

Development of an Electronic LTCs Integrated Assessment Tool

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

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Aim

To develop an electronic long-term conditions (LTCs) integrated assessment tool to identify and address unmet health and social care needs for people with multimorbidity. The electronic format provides an efficient method for sharing an assessment and management process across multidisciplinary teams.

Objectives

- To design an electronic tool that can deliver a holistic assessment of multimorbidity.
- To provide a shared process across integrated teams to improve communication and reduce repetition of assessment.
- To improve data quality.
- To ensure that clinical assessment procedures are consistent and evidence based.
- To reduce time spent on LTC assessments by the use of an electronic rather than a paper based process.

Background

LTCs such as cardiovascular disease, diabetes and respiratory disease are the leading causes of disability and death in the western world.¹ Around 15 million people in England have at least one long-term condition,¹ many have two or more (multimorbidity). Patients with multimorbidity are generally higher users of health services, are at increased risk of premature death, unplanned hospital admissions and extended length of (hospital) stay (LOS).² Individual diseases dominate health-care delivery, yet people with multimorbidity need a much broader approach.³ An electronic integrated assessment tool may assist CCGs and community services in delivering NHS Outcomes⁴ and the LTC QIPP,⁵ improve communication, reduce repetition and provide a shared approach to assessment and care planning across integrated health and social care teams.

Design

The design of the electronic LTC integrated assessment tool was informed by a literature review, patient interviews and discussions with health and social care professionals and clinical specialists, to develop a greater understanding of multimorbidity in terms of:

- Patients'/service users' needs.
- The risks to health and well being.
- The impact on daily living and social life.
- The impact on health services.

The tool provides a holistic assessment of health and social needs and is divided into physical, psychological, social and spiritual needs. The physical needs section is the largest and is sub-divided into the following:

- Cardiovascular
- Endocrine and Metabolic
- Respiratory
- Musculoskeletal
- Neurological
- Cognitive
- Sensory
- Activities of Daily Living (ADL)
- Bladder
- Bowel
- Tissue Viability
- Advance Care Planning

Tool Format

Most Physical needs pages and Psychological needs have a standard format comprising:

- Symptom review.
- Clinical examination.
- Pathology.
- Other investigations.
- Risk assessment.
- Further details/comments.
- Clinical tools/clinical evidence.

Dropdown boxes reduce the need for free text and improve the summary output. Items are populated to other pages if required.

Clinical guidelines appear as cells are highlighted.

Risks are calculated from data inputted. Further details can be added as free text.

Links to national and international guidelines (e.g. NICE) allows instant access to clinical information.

Activities of Daily Living (ADL) and Social Needs

For ADL (shown below) activities are discussed and observed to identify needs

Section 5. Physical needs - Activities of daily living		
ADL needs	Yes	Observed Discussed
Requires help with daily living activities		
Mobility	independent with equipment	✓ ✓
Transfer	independent with equipment	✓ ✓
Stairs	need identified	✓ ✓
Bathing	need identified	✓ ✓
Washing	needs assistance, but full physical support provided	✓ ✓
Oral hygiene	independent	✓ ✓
Dressing	needs assistance, but full physical support provided	✓ ✓
Grooming	independent with equipment	✓ ✓
Footcare	need identified	✓ ✓
Food preparation	need identified	✓ ✓
Feeding	need identified	✓ ✓
Cleaning	need identified	✓ ✓
Laundry	need identified	✓ ✓
Toilet Use	needs assistance, but full physical support provided	✓ ✓
Bladder	frequent leak, need identified	✓ ✓
Bowels	continent with regular enemas and fully supported	✓ ✓
DIY	needs assistance, but full physical support provided	✓ ✓
Requires help for activities away from home	No	Observed Discussed
ADL equipment		
Ill-fitting dentures	Tri-wheel walker	
Risk assessment		
ADL needs identified: 8	Moderate level of need for ADL	

ADL equipment already in use is also recorded so that an assessment of equipment needed can be made.

For ADL and Social needs, the number of identified needs are calculated and a classification is given

Power of attorney	Has a registered Lasting Power of Attorney
Informal carer	Need identified: Unable to provide complete physical support
Risk assessment	
Needs identified to manage social affairs: 5	Moderate level of need for managing social affairs
Further details/comments	Incomplete informal carer support

Embedded Health Questionnaires

Assessment Summary

Findings are brought together to provide an overall picture of the patient's needs and risks to health and social wellbeing. From this a care plan is formulated.

Section 31. Summary		
Medical History	Atrial Fibrillation	Diabetes Type 2
Medical conditions	Hypertension	Left Ventricular Systolic Dysfunction (LVSD)
Symptom review	SOB triggered by exertion	SOB triggered by exertion
Clinical examination	Systolic BP = 145	Diastolic BP = 89
Pathology	eGFR (1) = 45	ACR (mg/mmol) = 47
Risk assessment	AF: Risk of exacerbation	COB Risk
Requires help with daily living activities	Mobility need identified (observed/discussed)	Transfer needs assistance, but full physical support provided (observed/discussed)
Social circumstances	Home Environment: needs modification	
Managing social affairs	Collecting prescriptions: Need identified	Finance: Need identified

Shared Care

A correspondence page allows electronic communication between integrated team members. An assessment page documents the number of assessments completed, who the assessors were, the date, time, location and what was assessed, to allow an audit trail to be developed.

Progress So Far

- Prototype tool designed in excel 2010.
- Tool refined following clinical specialist feedback.
- Recruitment of community services for testing
- Tool converted to excel 2003 for compatibility with test sites.
- Testing commenced by Trafford Community Matron Service.

Future Development

- Continue recruitment of ACM/Community Matron Services.
- Extend testing to other services e.g. rehabilitation/social care.
- On-going refinement as testing progresses.
- Develop links with industry to explore options for rebuilding the tool into EPR systems.

References
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