Title: Geriatric Trauma Operational Guidelines

Category: Clinical Trauma Neurosurgery Program
Trauma Patients

Type Of Guideline: Clinical Guideline

Authorizing Title: Trauma Neurosurgery Program Director and/or Trauma Director

Primary Document Author: Trauma QA Coordinator

Effective Date: September 2007

Next Review: September 2008

Areas Consulted: TNS Program Administration, Trauma Administration, the SMH Regional Geriatric Program (RGP), Geriatric Nursing, Geriatric Medicine, Trauma Occupational Therapy, Trauma Physiotherapy, Trauma Speech and Language Pathology, Trauma Quality Assurance, Trauma Case Management, Trauma Social Work, and Trauma Spiritual Care.

Committee Approved: Trauma Neurosurgery Program Council
Trauma Neurosurgery Knowledge Translation Committee

Associated Emergency Code: N/A

Reference: [Policy and Procedure Office Use Only]

Introduction

The traumatically injured older adult represents a subset of patients that present additional challenges to the health care team. (Fallon et al 2006). Delays in recognizing the special needs of older adult trauma patients can result in sub-optimal care (Scalea et al 1990), an increase in resource utilization and significant mortality (Demetriades et al 2001).

Canada’s population is aging quickly and this rapid ageing is projected to last until 2031, when seniors would account for between 23% and 25% of the total population. This would be almost double the 2006 proportion of 13.7% (Statistics Canada Daily 2006). Currently, approximately 15% of trauma patients admitted to the SMH trauma service are 60 years of age or older. When older adults sustain injury they have an increased mortality risk despite lower injury severity related to a narrow physiologic tolerance and reserve (McMahon et al 2000 Miltzman 1996). In order to improve outcomes for this group additional service and resource provision throughout the patient care journey is required (Fallon et al 2006).

Optimal care of the elderly trauma patient admitted to SMH requires making a commitment to providing appropriate resources and expertise through Geriatric Trauma Consultation Services (GTCS) to ultimately improve outcomes. The goal of the geriatric trauma consultation service is to prevent or mitigate age-specific complications related to co-morbidities or new-onset of conditions and assist in discharge planning (Fallon et al 2006).
Guidelines

1. All trauma patients 60 years old and older, admitted to the trauma service on any unit in the hospital will be seen by an Advanced Practice Nurse (APN) Specialist in geriatrics within 72 hours of admission.

2. Trauma service referrals for all patients 60 years old and older admitted to trauma service will be faxed on the standard Geriatric Internal Consultation Team (Regional Geriatric Program-RGP) Referral Form to the APN Specialist in Geriatrics by one of the following: the Trauma Quality Assurance Coordinator, the Trauma Case Manager, Trauma APN, TNS RN or TNS CNS/NP. The referral will activate the Geriatric Internal Consultation Team with activation as required of one or more of the RGP team members.

3. A geriatric trauma targeted assessment including a functional, cognitive, and psychosocial evaluation will be initiated by the (APN) Specialist in geriatrics within 72 hours of admission.

4. The APN Specialist in Geriatrics will attend weekly multidisciplinary Trauma rounds and advise on the geriatric trauma patient care issues and liaise with surgical team, nursing staff, RGP, patient and family to optimize patient outcomes for this group.

5. The APN Specialist in Geriatrics will document care recommendations on a geriatric trauma summary sheet filed in the patient’s chart.

6. Geriatric Trauma Advisory Group - This collaborative inter-professional group would meet on an ad hoc basis to review geriatric trauma operational guidelines and review the geriatric trauma patient assessment and review process. The Geriatric Trauma Advisory Group would include representation from the APN Specialist in Geriatrics, and the Clinical Nurse Specialist (CNS/NP) Gerontology, Geriatrician, Trauma surgeon, Trauma Occupational Therapist, Trauma Physiotherapist, Trauma Speech and Language Pathologist, Trauma Quality Assurance Coordinator, Trauma Case Manager, Trauma Social Worker, Trauma APN, TNS CNS/NP and Trauma Spiritual Care. The Clinical Nurse Specialist in Gerontology is linked corporately with the Regional Geriatric Program (RGP) at SMH. The Geriatric Trauma Advisory Group would link with the Elder Care Working Group for information updates.

Consult Components:

Targeted Geriatric Assessment Form (Appendix B): The goal of the Geriatric Trauma Targeted Assessment is to establish the patients’ baseline status and identify issues of concern. The components of the assessment are outlined in Appendix B.

Potential recommendations/actions based on the Geriatric Trauma Targeted Assessment may include:

- Goals of care identification
- Coordinating with the trauma service interdisciplinary team in the development, assessment, implementation and evaluation of a plan of care
- Medication issue identification
Participate as appropriate in family communications and conferences
End of life concerns
Discharge Referrals (OT/PT falls assessments)
Recommendations for further consultations and follow-up (i.e. wound care, ophthalmology, audiology, delirium, depression, dementia )
Discharge disposition recommendations

Follow-up:

- The follow-up of geriatric trauma patients by the APN in Geriatric Trauma will be based on the issues identified in the Geriatric Trauma Targeted Assessment. Patients will be stratified based on the results of the Geriatric Trauma Targeted Assessment into those that require minimal or no follow-up by the APN Specialist in Geriatrics, those that require a follow-up assessment on discharge from the Trauma Neurosurgery Intensive care unit (TNICU) and those that require ongoing active participation of the APN Specialist in Geriatrics and/or the broader Geriatric Internal Consultation Team (RGP).
- The APN Specialist in Geriatrics and the Geriatrician, when available, will attend weekly multidisciplinary Trauma and will communicate any targeted clinical recommendations based on their assessment of the patient.
- The APN Specialist in Geriatrics may also document ongoing recommendations from the Geriatric Internal Consultation Team (RGP) on the Geriatric Trauma Targeted Assessment Form.

Documentation:

- Geriatric Internal Consultation Team (RGP) Referral Form (Appendix A)
- Geriatric Trauma Targeted Assessment Form (Appendix B)

References


5. The East Practice Management Guidelines Work Group, Practice Management Guidelines for Geriatric Trauma 2001 Eastern Association for the Surgery of Trauma


9. Meldon S. Geriatric Trauma: Outcomes of older adults following trauma. 2002

10. Miller, K. Acute care of the elderly units: A Positive outcomes case study. AACN Clinical Issues Volume 13, Number 1, pp. 34-42 2002, AACN


14. Phelan B, Cooper D, Sangkachand P. Prolonged mechanical ventilation and tracheostomy in the elderly. AACN Clinical Issues Volume 13, Number 1, pp. 84-93 2002, AACN


Appendix A:

GERIATRIC INTERNAL CONSULTATION TEAM (RGP)
REFERRAL FORM

Date of Referral: __________________ Time: _______________ Location: __________
Room_______

Patient Name: ___________________________________________ J #
___________________________

Referral Source: _________________________________________ Staff MD:
___________________________

Primary Diagnosis/Main Concern:
_________________________________________________________

Reason(s) for Referral:

1. ☐ Geriatric Consultation regarding any of the following issues (please check all appropriate boxes):

☐ cognitive changes (acute/chronic)
☐ falls/mobility
☐ continence issues
☐ unexplained functional decline
☐ failure to cope
☐ review of complex medication issues
☐ complex psychosocial issues
☐ decision-making ability related to treatment options
☐ other (please specify) _______________________________________

2. ☐ Possible admission to the Acute Geriatric Unit (AGU).

4. ☐ Post discharge follow-up planning (i.e. Elder’s Clinic appointment).

5. ☐ Geriatric Trauma Consultation

Comments:

Referral Source/ MD _____________________________ Pager:

FAX consultation request to 416-864-5735

Regional Geriatric Program (RGP) Intake - Ext. 5015

Geriatric Advanced Practice Nurse (APN): Pager 416-685-9509
Appendix B

Geriatric Trauma Targeted Assessment Form

Appendix C

GTA Geriatric Rehabilitation Triage Tool
<table>
<thead>
<tr>
<th>Revision #</th>
<th>Effective Date(s)</th>
<th>Next Review</th>
<th>Author or Reviewer</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>01</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Geriatric Trauma Targeted Assessment

Date of Patient Admission: (dd/mm/yy): ___ / ___ / ___  
Referral Date: ___ / ___ / ___  
Initiation Date: ___ / ___ / ___

Age ____  Gender M F  Transfer from: scene  peripheral hospital: ____________________________

Attending MD: ____________________________

Mechanism of Injury:
mvc  fall  ped  bike  rec veh  gsw  stab  assault  other___________________________

☐ multi-system injury  ☐ single system injury_______________________________
(specific)

Brief details of traumatic event and injuries sustained:

Previous Medical History:  
Collateral history obtained from: ____________________________

Course in Hospital (including diagnostics):

GT NSG AX July 19 2006
Social/Family:
Marital Status: ☐ Married ☐ Divorced/Separated ☐ Widowed ☐ Single ☐ Other: ______________
Caregiver Situation: ____________________________________________________________________________

POA/SDM:

Living situation: ☐ Alone ☐ with Spouse ☐ Other: ____________________________________________________________________________
Type of residence: ☐ House ☐ Apartment ☐ Senior Apartment ☐ Residential Care/Retirement Home
☐ Nursing Home/Chronic Care ☐ Other: ____________________________________________________________________________
Stairs used in home: ☐ No ☐ Yes Access to house: ________ steps Stairs within house: ________ steps

Support Network: ☐ CCAC services - ☐ Nursing ☐ Homemaking ☐ PT ☐ OT
☐ Wheel Trans ☐ Meals-on-Wheels ☐ Personal Safety Device
☐ Private Assistance (specify) ____________________________________________________________________________

Previous Geriatric Services: ☐ N/A ☐ GEM ☐ Geriatrician/Elder’s Clinic ☐ Geriatric Psychiatry ☐ AGU
☐ Other: __________________________________________________________________________________________

Transportation/Driving Status: ☐ Drives own car ☐ Dependant on others for transportation ☐ Other: ______________

Education Level/Employment Status: ____________________________________________________________________________

Elder Abuse Screening questions:
Do you need help taking care of yourself? ☐ No ☐ Yes
What is a typical day like? ____________________________________________________________________________
Who manages your finances? ____________________________________________________________________________
Who gives you your medications? self other ____________________________________________________________________________
Do you feel safe where you live? ☐ No ☐ Yes
Do you know someone you can turn to in a crisis? ☐ No ☐ Yes
Are you yelled at or punished in any way? ☐ No ☐ Yes
Has anyone threatened to hurt you? ☐ No ☐ Yes

Elder Abuse Screening completed: ☐ No ☐ Yes Comments:
## Screening

A. Has food intake declined over the past 3 months due to loss of appetite, digestive problems, chewing or swallowing difficulties?
- 0 = severe loss of appetite
- 1 = moderate loss of appetite
- 2 = no loss of appetite

B. Weight loss during the last 3 months
- 0 = weight loss greater than 3 kg (6.6 lbs)
- 1 = does not know
- 2 = weight loss between 1 and 3 kg (2.2 and 6.6 lbs)
- 3 = no weight loss

C. Mobility
- 0 = bed or chair bound
- 1 = able to get out of bed/chaair but does not go out
- 2 = goes out

D. Has suffered psychological stress or acute disease in the past 3 months
- 0 = yes
- 2 = no

E. Neuropsychological problems
- 0 = severe dementia or depression
- 1 = mild dementia
- 2 = no psychological problems

F. Body Mass Index (BMI) (weight in kg) / (height in m²)
- 0 = BMI less than 19
- 1 = BMI 19 to less than 21
- 2 = BMI 21 to less than 23
- 3 = BMI 23 or greater

Screening score (subtotal max. 14 points)
- 12 points or greater: Normal - not at risk - no need to complete assessment
- 11 points or below: Possible malnutrition - continue assessment


---

**Height**

_____ estimate/actual

**Weight**

_____ estimate/actual
**Estimated Pre-Injury Score** ______________  **Score prior to discharge** ____________________________

<table>
<thead>
<tr>
<th>Frailty domain</th>
<th>Item</th>
<th>0 point</th>
<th>1 point</th>
<th>2 points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognition</td>
<td>Please imagine that this pre-drawn circle is a clock. I would like you to place the numbers in the correct positions then place the hands to indicate a time of ‘ten after eleven’.</td>
<td>No errors</td>
<td>Minor spacing errors</td>
<td>Other errors</td>
</tr>
<tr>
<td>General health status</td>
<td>In the past year, how many times have you been admitted to a hospital?</td>
<td>0</td>
<td>1–2</td>
<td>≥2</td>
</tr>
<tr>
<td></td>
<td>In general, how would you describe your health?</td>
<td>‘Excellent’, ‘Very good’, ‘Good’</td>
<td>‘Fair’</td>
<td>‘Poor’</td>
</tr>
<tr>
<td>Functional independence</td>
<td>With how many of the following activities do you require help? (meal preparation, shopping, transportation, telephone, housekeeping, laundry, managing money, taking medications)</td>
<td>0–1</td>
<td>2–4</td>
<td>5–8</td>
</tr>
<tr>
<td>Social support</td>
<td>When you need help, can you count on someone who is willing and able to meet your needs?</td>
<td>Always</td>
<td>Sometimes</td>
<td>Never</td>
</tr>
<tr>
<td>Medication use</td>
<td>Do you use five or more different prescription medications on a regular basis?</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>At times, do you forget to take your prescription medications?</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Nutrition</td>
<td>Have you recently lost weight such that your clothing has become looser?</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Mood</td>
<td>Do you often feel sad or depressed?</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Continence</td>
<td>Do you have a problem with losing control of urine when you don’t want to?</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Functional performance</td>
<td>I would like you to sit in this chair with your back and arms resting. Then, when I say ‘GO’, please stand up and walk at a safe and comfortable pace to the mark on the floor (approximately 3m away), return to the chair and sit down</td>
<td>0–10 s</td>
<td>11–20 s</td>
<td>One of &gt;20 s patient unwilling, or requires assistance</td>
</tr>
<tr>
<td>Totals</td>
<td>Final score is the sum of column totals</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sexuality**

**Male sexual function:**
Prostate problems/surgery y n
urinary problems (e.g. incontinence/dribbling/incomplete emptying) y n
erectile or ejaculation problems y n
any difficulties with sexual intercourse y n
comments

**Female sexual function:**
any abnormal pap/mamogram y n
urinary or vaginal problems (e.g. burning itching irritation discharge) y n
any difficulties with sexual intercourse y n
comments

**For both:**
Is there anything you would like to discuss about intimate/ sexual relationships? y n
Do you have any question related to your sexuality including the effects of medications or your recent injury? y n
comments
Geriatric Trauma Assessment Tool DRAFT 24 09 07

Modified Activities of Daily Living – Pre-Admission (The Physical Self-Maintenance Scale-Lawton Brody)

**Toilet**
1- Cares for self at toilet completely, no incontinence
2- Needs to be reminded or needs help in cleaning self or has rare accidents (weekly at most)
3- Soiling or wetting while asleep more than once a week
4- Soiling or wetting while awake more than once a week
5- No control of bowels or bladder

Comments: _______________________________________________________________________

**Feeding**
1- Eats without assistance
2- Eats with minor assistance at meal times and/or with special preparation of food or help in cleaning up after meals
3- Feeds self with moderate assistance and is untidy
4- Requires extensive assistance for all meals
5- Does not feed self at all and resists efforts of others to feed him/her

Comments: _______________________________________________________________________

**Dressing**
1- Dresses, undresses and selects clothes from own wardrobe
2- Dresses, undresses self with minor assistance
3- Needs moderate assistance in dressing or selection of clothes
4- Needs major assistance in dressing, but cooperates with efforts of others to help
5- Completely unable to dress self and resists efforts of others to help

Comments: _______________________________________________________________________

**Grooming (neatness, hair, nails, hands, face and clothing)**
1- Always neatly dressed, well-groomed without assistance
2- Grooms self adequately with occasional minor assistance e.g. : shaving
3- Needs moderate and regular assistance or supervision in grooming
4- Needs total grooming care, but can remain well-groomed after help from others
5- Actively negates all efforts of others to maintain grooming

Comments: _______________________________________________________________________

**Physical Ambulation**
1- Goes about grounds or city
2- Ambulates within residence or about one block distance
3- Ambulates with assistance of: (check one) ☐ another person  ☐ railing  ☐ cane  ☐ walker  ☐ wheelchair
4- Sits unsupported in chair or wheelchair, but cannot propel self without help
5- Bedridden more than half the time

Comments: _______________________________________________________________________

**Bathing**
1- Bathes self (tub, shower, sponge bath) without help
2- Bathes self with help in getting in and out of the tub
3- Washes face and hands only, but cannot bathe rest of body
4- Does not wash self but is cooperative with those who bathe him/her
5- Does not try to wash self and resists efforts to keep him/her clean

Comments: _______________________________________________________________________

**Total score:** _____________ /30

**Minor assistance:** Requires verbal cueing to initiate task or be redirected to task, and/or requires assistance with set-up (removing lid, gathering clothes) – individual does not require hands-on assist.

**Moderate assistance:** Requires continuous verbal cues to maintain task, and/or requires hands-on assist to complete task-50%

**Major/Extensive assistance:** The task is performed by another person but the patient participates (opens mouth, lift arms)
Activities of Daily Living Scale

A. Ability to Use Telephone
   1. Operates telephone on own initiative-looks up and dials numbers, etc.
   2. Dials a few well known numbers.
   3. Answers telephone but does not dial.
   4. Does not use telephone at all.

B. Shopping
   1. Takes care of all shopping needs independently.
   2. Shops independently for small purchases.
   3. Needs to be accompanied on any shopping trip.
   4. Completely unable to shop.

C. Food Preparation
   1. Plans, prepares and serves adequate meals independently.
   2. Prepares adequate meals if supplied with ingredients.
   3. Heats and serves prepared meals, or prepares meals but does not maintain adequate diet.
   4. Needs to have meals prepared and served.

D. Housekeeping
   1. Maintains house alone or with occasional assistance (e.g. “heavy work-domestic help”).
   2. Performs light daily tasks such as dish washing, bed making.
   3. Performs light daily tasks but cannot maintain acceptable level of cleanliness.
   5. Does not participate in any housekeeping tasks.

E. Laundry
   1. Does personal laundry completely.
   2. Launders small items-rinses socks, stockings etc.
   3. All laundry must be done by others.

F. Mode of Transportation
   1. Travels independently on public transportation or drives own car.
   2. Arranges own travel via taxi, but does not otherwise use public transportation.
   3. Travels on public transportation when assisted or accompanied by another.
   4. Travel is limited to taxi or automobile with assistance of another.
   5. Does not travel at all.

G. Responsibility for own Medication
   1. Is responsible for taking medication in correct dosages at correct time
   2. Takes responsibility if medication is prepared in advance in separate dosages
   3. Is not capable of dispensing own medication.

H. Ability to Handle Finances
   1. Manages financial matters independently (budgets, writes cheques, pays rent, bills, goes to bank), collects and keeps track of income.
   2. Manages day-to-day purchases, but needs help with banking, major purchases, etc.
   3. Incapable of handling money.
**ACTIVE PROBLEM(S) (circle and describe below):**

<table>
<thead>
<tr>
<th>Cognition</th>
<th>Mood/Affect</th>
<th>Behaviour</th>
<th>Mobility/Falls</th>
<th>Function</th>
<th>ADL</th>
<th>IADL</th>
<th>Nutrition</th>
<th>Continence (Bladder/ Bowel)</th>
<th>Skin Integrity</th>
<th>Vision</th>
<th>Hearing</th>
<th>Pain</th>
<th>Caregiver Burdon</th>
<th>Elder abuse flag</th>
<th>Other</th>
</tr>
</thead>
</table>

Other
Appendix A

Mini-Cog Dementia Screen:

A. Immediate registration (3 words) ___________________ ___________________ ___________________

B. Clock Drawing Test (CDT) (see attached)  ☐ normal  ☐ abnormal

*The CDT is considered normal if all numbers are present in the correct sequence and position and the hands readably display the requested time.*

C. Recent recall (3 words) ___________________ ___________________ ___________________

The Mini-Cog combines a three-item word learning and recall task (0-3 points; each correctly recalled word = 1 point), with simple clock drawing task (abnormal clock = 0 points; normal clock = 2 points) used as distraction task before word recall.

Scoring:
Give 1 point for each recalled word after the CDT distracter. Score 0-3 for recall.
Give 2 points for a normal CDT and 0 points for an abnormal CDT. The CDT is considered normal if all the numbers are depicted, once each, in the correct sequence and position, and the hands readably display the requested time. Add the recall and the CDT scores together to get the Mini-cog score.

- A score of 0-2 Indicates positive for dementia
- A score of 3-5 Indicates negative screen for dementia

Results:
- ☐ Negative Screen for Dementia  ☐ Positive Screen for Dementia
- ☐ Additional Cognitive Screening
- ☐ MMSE
- ☐ MoCA

Comments:

Appendix B

**Caregiver Burden Interview**

The following is a list of statements which reflects how some people feel about taking care of another person. After each statement, please indicate the frequency using the following scale.

0=Never  1=Not in the past week  2=1-2 times in the past week  3=3-6 times in the past week  4=Daily

Do you feel:

1. That your relative asks for more help than he/she needs?
2. That because of the time you spend with your relative you don’t have enough time for yourself?
3. Stressed between caring for your relative and trying to meet other responsibilities (work/family)?
4. Angry when you are around relative?
5. That your relative currently affects your relationship with family members or friends in a negative way?
6. Embarrassed over your relative’s behavior?
7. Afraid what the future holds for your relative?
8. That your relative is dependent upon you?
9. Strained when you are around you relative?
10. Your health has suffered because of your involvement with your relative?
11. You don’t have as much privacy as you would like because of your relative?
12. Your social life has suffered because of your relative?
13. Uncomfortable about having friends over because of your relative?
14. Your relative seems to expect you to take care of him/her as if you were the only one he/she could depend on?
15. You don’t have enough money to care for your relative in addition to your other expenses?
16. That you will be unable to take care of your relative much longer?
17. You have lost control of your life since your relative’s illness?
18. Do you wish you could leave the care of your relative to someone else?
19. Uncertain about what to do concerning your relative?
20. You should be doing more for your relative?
21. You could do a better job in caring for your relative?
22. Overall how often do you feel burdened in caring for your relative?

Total________________/88

Key: 0-20 no or little burden, 21-40 mild to moderate burden, 40-60 moderate to severe burden, 61-80 severe burden

Zarit et al (1980)
Appendix C

**SIG E CAPS Depression Screen:**

At least 5 of the following symptoms* have been present nearly every day, for most of the day, during the same two week period and represent a change from previous functioning: at least one of the symptoms is either (1) depressed mood or (2) loss of interest in pleasure

- D Depressed Mood
- S Insomnia or hypersomnia
- I Markedly diminished interest or pleasure
- G Feelings of worthlessness or excess of inappropriate guilt
- E Fatigue or loss of energy
- C Diminished ability to think or concentrate
- A Significant change in weight or appetite
- P Psychomotor agitation or retardation
- S Recurrent thoughts of death or suicidal ideation

SIG E CAPS _______/8

Adapted from DSM IV, American Psychiatric Association, 1994.

* Symptoms cause significant distress or impairment in daily activities, social life, or other important areas of functioning.

* Symptoms are not due to the direct effects of a substance (e.g., drugs of abuse or medication) or a general medical condition.
Appendix D

Cornell Scale for Depression in Dementia:

**Scoring System**
- **A** = unable to evaluate
- **0** = absent
- **1** = mild or intermittent
- **2** = severe

*Ratings should be based on symptoms and signs occurring during the week prior to interview. No score should be given in symptoms result from physical disability or illness.*

**A. Mood-Related Signs**
1. Anxiety: anxious expression, ruminations, worrying  
   - A 0 1 2
2. Sadness: sad expression, sad voice, tearfulness  
   - A 0 1 2
3. Lack of reactivity to pleasant events  
   - A 0 1 2
4. Irritability: easily annoyed, short-tempered  
   - A 0 1 2

**B. Behavioral Disturbance**
5. Agitation: restlessness, handwringing, hairpulling  
   - A 0 1 2
6. Retardation: slow movement, slow speech, slow reactions  
   - A 0 1 2
7. Multiple physical complaints (score 0 if GI symptoms only)  
   - A 0 1 2
8. Loss of interest: less involved in usual activities  
   - A 0 1 2
   *(score only if change occurred acutely, i.e. in less than 1 month)*

**C. Physical Signs**
9. Appetite loss: eating less than usual  
   - A 0 1 2
10. Weight loss (score 2 if greater than 5 lb. in 1 month)  
    - A 0 1 2
11. Lack of energy: fatigues easily, unable to sustain activities  
    - A 0 1 2
    *(score only if change occurred acutely, i.e., in less than 1 month)*

**D. Cyclic Functions**
12. Diurnal variation of mood: symptoms worse in the morning  
    - A 0 1 2
13. Difficulty falling asleep: later than usual for this individual  
    - A 0 1 2
14. Multiple awakenings during sleep  
    - A 0 1 2
15. Early morning awakening: earlier than usual for this individual  
    - A 0 1 2

**E. Ideational Disturbance**
16. Suicide: feels life is not worth living, has suicidal wishes, or makes suicide attempt  
    - A 0 1 2
17. Poor self esteem: self-blame, self-depreciation, feelings of failure  
    - A 0 1 2
18. Pessimism: anticipation of the worst  
    - A 0 1 2
19. Mood congruent delusions: delusions of poverty, illness, or loss  
    - A 0 1 2
Appendix E

Chicago Screen for Falls:

### SECTION 1:

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>INDICATORS</th>
<th>YES/NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rehabilitation/Skilled care</td>
<td>Rehab/LTC Home/ICU</td>
<td></td>
</tr>
<tr>
<td>Falls</td>
<td>History of falls within the last 6 months</td>
<td></td>
</tr>
<tr>
<td>Mental status</td>
<td>Confusion/delirium</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Altered level of consciousness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Disorganized thinking</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Memory or cognitive impairments</td>
<td></td>
</tr>
<tr>
<td>Mobility</td>
<td>Ataxic/unsteady/shuffling gait</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ambulates with assist of a person</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Balance impairment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unable to transfer/ambulate</td>
<td></td>
</tr>
</tbody>
</table>

YES to any of the categories in section 1 qualifies the patient for **STRICT FALL PRECAUTIONS.**

### SECTION 2:

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>INDICATORS</th>
<th>YES/NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptoms/Diagnoses</td>
<td>Shortness of Breath</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unstable glucose levels</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Immunocompromised</td>
<td></td>
</tr>
<tr>
<td></td>
<td>New CVA/amputee</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bleeding Disorders</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Osteoporosis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Withdrawal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vertigo</td>
<td></td>
</tr>
<tr>
<td>Elimination</td>
<td>Incontinent</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Urgency</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Frequency</td>
<td></td>
</tr>
</tbody>
</table>

**Four** or more of the following medications:

- Anesthesia within the past 48 hours
- Anticoagulants
- Antidepressants
- Benzodiazepines
- Laxatives/diuretics
- Opioids
- Sedatives/hypnotics
- Vasodilators

**Environment**

PCA, chest tube, drains, bedside commode, ambulates with assistive device, auditory/visual impairments

YES to any two categories in section 2 qualifies the patient for **STRICT FALL PRECAUTIONS.**

*Payson C, Haviley C Patient Falls Assessment and Prevention  HCPPro Inc. 2005*
Appendix F

**CAM Delirium Screen: (If 1 and 2 are present plus either 3 or 4 CAM is POSITIVE)**

1. Is there evidence of an acute change in mental status form the patient’s baseline?  □ Yes □ No
2a. Did the patient have difficulty focusing attention, i.e. being easily distractible or having difficulty keeping track of what is being said?  □ Yes □ No
2b. (If present or abnormal) did this behavior fluctuate during the interview, that is, tend to come and go or increase and decrease in severity?  □ Yes □ No
3. Was the patient’s thinking disorganized or incoherent, such as rambling or irrelevant conversation, unclear or illogical flow of ideas, or unpredictable switching form subject to subject?  □ Yes □ No
1. Overall, how would you rate this patient’s level of consciousness?

□ Alert (normal)
□ Vigilant (hyperalert, easily startled)
□ Lethargic (drowsy, easily aroused)
□ Stupor (difficult to arouse)
□ Coma (unarousable)

**Comments:**


<table>
<thead>
<tr>
<th>Score</th>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>+4</td>
<td>Combative</td>
<td>Overtly combative, violent, immediate danger to staff</td>
</tr>
<tr>
<td>+3</td>
<td>Very agitated</td>
<td>Pulls or removes tube(s) or catheter(s); aggressive</td>
</tr>
<tr>
<td>+2</td>
<td>Agitated</td>
<td>Frequent non-purposeful movement, fights ventilator</td>
</tr>
<tr>
<td>+1</td>
<td>Restless</td>
<td>Anxious but movements not aggressive vigorous</td>
</tr>
<tr>
<td>0</td>
<td>Alert and calm</td>
<td></td>
</tr>
<tr>
<td>-1</td>
<td>Drowsy</td>
<td>Not fully alert, but has sustained awakening (eye-opening/eye contact) to voice (&gt;10 seconds)</td>
</tr>
<tr>
<td>-2</td>
<td>Light sedation</td>
<td>Briefly awakens with eye contact to voice (&lt;10 seconds)</td>
</tr>
<tr>
<td>-3</td>
<td>Moderate sedation</td>
<td>Movement or eye opening to voice (but no eye contact)</td>
</tr>
<tr>
<td>-4</td>
<td>Deep sedation</td>
<td>No response to voice, but movement or eye opening to physical stimulation</td>
</tr>
<tr>
<td>-5</td>
<td>Unarousable</td>
<td>No response to voice or physical stimulation</td>
</tr>
</tbody>
</table>

**RASS and CAM-ICU Worksheet:**

**Step One: Sedation Assessment (The Richmond Agitation and Sedation Scale RASS)**

<table>
<thead>
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<td>No response to voice or physical stimulation</td>
</tr>
</tbody>
</table>

**Procedure for RASS Assessment**

1. Observe patient
   a. Patient is alert, restless, or agitated. (score 0 to +4)
   □ ______________
   2. If not alert, state patient’s name and say to open eyes and look at speaker.
      a. Patient awakens with sustained eye opening and eye contact. (score –1)  □ ______________
      b. Patient awakens with eye opening and eye contact, but not sustained. (score –2) □ ______________
      c. Patient has any movement in response to voice but no eye contact. (score –3) □ ______________
   3. When no response to verbal stimulation, physically stimulate patient by shaking shoulder and/or rubbing sternum.
      a. Patient has any movement to physical stimulation. (score –4) □ ______________
      b. Patient has no response to any stimulation. (score –5) □ ______________

If RASS is -4 or -5, then Stop and Reassess patient at later time
If RASS is above -4 (-3 through +4) then Proceed to Step 2


**Step Two: Delirium Assessment**
**Feature 1:** Acute onset of mental status changes or a fluctuating course  
And  
**Feature 2:** Inattention  
And  
**Feature 3:** Disorganized Thinking OR **Feature 4:** Altered Level of Consciousness  
= DELIRIUM

**Feature 1: Acute Onset or Fluctuating Course**  
*Positive if you answer 'yes' to either 1A or 1B.*

1A: Is the pt different than his/her baseline mental status?  
☐ Yes ☐ No  
Or  
1B: Has the patient had any fluctuation in mental status in the past 24 hours as evidenced by fluctuation on a sedation scale (e.g. RASS), GCS, or previous delirium assessment?  
☐ Yes ☐ No

**Feature 2: Inattention**  
*Positive if either score for 2A or 2B is less than 8.*  

*Attempt the ASE letters first. If pt is able to perform this test and the score is clear, record this score and move to Feature 3. If pt is unable to perform this test or the score is unclear, then perform the ASE Pictures. If you perform both tests, use the ASE Pictures’ results to score the Feature.*

2A: ASE Letters: record score (enter NT for not tested)  
Directions: Say to the patient, “I am going to read you a series of 10 letters. Whenever you hear the letter ‘A,’ indicate by squeezing my hand.” Read letters from the following letter list in a normal tone.  

```
SAVEHAART
```

Scoring: Errors are counted when patient fails to squeeze on the letter “A” and when the patient squeezes on any letter other than “A.”  

*Score (out of 10): _____*

2B: ASE Pictures: record score (enter NT for not tested)  
*Directions are included on the picture packets.*  

*Score (out of 10): _____*

**Feature 3: Disorganized Thinking**  
*Positive if the combined score is less than 4*

3A: Yes/No Questions  
*(Use either Set A or Set B, alternate on consecutive days if necessary)*

<table>
<thead>
<tr>
<th>Set A</th>
<th>Set B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Will a stone float on water?</td>
<td>1. Will a leaf float on water?</td>
</tr>
<tr>
<td>2. Are there fish in the sea?</td>
<td>2. Are there elephants in the sea?</td>
</tr>
<tr>
<td>3. Does one pound weigh more than two pounds?</td>
<td>3. Do two pounds weigh more than one pound?</td>
</tr>
<tr>
<td>4. Can you use a hammer to pound a nail?</td>
<td>4. Can you use a hammer to cut wood?</td>
</tr>
</tbody>
</table>

*Score ___ (Patient earns 1 point for each correct answer out of 4)*

3B: Command  
Say to patient: “Hold up this many fingers” (Examiner holds two fingers in front of patient) “Now do the same thing with the other hand” (Not repeating the number of fingers). *If pt is unable to move both arms, for the second part of the command ask patient “Add one more finger”*

*Score ___ (Patient earns 1 point if able to successfully complete the entire command)*  

Combined Score (3A+3B):  
_____ (out of 5)

**Feature 4: Altered Level of Consciousness**  
*Positive if the Actual RASS score is anything other than “0” (zero)*  

<table>
<thead>
<tr>
<th>Positive</th>
<th>Negative</th>
</tr>
</thead>
</table>

**Overall CAM-ICU** (Features 1 and 2 and either Feature 3 or 4): (circle)  
*Positive | Negative*
INPATIENT REHAB TRIAGE GUIDELINES FOR GERIATRIC PATIENTS

Is patient a candidate for inpatient high tolerance or low tolerance rehab based on GTA Rehab Network Inpatient Rehab Referral Guidelines?

Yes

Is key reason for rehab, patient’s impaired premorbid functioning* or current multi-system needs?

Yes

Refer to Dedicated Geriatric Assessment/Rehab Programs* if focus of rehab is:
1. Moderate to severe premorbid functional impairment* and  
2. Current multi-system needs.

Tolerance** criteria varies among these programs from moderate – low intensity

- Baycrest
- Credit Valley Hospital (D)
- Lakeridge Health
- Providence Healthcare
- Rouge Valley Health
- Toronto Rehab/University Centre (D, G Psy)

No

See page 2 for GTA Rehab Network Guidelines’ criteria to determine if patient is:
• a candidate for inpatient rehabilitation  
• medically stable and  
• rehab ready

No

Monitor patient status and/or consider other discharge destinations.

Is key reason for rehab is to address functional impairment arising from recent acute event (e.g. ABI, Stroke, MSK, etc.)

Yes

Is tolerance level** ≥ 120 min. daily x 5 days/wk?

Yes

Refer to Medically Complex/Geriatric Rehab Programs in Mixed Units* if focus of rehab is current multi-system issues (Patient may have had mild premorbid functional issues.*)

High tolerance programs: Tolerance** ≥ 120 min. daily x 5 days/wk

- Bridgepoint Health
- Halton Healthcare Services
- Markham Stouffville Hospital
- Rouge Valley Health System
- William Osler Health Centre
- York Central Hospital (D)

Low tolerance programs: Tolerance** ≥ 20 minutes, 3x/week

- Bridgepoint Health
- Lakeridge Health
- Rouge Valley Health System
- Toronto Grace
- Toronto Rehab/Queen Elizabeth Centre
- West Park Healthcare Centre

No

Diagnosis-specific Dedicated/Mixed Rehab (e.g. ABI, Stroke, MSK etc.)

Refer to Dedicated Geriatric Assessment/Rehab Programs± if focus of rehab is current multi-system issues (Patient may have had mild premorbid functional issues.*)

Refer to Medically Complex/Geriatric Rehab Programs in Mixed Units± if focus of rehab is current multi-system issues (Patient may have had mild premorbid functional issues.*)

Diagnosis-specific LTLD Rehab

No

Is patient a candidate for inpatient high tolerance or low tolerance rehab based on GTA Rehab Network Inpatient Rehab Referral Guidelines?

Legend: Specialized Services
Diagnosis (D)  
Dialysis (D)  
Geriatric Psychiatry (G Psy)

* See Pre-Morbid Function Screen on page 3.
**Tolerance denotes participation in all activities scheduled with therapy and nursing staff.
* For definitions regarding these types of programs, please see page 4. A listing of current program descriptions for each category can be found in Appendix F of the GTA Rehab Network’s report, Clarifying the Complexities of Inpatient Geriatric Rehab, February 2007.
Inpatient Rehab Referral Guidelines

Criteria for Rehab Candidacy, Medical Stability and Rehab Readiness

(Please see the complete Inpatient Rehab Referral Guidelines document (www.gtarehabnetwork.ca) for guidelines regarding Timing and Submission of Referrals and Response to Referrals)

Determining if a patient is a candidate for inpatient rehabilitation …

- Patient demonstrates by documented progress the potential to return to premorbid/baseline functioning or to increase in functional level with participation in rehab program.
- There is reason to believe that, based on clinical expertise and evidence in the literature, the patient’s condition is likely to benefit from the rehab program/service.
- Goals for rehabilitation have been established and are specific, measurable, realistic and timely.
- The patient or substitute decision-maker has consented to treatment in the program and demonstrates willingness and motivation to participate in rehab program.
  (Exception: patients with reduced motivation/initiation secondary to diagnosis e.g. brain injury, depression).

Determining Medical Stability …

- A clear diagnosis and co-morbidities have been established.
- At the time of discharge from acute care, acute medical issues have been addressed; disease processes and/or impairments are not precluding participation in rehab program.
- Patient’s vital signs are stable.
- No undetermined medical issues (e.g. excessive shortness of breath, falls, congestive heart failure).
- Medication needs have been determined.

Determining Rehab Readiness …

- Patient meets the criteria of a rehab candidate and medical stability as defined in guideline above.
- All medical investigations have been completed or a follow-up plan is in place at time of referral and follow-up appointments made by time of discharge.
- Patient’s special needs have been determined.
- Patient is able to meet the minimum tolerance level of rehab program as defined by the admission criteria of rehab program.
- There are no behavioural or active psychiatric issues limiting patient’s ability to participate in rehab program.
- Treatment for other co-morbid illnesses/conditions does not interfere with patient’s ability to participate in rehab (e.g. dialysis or active cancer treatment resulting in fatigue or frequent absences from unit during rehab treatment sessions).
- Patient’s discharge options following rehab have been discussed.
Pre-Morbid Function Screen*

1. Nutrition
   Has patient had unanticipated weight loss in the last year
   (i.e. clothes fit loosely or weight loss ≥ 5% of body weight)?
   □ Yes  □ No

2. General Health Status
   Has patient had two or more admissions to hospital
   in the last year?
   □ Yes  □ No

3. Medication use
   Did patient use 5 or more prescription medications
   on a regular basis?
   □ Yes  □ No

4. Functional Independence
   Did patient need help with 3 or more of the following:
   (meal preparation, shopping, transportation, telephone,
   housekeeping, laundry, managing money, taking
   medications)?
   □ Yes  □ No

5. Continence
   Did patient have a problem with losing control of
   his/her urine?
   □ Yes  □ No

6. Mobility
   Has patient had a fall in past year?
   □ Yes  □ No

Score = Total # of Yes answers.
Rating key:  Mild Pre-morbid Challenges (1-2); Moderate Pre-Morbid Challenges (3-4);
Severe (5-6)

* Screening tool is derived from the Edmonton Frail Scale (EFS) (see below). The following items
used in the EFS were not included: Cognition, Social Support, Mood and Functional Performance.
However these areas are addressed in the Inpatient Rehab Referral Guidelines of the GTA Rehab
Network. The rating key is not part of the published tool.

References:
Bergman H, Beland F, Karunananthan S et al. Development of a framework for understanding and


Toronto Rehabilitation Institute, University Health Network, University of Toronto, Toronto, Ont.
and Queen’s University, Kingston, Ont. Abstract.

Rockwood K, Hogan DB, MacKnight C. Conceptualization and measurement of frailty in elderly

Rolfson D.,Majumdar, Tsuyuki R, Tahir A, Rockwood K. Validity and reliability of the Edmonton
Glossary of Definitions for Geriatric Rehabilitation

Geriatric Rehabilitation
A program designed to optimize the functioning of the elderly and often pre-morbidly frail individual who has experienced a loss of independence due to acute illness or injury. This is often superimposed on chronic functional and medical problems. Geriatric rehabilitation provides evaluative, diagnostic and therapeutic interventions to restore functional ability or enhance residual functional capacity in elderly people with disabling impairments.2

Dedicated Geriatric Assessment/Rehab: Also known as Geriatric Rehab Units (GRU), Geriatric Assessment and Treatment Units (GATU) and Geriatric Assessment and Rehab Units (GARU)

- These programs provide a moderately intensive rehab program provided by an interdisciplinary rehab team with expertise in geriatric assessment and treatment.
- Core team typically includes: Physician, Nursing, Physiotherapy, Occupational Therapy, Social Work, Pharmacy, Speech-Language Pathology, Clinical Dietician, Therapeutic Recreation and Chaplaincy/Pastoral Care.
- Geriatric rehab treats patients who are typically frail, have multiple co-morbidities and functional impairment with complex underlying medical and functional problems, unexplained pre-morbid problems coping at home and/or an insult or complicated course in hospital such as delirium, pneumonia or a fracture.
- Rehabilitation includes assessment and treatment of geriatric syndromes that include:
  - Instability or falls
  - Cognitive impairment including delirium and dementia
  - Immobility
  - Inadequate nutrition
  - Isolation or depression
  - Incontinence
  - Poly-pharmacy
- The key differentiating feature of geriatric rehab is that the assessment and treatment of these multi-dimensional factors are as much of the rehab focus as is the illness or injury which directly led to the most recent hospitalization. In geriatric rehab units the emphasis is on restoration of functional status.
- Average amount of therapy provided per patient is up to 1 hour of OT, PT, SLP as tolerated by the patient, 5 days per week. Tolerance includes participation in all activities scheduled with therapy and nursing staff.
- Typical length of stay based on the Toronto Regional Geriatric Program guidelines for GATUs/GARUs is 4-6 weeks and 4-12 weeks for GRU.
- This type of rehab may be located in designated rehab beds or complex continuing care beds.

Medically Complex/ Geriatric Rehab on Mixed Units: also known as General or Medical Rehab

- Rehab providers assess/treat a variety of diagnostic/rehab population groups; however, specialization in multi-system issues and familiarity with the principles of geriatric care is encouraged where there is a sufficient critical mass to support the development and maintenance of such clinical expertise.
- Geriatric patients who are appropriate for a mixed unit are patients whose primary diagnosis falls outside of the other rehab population groupings (e.g. MSK, Stroke) and whose premorbid functioning was no more than

1 These definitions have been developed as part of the GTA Rehab Network’s Definitions initiative. Please see the GTA Rehab Network’s report, Clarifying the Complexities of Geriatric Rehab, (February 2007) for full details.

DRAFT Inpatient Rehab Triage Guidelines for Geriatric Patients / June 5, 2007
mildly compromised as assessed by the Premorbid Function Screen (see page 3) or patients with current multi-system needs who are able to participate in an intensive rehab program.

- These programs provide an intensive rehab program by an interdisciplinary rehab team. Core team includes: Physician, Nursing, Physiotherapy, Occupational Therapy, Social Work, Pharmacy, Speech-Language Pathology, Clinical Dietician, Therapeutic Recreation and Chaplaincy/Pastoral Care.

- Average amount of therapy provided per patient is 2 hours daily for 5-7 days as tolerated by the patient. Tolerance includes participation in all activities scheduled with therapy and nursing staff.

- Typical length of stay is 2-8 weeks; some rehab units located in acute care hospitals have a 3-14 day length of stay.

- This type of rehab is typically located in designated rehab beds in community hospitals.

**Medically Complex/Geriatric LTLD Rehab:** also known as Activation, Functional Enhancement, Complex Medical

- These programs provide a low to moderately intensive rehab program for patients who have experienced a complicated course in hospital or a recent multi-system illness requiring a longer period of rehabilitation of lower intensity than that offered in mixed rehab units.

- Core team includes: Physician, Nursing, Physiotherapy, Occupational Therapy, Social Work, Pharmacy Consultation, Speech-Language Pathology, Clinical Dietician, Therapeutic Recreation and Chaplaincy/Pastoral Care.

- Average amount of therapy provided per patient is on average up to 30 minutes, 2 sessions each, 3x per week as tolerated by the patient. Tolerance includes participation in all activities scheduled with therapy and nursing staff.

- For programs that identify themselves as providing Geriatric LTLD rehab, specialization is encouraged to support the development and maintenance of clinical expertise in geriatrics and multi-system issues at least in the medical staff.

- Medically Complex/Geriatric LTLD rehab programs are recommended for patients with multi-system issues who do not require highly specialized geriatric interventions. Patients may have had mild premorbid functional problems. Patients accepted into these programs are adults of any age.

- Typical length of stay is 3 – 6 months.

- Medically Complex/Geriatric LTLD Rehab is typically located in complex continuing care beds.