

A photograph showing two hands shaking over a desk. In the foreground, there is a spiral notebook and a resume on a clipboard. The resume has the word 'RESUME' visible. The background is slightly blurred, showing what appears to be an office setting with other people in business attire.

echosens

because liver health matters

Comprehensive Chronic Care Disease Management of Liver Disease Improves Member Outcomes, Reduces Costs for Employer-Sponsored Benefits Plans and Healthcare Payers

FibroScan, non-invasive technology that rapidly examines liver stiffness and fat at the point of care, integrates with MetaPhy Health's chronic care disease management programs.

Author: Scott Howell, D.O., MPH&TM, CPE, Advisor to Echosens

Contents

- 3** Introduction
- 3** The Language of Chronic Disease Care
- 4** Key Challenge for Treating Liver Disease
- 5** Understanding the Impact of Diabetes
- 6** Treatment Options for NAFLD
- 7** How CCDM Address the Consequences of NAFLD
- 8** Value of FibroScan and MetaPhy for Leveraging OCA
- 9** Closer Look at FibroScan®
- 10** References
- 12** About Echosens

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As employers struggle to adjust to the “new normal” and find the most optimal way to manage population health, chronic care disease management (CCDM) promises to be the most effective approach for treating patients with comorbidities, such as Type 2 diabetes and obesity—both of which have been linked to liver disease. In fact, nonalcoholic fatty liver disease (NAFLD) and nonalcoholic steatohepatitis (NASH) are highly prevalent in people living with metabolic syndrome (MetS) and are recognized not only as leading causes of liver disease, but also contributors to increased cardiovascular disease (CVD) mortality among people living with Type 2 diabetes.

Although its progression rate may be slower than other types of liver disease, the incidence of NASH, and its link to hypertension, Type 2 diabetes, obesity and MetS, is increasing throughout the world.¹ Currently, new NASH/antifibrotic therapies are being evaluated in clinical trials and are expected to lead to even higher costs.²

For employers, payers and plan members alike, it is important to recognize NAFLD so that early intervention can be implemented. Lifestyle modifications and strict control of metabolic risk factors are the most effective treatment. The benefits of managing chronic disease is to not only improve health and reduce medical costs, but also to create a more productive workforce and healthier patient population.³

The Language of Chronic Disease Care

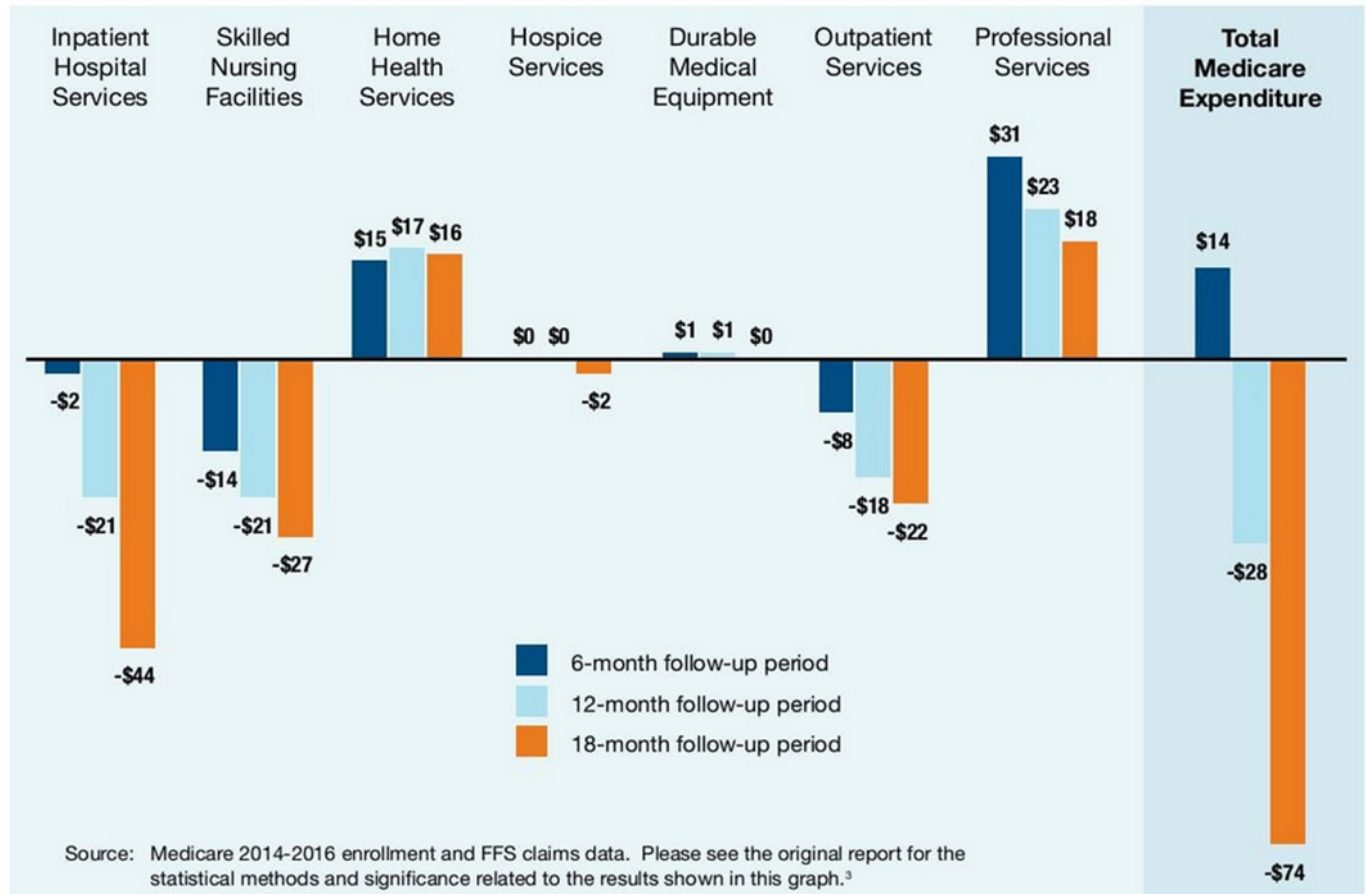
In today's evolving healthcare landscape, it's important for employers to keep pace with changing approaches to addressing disease, including its terminology.

Chronic care management (CCM) involves health care professional's oversight and education around helping patients with chronic diseases and health condition.

Chronic disease management (CDM) is a more integrated care approach to managing illness that involves coordinated healthcare interventions and communications for populations with specific conditions.⁴

Chronic care disease management (CCDM) goes a step further by addressing the care of those with chronic, and often multiple, diseases and embraces broad partnerships and multidisciplinary teams of nurses, physicians and pharmacists to reduce costs and improve outcomes for chronic conditions.⁵

Estimated PBPM impact of CCM on total expenditures and by expenditure category: follow-up periods of 6,12, and 18 months



Key Challenge for Treating Liver Disease

Currently the biggest challenge to liver care for primary care providers and specialists, like gastroenterologists, is having access to simple tools for liver assessment at the point of care. Specifically, they must identify the patients who may be at risk for advancing liver disease and address the issues in a way that can reduce the overall costs associated with metabolic disease management.

MetaPhy Health, for example, has developed CCDM programs that leverage FibroScan, a non-invasive technology that quickly provides a quantitative assessment of liver stiffness and liver fat at the point of care, to make the detection of liver disease and long-term care for individuals with NAFLD and NASH more effective.

The good news is that the integration of FibroScan into MetaPhy Health's "high touch" CCDM program can help to effectively address the growing liver disease epidemic. With the introduction of new treatment options, including drugs that will soon be available, a targeted CCDM program can integrate non-invasive, point of care liver examinations to leverage the launch of these drugs in a way that improves outcomes and lowers costs for employers and payers.

An analysis of the impact of Medicare CCM services recently completed by Mathematica's Policy Research Group provides compelling evidence of the financial value of care management. In the study, the firm analyzed complete 2014 to 2016 Medicare enrollment and claims data, as opposed to a representative sample.

Mathematica's analysis showed that per-beneficiary-per-month (PBPM) cost for patients who received CCM services was less than the costs for comparable non-CCM beneficiaries after just 12 months. PBPM expenditures for CCM beneficiaries decreased by \$74 in the 18-month follow-up period.

As one might expect, these lower expenditures were primarily driven by a reduction of PBPM inpatient hospital expenditures. Specifically, the study showed that receiving CCM services is associated with a reduction in hospital readmissions for certain ambulatory care-sensitive conditions (ACSCs).

The results were promising for patients with certain ACSCs, including diabetes, chronic obstructive pulmonary disease (COPD), urinary tract infections (UTIs), and pneumonia, with statistically significant reductions in hospital admissions compared to patients with the same conditions who did not receive CCM services.

Understanding the Impact of Diabetes

Diabetes is one of the leading causes of disability and death in the United States. One in 10 Americans have diabetes – more than 30 million people – and another 84 million adults are at high risk of developing Type 2 diabetes.⁶ Characterized by high blood sugar and insulin resistance, and linked to unhealthy diets and a lack of regular exercise, the diabetes trend is expected to grow—with the latest figures showing that the obesity rate in the United States has reached 42.4%.⁷

The American Diabetes Association's most recent research estimates that the total costs of diagnosed diabetes rose to \$327 billion in 2017 from \$245 billion in 2012—a 26% increase over a five-year period.⁸

Although diabetes is less prevalent in the workforce than in the overall population, it's still a costly problem for employers: more than \$20 billion annually due to unplanned, missed days of work.⁹ One report found that full-time workers with diabetes miss an average of 5.5 extra workdays per year and part-time workers miss an additional 4.3 days, after adjusting for half-day estimates.¹⁰ Nationwide, this means employers are losing 58 million unplanned work days among employees who have been diagnosed with diabetes, compared with those not diagnosed.¹¹

What's more, people with diabetes have much higher rates of other chronic disease, such as high blood pressure, high cholesterol, heart attack and depression, and they are less likely to get regular exercise or engage in other healthy behaviors.

Plan members at high risk for pre-diabetes and diabetes are the most common and costly. In fact, Per Member Per Year (PMPY) costs for people with no diabetes are substantially lower than for those with diabetes.¹² Studies show that targeted prevention programs can lower the rate of Type 2 diabetes by reducing claims and positively impacting health improvements around multiple conditions that can lead to chronic disease – the key cost driver for health insurance.¹³

Interventions to impact these conditions have traditionally been ineffective, most likely because of the antiquated fee-for-service model, which has fragmented care for physicians and patients alike. Research shows that effective outpatient interventions that improve diabetes control and process outcomes are multi-level and target the patient, provider and healthcare system simultaneously, while utilizing community health workers as intermediaries between the patient and community-based healthcare resources.¹⁴

Treatment Options for NAFLD

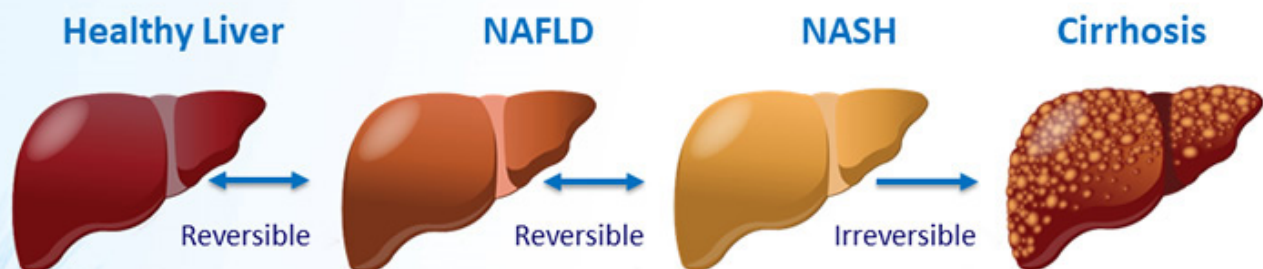
NAFLD has become the most common chronic liver disease in the world and affects between 25% to 30% of adults in the United States.¹⁵ Comprised of a spectrum of disease severity, NAFLD ranges from simple steatosis to NASH and steatosis with hepatocyte inflammation, necrosis and fibrosis. Patients with NAFLD experience significantly increased mortality due to cirrhosis and hepatocellular carcinoma (HCC) and extrahepatic complications, such as MetS, CVD and malignancy.

Because disease progression is typically slow, members can be managed well by primary care physicians. NAFLD patients with advanced liver fibrosis should be referred to specialist care for further assessment.¹⁶ While finding and managing fibrotic NASH is an important component to addressing liver disease, members with steatosis alone are at a greater risk of cardiovascular mortality and morbidity.

Recent studies have suggested that NAFLD is often present as a comorbidity in patients with Type 2 diabetes. The mutual interrelationship between these conditions shows that Type 2 diabetes can exacerbate NAFLD by promoting progression to NASH, often leading to fibrosis and cirrhosis, while NAFLD causes the natural course of diabetic complications to worsen in Type 2 diabetes patients.¹⁷ NAFLD affects approximately 25% of the worldwide population and as many as 6% are affected by NASH, with NASH prevalence expected to increase by 63% by 2030.¹⁸

NAFLD: progression of disease

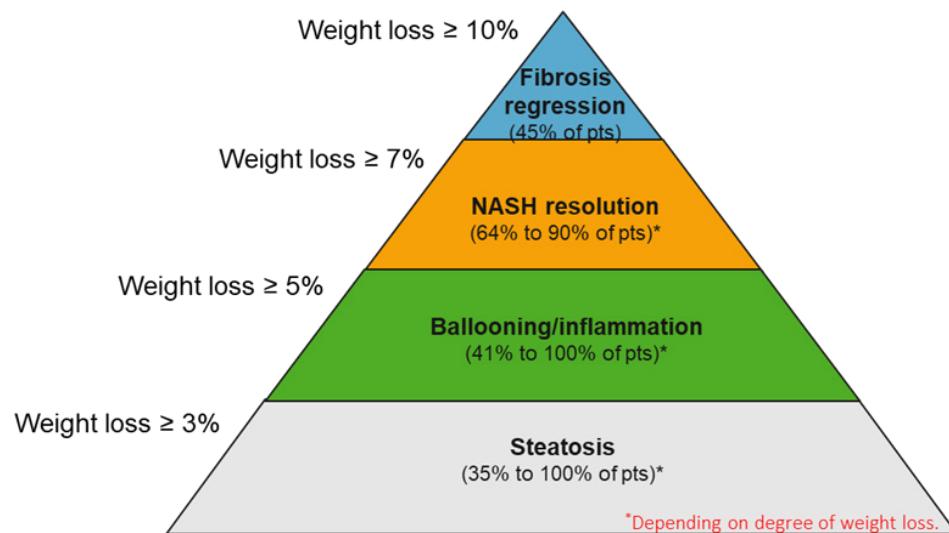
HCV-trials.com



Source: HCV-trials.com

How CCDM Address the Consequences of NAFLD

Implementing a CCDM program that targets liver health can address the broader needs of members and prevents them from developing NASH. In fact, this is a critical imperative given the costs and complications associated with NASH--a challenging, high-volume and chronic condition that lacks a standardized care delivery model. NASH has created a global treatment market projected to reach \$21.5 billion by 2025,¹⁹ and is on track to becoming the leading cause of liver transplantation in the United States.



41

Hannah WN, et al. Clin Liver Dis. 2016;20:339-350.

NAFLD is reversible if caught in the early stages and accompanied by lifestyle change. In many patients, a 5-7% decrease in body weight is associated with a reduction in liver fat and inflammation.²⁰ Screening and early detection can help to prevent more serious conditions such as end-stage liver disease or liver cancer.

Treatment Options for NAFLD

The liver is the key to insulin resistance, but fatty liver can be improved without drugs. In fact, weight loss is the best treatment option for NALFD and the prevention of fibrosis progression.

Obetacholic acid (OCA), the first FDA-approved treatment for fibrotic NASH, is expected to launch in 2020. OCA has demonstrated 40% efficacy²¹ and experts suggest an annual price tag of \$15,000 to \$20,000 to be cost effective.²² The use of OCA after 18 months saw 4 out of 10 patients showing improvement by at least one fibrosis stage compared to 2 out of 10 on placebo experiencing a similar response.²³ Step-edits, mechanisms designed by payers to control cost, will increase the potential CCDM pool of NASH patients under GI care, and may require a biopsy to decrease eligible patients and ensure that the drug is prescribed to only those who need it.

The efficacy of OCA, its high price tag and high placebo response reinforces the value of lifestyle modification as the primary treatment. If a patient loses 3% of weight this can lead to a 35% reversal in steatosis, with greater weight loss leading to lower inflammation, NASH resolution and, at 10% weight loss, fibrosis regression. This makes it clear that weight loss may be more efficient than drug intervention. CCDM programs that effectively impact lifestyle changes are critical and have significantly greater cost-savings if effectively implemented and weight loss is maintained. It also means a better use of time and resources and provides a substantial value proposition when OCA and other drugs are launched.

Investing in lifestyle modification for employees/members also improves comorbid conditions. The challenge is that lifestyle changes, while effective, are not always sustainable or efficient. This is where a liver examination to assess liver fat in real-time, using FibroScan, combined with a CCDM program, like MetaPhy's, can optimize a drug-free and highly effective way to reverse liver damage.

Value of FibroScan and MetaPhy for Leveraging OCA

If step edits are incorporated in advance of access to OCA, then the challenge is to make them as effective as possible. MetaPhy's CCDM program, which can make weight management more effective in treating fatty liver and its underlying conditions, focuses on lifestyle management to achieve a long-term impact and prompt rapid and potentially meaningful changes in liver fat as estimated by CAP™. This score further validates the CCDM program's lifestyle interventions.

FibroScan is a powerful tool supporting outcomes and providing valuable information on liver health. This information can support care management across key components of the metabolic syndrome – diabetes and hyperlipidemia.

As part of a patient-centered care model, FibroScan is designed to improve individual health outcomes and lower payer costs by avoiding expensive, invasive interventions. This combination improves care coordination and develops and implements a comprehensive care plan for members with NAFLD, NASH, Type 2 diabetes, obesity and/or the underlying metabolic syndrome conditions that contribute to the progression or risk of developing advanced liver disease. Many individuals with gastrointestinal issues are also living with other chronic diseases that can be improved through early detection, monitoring, patient education and engagement.



Closer Look at FibroScan®

FibroScan is an innovative diagnostic tool to rapidly and non-invasively assess liver fat and stiffness. It assists in reducing unnecessary diagnostic procedures, additional treatments and cost associated with progressive liver disease. At point of care or in the primary care setting, physicians can provide screening as a component of a wellness visit rather than waiting for serious and more damaging symptoms to occur.

FibroScan is a cost-effective alternative to biopsy and advanced imaging. When combined with FIB4 (simple, free calculator comprised of ALT, AST, age and platelets), FibroScan can be more cost effective and accurate in identifying cirrhosis due to NAFLD than magnetic resonance elastography (MRE) with FIB4, and more cost effective than liver biopsy.²⁴ As part of an overall liver assessment, FibroScan can be performed by a medical assistant and interpreted by the physician, and it takes less than 10 minutes, including positioning the patient. FibroScan produces consistent numeric results that can be easily interpreted by the clinician to assess and monitor liver fat and stiffness over time. What's more, it is supported by 2,500+ peer-reviewed publications and used as the reference for major association guidelines for non-invasive assessment of the majority of liver diseases.

Among its many benefits, FibroScan: provides consistency and evidence; standardizes care and provides patients and providers with state-of-the-art technology; is covered by CMS and most commercial insurance plans for diagnosing and monitoring chronic liver disease; and improves diagnostic accuracy for delegated risk contracts, such as Medicare Advantage (MA).



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About Echosens

Echosens, the developer of FibroScan®, is an innovative high-technology company offering a full range of products and services supporting physicians in their assessment and management of patients with chronic liver diseases. FibroScan is supported by over 2,500 peer-reviewed publications and examinations are covered by Medicare, Medicaid and many insurance plans. For more information, please visit <http://www.echosens.us> and follow us on Twitter (@echosensNA).

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