Leicester Trust Geriatric Assessment Tools

Overview: University Hospitals of Leicester NHS Trust uses these tools to provide appropriate care to frail elderly patients in the emergency department. The first three tools are used to determine whether to refer an elderly patient to your organisation's frailty unit and/or whether to complete a Comprehensive Geriatric Assessment (CGA) for the patient. The fourth tool is a complete list of all of the assessments and tests included in the CGA.

Types of tool provided: Assessment questions and templates.

Tool contents and intended audience: This document contains four tools:

- **Rapid Initial Patient Assessment**
- **Abbreviated Mental Test (AMT4**)
- **Waterlow Pressure Ulcer Prevention/Treatment Policy**
- **Comprehensive Geriatric Assessment**.

These tools are intended to help emergency department clinicians improve care for elderly emergency department patients.

Tool Implementation Guide

Rapid Initial Patient Assessment and **Abbreviated Mental Test (AMT4)**: Use together to quickly determine best referral option for elderly patients and necessity of Comprehensive Geriatric Assessment. A decision tree is provided below the Rapid Initial Patient Assessment to aid use of this tool.

Waterlow Pressure Ulcer Prevention/Treatment Policy: Use in addition to the above tools if there is concern that the patient is at risk of developing pressure ulcers. Circle scores in the table as they apply to the patient you are assessing, and add total scores across categories. Remember, in certain sections, more than one score per category can be used. If a patient is at high risk or very high risk, then refer him or her directly to the Acute Frailty Unit.

Comprehensive Geriatric Assessment: Use this list of assessments and tests to ensure that frail elderly patients receive appropriate care. The assessments are organised as follows: target problem, diagnostic test, cut-off value (for diagnostic test), and management strategies.

Leicester Trust Geriatric Assessment Tools

Tool #1: Rapid Initial Patient Assessment

University Hospitals of Leicester NHS
NHS Trust

Acute Medical Unit
Acute Frailty Pathway

Date		Time	

Patient Details

Full name

DoB
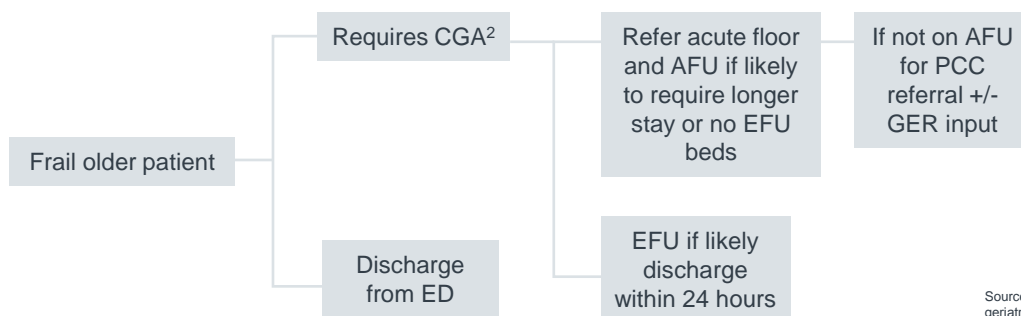
Unit number

This pathway is to be used to highlight patients who might benefit from Comprehensive Geriatric Assessment (CGA).

Step 1 Inclusion criteria	❑ Aged 85+ ❑ **OR** aged 70+ **AND** 1 or more of the following ❑ Patients from residential or nursing homes ❑ Patients with delirium or dementia (check AMT-4[1]) ❑ Patients with fragility fracture not requiring surgery
Step 2 Streaming	• If you think that your patient has a good chance of going home in the next 24 hours, please refer to the Emergency Frailty Unit (EFU) • If not, or no EFU beds available, please refer to Acute Frailty Unit (AFU) on level 5 • If very sick consider Acute Care Bay (ACB) – contact the medical registrar on call
Special notes	• Patients with fractures need to have fracture clinic referral completed in ED and initial fracture management in place prior to transfer to AMU/AFU

Handover

Planned & agreed by	Referring doctor	Doctor in Charge	Nurse in charge
Print names	_____	_____	_____
Signatures	_____	_____	_____

Requires CGA[2] → Refer acute floor and AFU if likely to require longer stay or no EFU beds → If not on AFU for PCC referral +/- GER input

Frail older patient

Discharge from ED

EFU if likely discharge within 24 hours

Source: Source: Conroy et al., "A controlled evaluation of comprehensive geriatric assessment in the emergency department: the 'Emergency Frailty Unit'", *Age and Ageing*, July 2013 , 1-6; "NHS Leicestershire County & Ruthland, NHS Leicester City, University Hospitals of Leicester NHS Trust; Advisory Board interviews and analysis.

1) A shortened four question form of the Abbreviated Mental Test
2) Comprehensive Geriatric Assessment

Tool #2: Abbreviated Mental Test (AMT4)

Evaluation: Patients receive one point for each correct answer to the questions below and no points for each incorrect answer. Any patient that scores less than four out of four correct is referred to the Acute Frailty Unit.

1. Age?
2. Date of birth?
3. Place?
4. Year?

Tool #3: Waterlow Pressure Ulcer Prevention/Treatment Policy

Circle scores in table, add total. More than one score/category can be used.

Build/Weight for Height		Skin Type Visual Risk Areas		Sex Age		Malnutrition Screening Tool (MST) (Nutrition Vol.15, No.6 1999 – Australia)		
AVERAGE BMI = 20-24.9	0	Healthy	0	Male	1	A – Has patient lost weight recently	B – Weight loss score	
ABOVE AVERAGE BMI = 25-29.9	1	Tissue Paper	1	Female	2	YES – Go to B	0.5 – 5kg = 1	
		Dry	1	14 – 49	1	NO – Go to C	5 – 10kg = 2	
OBESE BMI > 30	2	Oedematous	1	50 – 64	2	UNSURE – Go to C	10 – 15kg = 3	
		Clammy, Pyrexia	1	65 – 74	3	and score 2	> 15kg = 4	
BELOW AVERAGE BMI < 20	3	Discoloured		75 – 80	4		unsure = 2	
$BMI=Wt(Kg)/Ht(m^2)$		Grade 1	2	81+	5	C – Patient eating poorly OR lack of appetite 'NO' = 0; 'YES' Score = 1	Nutrition Score If > 2 refer for nutrition assessment or intervention	
		Broken/Spots Grade 2-4	3					

Continence		Mobility		Special Risks				
Complete/ Catheterised	0	Fully	0	Tissue Malnutrition		Neurological Deficit		
Urine Incont.	1	Restless/Fidgety	1					
Faecal Incont.	2	Apathetic	2	Terminal Cachexia	8	Diabetes, MS, CVA	4-6	
Urinary + Faecal Incontinence	3	Restricted	3	Multiple Organ Failure	8	Motor/Sensory	4-6	
		Bedbound e.g. Traction	4	Single Organ Failure (Resp, Renal, Cardiac)	5	Paraplegia (Max 6)	4-6	
		Chairbound e.g. Wheelchair	5	Peripheral Vascular Disease	5	Major Surgery or Trauma		
				Anaemia (Hb < 8)	2			
				Smoking	1	Orthopaedic/Spinal	5	
Score						On Table > 2 Hrs#	5	
10+ At Risk						On Table > 6 Hrs#	8	
15+ High Risk				Medication – Cytotoxics. Long Term/High Dose Steroids, Anti-Inflammatory Max of 4				
20+ Very High Risk				# Scores can be discounted after 48 hours provided patient is recovering normally				

Evaluation: If a patient is at high risk or very high risk, then refer him or her directly to the Acute Frailty Unit

Source: Swain DG and Nightingale PG, "Evaluation of a shortened version of the Abbreviated Mental Test in a series of elderly patients", *Department of Geriatric Medicine, Yardley Green Hospital, Birmingham, UK*, August, 1997; J Waterlow, "The Waterlow Score Card", 1985, Revised 2005, available at *judy-waterlow.co.uk*, accessed April 11, 2014; Advisory Board interviews and analysis.

Leicester Trust Geriatric Assessment Tools

Tool #4: Comprehensive Geriatric Assessment

Target problem	Diagnostic test	Cut-off value	Management strategies
Visual acuity	Jaeger's test	≤20/40	Referral to ophthalmologist
Hearing acuity	Whisper test	Failure to correctly repeat 3 whispered numbers	Removal of ear wax Referral to otolaryngologist
Urinary incontinence	IKO-4-Test	4 defined questions ≥1 question answered positive	Change of existing drug prescription Pelvic floor muscle training Drug treatment Planning of in-depth exploration by GP Referral to urologist or gynaecologist
Depression	Geriatric depression scale, short version	4 defined questions ≥ 1 question answered positive	New antidepressant drug therapy Change of drug prescription Non-drug treatment strategy Planning of in-depth exploration by GP Referral to psychiatrist
Cognitive impairment	Memory Assessment Clinics Questionnaire (MAC-Q)	6 defined questions (Score range 7 – 35) Score ≥ 25 suggestive of cognitive impairment	Follow-up examination in 6 months[1]
ADL and IADL[2]	Katz's ADL scale (4 questions) Two questions from Lawton	Score ≤ 7 impairment of functioning in daily living (total score 0 – 9)	Planning of in-depth exploration by GP Referral according to underlying problem
Psychosocial circumstances	Do you have trustworthy persons giving you assistance at home?	Yes/No	Contact with community nurse, neighbours or relatives
Sleep disorder	Do you suffer from frequent sleeping problems?	Yes/No	Non-Drug therapy Change of drug prescription Planning of in-depth exploration by GP Referral to psychiatrist/internist
Influenza and pneumococcal Immunisation	Influenza vaccination within a one-year period Pneumococcal vaccination within a three-year period	Yes/No	Influenza or pneumococcal vaccination

Source: Conroy et al., "A controlled evaluation of comprehensive geriatric assessment in the emergency department: the 'Emergency Frailty Unit'", *Age and Ageing*, July 2013 , 1-6; "NHS Leicestershire County & Ruthland, NHS Leicester City, University Hospitals of Leicester NHS Trust Mann et al. "Comprehensive Geriatric Assessment (CGA) in general practice: Results from a pilot study in Vorarlberg, Austria", *BMC Geriatrics*, 2004, 4:4; Advisory Board interviews and analysis.

1) Only for borderline cases (MAC-Q 22 – 24 points).
2) Basic and instrumental activities of daily living.

Leicester Trust Geriatric Assessment Tools

Tool #4: Comprehensive Geriatric Assessment (Continued)

Target problem	Diagnostic test	Cut-off value	Management strategies
Fall risk assessment	History of falls	Fall within last 6 months	Exploration of drug prescription
	Timed Up and Go Test	>20 sec. suggestive of balance or gait difficulties	Hip protector Source exploration Replacement of footwear initiated
	Tandem – Stand Test	Score 0 – 4: >1 suggestive of balance or gait difficulties	Instructed exercise training
Cardiovascular risk assessment	Lipid profile (mmol/l)	Chol > 5.95 mmol/l LDL > 3.36 mmol/l HDL > 1.16 mmol/l TG > 4.6 mmol/l	Change or onset of antilipidemic drug treatment Change or onset of antihypertensive drug treatment
	Blood pressure (mmHg)	BP_{syst} > 140 mmHg BP_{diast} > 80 mmHg	Change or onset of oral antidiabetic drug or insulin
	Hyperglycemia	Fasting blood glucose > 6.1 mmol/l	
Medication history	Number of prescribed drugs	> 5 prescription drugs	
	Number of over the counter medications	> 3 over the counter drugs	
Hospital stay	Hospital stay within a 5-months period		
Nutrition	Body mass index	BMI normal range for the elderly 24 – 29, Waid guide	Planning of in-depth exploration by GP
Osteoporosis risk factors	9 items risk factor checklist	Female sex Prior spontaneous fracture Family history of osteoporosis Immobilisation Premature menopause Glucocorticoid treatment Smoking Alcohol abuse Low body weight	Calcium and Vitamin D Bisphosophonate Selective estrogen-receptor modulator Calcitonin

Source: Conroy et al., "A controlled evaluation of comprehensive geriatric assessment in the emergency department: the 'Emergency Frailty Unit'", *Age and Ageing*, July 2013 , 1-6; "NHS Leicestershire County & Ruthland, NHS Leicester City, University Hospitals of Leicester NHS Trust Mann et al. "Comprehensive Geriatric Assessment (CGA) in general practice: Results from a pilot study in Vorarlberg, Austria", *BMC Geriatrics*, 2004, 4:4; Advisory Board interviews and analysis.