frailty
        0/5 indicates non-frail.
  - **PRISMA Frailty Assessment**
    - 7 questions
      - 3 or more "yes" answers indicate an increased risk for frailty and need for clinical review.
  - **Clinical Frailty Scale (CFS)**
    - 9 nine-point scale
      - Number of questions depends on the degree of frailty
        - 0 - 3 very fit to managing well
        - 4 - 6 vulnerable to moderately frail
        - 7 - 9 severe frailty to terminally ill

- **Things to consider with implementation:**
  - All patients noted to be at high-risk requiring admission to the hospital should be referred to case management upon admission with the risk assessment results communicated.
  - Concerns for elder abuse should be reported to MDH as a vulnerable adult

Identification of patients who will benefit from the input of a health care provider with geriatric expertise

Consider the following list to identify these patients who should get a specialty consult:

- Screening results that indicate frailty in 65 years and older
- Anyone > to 85 years of age
- Impaired cognition
- Delirium risk
- Impaired functional status
- Impaired mobility
- Malnutrition
- Difficulty swallowing
- Need for Palliative Care assessment

Prevention, identification, and management of dementia, depression, and delirium

DEMENTIA:

- **Prevention:** There are 12 potentially modifiable risk factors that have been found to be associated with dementia. These include hypertension, diabetes, obesity and lack of physical activity, smoking, high alcohol consumption, unhealthy diet, depression, traumatic brain injury, social isolation, air pollution, and hearing loss. Research has found that lifestyle modification aimed at specific risk factors could decrease the incidence of dementia by 40%.

- **Identification:** There is insufficient evidence to support dementia screening among people who do not exhibit signs of dementia. But early identification is important and when changes in cognition, behavior, mood, and/or function are observed or reported, screening should occur. Earlier detection allows for improved brain health, better management symptoms, and early capture of their care preferences. Diagnosis can be made with cognitive/neurological tests, brain scans, psychiatric evaluation, genetic testing, and CSF and blood tests.
    - When signs/symptoms of dementia are observed or reported, screen patients age 65 and over. It is recommended to establish clinical workflow integration for documentation within your EMR. There are various screening tool options available:
        - Short BleSSed Test (SBT)
            - Weighted six-item instrument designed to identify dementia.
            - Evaluates orientation, registration, and attention.
        - Abbreviated Mental Test Score (AMTS)
            - Can be used to rapidly assess elderly patients for the possibility of dementia
            - Consists of 10 questions, each worth one point.
            - Score of 6 or less is suggestive of delirium or dementia. Further testing is necessary to confirm a diagnosis.
        - Rowland Universal Dementia Assessment Scale (RUDAS)
            - 6-item scale that assesses the cognitive domains of memory, praxis, language, judgement, drawing, and body orientation.
        - MiniCog
            - Considered a routine 'cognitive vital sign' measure.
            - A composite of three-item recall and clock-drawing

- **Management:** The overall goal for managing dementia is to reduce suffering caused by the cognitive and accompanying symptoms while delaying progressive cognitive decline. This is

most often done by using both pharmacologic and non-pharmacologic approaches. Ideas for these approaches are found below in the *Interventions* section.

- **Interventions**
  - Implement a geriatric specific order-set to highlight care considerations for patients with dementia. Consider including items like: a pain assessment scoring tool for dementia patients, non-pharmacological treatments including music therapy, massage, sensory stimulation, and aromatherapy. Also include development of personal care routines and assurance of effective communication practices.
  - If patients have not yet been started on medications aimed at symptomatic benefits for cognitive symptoms, ensure that they receive prompt follow-up after hospital discharge to be evaluated by their PCP.
  - Provide a 4M's Educational Brochure to patients age 65 and over. 4M's Provider Toolkit and 4M's Patient Brochure
    - The four M's include: what **M**atters, **M**obility, **M**edication, and **M**ind. The intent is to provide a guide for older adults and their families to evaluate how they think about the 4M's and develop resources to help them proactively interact with their health care team.

- **Other Considerations**
  - Recommend follow-up with a PCP for further evaluation if concerns are noted.
  - Screening is only one small part of a comprehensive assessment and is not a conclusive diagnosis
  - If a person is acutely ill or is experiencing delirium, it is recommended that health-care providers postpone in-depth dementia assessments and a diagnosis until the person is stable and reversible causes are addressed.
  - Clinical guidelines suggest that depression be treated before a dementia diagnosis is made
  - Assessment for dementia should be conducted after delirium screening.

DEPRESSION:

- **Prevention:** The ability to prevent depression is unknown. However, it is necessary for health care providers to place their focus on identification.

- **Identification:** Health-care providers must be vigilant for depression among older adults, and assess for depression whenever risk factors or signs and symptoms are present. Unfortunately, depression is often not recognized, is under-diagnosed, and frequently goes untreated. Furthermore, few older adults actively seek treatment or see a mental health specialist to

manage their depression. A detailed assessment for depression should occur when risk factors are present or when depression is suspected

- When signs/symptoms of depression are observed or reported, screening should be completed. It is recommended to establish clinical workflow integration for documentation within your EMR. There are various screening tool options available:

  - **Geriatric Depression Scale**
    - Provides a quantitative rating of depression
    - Available in 15-questions or 30-question versions. All questions are YES/NO
  - **Patient Health Questionaire-2 (PHQ-2)**
    - "First Step" approach with two-question screening regarding the frequency of depressed mood and anhedonia over the past two weeks
    - If the patient has a positive screen (3 or above), proceed to further screening with the PHQ-9.
  - **Patient Health Questionnaire-9 (PHQ-9)**
    - Used for diagnosing, monitoring, and measuring the severity of depression
    - Nine question screening regarding the frequency of depressed mood and anhedonia over the past two weeks

- **Management:** Health-care providers should ensure that follow-up support and resources are available for older adults who are identified as having depression. Experts suggests that qualified health-care professionals may include a primary care practitioner, psychiatrist, or a psychogeriatric/geriatric mental health specialist. Other referrals to members of the health-care team may be necessary, especially to rule out or assess for co-morbid conditions that may mimic depression. If there is active suicidal ideation/risk of a person killing himself/herself, or if a person with depression presents a considerable immediate threat or harm to others, it is important to seek urgent attention from a qualified professional. A variety of pharmacological and non-pharmacological therapies with varying degrees of efficacy are available in clinical guidelines. When selecting treatment, health-care providers should start with the least invasive and most effective

- **Interventions**
  - Implement a Geriatric specific order-set to include screenings and referrals for those identified as high likelihood or at risk for depression.

- **Other Considerations:**

- Due to the high prevalence of depression in people with dementia, health-care providers may need to consider the impact that co-morbid dementia has on individuals with depression. When these conditions co-exist, healthcare providers can offer many of the same interventions as they would for a person who only has depression, making any necessary adjustments to the approach and duration of the interventions.

DELIRIUM:

Delirium is defined as an abrupt change in the brain that causes mental confusion, emotional disruption, and/or perceptual disturbances. Delirium increases a patient's risk of morbidity and mortality, contributes to longer length of stays, and increases health care costs. It develops over a short period (hours to days) and fluctuates over time. Delirium is classified as: hyperactive, hypoactive, and mixed. Hypoactive delirium is often mistaken for depression or dementia. Delirium is often underrecognized.

- **Prevention (prevention and management interventions often overlap)**
  - Pre-Op optimization (pain control, med management, education)
  - Post-Op mobility and pain management
  - Lighting: Soft light is recommended, but exposure to nature light is also shown to be beneficial for recovery times and decreasing delirium.
  - Acoustic Orientation Improvements: private rooms or acoustically enhanced drapes, if necessary, for better communication and decrease levels of anxiety and delirium.
  - Sleep hygiene – promote quiet and uninterrupted sleep
  - Provide sensory aids (hearing aids, dentures, glasses)
  - Provide frequent re-orientation
  - Limit physical restraints
  - Provide patient and family education brochure on delirium

- **Identification**
  - Implement routine screenings for injured patients age 65 and over. It is recommended to establish clinical workflow integration for documentation within your EMR.
    - 4AT
      - Include four items: **A**lertness – **A**bbreviated Mental Test-4 – **A**ttention – **A**cute Change or Fluctuating Course
      - Scored from 0 to 12. Each of the four categories are assessed and scored. The sum of the 4 scores is the total.
      - Can be used on patient too drowsy to engage in testing or conversation since a score is provided instead of N/A or not-testable.
    - Confusion Assessment Measuring Instrument (CAM)
      - This is considered the "gold standard" for screening for delirium

        - Has sensitivity of 94-100%, specificity of 90-95% and high interobserver reliability
    - **Nursing Delirium Screening Scale (Nu DESC)**
        - Continuous, observational five-item scale
    - **Recognizing Active Delirium As part of your Routine (RADAR)** p. 18-19
        - Three-step process to identify delirium in the elderly population
        - Observation of three signs of altered LOC and inattention with each medication delivery.
- There are also outpatient/Emergency Department screening options available:
    - Delirium Triage Screen
    - Brief Confusion Assessment Method Tool

- **Management**
    - It is important to treat delirium when it occurs. Prioritization must be given to the following items:
        - Pain assessment and management
            - Consider restlessness as an indicator of pain
            - Schedule acetaminophen
            - Utilize Ice/heat modalities
        - Activity and mobility
            - Providers need to place expectation of mobility on patient/staff/family
                - Up to chair for all meals
                - Walking 2-3 times per day
                - Update activity orders as needed – d/c bedrest orders
        - Sleep interventions and promotion
            - Shades open/lights on during day 8a-8p
            - Daytime activity/mobility to promote fatigue for sleep at night
            - Minimize nighttime interruptions (cluster cares)
        - Patient/Family education
        - Reduce lines/tethers
        - Sensory interventions
        - Cognitive stimulation/orientation
    - Upon diagnosis of acute delirium, attention should be paid to underlying causes including, but not limited to:
        - Infections: Commonly due to UTI or pneumonia

    - Medications: Including: Anti-cholinergic medications, sedative/hypnotics, narcotics, and any new medication, especially if multiple medications have been recently added
    - Electrolyte imbalances
    - Alcohol/drug use or withdrawal

- **Interventions**
    - Implement a Geriatric specific order-set to include screenings and prevention measures, and precautions.

- **Other considerations**
    - New focal neurologic findings should guide an evaluation for stroke syndromes
    - Coordination of care, with special attention to directing interventions towards improving reversible causes and limiting factors that extend or cause delirium is the main goal.
    - As mental status changes wax and wane, delirium screening should be reevaluated on a regular basis.

Process to capture and document what matters to patients, including preferences and goals of care, code status, advanced directives, and identification of a proxy decision maker

- **Things to consider**
  - Discuss with family, surrogates, and health care team and document in medical record the following items:
    - Patient's priorities and preferences regarding treatment options (including operative and nonoperative alternatives)
    - Postinjury risks of complications, mortality and temporary/permanent functional decline
    - Advance directives or living will and how these will affect initial care and life sustaining preferences
    - Identify surrogate decision maker, medical proxy or legal guardian
    - Make liberal use of palliative care options
    - In appropriate settings, hospice bay be a positive, active treatment option
  - Hold family meeting within 72 hours of admission to discuss goals of care
- **Tools**
  - polst.org/form-patients POLST is portable medical orders of important treatment decisions. It is designed for patients with advanced disease, frailty, or terminal conditions.
  - www.lightthelegacy.org Formerly Honoring Choices. Resource to find more information about healthcare directives. Forms are available in multiple languages

Medication reconciliation and avoidance of inappropriate medications

Document the patient's complete medication list, including over the counter and complementary/ alternative medications.

- **Tools**
  - BEERS Criteria - identifies potentially inappropriate medication use in adults over age 65
  - Pharmacy medication reconciliation
    - Ideas of where to find current med list
      - Surescript- used for exchange of health information between health care organizations and pharmacies
      - Care everywhere
      - Clinic notes- anticoagulation clinic, psychiatric
      - Skilled nursing facility/group home medication administration record
  - Medication list will be screened by both the nurse and provider for:
    - Polypharmacy >5 medications
    - Presence of high-risk medications
      - See "Beers criteria" as example of high risk medications
  - MTMS - Medication Therapy Management Services (state.mn.us) – pharmacists work with patients and providers to solve problems related to medications in the outpatient setting.

    Services include the following:
    - Performing or obtaining necessary assessments of the member's health status
    - Face-to-face or telehealth encounters done in any of the following:
      - Ambulatory care outpatient setting
      - Clinics
      - Pharmacies
      - Member's home or place of residence if the member does not reside in a skilled nursing facility
    - Formulating a medication treatment plan
    - Monitoring and evaluating the member's response to therapy, including safety and effectiveness
    - Performing a comprehensive medication review to identify, resolve and prevent medication-related problems, including adverse drug events
    - Documenting the care delivered and communicating essential information to the member's other primary care providers

- Providing verbal education and training designed to enhance member understanding and appropriate use of the member's medications
- Providing information, support services and resources designed to enhance patient adherence with the patient's therapeutic regimens
- Coordinating and integrating medication therapy management services within the broader health care management services being provided to the member

Eligible Members: Medical Assistance (MA) and MinnesotaCare (fee-for-service and managed care) members are eligible for MTMS if they are all of the following:

- An outpatient (not inpatient or in an institutional setting)
- Not eligible for Medicare Part D
- Taking a prescription medication to treat or prevent one or more chronic conditions

- **Pain Management Strategies**
  - Use elderly-appropriate medications and dosing.
  - Avoid Benzodiazepines.
  - Consider early use of non-narcotics including scheduled Tylenol, NSAIDs, adjuncts and IV Ketamine.
  - Monitor use of narcotics; consider early implementation of patient-controlled analgesia.
  - Epidural or regional algesia may be preferable to other means for patients with multiple rib fractures to avoid respiratory failure.

- **Things to consider**
  - Geriatric patients are at high-risk for adverse events related to medications. The aging population tends to take more medications, have more co-morbidities, and have differing response to medications when compared to their younger cohorts.
  - The normal aging physiology often leads to change in metabolism with medications as well as problematic response to "normal" medication dosing.
  - Medication list should be be obtained and completed as accurately as possible, taking advantage of patients, caretakers, and medical record resources.
  - Patients taking more than 5 medications, any high-risk medications, or presenting with signs or symptoms of adverse drug events should be be managed with a multi-disciplinary approach focused on improving patient outcomes.
  - Establish medication "reconciliation" tool
  - High risk medication list may be hospital specific and should minimally include:

  - Anticoagulants and antiplatelets
  - Anti-hyperglycemics
  - Cardiac medications including digoxin, amiodarone, B-blockers, Ca channel blockers
  - Diuretics
  - Narcotics
  - Anti-psychotics and other psychiatric medications
  - Immunosuppressant medications, including chemotherapy agents
- Multi-disciplinary team including pharmacy should work with provider to minimize drug-drug interactions, minimizing polypharmacy and high-risk medications
- Discontinue non-essential medications
- Continue medications with withdrawal potential
- Speech and swallow eval to assure ability to swallow pills
- Palliative care or pain service consult
- Imbed decision support tools and alerts within the electronic health record for potentially inappropriate medication is prescribed

Screening for mobility limitations and assurance of early, frequent, and safe mobility

Trauma is one of the leading causes of death in the geriatric population. Falls, even relatively minor impact falls, often represent a major traumatic mechanism in the geriatric population and can lead to significant morbidity and mortality compared to younger patients.

- **Tools**
  - Assessing baseline current functional status in ambulatory patients
    - **Short simple screening test** for functional assessment – TQIP Geriatric Guideline appendix
      - 4 question survey
      - If **no** to any of the questions, then a more in-depth evaluation should be performed including full screening of ADLs and IADLs.
  - Assessing gait and mobility impairment and fall risk in ambulatory patients
    - **Timed up and Go Test (TUGT)** – TQIP Geriatric Guideline appendix TUG (cdc.gov)
      - Patient asked to perform 5 tasks
      - Any difficulty getting up from chair or takes more than 15 seconds to complete task then pt is at high risk for fall.
    - **Adult Bedside Mobility Assessment Tool (BMAT)** for Nurses BMAT (myamericannurse.com)
      - Assesses ability to sit, stretch, stand, and walk.
      - Includes a safety screen assessment.
      - Simple instructions for the screening clinician, with a pass/fail determination which stops the assessment or moves through the 4 areas.
    - 4-Stage Balance Test (cdc.gov)
      - Simple test
      - Assess balance while standing in 4 different positions for 10 seconds.
  - Initiate a comprehensive evaluation for geriatric patients presenting after a fall or for those who may be at high risk for future falls.
  - An appropriate tool is a direct, easily implemented tool to screen for risk of falls
  - In traumatically injured patients, functional ability, including gait and fall risk, should be assessed as early as possible and compared with established baseline function.

- **Things to Consider**

- The appropriate evaluation of a patient who either has fallen or is high risk of falling involves not only a thorough assessment for traumatic injuries, but an assessment of the cause of the fall and estimation of future fall risk.
- The goal of the evaluation of a patient who has fallen or is at increased risk of falling is to diagnose and treat traumatic injuries, discover, and manage the predisposing causes of the fall, and ultimately to prevent complications of falling and future falls.
- If the patient was a healthy 20-year-old, would he/she have fallen? If answer is "no," then an assessment of the underlying cause of the fall should be more comprehensive and should include:
    - History is the most critical component of the evaluation of a patient with, or at risk for, a fall. Several studies and authorities have suggested that there are several key elements to an appropriate history in patients that fall. Key historical elements include:
        - Age greater than 65
        - Location and cause of fall
        - Difficulty with gait and/or balance
        - Number of previous falls
        - Time spent on floor or ground
        - LOS/AMS
        - Near/syncope/orthostasis
        - Melena
        - Specific comorbidities such as dementia, Parkinson's, stroke, DM, hip fracture and depression
        - Visual or neurological impairments such as peripheral neuropathies
        - Alcohol use
        - Medications
        - ADL's
        - Appropriate footwear
    - Although there is no recommended set of diagnostic tests for the cause of a fall, a low threshold should be maintained for obtaining an EKG, complete blood count, standard electrolyte panel, measurable medication levels and appropriate imaging.
    - Develop a plan for early mobilization. Ensure ambulation within 48 hours of admission.

Implementation of safe transitions to home or other health care facilities

- **Tools**
  - Emergency Department
    - Evaluate patient's gait
    - Get up and go test
  - In-patient
    - Physical and Occupational Therapy Consult
    - IDEAL Discharge Planning Overview, Process, and Checklist
      - Includes five key elements for assessment.
      - Checklists integrate safe discharge planning process beginning the day of admission.
      - **IDEAL Discharge Planning Tool**

- **Things to Consider**
  - Patients not able to rise from the bed, turn, and steadily ambulate out of the ED should be reassessed. Admission should be considered if patient safety cannot be assured.
  - Begin developing plan for transition to posthospital care or special unit care in the immediate postinjury period.
  - Assess following discharge planning issues early during hospitalization
    - Home environment, social support, and possible needs for medical equipment and/or home health services.
    - Patient acceptance/denial of nursing home or skilled nursing facility placement
  - Provide the patient and caregiver with a written discharge document which includes:
    - Discharge diagnosis
    - Medications and clear dosing instructions and possible reactions
    - Documentation of reconciliation between outpatient and inpatient medications
    - Direction for wound care
    - Instructions for diet (nutrition plan) and mobility
    - Needs for PT/OT
    - Contact information for patients physician or clinic
    - Establish an appointment with continuity physician, specialty physicians, or clinic
    - Clear documentation of incidental findings
    - Documentation of follow up appointment with telephone contact
  - Communicate results of hospitalization with patient's primary care provider (PCP)

    - Provide PCP with discharge summary
- Provide the receiving facility with a discharge summary prior the patients departure from the hospital as well as verbal communication with the receiving facility.
- For patients discharged to home:
    - Arrange for home health visit or follow-up phone call within 1-3 days of discharge to assess.
        - Pain control
        - Tolerance of food, liquids
        - Ability to ambulate
        - Mental status
        - Understanding of post discharge instructions/medications

RESOURCES:

- Geriatric Emergency Department Accreditation Program (GEDA) Geriatric Emergency Department Accreditation (acep.org)
- TQIP – Geriatric Best Practice Guideline geriatric guidelines.pdf (facs.org)
- American Geriatrics Society BEERS Criteria 2023

(Identification of Seniors at Risk) ISAR Screening questions

ISAR Screening Questions	No	Yes
1. Before the illness or injury that brought you to the Emergency, did you need someone to help you on a regular basis?	0	1
2. In the last 24 hours, have you needed more help than usual?	0	1
3. Have you been hospitalized for one or more nights during the past six months?	0	1
4. In general, do you have serious problems with your vision that cannot be corrected with glasses?	0	1
5. In general, do you have serious problems with your memory?	0	1
6. Do you take six or more different medications every day?	0	1
	Total	**/6**

Scoring: Score of ≥ 2 is a positive test

Frailty Score: Operational Definition[13]	
Criteria	**Definition**
Shrinkage	Unintentional weight loss ≥10 pounds in past year
Weakness	Decreased grip strength
Exhaustion	Self-reported poor energy and endurance
Low physical activity	Low weekly energy expenditure
Slowness	Slow walking
Interpretation of the Frailty Score	
The patient receives 1 point for each criterion met. 0–1 = Not Frail 2–3 = Intermediate Frail (Pre-frail) 4–5 = Frail	
Frail patients are at much higher risk of adverse health outcomes. Intermediate frail patients are at elevated risk (less than frail ones) but are also at more than double the risk of becoming frail over 3 years.	

<table>
<tr><th colspan="3">Frailty Score[14-15]
Patient receives one point for each criterion (0–5)</th></tr>
<tr><th>Frailty Criteria</th><th colspan="2">Definition</th></tr>
<tr><td>Weight loss</td><td colspan="2">Unintentional weight loss ≥10 pounds in the past year.</td></tr>
<tr><td>Decreased grip strength (weakness)</td><td colspan="2">Grip strength in the lowest 20th percentile by gender and BMI. Three trials are performed with a hand-held dynamometer and the average value is used.</td></tr>
<tr><td></td><td>Men
<table><tr><th>BMI</th><th>Kg Force</th></tr><tr><td>≤24</td><td>≤29</td></tr><tr><td>24.1–26</td><td>≤30</td></tr><tr><td>26.1–28</td><td>≤30</td></tr><tr><td>>28</td><td>≤32</td></tr></table></td><td>Women
<table><tr><th>BMI</th><th>Kg Force</th></tr><tr><td>≤23</td><td>≤17</td></tr><tr><td>23.1–26</td><td>≤17.3</td></tr><tr><td>26.1–29</td><td>≤18</td></tr><tr><td>>29</td><td>≤21</td></tr></table></td></tr>
<tr><td>Exhaustion</td><td colspan="2">For the following two statements:
1. "I felt that everything I did was an effort."
2. "I could not get going."
The patient is asked: "How often in the last week did you feel this way?"
0 = rarely or none of the time (<1 day)
1 = some or a little of the time (1–2 days)
2 = a moderate amount of the time (3–4 days)
3 = most of the time
The criterion is met if patient answers 2 or 3 to either statement.</td></tr>
<tr><td>Low physical activity</td><td colspan="2">Weekly energy expenditure, determined with the short version of the Minnesota Leisure Time Activities Questionnaire in the lowest 20th percentile by gender:
Men: <383 kcal/week. Women: <270 kcal/week.</td></tr>
<tr><td>Slowed walking speed</td><td colspan="2">Walking speed in the lowest 20th percentile by gender and height. Time is measured for a distance of 15 feet at normal pace. The average of three trials is used.</td></tr>
<tr><td></td><td>Men
<table><tr><th>Height</th><th>Time</th></tr><tr><td>≤173 cm</td><td>≥7 sec</td></tr><tr><td>>173 cm</td><td>≥6 sec</td></tr></table></td><td>Women
<table><tr><th>Height</th><th>Time</th></tr><tr><td>≤159 cm</td><td>≥7 sec</td></tr><tr><td>>159 cm</td><td>≥6 sec</td></tr></table></td></tr>
</table>

FRAIL Scale

Frailty Criteria	**Definition**
Fatigue	How much of the time during the past 4 weeks did you feel tired? 1 = All of the time, 2 = Most of the time, 3 = Some of the time, 4 = A little of the time, 5 = None of the time. Scores 1-2 = 1, Scores 3-5 = 0.
Resistance	By yourself and not using aids, do you have any difficulty walking up 10 steps without resting? 1 = Yes, 0 = No
Ambulation	Do you have difficulty walking one block? 1 = Yes, 0 = No

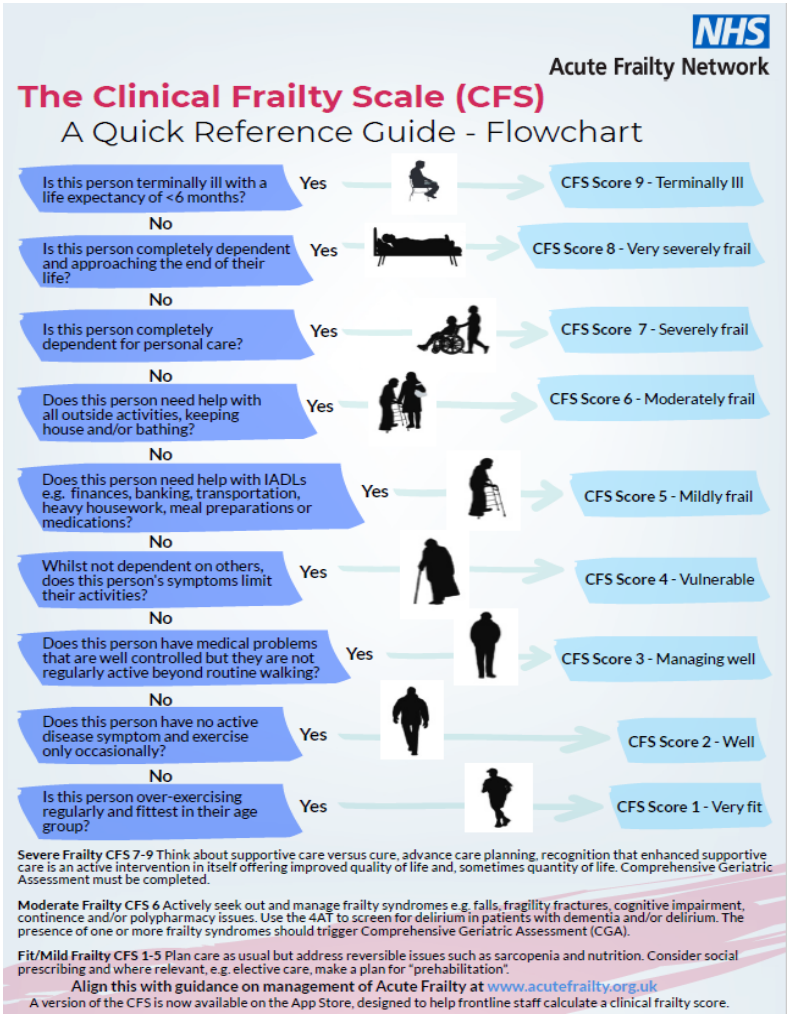
Illnesses	Do you have any of these illnesses: hypertension, diabetes, cancer (other than a minor skin cancer), chronic lung disease, heart attack, congestive heart failure, angina, asthma, arthritis, stroke, and kidney disease?) Five or greater = 1, fewer than 5 = 0
Loss of weight	Loss of weight (Have you lost more than 5 percent of your weight in the past year?) Yes= 1, No = 0
Total	**/5**

Scoring: ≥3/5 criteria met indicates frailty
1-2/5 indicates pre-or-intermediate frailty
0/5 indicates non-frail.

PRISMA Frailty Assessment

	PRISMA Frailty Assessment	No	Yes
1.	Are you older than 85 years?	0	1
2.	Are you male?	0	1
3.	In general, do you have any health problems that require you to limit your activities?	0	1
4.	Do you need someone to help you on a regular basis?	0	1
5.	In general, do you have any health problems that require you to stay at home?	0	1
6.	If you need help, can you count on someone close to you?	0	1
7.	Do you regularly use a stick, walker, or wheelchair to move about?	0	1
		Total	**/7**

Scoring: If the respondent had 3 or more "yes" answers, this indicates an increased risk of frailty and the need for further clinical review.



http://www.acutefrailtynetwork.org.uk/ - CFS App

Assessing Baseline and Current Functional Status in Ambulatory Patients

Short Simple Screening Test for Functional Assessment[8,9]

Ask the patient the following four questions:

1. *Can you get out of bed or chair yourself?*
2. *Can you dress and bathe yourself?*
3. *Can you make your own meals?*
4. *Can you do your own shopping?*

Interpretation of Functional Screening Test

If NO to any of these questions, more in-depth evaluation should be performed, including full screening of ADLs and IADLs.

Deficits should be documented and may prompt perioperative interventions (for example, referral to occupational therapy and/or physical therapy) and proactive discharge planning.

Assessing Gait and Mobility Impairment and Fall Risk in Ambulatory Patients[10-12]

Timed Up and Go Test (TUGT)

Patients should sit in a standard armchair with a line 10 feet in length in front of the chair. They should use standard footwear and walking aids and should not receive any assistance.

Have the patient perform the following commands:

1. *Rise from the chair (if possible, without using the armrests)*
2. *Walk to the line on the floor (10 feet)*
3. *Turn*
4. *Return to the chair*
5. *Sit down again*

Interpretation of TUGT

Any person demonstrating difficulty rising from the chair or requiring more than 15 seconds to complete the test is at high risk for falls. Consider preoperative referral to physical therapy for more detailed gait assessment.

Screening for Severe Nutritional Risk[16]

Risk Factors for Severe Nutritional Risk

- BMI <18.5 kg/m^2
- Serum albumin <3.0 g/dL (with no evidence of hepatic or renal dysfunction)
- Unintentional weight loss >10%–15% within 6 months

Interpretation of Nutritional Screening

If YES to any above criterion, then the patient is at severe nutritional risk and should, if feasible, undergo a full nutritional assessment by a dietician to design a perioperative nutritional plan to address deficits.

- Optimal Resources for Geriatric surgery
- GeriatricsCareOnline.org
- HealthinAging.org
- Minnesota Elder Justice Center (elderjusticemn.org) provides support, information and resources to older and vulnerable adults and their loved ones around issues of abuse, neglect and financial exploitation.

- MN Senior Services and Resources | Senior LinkAge Line / Minnesota.gov – web resource for seniors living in MNshort