Development of an Electronic LTCs Integrated Assessment Tool

Trish A Gray,[1] Caroline O'Donnell,[1] Malcolm Young,[1] Lorraine Burey,[1] Joanne Thomas,[1] Christi Deaton.[2]

1 NIHR Collaboration for Leadership in Applied Health Research and Care for Greater Manchester, UK . 2 University of Manchester, UK

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 uses 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 Outcomes[4] 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.

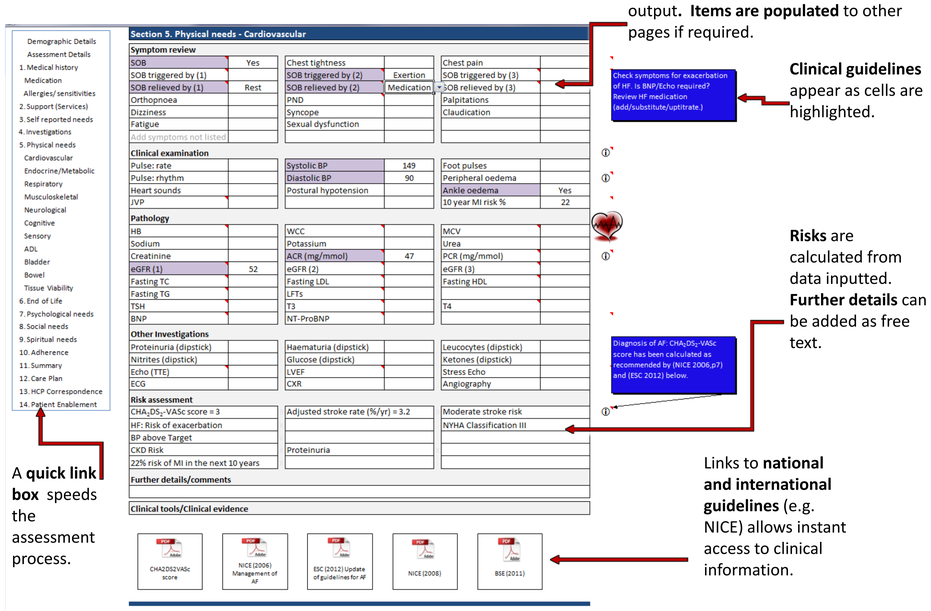
The tool provides a holistic assessment of health and social needs and is divided into physical, psychological, social and spiritual needs. The physical needs section is the largest and is sub-divided into the following:

- 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.

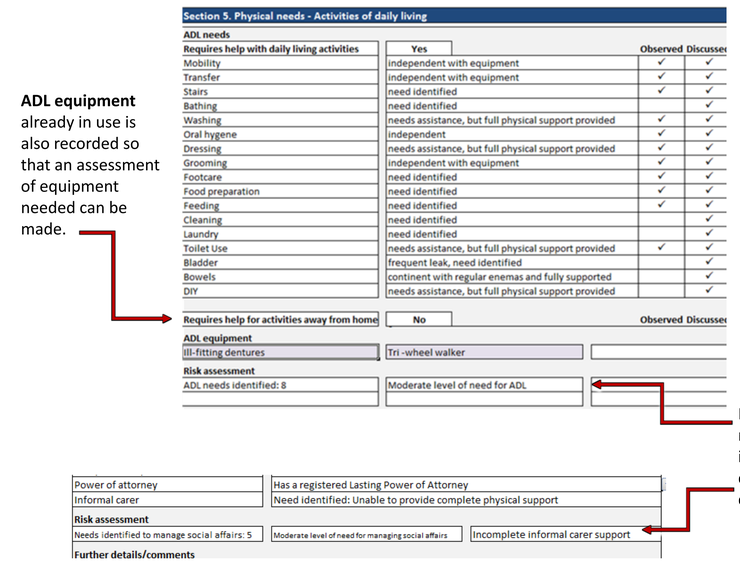
Risks are calculated from data inputted. **Further details** can be added as free text.

A **quick link box** speeds the assessment process.

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

Activities of Daily Living (ADL) and Social Needs

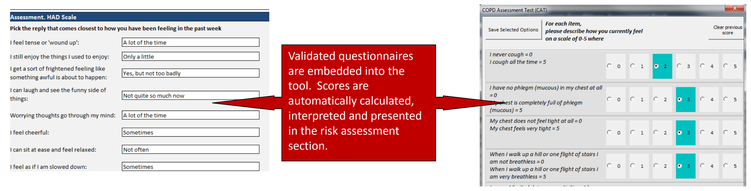
For ADL (shown below) activities are discussed and observed to identify needs



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

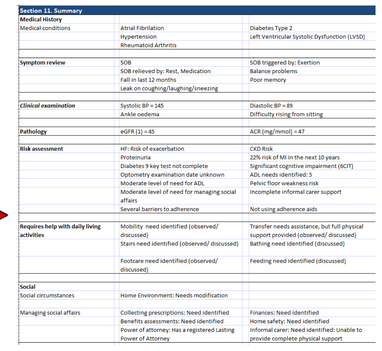
For ADL and Social needs, the number of identified needs are calculated and a classification is given

Embedded Health Questionnaires



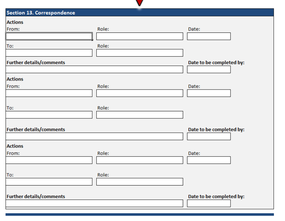
Validated questionnaires are embedded into the tool. Scores are automatically calculated, interpreted and presented in the risk assessment section.

Assessment Summary

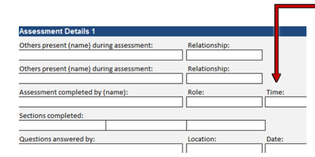


Findings are brought together to provide an overall picture of the patient's needs and risks to health and social wellbeing. From this a care plan is formulated.

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

1. WHO. 2008-2013 Action Plan for the Global Strategy for the Prevention and Control of Noncommunicable Diseases: World Health Organization, 2008.
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3. Barnett K, Mercer SW, Norbury M, Watt G, Wyke S, Guthrie B. Epidemiology of multimorbidity and implications for health care, research, and medical education: a cross-sectional study. *Lancet* 2012.
4. DoH. The NHS Outcomes Framework 2012/13. London: Department of Health, 2012.
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For further information please contact: Dr Trish Gray, Knowledge Transfer Research Fellow. Trish.Gray@manchester.ac.uk