MANCHESTER 1824
The University of Manchester

NHS
National Institute for Health Research
Collaboration for Leadership in Applied Health Research and Care (CLAHRC) Greater Manchester

Electronic Long-term Conditions Integrated Assessment Tool (GM-ELIAT)

User Guide: Excel version

The CLAHRC Greater Manchester is part of the National Institute for Health Research and is a partnership between providers and commissioners from the NHS, industry, the third sector and the University of Manchester

clahrc-gm.nihr.ac.uk clahrc@srft.nhs.uk @CLAHRC_GM

Introduction

The purpose of this guide is to assist new or prospective users of the GM-ELIAT to become familiar with the tool, providing a smooth transition from paper assessment or other electronic assessment forms to the GM-ELIAT.

The GM-ELIAT has been designed for use by all members of a multidisciplinary health and social care team to provide a shared assessment and care planning process for patients with multimorbidity (two or more long-term conditions (LTCs)).

This guide has been written assuming that you have prior experience of conducting assessments for patients with multimorbidity. It provides an insight into the model's prototype created in Microsoft Excel 2010. To function as a fully integrated tool for sharing an assessment and care planning process across a multi-service integrated team, the GM-ELIAT should be built into a clinical system that provides access to a range of health and social care services. Within a clinical system, it is likely to look completely different and some aspects of the tool may not be compatible with the system it is embedded into, however, the concept will be the same. If you are reading this guide in preparation for procuring a clinical system to deliver the GM-ELIAT, this guide will hopefully provide enough information to assist you and your chosen clinical system provider to create a personalised version of the GM-ELIAT that meets the needs of the health and social care professionals using the tool and the patients/clients who will benefit from such a system.

The GM-ELIAT is organised into four main domains; Physical, Psychological, Social and Spiritual needs to offer a patient-centred LTC assessment of needs.

Prior to the main assessment, baseline information is gathered across the six areas listed below:

- Demographic details
- Assessment details
- Medical and Surgical history
- Health and Social Care support
- Self-reported health and social needs
- Investigations.

To navigate through the tool, click on the desired section from the menu bar to the left. When entering information it may take several seconds to activate, pressing enter once usually assists the process. The pages listed above will now be described in more detail.

1 Demographic Details

a Open the GM-ELIAT and click on the 'options' button then click to 'Enable this content'.

b On opening the tool, the first page displayed will be 'Demographic details' (Figure 1).

c Click on the empty cells; if there is a drop down box to chose options from, an arrow will appear, click on the arrow to reveal the contents. If there is no arrow, add free text.

d Add a date of birth using a four digit year format. The patient's age will then appear. A number of the GM-ELIAT's calculations require an age to function; therefore it is important that a DOB is added.

e In verbal consent, if you click on 'yes with limitations' a free text box will appear for you to add details.

Figure 1: Front page displaying demographic details

- Demographic Details
- Assessment Details
- 1. Medical history
- Medication
- Allergies/ sensitivities
- 2. Support (Services)
- 3. Self reported needs
- 4. Investigations
- 5. Physical needs
- Cardiovascular
- Endocrine/Metabolic
- Respiratory
- Musculoskeletal
- Neurological
- Cognitive
- Sensory
- ADL
- Urological
- Gastrointestinal
- Tissue Viability
- 6. ACP
- 7. Psychological needs
- 8. Social needs
- 9. Spiritual needs
- 10. Adherence
- 11. Summary
- 12. Care Plan
- 13. HCP Correspondence
- 14. Patient Enablement

Electronic LTCs Integrated Assessment Tool (GM-ELIAT)

Demographic Details

Surname		Empl situation	
Preferred name		Occupation	
First Name		Marital status	
Patient ID			
Date of birth		Age	
Gender			
Address of patient			
Ethnic Origin			
Preferred spoken language			
Interpreter required			
Religious/ belief affiliation			
Does the person being assessed have any caring responsibilities?			
GP Details			
Name of GP		GP GMC ref no	
Address of GP			
Email of GP		Contact no	
Pharmacy details			
Name of pharmacy		Contact no	
Address of pharmacy			

Contact details of:	**Name:**	Contact no	Relationship
Next of kin			
Informal carer			
Formal carer			
Representative/ attorney			
Other			

Personal information			
Sexual orientation		Pregnant?	

Verbal consent

Obtained for assessment		Obtained from	
Obtained for sharing information		Obtained from	
Does the patient agree to carers/ family members being asked views or being involved in their assessment?			
Is a Lasting Power of Attorney registered? (Details above)			
Further details/comments			

2 Assessment Details

a Add key professionals details using free text for 'Name' and the drop down box for 'Role'.

b Add important information concerning access to the patient's home to share with other members of the integrated team (Figure 2).

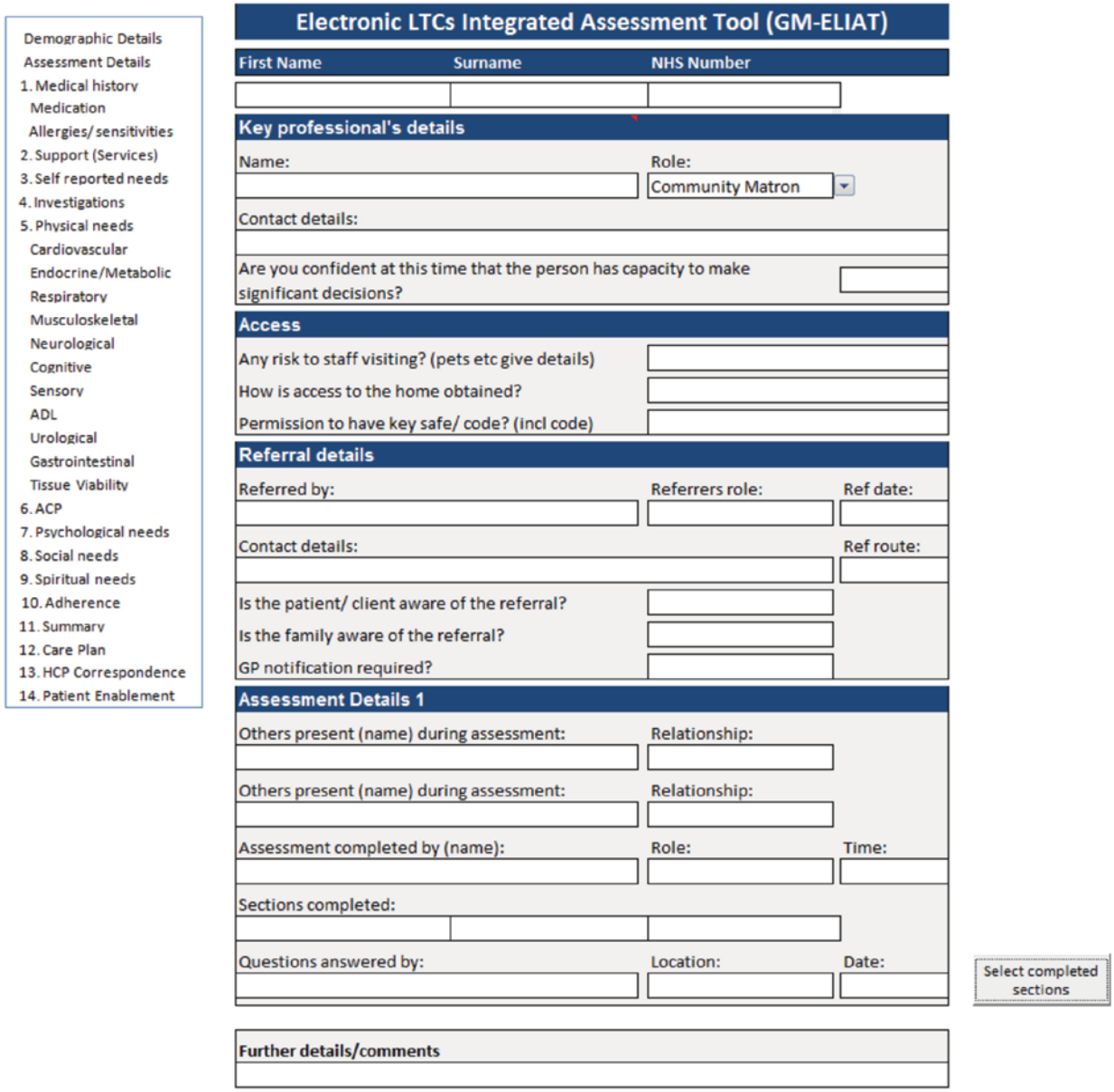
c Provide referrer information.

d Add information about those present at the assessment, location, date, time etc.

e Click on 'Select completed sections' and a box will appear, tick the systems that you will be assessing (or have assessed if completed at the end). This can be used as an audit trail and to aid communication between those involved in the patient's care.

f When the date and time of assessment is completed, a new box appears for a new assessor to add details.

Figure 2: Assessment details



3 Medical/Surgical History

a Click on the boxes (right of screen). These open dialogue boxes allowing you to tick conditions to complete the patient's family history, medical and surgical history, allergies, prescribed and non prescribed drugs (Figure 3).

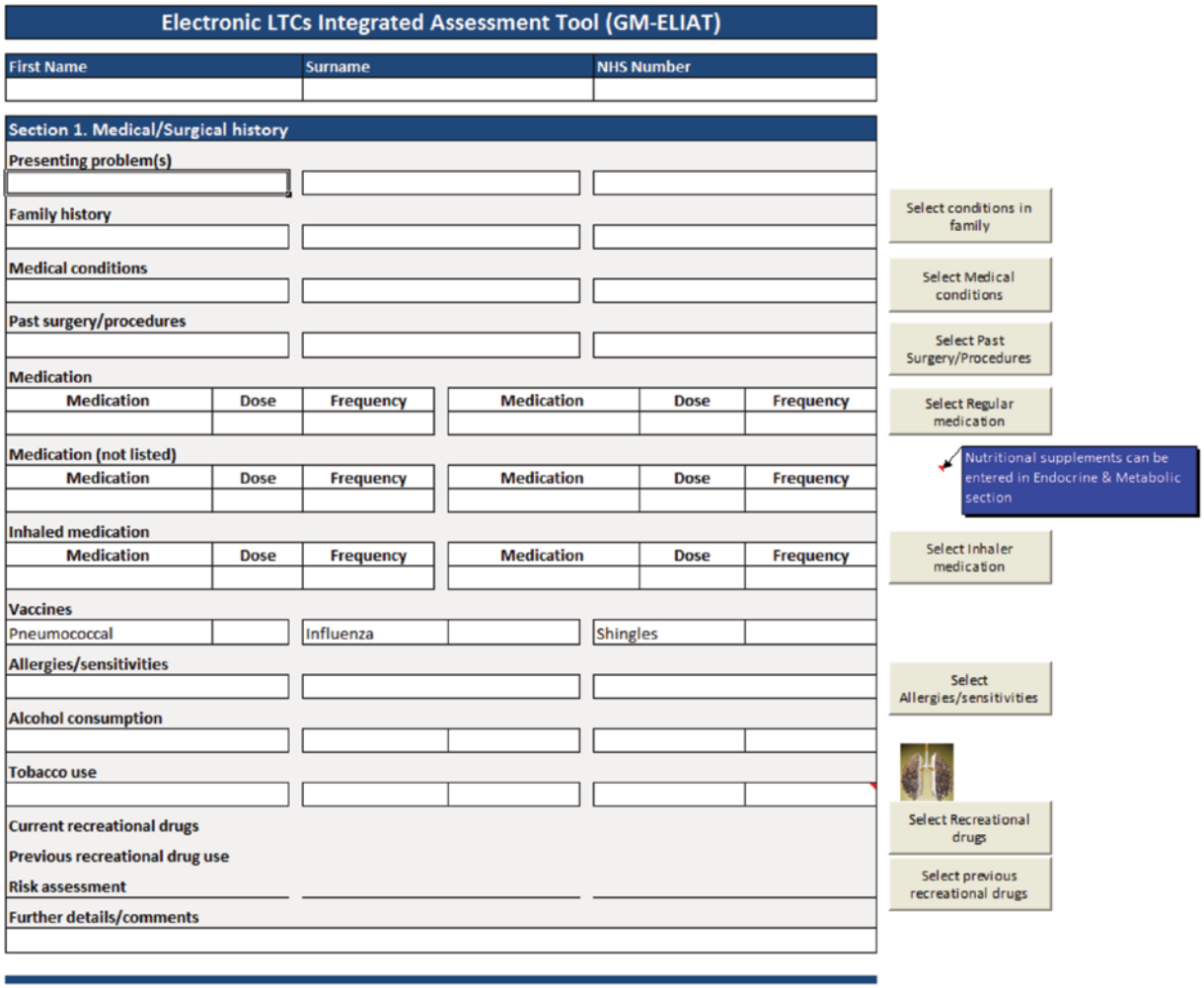
b Record whether immunisations are up to date by choosing options from the drop down boxes.

c Record alcohol consumption. A blue prompt box will appear if patient consumes alcohol, asking you to complete the Audit C questionnaire. Click on the 'Audit C' box (in the 'Risk assessment' section) to activate the questionnaire. You need to complete all sections of the Audit C for the result to appear (this applies to all questionnaires within the tool).

d If you select smoker or ex-smoker, text in the boxes to the right will appear asking for more information. If you are connected to the internet you can access the 'Pack years' calculator by clicking on the icon next to pack years. Write the result in the 'Pack years' cell. The information entered will be added to the 'Risk assessment' section.

e Use the 'Further details/comments' box to add more detail or comments as free text.

Figure 3: Medical and surgical history page



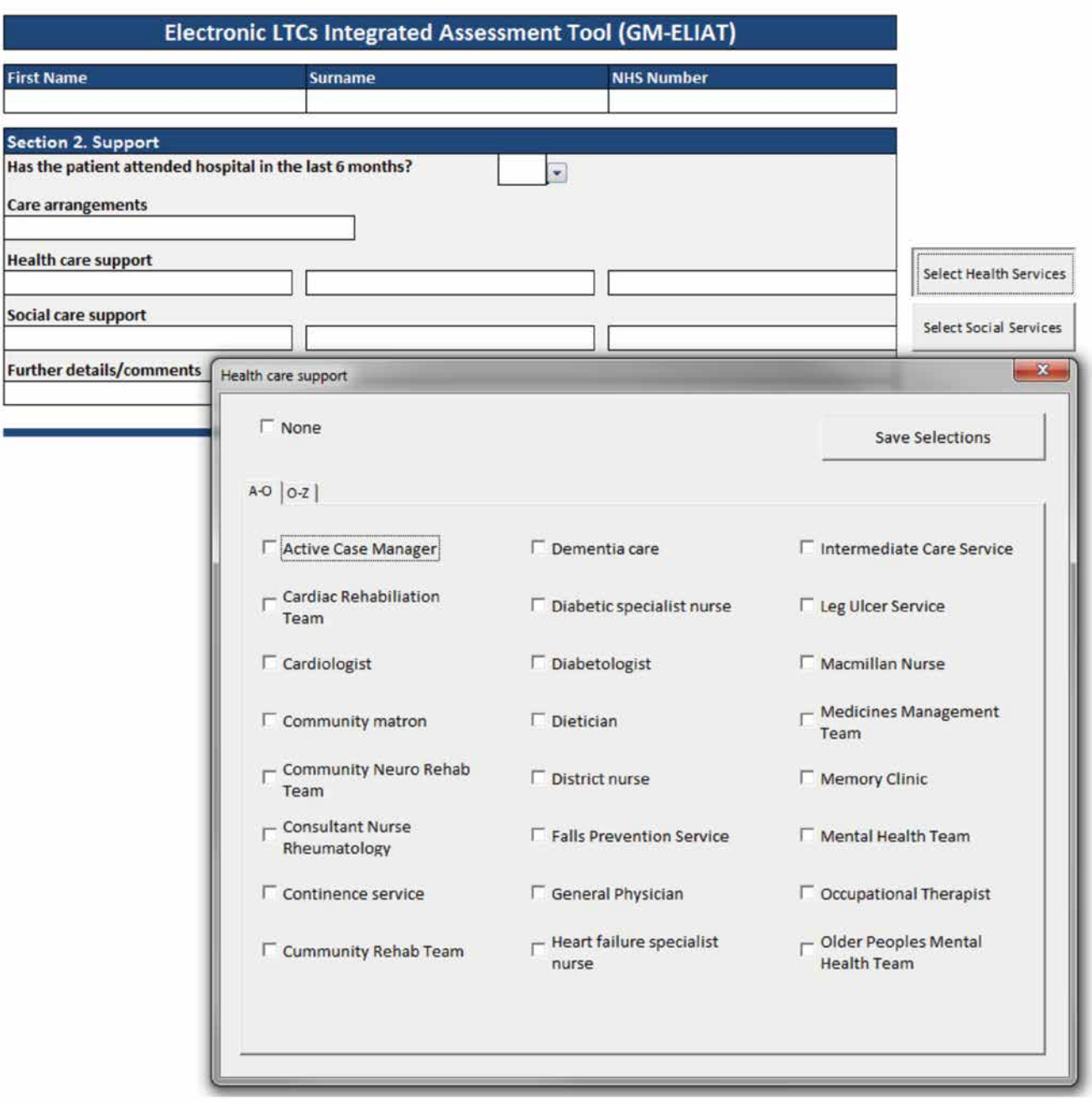
4 Health and Social Care Support

a Record details of hospital admissions (this could be used for audit purposes).

b Select the services/health and social care professionals by clicking on the boxes on the right of the screen to record the support that the patient is currently receiving (Figure 4).

c Use the 'Further details/comments' box to add more detail or comments as free text.

Figure 4: Health and Social Service Support page



5 Self reported health and social needs

a Enter the patient's own perceptions of health and social needs. The information could be collected via a leaflet given or sent to the patient prior to the assessment or if the clinical system is set up to provide access to patients, this could be completed on-line by the patient and then discussed during the consultation.

b If the patient is self monitoring his/her BP, BM, or weight at home, readings can be added (Figure 5).

c If support to make health and social decisions is selected, a blue prompt box will guide you/the patient to select support options.

Multiple selections can be made by clicking on 'Health and Social care Decisions'.

d Heath and social care goals can be added. As a date for the goal to be achieved is entered, text boxes below are revealed for adding steps to achieving the goal and how the achievement will be celebrated.

e Another goal box is revealed as one is completed; up to four in total.

f The 'Further details/comments' box can be used for adding more information as free text.

Figure 5: Self reported health and social care needs page

Electronic LTCs Integrated Assessment Tool (GM-ELIAT)

First Name	Surname	NHS Number

Section 3. Self reported health and social needs

Health or social needs

Perception of own health

Self monitoring readings (most recent)	Reading	Date	Reading	Date
BP				
BM				
Weight (kg)				

Important aspects of life/ hobbies

Physical activity (type)	Average duration	Freq/ week	Need identified

Personal strengths

Making decisions about health and social care

Needs support to make decisions

Click on Health and Social Care Decisions box to Identify support needed for making decisions

Health and Social care Decisions

Health or Social goal 1:	Date to be achieved by:

Steps needed to achieve this goal:

How will this achievement be celebrated?

Further details/comments

6 Investigations

a Investigation results appear on the 'Physical' and 'Psychological needs' pages but can only be entered via the 'Investigations page'.

b The left hand column result is the one that appears on the relevant page (in most cases) e.g. an ACR result entered in the left hand column, 2nd row down will appear on the 'Cardiovascular' page.

c If results are abnormal, risks associated with abnormal results will appear in the risk assessment section of the relevant page; for example, one eGFR reading below 60 mL/min will produce a CKD risk and three will give a CKD stage. It is important, therefore, to enter all investigation results. Ideally, if embedded into a clinical system, investigation results would populate from the system.

d Prompts boxes appear for guidance as show in Figure 6.

e Hover over the red triangle in cells with abbreviated text to show full title of test.

f Use 'Further details/comments' box to add more details or comments as free text.

Figure 6: Pathology results and other investigations

Section 4. Physical needs - Pathology and Other Investigations

Pathology	Result	Date		Result	Date		Result	Date
eGFR (1)	56		eGFR (2)	51		eGFR (3)		
ACR (mg/mmol)	3.2		ACR (mg/mmol)	2.6		ACR (mg/mmol)		
PCR (mg/mmol)			PCR (mg/mmol)			PCR (mg/mmol)		
HbA1c	56		HbA1c			HbA1c		
BNP			BNP			BNP		
NT-ProBNP			NT-ProBNP			NT-ProBNP		
MSU			MSU			MSU		
Other Investigations								
Proteinuria (dipstick)			Proteinuria (dipstick)			Proteinuria (dipstick)		
Nitrites (dipstick)			Nitrites (dipstick)			Nitrites (dipstick)		
Haematuria (dipstick)			Haematuria (dipstick)			Haematuria (dipstick)		
Glucose (dipstick)			Glucose (dipstick)			Glucose (dipstick)		
Leucocytes (dipstick)			Leucocytes (dipstick)			Leucocytes (dipstick)		
Ketones (dipstick)			Ketones (dipstick)			Ketones (dipstick)		
BM			BM			BM		
LVEF						LVEF		
FEV1						FEV1		
FEV1%			FEV1%			FEV1%		
SATs % with air			SATs % with air			SATs % with air		
SATs % with O_2			SATs % with O_2			SATs % with O_2		
Last optometry examinat			Previous optometry exam			Previous optometry exam		
Further details/comments								
Clinical tools/Clinical evidence								

Forced Expiratory Volume in One Second

Obtain a minimum of three GFR estimations over a period of not less than 90 days. In people with a new finding of reduced eGFR, repeat the eGFR within 2 weeks to exclude causes of acute deterioration e.g. newly prescribed an ACE/ARB (NICE 2008, CKD).

7 Physical needs

Introduction

The Physical needs section follows Investigations and is the largest domain covering the following systems. Each appear on a separate page, arranged to help you progress through the assessment in a logical order:

These sections will now be described in more detail.

7.1 Physical needs: Cardiovascular

a Record the patient's symptoms by selecting 'Yes' from the drop down box.

b Hover over the red triangles for an explanation of abbreviation or more information.

c Prompts or clinical evidence appear in the blue boxes to the right of the screen.

d If 'Yes' is selected for SOB and heart failure was selected on the 'Medical history' page, the NYHA classification will appear. The classification chosen will appear in the 'Risk assessment' section.

e Complete the Framingham Risk Calculator by clicking on link then enter result manually.

f Risks appear in the 'Risk assessment' section as cells are completed, some also use information entered on other pages, for example, the CHA_2DS_2-VASc score is calculated from age, gender and diagnoses, it is important, therefore, that demographic information is completed to obtain accurate results.

g Links to relevant clinical guidelines appear at the bottom of the screen (Figure 7).

Figure 7: Cardiovascular page

Electronic LTCs Integrated Assessment Tool (GM-ELIAT)

First Name	Surname	NHS Number

Section 5. Physical needs - Cardiovascular

Symptom review					
SOB	Yes	Chest tightness		Chest pain	
SOB triggered by (1)		SOB triggered by (2)		SOB triggered by (3)	
SOB relieved by (1)		SOB relieved by (2)		SOB relieved by (3)	
Orthopnoea		PND		Palpitations	
Dizziness		Syncope		Claudication	
Fatigue		Sexual dysfunction			
Add symptoms not listed					
Clinical examination					
Pulse: rate		Systolic BP	150	Foot pulses	
Pulse: rhythm		Diastolic BP	80	Peripheral oedema	
Heart sounds		Postural hypotension		Ankle oedema	
JVP				10 year MI risk %	
Pathology					
HB		WCC		MCV	
Sodium		Potassium		Urea	
Creatinine		ACR (mg/mmol)	3.2	PCR (mg/mmol)	
eGFR (1)	56	eGFR (2)		eGFR (3)	
Fasting TC		Fasting LDL		Fasting HDL	
Fasting TG		LFTs			
TSH		T3		T4	
BNP		NT-ProBNP			
Other Investigations					
Proteinuria (dipstick)		Haematuria (dipstick)		Leucocytes (dipstick)	
Nitrites (dipstick)		Glucose (dipstick)		Ketones (dipstick)	
Echo (TTE)		LVEF		Stress Echo	
ECG		CXR		Angiography	
Risk assessment					
CHA_2DS_2-VASc score = 3		Adjusted stroke rate (%/yr) = 3.2		Moderate stroke risk	
				NYHA Classification III	
BP above Target					
CKD Risk		Microalbuminuria			
Further details/comments					
Clinical tools/Clinical evidence					

Click the image to access the Framingham Risk Calculator. Record 10 year MI risk %

Diagnosis of AF: CHA_2DS_2-VASc score has been calculated as recommended by (NICE 2006,p7) and (ESC 2012) below.

CHA2DS2VASc score | NICE (2006) Management of AF | ESC (2012) Update of guidelines for AF | NICE (2008) | BSE (2011)

7.2 Physical needs: Endocrine and Metabolic

a As for the cardiovascular page and future pages, click on the drop down boxes to record symptoms, hover over red triangles to reveal text, find prompts and clinical evidence in the blue boxes to the right of the screen and click on links for risk calculators and clinical guidelines (if connected to the internet).

b Selecting 'Yes' for some symptoms will reveal additional symptoms for a more detailed assessment.

c Risks such as obesity and malnutrition are calculated from symptoms and clinical measures.

d Where recommended clinical indicators have not been completed, a warning will appear, such as the 9 key tests for diabetes (Figure 8).

Figure 8: Endocrine and Metabolic page

Electronic LTCs Integrated Assessment Tool (GM-ELIAT)

First Name	Surname	NHS Number

Section 5. Physical needs - Endocrine and Metabolic

Symptom review					
Fatigue		Recent weight gain		Recent unplanned weight loss	
Dysphagia		Difficulty losing weight		Amount of weight loss (kg)	
Nutritional intake/last 5 days		Loss of appetite		Terminal cachexia	
Enteral nutrition		Perenteral nutrition		IV infusion	
Recent hypoglycaemia		Recent hyperglycaema		Sexual dysfunction	
Excessive thirst		Passes urine ≥7 times 24hrs		Blurred vision	
Numbness		Slow wound healing		Fruity odour	
Clinical examination					
Height (m)	1.62	Weight (kg)	78.2	Waist circumference (cm)	
Foot pulses		Foot sensation		Foot deformity	
Footwear		Jaundiced		Foot ulceration	
Pathology					
HbA1c	56	FPG		OGTT	
HB		WCC		MCV	
Sodium		Potassium		Urea	
Creatinine		ACR (mg/mmol)	3.2	PCR (mg/mmol)	
eGFR (1)	56	Fasting TC		Fasting LDL	
Fasting HDL		Fasting TG		LFTs	
TSH		T3		T4	
Other Investigations					
Proteinuria (dipstick)		Haematuria (dipstick)		Leucocytes (dipstick)	
Nitrites (dipstick)		Glucose (dipstick)		Ketones (dipstick)	
Retinal Imaging					
Risk assessment					
BMI = 30					
Overweight					
Moving & Handling weight score= 2		CKD Risk		Microalbuminuria	
Diabetes 9 key tests not complete					
Further details/comments					
Nutritional Supplements					

Supplement	Dose/ freq	Adm	Supplement	Dose/ freq	Adm
Clinical tools/Clinical evidence					

Nutritional Supplements

MUST | NICE (2006) Obesity | NICE (2004) Clinical guideline 10 | NICE (2011) Type 2 diabetes | WHO (2006) Glucose tolerance

7.3 Physical needs: Respiratory

a If indicated by symptoms, a prompt box will appear guiding you to complete the COPD Assessment Test (CAT). Once completed, the result and an interpretation will appear in the 'Risk Assessment' section.

b If patient is asthmatic, a prompt box will appear to guide you to complete the Asthma Control Test (ACT). The result and an interpretation will appear in the 'Risk Assessment' section (Figure 9).

c Add symptoms not listed as required.

d Add further details/comments as for other pages.

Figure 9: Respiratory page

Electronic LTCs Integrated Assessment Tool (GM-ELIAT)

First Name	Surname	NHS Number

Section 5. Physical needs - Respiratory

Symptom review					
Cough		Sputum		Frequent winter bronchitis	
Chest tightness		Haemoptysis		SOB	Yes
SOB triggered by (1)		SOB triggered by (2)		SOB triggered by (3)	
SOB relieved by (1)		SOB relieved by (2)		SOB relieved by (3)	
Orthopnoea		PND			
Childhood asthma		F/H of asthma		Fatigue	
Add symptoms not listed					
Clinical examination					
RR		Peripheral oedema		Percussion	
Temp (°C)		Pulmonary oedema		Tracheal deviation	
Added breath sounds		Chest expansion		Pallor	
Cyanosed		Breath sounds		Using accessory muscles	
Pathology					
HB		WCC		MCV	
Sodium		Potassium		Urea	
Creatinine		ACR (mg/mmol)	3.2	PCR (mg/mmol)	
eGFR (1)	56	Fasting TC		Fasting LDL	
Fasting HDL		Fasting TG		LFTs	
TSH		T3		T4	
Other Investigations					
CXR		FEV1		PEFR	
CT Scan		FVC		SATs % with O_2	
		FEV1%		SATs % with air	
Risk assessment					
ACT score = 13		Asthma not controlled		BMI = 30	
Further details/comments					
Clinical tools/Clinical evidence					

NICE (2010) COPD

CAT (2009) User guide

7.4a Physical needs: Musculoskeletal (pain)

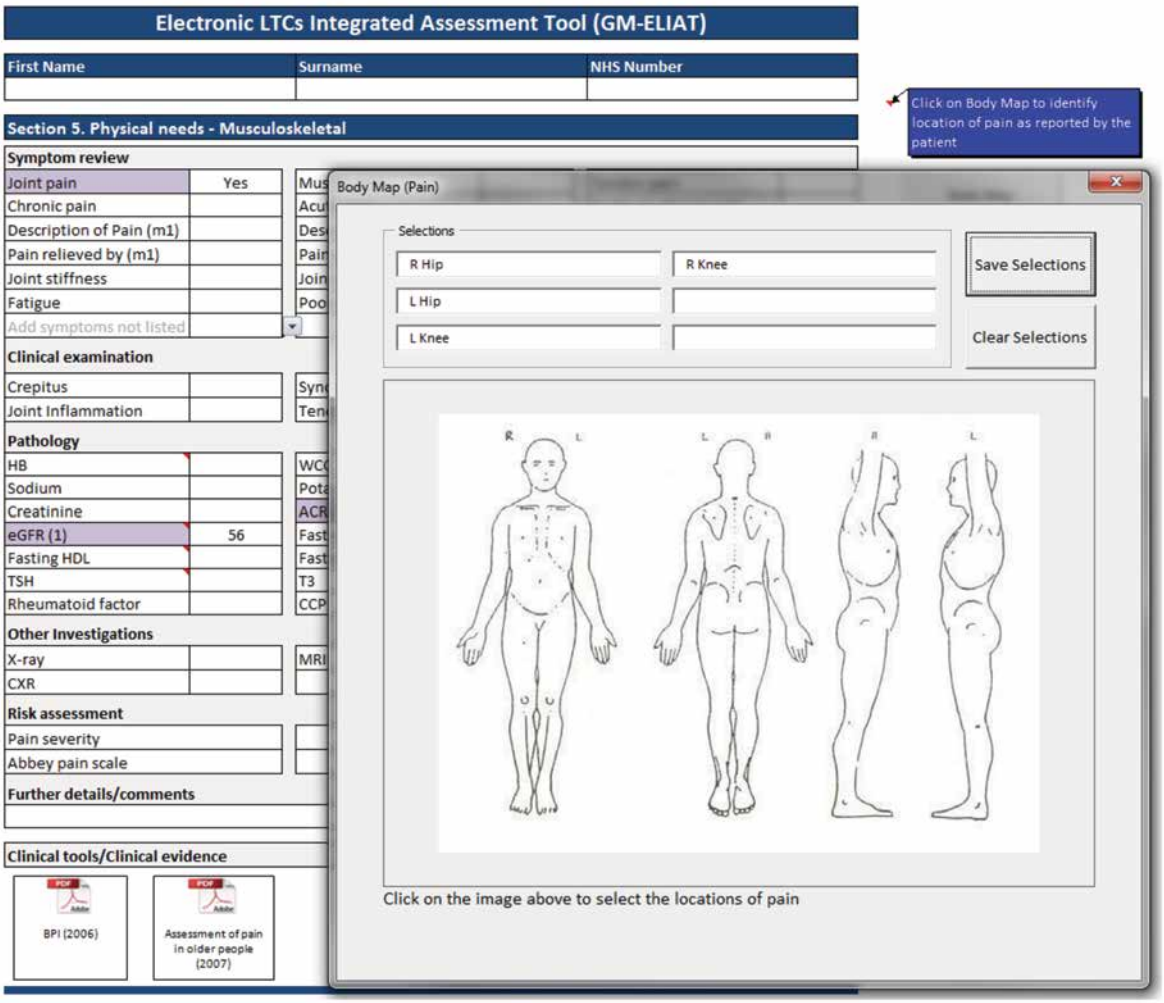
a If 'Yes' to joint, muscle or tendon pain is selected, a prompt box will appear to guide you to complete the 'Body Map' to specify the location of the pain (Figure 10).

b Up to three options can be selected to describe the type of pain.

c Up to three options can be selected to specify how the pain is relieved.

d A prompt box will appear to guide you to complete the adherence to therapy page if poor manual dexterity is selected.

Figure 10: Body Map for locating musculoskeletal pain



7.4b Physical needs: Musculoskeletal
(severity and interference with daily activities)

a On completion of the body map a prompt box will guide you to complete the 'Brief Pain Inventory' (BPI) to assess the severity of the pain and how the pain interferes with daily activities. For patients with cognitive impairment, an alternative is offered; the Abbey pain scale (Figure 11).

b Add symptoms not listed as required.

c Add further details/comments as required.

Figure 11: Brief Pain Inventory scores

Electronic LTCs Integrated Assessment Tool (GM-ELIAT)

First Name	Surname	NHS Number

Section 5. Physical needs - Musculoskeletal

Symptom review					
Joint pain	Yes	Muscle pain		Tendon pain	
Chronic pain		Acute pain		Acute on chronic pain	
Description of Pain (m1)		Description of Pain (m2)		Description of Pain (m3)	
R Hip		L Hip		L Knee	
R Knee					
Pain relieved by (m1)		Pain relieved by (m2)		Pain relieved by (m3)	
Joint stiffness		Joint weakness		Joint deformity	
Fatigue		Poor manual dexterity	Yes		
Add symptoms not listed					
Clinical examination					
Crepitus		Synovitis		Myositis	
Joint Inflammation		Tendonitis			
Pathology					
HB		WCC		MCV	
Sodium		Potassium		Urea	
Creatinine		ACR (mg/mmol)	3.2	PCR (mg/mmol)	
eGFR (1)	56	Fasting TC		Fasting LDL	
Fasting HDL		Fasting TG		LFTs	
TSH		T3		T4	
Rheumatoid factor		CCP		CPK	
Other Investigations					
X-ray		MRI			
CXR					
Risk assessment					
Pain severity score = 4		Moderate pain		Pain relief score = 40%	
Pain interference score = 4		Moderate interference to life		Last pain relief (hrs)	
Further details/comments					

Body Map

Complete Adherence section to assess beliefs/difficulties regarding adherence to therapy

Clinical tools/Clinical evidence

BPI (2006)

Assessment of pain in older people (2007)

7.5 Physical needs: Neurological

a Complete assessment to determine a risk of falls which will appear in the 'Risk assessment' page.

b Determine whether pain is neuropathic if 'Yes' to pain is selected by completing the LANSS questionnaire.

c The result and interpretation of the BPI will populate to this page from the musculoskeletal page, if completed (Figure 12).

d Complete the Modified Rankin Scale (mRS) when prompted if patient has a diagnosis of Stroke.

e A prompt will appear to complete the Sensory page if aphasia is selected.

Figure 12: Neurological page

Electronic LTCs Integrated Assessment Tool (GM-ELIAT)

First Name	Surname	NHS Number

Section 5. Physical needs - Neurological

Symptom review					
Blackouts		Fits		Seizures	
Balance problems	Yes	Poor gait		Fall in last 12 months	Yes
Tremor		Bradykinesia		Mask like expression	
Muscle stiffness		Muscle weakness		Dysphagia	
Aphasia		Apraxia		Dysarthria	
Dizziness		Syncope		Fatigue	
Poor memory		Poor concentration		Confusion	
Abnormal sleep pattern		Sexual dysfunction		Pain	Yes
Description of pain (n1)		Description of pain (n		Description of pain (n3)	
Pain relieved by (n1)		Pain relieved by (n2)		Pain relieved by (n3)	
Add symptoms not listed					
Clinical examination					
Difficulty rising from sitting	Yes	Postural hypotension		SD ≥ 20/DD ≥ 10 mmHg	
Unsteady walking while talking		Sways on standing		Failed 'timed up and go' test	
Drowsy		Pupils equal reactive		Confused	
Pathology					
HB		WCC		MCV	
Sodium		Potassium		Urea	
Creatinine		ACR (mg/mmol)	3.2	PCR (mg/mmol)	
eGFR (1)	56	Fasting TC		Fasting LDL	
Fasting HDL		Fasting TG		LFTs	
TSH		T3		T4	
Other Investigations					
Proteinuria (dipstick)		Haematuria (dipstick)		Leucocytes (dipstick)	
Nitrites (dipstick)		Glucose (dipstick)		Ketones (dipstick)	
CT scan		MRI			
Risk assessment					
Falls risk					
LANSS Score = 0		Unlikely to be neuropathic pain			
Pain severity score = 4		Moderate pain		Pain relief score = 40%	
Pain interference score = 4		Moderate interference to life			
Modified Rankin Scale (mRS)					
Further details/comments					
Clinical tools/Clinical evidence					

LANSS FRAT

Click on Body Map to identify location of pain as reported by th patient

Falls risk. Complete further FRAT assessment. See link below.

Body Map

Diagnosis of Stroke, complete Modified Rankin Scale (mRS), clic on mRS Scale to activate.

7.6 Physical needs: Cognitive

a Assess for cognitive impairment by completing one of the cognitive tests; GPCOG, 6CIT or DemTect, a prompt box will appear if 'Poor memory' is selected (Figure 13).

b Results and interpretations will appear in the 'Risk assessment' section.

c You will also be prompted to complete the ADL page if 'Poor memory' is selected.

Figure 13: Cognitive page

Electronic LTCs Integrated Assessment Tool (GM-ELIAT)

First Name	Surname	NHS Number

Section 5. Physical needs - Cognitive

Symptom review					
Poor memory	Yes	Poor concentration	Yes	Disorientation	
Confusion		Poor attention span	Yes	Mental state	Poor understand
Poor orientation		Abnormal sleep pattern	Yes		
Add symptoms not listed					
Pathology					
HB		WCC		MCV	
Sodium		Potassium		Urea	
Creatinine		ACR (mg/mmol)	3.2	PCR (mg/mmol)	
eGFR (1)	56	Fasting TC		Fasting LDL	
Fasting HDL		Fasting TG		LFTs	
TSH		T3		T4	
Calcium		MSU		Serum B12 & Folate	
Other Investigations					
Proteinuria (dipstick)		Haematuria (dipstick)		Leucocytes (dipstick)	
Nitrites (dipstick)		Glucose (dipstick)		Ketones (dipstick)	
MRI		SPECT			
CT scan		ECG			
Risk assessment					
DemTect test					
GPCOG patient examination		GPCOG interview			
6CIT score = 9		Significant cognitive impairment (6CIT)		M&H mental state score= 3	
Further details/comments					
Clinical tools/Clinical evidence					

GPCOG

Assess for cognitive impairment. Click on appropriate test below to activate questionnaire.

Complete ADL page to assess impact of poor memory on ADL

7.7 Physical needs: Sensory

a Further rows will appear to add more detail if patient has a vision, hearing, sensory or communication impairment.

b A prompt box will appear to guide you to assess the patient's adherence to therapy if 'Visual impairment' is selected (Figure 14).

Figure 14: Sensory page showing a visual impairment and communication need identified

Electronic LTCs Integrated Assessment Tool (GM-ELIAT)

First Name	Surname	NHS Number

Section 5. Physical needs - Sensory

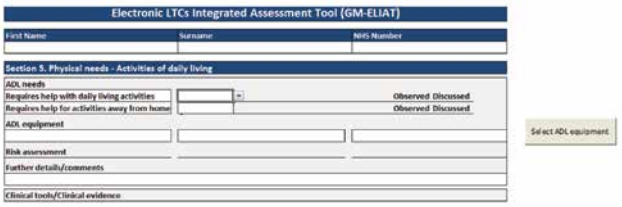
Complete Adherence section to assess beliefs/difficulties regarding adherence to therapy

Symptom review					
Visual impairment	Yes	Glasses/lenses check needed	Yes	Blurred vision	
Corrected vision		Prosthesis?		Glasses/lens ineffective	
Vision interferes with reading		Vision interferes with ADL		Vision affects social activities	
Hearing impairment	No	Last hearing test more 18 mnth?			
Sensory impairment				Balance problems	Yes
Communication impairment	Yes				
Aphasia	Yes	Apraxia		Dysarthria	
Difficulties with expressing self		Difficulties understanding others		Difficulties being understood	Yes
Communicates with pictures		Difficulty using telephone		Distressed by impaired communication	
Add symptoms not listed					
Other Investigations					
Retinal Imaging		Last optometry examination			
Risk assessment					
Visual impaiment need identified		Optometry examination date unknown			
Further details/comments					
Clinical tools/Clinical evidence					

7.8 Physical needs: ADL

a Select 'Yes' to requiring help with ADL to open this page fully (Figure 15a).

Figure 15a: ADL page activities hidden



b Choose appropriate response for each activity. Needs identified are totalled to provide a score and a level of need (low, moderate and high). Some items e.g. mobility, transfer, bathing score 2 whilst the remainder score 1 (this scoring system was developed specifically for the GM-ELIAT, it has not been formally evaluated but provides a simple measure of need).

c Click in the cell of the observed or discussed box to define how the activity was assessment.

d Select ADL equipment currently in use.

e Prompt boxes will appear to guide you to the urological and gastrointestinal pages if bladder and/or bowel needs are identified (Figure 15b).

Figure 15b: ADL page activities revealed

Electronic LTCs Integrated Assessment Tool (GM-ELIAT)

First Name	Surname	NHS Number

Section 5. Physical needs - Activities of daily living

ADL needs

Requires help with daily living activities	Yes	Observed	Discussed
Mobility	need identified		
Transfer	independent with equipment		
Stairs	need identified		
Bathing	need identified		
Washing	independent with equipment		
Oral hygiene	independent with equipment		
Dressing	need identified		
Grooming	independent with equipment		
Footcare	need identified		
Food preparation	need identified		
Feeding	independent with equipment		
Housework	need identified		
Laundry	needs assistance, but full physical support provided		
Toilet Use	independent with equipment		
Bladder	occasional leak, but independent with equipment		
Bowels	continent and independent		
Hobbies	independent with equipment		

Complete Bladder page to assess further

Requires help for activities away from home	Yes	Observed	Discussed
Mobility	need identified		
Shopping	needs assistance, but full physical support provided		
Attending family/ friends social events	needs assistance, but full physical support provided		
Attending hospital/ clinic appointments	needs assistance, but full physical support provided		
Attending social clubs/ community centres	needs assistance, but full physical support provided		
Attending place of worship	needs assistance, but full physical support provided		
Attending the library	does not wish to attend		
Attending support groups	does not wish to attend		

ADL equipment

Anti-slip mat	Bath seat	Bath step
Raised toilet seat		

Select ADL equipment

Risk assessment

ADL needs identified: 7	Moderate level of need for ADL	M&H risk assessment score= 5
Needs away from home identified: 1	Low level of need away from home	

Further details/comments

Clinical tools/Clinical evidence

7.9 Physical needs: Urological

a Assess urological risks with specific prompts to refine assessment and allow appropriate referrals to be made.

b Select 'Yes' to any of the symptoms on the top row to reveal further symptoms to deepen the enquiry.

c Select 'Yes' to 'Difficulty passing urine' to reveal further symptoms to deepen enquiry.

d Assessed risks appear in the 'Risk assessment' section (Figure 16).

e Use the 'Further details/comments' box to add more details or comments as free text.

Figure 16: Urological page

Electronic LTCs Integrated Assessment Tool (GM-ELIAT)

First Name	Surname	NHS Number

Section 5. Physical needs - Urological

Symptom review

Urge to pass urine	Yes	Passes urine ≥7 times 24hrs	Yes	Passes urine at night	Yes
Leak with strong urge		Burning on micturition			
Leak on coughing/laughing/sneezing	Yes	Leak after micturition finished		Difficulty passing urine	
Dribble without warning		Continued leak after micturition			
Leak without warning/sensation					
Add symptoms not listed					

Clinical examination

Pelvic floor examination					

Pathology

MSU		PSA			

Other Investigations

MRI		Urodynamic tests		Cystoscopy	
Haematuria (dipstick)					

Continence Products

Select continence equipment

Risk assessment

Pelvic floor weakness risk	Unstable bladder risk	
UTI risk		

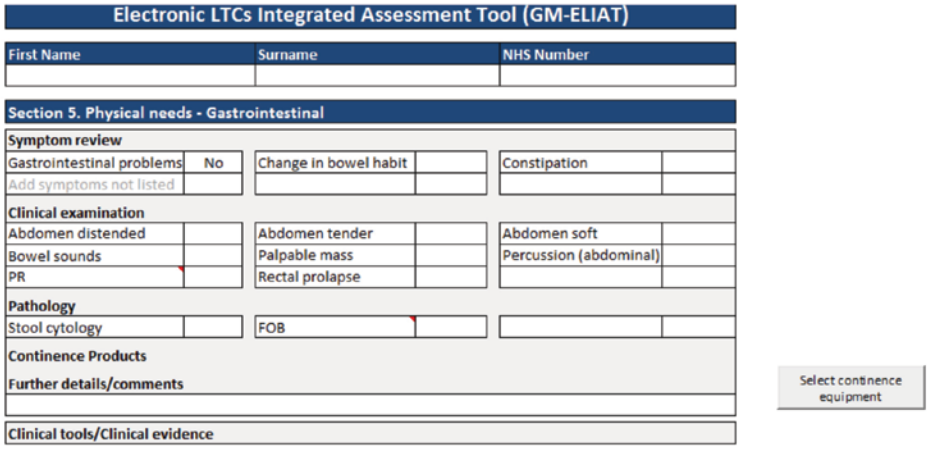
Further details/comments

Clinical tools/Clinical evidence

7.10 Physical needs: Gastrointestinal

a Select 'Yes' to any symptoms on the top row to reveal hidden rows (Figure 17a).

Figure 17a: Gastrointestinal page rows hidden



Electronic LTCs Integrated Assessment Tool (GM-ELIAT)

First Name	Surname	NHS Number

Section 5. Physical needs - Gastrointestinal

Symptom review

Gastrointestinal problems	No	Change in bowel habit		Constipation	
Add symptoms not listed					

Clinical examination

Abdomen distended		Abdomen tender		Abdomen soft	
Bowel sounds		Palpable mass		Percussion (abdominal)	
PR		Rectal prolapse			

Pathology

Stool cytology		FOB			

Continence Products

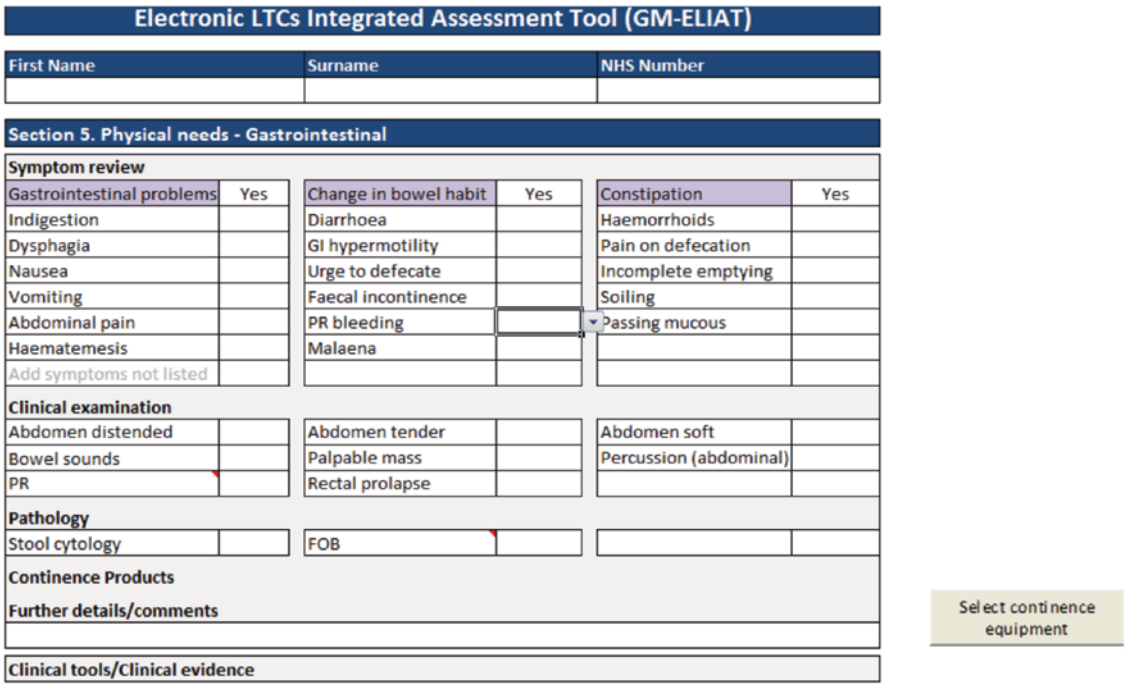
Further details/comments

Clinical tools/Clinical evidence

Select continence equipment

b Assess gastrointestinal symptoms with specific prompts to refine assessment and allow appropriate referrals to be made as required (Figure 17b).

Figure 17b: Gastrointestinal page fully open



Electronic LTCs Integrated Assessment Tool (GM-ELIAT)

First Name	Surname	NHS Number

Section 5. Physical needs - Gastrointestinal

Symptom review

Gastrointestinal problems	Yes	Change in bowel habit	Yes	Constipation	Yes
Indigestion		Diarrhoea		Haemorrhoids	
Dysphagia		GI hypermotility		Pain on defecation	
Nausea		Urge to defecate		Incomplete emptying	
Vomiting		Faecal incontinence		Soiling	
Abdominal pain		PR bleeding		Passing mucous	
Haematemesis		Malaena			
Add symptoms not listed					

Clinical examination

Abdomen distended		Abdomen tender		Abdomen soft	
Bowel sounds		Palpable mass		Percussion (abdominal)	
PR		Rectal prolapse			

Pathology

Stool cytology		FOB			

Continence Products

Further details/comments

Clinical tools/Clinical evidence

Select continence equipment

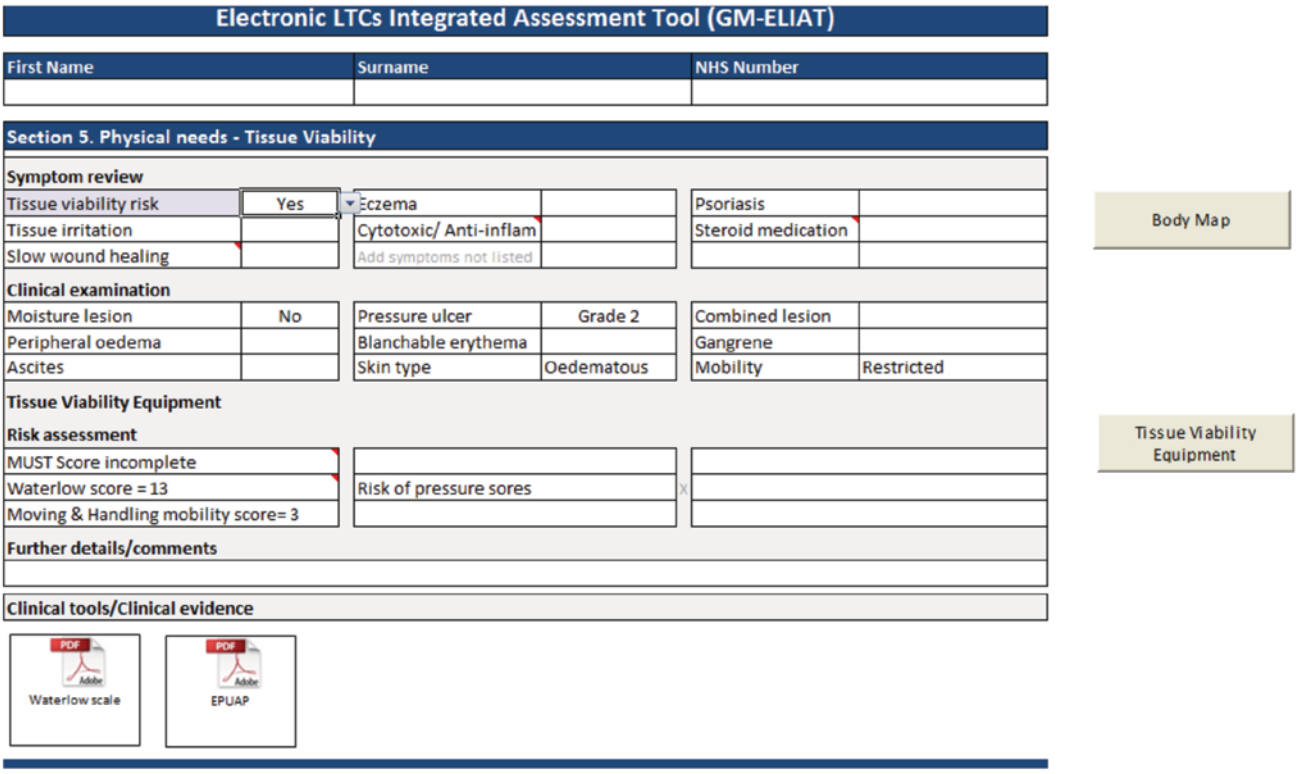
7.11 Physical needs: Tissue Viability

a Select 'Yes' to Tissue viability risk then identify location on the body map.

b Record type of complex wound. Follow the link to EPUAP for guidance.

c Risk tools such as the 'MUST' and 'Waterlow' are calculated with items from this page and previous pages. You must complete all necessary assessments to produce a score and interpretation for these tools. If incomplete, a warning will be provided in the 'Risk Assessment' section (Figure 18).

Figure 18: Tissue Viability page



Advanced Care Planning follows Physical needs; however, this requires further development, according to local need. The assessment then continues with the remaining domains; Psychological, Social and Spiritual. The latter requires development and has been left to be designed to meet local needs.

These pages are now described in more detail.

8 Advanced Care Planning (ACP)

a Enter information as free text following a discussion with the patient concerning future health and social care wishes and concerns (Figure 19).

b Items added on the support page will populate to the social care support section. Health care support could also be set up to populate.

c Follow link to the 'Advanced Decisions to Refuse Treatment' guide for further information on advanced decision making for treatment refusal.

d This page requires further development to provide more detail according to individual service provisions.

Figure 19: Advanced Care Planning page

Electronic LTCs Integrated Assessment Tool (GM-ELIAT)

First Name	Surname	NHS Number

Section 6. Advance Care Planning (Requires further development)

If I cannot communicate easily
you can help me by:

If a decision needs to be made, please talk to:

Information that I need from the people looking after me:

I'm concerned/ worried about:

Things I would like to happen to me:

When time is short I would like to:

Social care support

,

Further details/comments

ADRT A Guide

9 Psychological needs

a Select 'Yes' to feeling down, depressed and little interest, pleasure in activities and a prompt box will appear to guide you to complete a depression/anxiety questionnaire.

b Assess mood using the Wimbledon Self-report Scale (Figure 20).

c Identify other behavioural symptoms and use the further details text box to add more detail.

d This page could be developed further for a more detailed assessment of mental health issues.

Figure 20: Psychological page

Electronic LTCs Integrated Assessment Tool (GM-ELIAT)

First Name	Surname	NHS Number

Section 7. Psychological needs

Symptom review

Anxiety		Stress		Feeling down, depressed	Yes
Irritability		Fatigue		Little interest, pleasure in activities	Yes
Insomnia		Difficulty coping with LTCs		Reaction to loss/ bereavement	
Normal mood	No	Low mood	Yes	Mood swings	Yes
Poor motivation		No interest in others		No interest in surroundings	
Sexual dysfunction		Relationship problems		Obsessive-compulsive behaviour	
Impulsive behaviour		Addictive behaviour		Antisocial behaviour	
Eating/ weight issues		Phobia		Delusions	
Hallucinations		Paranoia			
At risk to self/ self harmin		At risk to others			
Add symptoms not listed					

Complete Abbreviated Wimbledon Self-report Scale to further assess mood

Clinical examination

Tachycardia		Sweating			

Other Investigations

Proteinuria (dipstick)		Haematuria (dipstick)		Leucocytes (dipstick)	
Nitrites (dipstick)		Glucose (dipstick)		Ketones (dipstick)	

Risk assessment

PHQ-9 score = 7	Risk of mild depression	
Wimbledon		
HAD Scale test	Moderate level of anxiety	Mild level of depression

Further details/comments

Clinical tools/Clinical evidence

PHQ-9 | Wimbledon | PHQ & GAD-7 instructions

10 Social needs

a Choose options from drop down boxes to define social circumstances relating to accommodation and living arrangements (Figure 21).

b Identify needs for organising social affairs.

c As for the ADL page, a simple score has been developed specifically for the GM-ELIAT to offer a level of need ranging from low to high.

d Use the 'Further details/comments' box to expand on social need via free text.

Figure 21: Social needs page

Electronic LTCs Integrated Assessment Tool (GM-ELIAT)

First Name	Surname	NHS Number

Section 8. Social needs

Social circumstances

Accommodation	
Tenure	Council
Housing	House
Accommodation Access	Ground floor
Internal Access	Stairs with one rail
Bedroom Access	Uses stairs
WC Access	Uses stairs
Bathroom Access	Uses stairs
Home Environment	Needs modification
Heating	Need identified
Living Arrangement	Lives alone
Fire safety	Need identified: No smoke alarm

Managing social affairs

Collecting prescriptions	Need identified
Finances	Need identified
Finding employment	N/A
Education	N/A
Benefits	Unsure whether benefits received
Benefits assessments	Need identified
Home safety	Need identified
Emotional support	Independent
Companionship	Independent
Power of attorney	Not required
Informal carer	Need identified: Unable to provide complete physical support

Complete Adherence section to assess difficulties regarding adherence to therapy

Is patient aware carer is entitled to an assessment of their needs?

Safeguarding

Does the patient have significant contact with children or vulnerable adults? Any concerns?

Risk assessment

Home environment in need of modification		Home inadequately heated
Needs identified to manage social affairs: 4	Moderate level of need for managing social affairs	Incomplete informal carer support
	No smoke alarm fitted	

Further details/comments

Clinical tools/Clinical evidence

11 Adherence to therapy

Adherence is an important issue for patients with multiple LTCs due to polypharmacy. Patients may also be at risk of poor adherence due to factors such as poor memory, poor dexterity and poor sight. You will see as you progress through the user guide that the GM-ELIAT provides prompt boxes to guide you to complete the adherence section if certain factors exist. This page is now described.

a Assess for barriers to adherence to therapy. A Likert scale has been developed to provide a score for the number of barriers identified (Figure 22).

b Adherence is then assessed using a ratified tool developed in the UK and tested internationally in a number of research studies[1-3] but not widely used in clinical practice. An interpretation of the score has been developed for the GM-ELIAT providing a risk scale from low to high.

c Use the 'Further details/comments' box to add more details or comments as free text.

Figure 22: Adherence to therapy page

Electronic LTCs Integrated Assessment Tool (GM-ELIAT)

First Name	Surname	NHS Number

Section 10. Adherence to therapy

Adherence barriers

Difficulty reading medicine labels	Often	Difficulty opening medicines	Sometimes	Difficulty collecting prescriptions	Sometimes
Difficulty taking medicines	Sometimes	Forgets to take medicines?	Sometimes	Troubled by side effects	Rarely
Needs prompting to take medicines	Rarely	Needs assistance taking medicines	Rarely	Uses adherence aids?	No

Medication Adherence Report Scale (MARS)

Forgets to take medicines?	Sometimes	Alters doses?	Never	Takes less than instructed?	Rarely
Misses doses out?	Sometimes	Stops taking them for a while?	Sometimes		

Risk assessment

MARS score = 12	Moderate risk of poor adherence	
Barriers to adherence score = 22	Several barriers to adherence	Not using adherence aids

Further details/comments

Clinical tools/Clinical evidence

1 Mahler C, Hermann K, Horne R, Ludt S, Haefeli WE, Szecsenyi J, et al. Assessing reported adherence to pharmacological treatment recommendations. Translation and evaluation of the Medication Adherence Report Scale (MARS) in Germany. J Eval Clin Pract 2010;16(3):574-9.

2 Mardby AC, Akerlind I, Jorgensen T. Beliefs about medicines and self-reported adherence among pharmacy clients. Patient Educ Couns 2007;69(1-3):158-64.

3 Menckeberg TT, Bouvy ML, Bracke M, Kaptein AA, Leufkens HG, Raaijmakers JA, et al. Beliefs about medicines predict refill adherence to inhaled corticosteroids. J Psychosom Res 2008;64(1):47-54.

12 Summary

a Information entered on the 22 assessment pages is brought together to provide a summary of the assessment this can then be used to formulate a patient-centred plan of care according to need (Figure 23).

b The summary page does take several seconds to load as the information appearing is populated from data inputted on previous pages.

Figure 23: Summary page

Electronic LTCs Integrated Assessment Tool (GM-ELIAT)

First Name	Surname	NHS Number

Section 11. Summary

Medical History		
Medical conditions	Atrial Fibrillation	Diabetes Type 2
	Hypertension	Parkinson's Disease
	Rheumatoid Arthritis	Stroke
Symptom review	SOB	Recent weight gain
	Constipation	Feeling down, depressed
	Poor concentration	Poor memory
	Passes urine ≥7 times 24hrs	Joint pain in: R Hip, L Hip, L Knee, R Knee
	Balance problems	Fall in last 12 months
	Neurological pain in:	Visual impairment
	Glasses/lenses check needed	Corrected vision
	Glasses/lens ineffective	Communication impairment
	Aphasia	Difficulties being understood
	Little interest, pleasure in activities	
Clinical examination	Systolic BP = 150	Diastolic BP = 80
	Height (m) = 1.62	Weight (kg) = 78.2
	Difficulty rising from sitting	
Pathology	eGFR (1) = 56	ACR (mg/mmol) = 3.2
	HbA1c = 56	
Risk assessment	High stroke risk	CKD Risk
	BMI = 30	Overweight
	Diabetes 9 key tests not complete	Asthma not controlled
	Moderate pain	Pain relief score = 40%
	Pain causes Moderate interference to life	Unlikely to be neuropathic pain
	Moderate interference to life	Significant cognitive impairment (6CIT)
	Visual impaiment need identified	Optometry examination date unknown
	ADL needs identified: 7	Moderate level of need for ADL
	M&H risk assessment score= 2	Needs away from home identified: 1
	Low level of need away from home	Risk of mild depression
	Moderate level of anxiety	Mild level of depression
	Home inadequately heated	Moderate level of need for managing social affairs
	No smoke alarm fitted	Moderate risk of poor adherence
	Several barriers to adherence	Not using adherence aids
Social		
Social circumstances	Home Environment: Needs modification	Heating: Need identified
	Living Arrangement: Lives alone	

13 Care Plan

a Enter needs as free text organised into the four domains. A new row appears as a need is entered to allow you to continue adding needs.

b The care plan is organised into actions, expected outcomes with review dates to provide a transparent plan of care (Figure 24)

c Use the drop down box to select health and social care professionals to refer to (additional options could be added)

d As this page requires a lot of free text, a spell check is provided.

e Future development could improve this page by populating the 'Needs' from the summary page. The 'Actions required' could be generated automatically according to clinical guidelines.

f If built into a clinical system it may be possible for a referral form template to be embedded, partially populated from the summary and clinical system and the referral sent via the system or email.

Figure 24: Care Plan page

Electronic LTCs Integrated Assessment Tool (GM-ELIAT)

First Name	Surname	NHS Number

Section 12. Care Plan

Physical Needs	Action Required	Expected Outcome	Review date	Refer to	Ref date
Psychological Needs	Action Required	Expected Outcome	Review date	Refer to	Ref date
Social Needs	Action Required	Expected Outcome	Review date	Refer to	Ref date
Spiritual Needs	Action Required	Expected Outcome	Review date	Refer to	Ref date

Spell check

A Correspondence page follows the care plan allowing health and social care professionals involved in the patients care to communicate with each other via the tool. This is described next.

14 Correspondence with other health and social care professionals

a Enter information as free text for action by members of the integrated team or to provide information (Figure 25).

b Integrated into a clinical system, this could be set up to provide alerts for team members to access the patient's record and address the issue/ respond to the request.

Figure 25: Correspondence page

Electronic LTCs Integrated Assessment Tool (GM-ELIAT)

First Name	Surname	NHS Number

Section 13. Correspondence

Actions

From:	Role:	Date:

To:	Role:

Further details/comments	Date to be completed by:

Actions

From:	Role:	Date:

To:	Role:

Further details/comments	Date to be completed by:

Actions

From:	Role:	Date:

To:	Role:

Further details/comments	Date to be completed by:

The ELIAT finishes with the section 'Patient Enablement' to evaluate whether there has been a change in the patient's ability to manage, understand and cope with his/her LTCs and whether he/she feels confident about future care since the assessment was conducted and care plan agreed. This final page will now be described.

15 Patient Enablement Instrument (PEI)

a Use the PEI to assess whether the process used to identify and address the patient's needs has enabled him/her to manage his/her LTCs better.

b This instrument developed by Howie et al[4] has been tested in a number of studies but not widely used in clinical practice. An interpretation of the score has been developed for the GM-ELIAT, providing a scale from poorly enabled to manage LTCs to highly enabled (Figure 26).

Figure 26: Patient enablement page

Electronic LTCs Integrated Assessment Tool (GM-ELIAT)

First Name	Surname	NHS Number

Section 14. Patient enablement

As a result of this assessment and the support and advice you have been given to manage your long-term conditions do you feel that you are.....

Able to cope with life	Much Better	Better	Same or Less	N/A
Able to understand long term conditions	Much Better	Better	Same or Less	N/A
Able to cope with long term conditions	Much Better	Better	Same or Less	N/A
Able to keep yourself healthy	Much Better	Better	Same or Less	N/A
Confident about health	Much More	More	Same or Less	N/A
Able to help yourself	Much More	More	Same or Less	N/A

Risk assessment

PEI Score	9	Highly enabled to manage LTCs

Clinical tools/Clinical evidence

PEI

4 Howie JG, Heaney DJ, Maxwell M, Walker JJ. A comparison of a Patient Enablement Instrument (PEI) against two established satisfaction scales as an outcome measure of primary care consultations. Fam Pract 1998;15(2):165-71.

MANCHESTER 1824
The University of Manchester

NHS
National Institute for Health Research
Collaboration for Leadership in Applied Health Research and Care (CLAHRC) Greater Manchester

For further information regarding clinical content and design contact:

Dr Trish Gray Research Fellow
Trish.Gray@manchester.ac.uk

For further information regarding the ELIAT's functions contact:

Caroline O'Donnell Information Analyst
Caroline.O'Donnell@srft.nhs.uk

The CLAHRC Greater Manchester is part of the National Institute for Health Research and is a partnership between providers and commissioners from the NHS, industry, the third sector and the University of Manchester

clahrc-gm.nihr.ac.uk clahrc@srft.nhs.uk @CLAHRC_GM