

Managing complex long-term conditions (LTC) and multi-morbidity

The increasing challenge of complex LTC and multi-morbidity will change the way we practise medicine. Archana Dhere reports from this important meeting held jointly by ABCD and the Royal College of Physicians (RCP) on Feb 18th at the RCP, London.

Introduction

Complex long-term conditions (LTC) and multi-morbidity are on the rise. Healthcare systems, medical education and research worldwide are designed to deliver care for individual diseases. These systems are proving to be inefficient in caring for people with multi-morbidity and a wider approach is necessary (Figure 1).¹ The Royal College of Physicians (RCP) in conjunction with the Association of British Clinical Diabetologists (ABCD) organised a conference with the aim to improve understanding about LTC. Common LTC like chronic obstructive pulmonary disease (COPD), heart failure, dementia, chronic kidney disease (CKD), diabetes, chronic steroid use, serious mental illness and physical disease and Parkinson's disease were discussed. The interactive sessions focused on views and experiences of various medical experts in the UK on care pathways, care networks and care models that can help to manage LTC.

Growing impact and need for change

Dr Bob Goddard and Professor Nigel Mathers

LTC stretches all aspects of health services, as resources struggle to keep up with demand. A cross-sectional study in 2007 across 314 medical practices in Scotland revealed that 42% of all primary care patients had one or more morbidities and 23% were multi-morbid.¹ "Hospitals on the edge?", a report by RCP in 2012, identified a significant increase in clinical demands on acute services with a 37% cumulative rise in hospital attendances in the last decade.² About two-thirds of patients admitted to hospital are over 65 years of age. A Future Hospital Commission report to the RCP in 2013 highlighted challenges such as increasing clinical demands with reduced facilities for acute medicine, changing needs of patients over 65 years of age, poor continuity of care on admission to hospital, inadequate arrangement for out-of-hours care in hospitals and a looming workforce crisis amongst trainees and consultants that needed to be addressed.³ In 2014, only

60% of higher specialist trainees accredited in acute and general internal medicine, and most of these trainees reported unmanageable workload and poor job satisfaction. Almost 40% of consultant posts advertised in acute and general internal medicine remained unfilled. The shape of training review presented to the RCP in 2013 identified a need to reshape postgraduate training in the UK. The recommendations included efforts to enhance the value of general internal medicine, increase training numbers in acute and general internal medicine, improve job satisfaction by allowing flexibility in training and rewards for wider leadership roles.⁴ A new model of care envisaged by the Commission aimed at delivering safe high-quality continuous coordinated care for patients across 7 days and will be possible only if the traditional reactive medical crisis management model is replaced with a holistic psychosocial model that encompasses early proactive support planning to prevent a crisis. This requires minimising structural divisions between primary, secondary, specialised and social care with improved commissioning, contracting and funding opportunities at various levels of the health and social care system.

The House of Care framework (Figure 2) is one such initiative that makes the patient central to the care. The roof of the house comprises best clinical and organisational evidence, the first wall supports professional collaboration between specialists and generalists, the second wall supports patients and their carers to encourage self-care and the foundations

Figure 1. Circle of patient-centred care, Royal College of Physicians

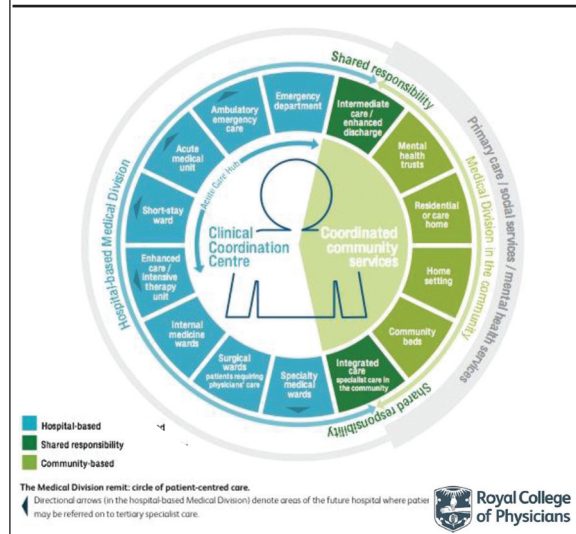
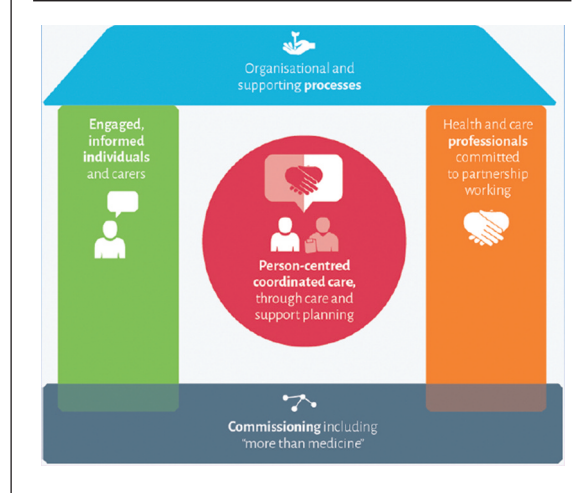


Figure 2. The House of Care, NHS England



of the house comprise the commissioning groups.

COPD

Professor Mike Morgan

Hospitalisation for a severe exacerbation of COPD is linked with poor prognosis. The introduction of structured self-management

and transitional care plans in the community aims to reduce re-hospitalisation in the first three months after discharge.⁵ In addition to specific treatment strategies such as steroids for eosinophilic inflammation, prophylactic macrolides for recurrent exacerbations and volume reduction surgery for emphysema, the National COPD Audit and Cochrane Review in 2015 showed significant benefits to exercise capacity and quality of life from pulmonary rehabilitation.⁶ Half of COPD patients have one or more comorbidities,⁷ and pulmonary rehabilitation was beneficial to those with obesity and congestive heart failure.^{8,9} A Cochrane review in 2014 showed that collaboration between healthcare providers like nurses, general practitioners, physiotherapist and chest physician to facilitate an integrated disease management programme including different components like self-management, exercise and nutrition improves outcomes like dyspnoea, 6 min walking distance and hospital admissions.^{9,10}

Steroids in non-endocrine practice

Dr Miguel DeBono

Glucocorticoid-induced side effects are reported by 90% of patients and the impact on patient health and quality of life is dose-dependent.¹¹ The lowest effective dose of glucocorticoids should be used for the shortest period to avoid the risk of osteoporosis, hyperglycaemia and HPA axis suppression. Bone density measurements if glucocorticoids are administered for more than 3 months, early screening and treatment initiation for steroid-induced hyperglycaemia and vigilance for hypothalamic pituitary axis suppression are recommended.

Dementia and end-of-life care in patients with diabetes

Professor Alan Sinclair

Diabetes Frail is an emerging concept that explores frailty and its association with diabetes. Frailty is a clinically recognised state of increased vulnerability resulting from ageing associated with a decline in the body's physical and psychological reserves.¹² Frailty increases the level of disability in diabetes. Cognitive impairment and dementia is more common in diabetes and is associated with an increased risk of hypoglycaemia, poor treatment adherence, and dependency.¹³ A multidisciplinary assessment of psychosocial and functional capabilities, with medical needs to anticipate risks and devise management strategies is recommended. The aim is to maintain functional independence, improve the quality of

life, reduce symptom and medicine burden.¹⁴ Relaxing glucose control, stopping unnecessary medications, withdrawing statins and pain management at end of life are important.

Chronic kidney disease (CKD) and diabetes

Dr Peter Winocour and

Dr Andrew Frankel

Diabetic renal disease is the most common cause of renal failure in the UK. About 20–40% people with diabetes develop CKD. There is an increased risk of cardiovascular disease (CVD) in the presence of diabetes and CKD. A multifaceted care programme coordinated through a diabetologist, nephrologist, dietician and primary care physician in preventing and treating diabetic nephropathy is effective.¹⁵ The eight pillars of care to focus on are optimal glycaemic control; avoiding extremes of glycaemia; monitoring eGFR and proteinuria; interventions to reduce cardiovascular risk like smoking cessation, weight reduction, low salt diet, blood pressure control, cholesterol reduction with statin and aspirin prophylaxis; foot screening; retinopathy screening; treatment of anaemia; treatment of bone disease.¹⁶ Management of diabetes in end-stage renal disease remains a challenge due to the rapid changes in the glucose homeostasis and altered pharmacokinetics of glucose-lowering medications. Insulin requirement may vary between dialysis and non-dialysis days.

Heart failure

Dr Hugh McIntyre

Heart failure prevalence rises as age advances and has a high five-year mortality of 45%.¹⁷ The all-cause mortality rises in the presence of co-morbidities like CKD, anaemia, diabetes and COPD.¹⁸ Treatment strategies for patients should take into account whether ejection fraction in heart failure is preserved or reduced, B-type natriuretic peptide (BNP) level, frailty score, and nutritional status.

Mental illness and physical disease

Professor Richard Holt

Physical co-morbidities like diabetes mellitus, obesity, COPD, and CVD are more common in patients with schizophrenia, and are more likely to be missed.¹⁹ Associated reduced life expectancy by 11–20 years is seen.²⁰ Factors like reduced motivation; side effects from psychotropic medications; unhealthy lifestyle including smoking, poor diet, excess alcohol may contribute. In-

trauterine environment and childhood adversity play a role. Increased collaboration between mental and physical health services is likely to be helpful.

Parkinson's disease

Professor David Burn, Newcastle

Parkinson's disease is a common neurodegenerative condition affecting 127,000 people in the UK. About 80% of people with Parkinson's develop dementia. The national Parkinson's audit in 2012–2013 identified shortcomings like lack of implementation of best practice, limited access to PD nurse, inadequate patient information in the clinics, lack of integration between occupational therapist and speech and language therapist, lack of training and education. The UK Parkinson's Excellence Network was established in 2015 in an attempt to improve care for people with Parkinson's disease.²¹ The 18 network groups support patients and professionals to build awareness and drive changes in their local area in improving education, research and service development.

Progress so far

As part of the NHS Five Year Forward view published in 2014, new innovative care models, extra funding arrangements and commissioning approaches have been explored as pilots. The Vanguard programme at 29 sites backed by a £200 million transformation fund for developing new models of care for seamless service across hospitals, primary care, mental health, community nursing, pharmacy and social care was initiated in March 2015. Integrated Personal Commissioning has combined the health and social care budgets from April 2015 and is expected to empower patients. In April 2016 Greater Manchester got devolved control of a £6 billion budget for restructuring and integrating health and social care services based on local needs. The success of these innovations will help determine if these can be used as blueprints for redesigning the entire health care system.

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Association of British Clinical Diabetologists

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