Why We Need to Unlock the Full Potential of Primary Care

Primary care 3.0 focuses on molecular medical management that prevents & effectively treats chronic conditions & slows aging. Everyone should have access to it.

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There are powerful reasons to move to a value-based primary care system. Highly effective primary care is an indispensable piece of that effort. Research shows that a focus on primary care is associated with better health, lower costs, lower mortality, higher patient satisfaction, fewer ER visits, and hospitalizations. Primary care provider reimbursement generates just 7.7% of healthcare costs but PCPs direct most spending through their referrals.

It is important to recognize that the costs of care are not distributed evenly:

- Over 50% of commercial patients generate almost no costs.
- Patients with chronic disease generate 85% of our bloated health care costs.
- Just 5% of patients generate over half the costs, in part, because they don't receive effective primary care upstream to reduce serious comorbidities downstream.

Primary care has already begun to segment. Hospitalists and urgent care providers are organized to meet the needs of special populations. Primary care teams that focus on chronic conditions will be critical to improve health and save money.

Primary Care 1.0

Chronic kidney disease (CKD) is rapidly increasing in our country and the incidence of dialysis is much higher if you are poor or black. If the poverty level in a neighbourhood is 25% vs. less than 5%, 4 times as many people go on dialysis. Black patients are 4 times more likely to go on dialysis when compared with whites. In the southeast, black patients may have 15 times the dialysis risk of white patients. Why is that? It is not racial. It is not genetic. Black and whites are 99.9% genetically identical. It is socioeconomic.

Most of these patients are diabetic and hypertensive and the cost of care is a barrier to effective primary care access. For people who can gain access to current primary care, treating hypertension and diabetes in usual care is very effective in preventing progression to dialysis. Primary care 1.0 is effective

Progression to dialysis is very expensive. There are 5 stages of chronic kidney disease. No chronic kidney disease is a kidney function of 100. Stage 3 chronic kidney disease is 30-60 and requires aggressive primary care intervention to delay progression. End-stage renal disease (ESRD) is 15 or less.

The diabetic patient without CKD costs $10,721 annually. With stage 3 CKD and any progression, the cost is $31,693. The dialysis patient costs $62,091 a year. Even though diabetics should have kidney function evaluated annually by guideline, only 10% of stage 3 CKD patients even know that they have the disease.

Once a patient goes on dialysis, they automatically go on Medicare. It is in everyone's hard financial interest to see that every American has access to primary care and critical generic medications without barriers.

STAGES OF PRIMARY CARE FOR CARDIOMETABOLIC DISEASE

Primary Care 1.0	Usual Care	Uses any medication approved for the purpose
Primary Care 2.0	Advanced Care	Prescribes medication that lowers cardiovascular events beyond the impact on the risk factor
Primary Care 3.0	Best Practice Care	Molecular medical management provides reduction in chronic condition incidence and most effective treatment while slowing aging

Primary Care 2.0

As effective as usual primary care is, it does not begin to realize the benefits that we could deliver with currently available best practice paradigms for chronic condition management. More than 35% percent of diabetic patients over the age of 20 have chronic kidney disease, so this is a very common condition. These patients should be managed using focused, multifactorial intervention that includes setting aggressive clinical targets and following a protocol that combines ACE inhibitors for hypertension, statins for cholesterol, metformin for diabetes and aspirin to prevent clots.

This type of approach has produced impressive results:

- a six-fold reduction in dialysis compared with usual care.
- a four-fold reduction in heart attack

- a five-fold reduction in stroke
- an eleven-fold reduction in coronary stents
- a three-fold reduction in amputation
- a three-fold reduction in dialysis

Optimal medical therapy is a product that can be systematized, industrialized and scaled. There is no reason that you cannot reliably receive this product in Seattle and New Orleans. Similar approaches can reduce the incidence of Alzheimer's disease and other expensive chronic conditions in addition to dialysis. Primary care 2.0 is much more effective.

Primary care redesign

It is only with primary care 3.0 that we begin to see the full potential. There are thousands of people developing new science and products. There is almost no one working on translating the new science. What are the combinations of simple lifestyle and medical interventions that will give us healthier, longer, more functional lives? New science can move us beyond a system arranged around risk factors and organ systems to a much more precise approach targeting the molecular biology that causes chronic diseases and accelerated aging. Leading cardiologists at Harvard call this systems biology.

Bear with me a minute. Understanding the full potential of primary care redesign requires a very short trip into the basic science weeds. If you just understand the rest of this article and the links, you will understand what next generation chronic disease management could be. It is not that hard. Half the patients who have a heart attack have a normal cholesterol level.

Paul Ridker is a leading cardiologist at Harvard Medical School. He is the leading proponent of the "inflammatory hypothesis" of cardiovascular disease. The Jupiter trial made him famous in medical circles. The 17,802 healthy patients in that trial had normal cholesterol and a high C-reactive protein (CRP) that indicated increased inflammation. Half the patients received a statin to reduce cholesterol and inflammation. Half did not. Rosuvastatin treatment for an average of 2 years cut major cardiovascular disease in half.

Dr. Ridker expanded this concept in the CANTOS trial this year. Patients with a history of heart attack and a high CRP (increased inflammation) received the injectable monoclonal antibody canakinumab that neutralizes the inflammatory mediator interleukin 1B (initiates inflammatory signalling cascade). That intervention reduced heart attacks by 15%.

The new, injectable, PCSK9 cholesterol-lowering medications reduce heart attacks by—wait for it—15%.

Systems biology

Dr. Ridker summarizes the implications like this: *"*CANTOS is what we call *systems biology*.

> When I was a medical student, we taught heart, lung, kidney, brain. We don't do that anymore. We teach inflammation, fibrosis, and metabolism.

This trial is the expression of that…We have a reduction in rheumatoid arthritis. We have a reduction in gout, we have a reduction in osteoarthritis, and I think one of the most interesting findings of the whole trial is a reduction in cancer."

The best scientists at Harvard are calling for a move away from a medical system designed around organ systems while moving toward a system based on genetics, epigenetics and molecular biology. The same molecular signalling that causes a heart attack also causes stroke and kidney failure. It makes no sense to send these people to cardiologists, neurologists, and nephrologists. The best management will not come from partiality. It will come from generalists who are experts in molecular medical management—primary care 3.0.

Dr. Ridker's inflammatory hypothesis is necessary but insufficient. It is only the tip of the iceberg. New science supports a unifying hypothesis of chronic disease and aging. Widely available generic medications are much more effective and much less expensive.

Better care for half the cost

Remember the incredible results from the multifactorial intervention that I described earlier? Metformin, a statin, an ACE inhibitor, and aspirin reduced heart attack four-fold—not 15%. Canakinumab costs $16,000 a month. You can get metformin, atorvastatin, lisinopril, and aspirin for $16 a month. These medications were developed to address individual risk factors—metformin for glucose, atorvastatin for LDL cholesterol, lisinopril for blood pressure, and aspirin to prevent clotting. They all interfere with inflammation. So why are they so much more effective in combination than canakinumab? A mountain of evidence shows that they block signalling that results in chronic disease by causing new cell formation, cell growth, and programmed cell death. Doctor Ridker's approach will take years to develop at great expense. We can enjoy much better health longer today with primary care 3.0 at such a reduced cost that we can help every American for half the money.

It gets even better. New science tells us that abnormal genes do not cause most chronic disease. Strangely enough, normal genes cause chronic disease. Epigenetic science tells us that genes are not active all the time. Genes that cause heart disease and cancer are switched on to support normal fetal development and childhood growth. Once the child is grown, they are switched off in healthy young adults.

Later in life environment factors like fast food and tobacco smoke switch those genes back on to produce oxidative particles which activate growth factors causing inflammation (rheumatoid arthritis), cell division (fibrosis), cell growth (cancer), and programmed cell death (heart, liver, kidney, and pancreatic failure).

The new multifactorial intervention includes real food, resistance exercise, ACE inhibitors (lisinopril) or angiotensin receptor blockers (losartan), aldosterone antagonists (spironolactone), statins (atorvastatin), metformin, GLP1 agonists (liraglutide), and SGLT2 inhibitors (empagliflozin). As an example of the potential impact, metformin reduces myocardial infarction incidence by about 40%, cancer incidence by about 40% and extends healthy life in multiple lower animals by about 40%. Type 2 diabetes lowers life expectancy by 10 years. Human diabetics on metformin live a little longer than non-diabetics.

Why are we ignoring this new science?

Our medical system has completely ignored this wonderful new science. If we adopted new communication science at that pace we would all be talking on rotary phones. Cardiovascular management is arranged around finding blockages and opening them which has been proven ineffective. Very few have moved beyond primary care 1.0. They are not aware of the new science and they do not use protocols and population health tools to assure patients get the right care every time.

Primary care 3.0 is highly effective for multiple chronic diseases. Molecular medical management improves the health of every cell in the body by interfering with signalling that causes chronic disease and accelerated aging. We could all be free of chronic disease longer and extend our lives while functioning at a high level at less expense. Isn't that what we all want? Healthcare payers should remove barriers to primary care access and disease-modifying medications, but they should demand a move towards primary care 3.0 development. And, you should be able to receive this high-value care whether you live in Savannah, St. Louis, or Seattle.

Source: https://thedoctorweighsin.com/primary-care-unlock-potential/