

Improve outcomes for
diabetes management with
virtual endocrinology support



Summary

Managing type 2 diabetes mellitus (T2DM) in primary care presents a myriad of challenges for clinicians working to prevent and manage complications. Diabetes imposes a heavy financial strain on patients and health care systems, disproportionately affecting those in low-income communities where neighborhood resources are scarce. Primary care clinicians are on the front lines of the diabetes epidemic, and in the best position to improve patient outcomes through early diagnosis, treatment, and intervention. However, a fast-growing patient population and administrative obstacles leave PCPs in a difficult position given the limited time they have with patients. In light of this dilemma, more primary care clinicians continue to explore integrated virtual care solutions that extend PCP bandwidth.

Expanding what's possible for integrated diabetes care

Diabetes is not a one-size-fits-all disease, and effective primary care-based management calls for a tailored approach. Diabetes care delivery models have evolved to be more patient-centric, team-based, effective and sustainable. RubiconMD technology-driven solutions for diabetes management help improve patient outcomes and reduce costs by enhancing access to specialty care. Ranging from episodic to fully proactive and programmatic, specialty insights from RubiconMD virtual endocrinologists and clinical pharmacists helps PCPs maximize the time spent providing optimal patient care.



People with diabetes have **2x** increased risk for cardiovascular mortality¹

Top risk factors leading to diabetes-related complications and death:

Hyperglycemia

Hypertension

Hypercholesterolemia



Discussion

Diabetes management presents unique challenges for primary health care because of the disease's epidemic nature and its rising prevalence within a capacity-challenged care environment. As of 2022, more than 37 million people live with diabetes.²

On average, managing diabetes costs more than \$9,600 a year per patient.³ In addition, people with diagnosed diabetes spend more than twice on medical-related costs than those without this condition.⁴

70% of patients struggle to control their hemoglobin A1c (HbA1c) levels.⁵

Patients with persistent poorly-controlled diabetes, defined as HbA1c greater than 9%, have a high risk of complications. While keeping blood glucose

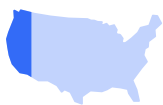
levels within a normal range is key to prevent lasting damage, many patients find it burdensome to make daily lifestyle and treatment management decisions, pay for medication, and overcome geographic barriers.

Improving access to specialized care could make a significant impact for patients with uncontrolled diabetes.

Comorbidities are common, and they are a large driver of expenditures related to hospitalizations and other adverse outcomes. In the United States, diabetes and high blood pressure are the leading causes of kidney failure, accounting for 3 out of 4 new cases.⁶ Diabetes is also the leading cause of new cases of blindness among adults aged 18–64 years.⁷

Challenging and unique patient population

Large, costly, and under-managed



11.3% US population living with diabetes



1 in 4 health care dollars attributed to diabetes care



70% patients with under-managed A1C levels

Risk factors with serious comorbidities



2–4x risk of heart attack

Amplified in underserved communities



10x risk of amputation for low-income patients⁸



The troubling link between poverty and diabetes

Experiences with diabetes are different from person to person, and differences in diabetes risk, complications, and mortality are influenced by biological, clinical, and nonclinical factors, such as social determinants of health.⁹ Years of scientific review have shown a strong connection between diabetes, race or ethnic minority, and household income. Many of the living conditions and societal drivers that contribute to the risk of developing diabetes, also pose serious challenges to successfully managing it.

Adults with T2DM living below the federal poverty level have a **2x higher risk** of diabetes-related mortality¹⁰

Community-based barriers to successful diabetes management



Limited access to healthy foods



Stress, isolation, and depression



High costs of medical equipment

“

The burden of diabetes is often amplified in safety-net medical systems, which suffer from limited resources and care for populations with high prevalence of diabetes and comorbid chronic conditions, high rates of missed appointments, and lower rates of medical literacy.”

– *The Journal of Clinical & Translational Endocrinology*¹¹



Primary care is at the center of diabetes management

Providing guideline-recommended patient care requires PCPs to play the role of consultant, prescriber, and coach — demonstrating deep knowledge that covers multiple medication categories, medical devices, drug adherence strategies, and dietary and lifestyle recommendations.

Primary care clinicians are given just **18 minutes on average** with patients, and it's estimated they would need 26 hours per day to deliver true comprehensive patient care, according to the Journal of Internal Medicine.

PCPs deliver clinical care to **~90%** of individuals with T2DM¹²

Less than 40% of patients with diabetes demonstrate basic condition knowledge and self-management¹³

PCPs help patients learn the basics of care, perform lab tests, physical exams, and monitor medication side effects. The PCP is also the point of contact for specialist referrals to endocrinologists and ophthalmologists. And beyond bandwidth restraints, PCPs may experience emotional uncertainty about their role as a facilitator of patient behavior change. For PCPs to be successful, they prefer tools, time, and integrated support that helps inform better, value-based care.

Apply interdisciplinary care

Adults living with T2DM need comprehensive support to effectively manage and improve their condition. This need is amplified for those who face more social and nonmedical barriers to self management.

Studies show that an interdisciplinary team approach to glycemic control can achieve significant A1c reductions in primary care settings. PCPs collaborate with specialists, including endocrinologists, pharmacists, behavioral health clinicians and more, to provide holistic support for their patients.



Working better together

Bring specialty insights into primary care virtually for better patient outcomes.

eConsults help PCPs manage patients with diabetes by



Providing expert recommendations for high-risk, complex patients



Improving access to comprehensive care



Reducing unnecessary costs and gaps in care



Enhancing the interpretation of diagnostic tests



Ensuring appropriate tests and medications are administered



Delivering more proactive, preventative care and ongoing surveillance



Empower higher quality care

PCPs use specialty eConsults to help diagnose and manage patients with chronic conditions. According to RubiconMD data, eConsults avoid nearly 70% of referrals, enabling patients to be effectively treated within primary care.

eConsult+ enables expanded applications for virtual specialty care that are condition-specific, proactive, and team-based — improving clinical outcomes for the most complex patients.

eConsult types

Episodic; PCP chooses to submit based on patient need

Standardized; PCP required to submit before a referral for predetermined criteria

Proactive; cohorts of T2DM patients are submitted in bulk



eConsult Collaboration
Distribute work across the clinical care team, making it easier to create and submit eConsults

RubiconMD democratizes access to specialist expertise so all patients can get quality, timely care. Along with access to over 140+ specialties and subspecialties, RubiconMD is the only specialty care platform that is HITRUST certified - adhering to the highest-level of HIPAA compliance.



PCPs report that **80%** RubiconMD eConsults improve their care plans



Case study: eConsult-first approach

Expert insights from an endocrinologist via eConsult validated and enhanced PCP's plan of care for a complex, non-compliant patient.

Primary Care Provider eConsult:

69-year-old Hispanic female from Venezuela, who has medical history significant for Type 2 DM diagnosed 10 years ago, hyperlipidemia, hepatic steatosis, hypertension, depressive disorder, urethral instability, and obesity. The patient had treatment with Janumet 50-1000 mg daily, but she has been off the medication for more than a month. The patient has been feeling depressive and is not eating or drinking well. Labs on 4/6/2021 were significant for A1c 11.9%, fasting glucose 194 mg/dL, BUN 39 mg/dL, Cr 1.98 mg/dL, eGFR 25 mL/min/1.73m², ALK 167 U/L, RBC 5.48, hgb/hct 16.0/49.1; We repeated labs on 4/20/2021: fasting glucose 147 mg/dL, BUN 46 mg/dL, Cr 1.78 mg/dL, eGFR 29 mL/min/1.73m², serum Na 132 mmol/L.

The kidney function is compromised at this point in this non-compliant patient, probably CKD stage 4 (although she had a creatinine WNL in Feb 2021 which does not meet criteria for being < 3 months showing kidney impairment) but U/A continues showing + proteins); but also it can be some acute kidney injury given the fact that the patient is not eating/drinking well and HGB/HCT are increased (hemoconcentration?); although specific gravity in urine is WNL. Janumet was stopped due to decreased eGFR < 30 (because of metformin component); we are planning to start Lantus insulin 10 units QHS and continue monitoring fasting glucose to adjust/increase 2 units every 3 days until fasting glucose is between 80-130 mg/dL.

Would you consider GLP-1 receptor agonist over insulin?

Would you consider adding SGLT-2 inhibitor in addition to insulin?





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Specialist:

Candesartan sounds perfect for her proteinuria. She's definitely borderline for metformin. If her GFR were to recover to be >30 ml/min, I would consider restarting the metformin at a dose of 500 mg BID. In that case, I would also strongly consider starting an SGLT2 inhibitor, as you mentioned. Label-wise, canagliflozin (100 mg), empagliflozin (10 mg), and dapagliflozin (10 mg) can all be used down to an eGFR of 45 ml/min. Ertugliflozin's label recommends against its use with a GFR <60 ml/min. KDIGO, though, is comfortable with low-dose SGLT2i use down to a GFR of 30 ml/min. Beware that if you re-check a creatinine within a week or two of starting, you'll likely see a fall in GFR. It almost always returns to baseline within a few weeks.

In the short term, though, I completely agree that insulin is likely to be the mainstay of her treatment. I think starting basal insulin, as you've done, and titrating upward to a normal fasting glucose is perfect. If you'd like to be more aggressive, then we could titrate upward according to the old Bergenstal titration, which looks something like: BG <80 \rightarrow reduce dose by ~ 2 units BG 81-109 \rightarrow no change BG 110-139 \rightarrow +2 units BG 140-179 \rightarrow +4 units BG >180 \rightarrow +6 units We tend to titrate every ~ 48 hours. Our goal is a first-morning fingerstick persistently less than 130 mg/dL. This would buy us some time to make a decision on her other agents. Ideally, if her GFR recovers to >30 ml/min, I'd restart low-dose metformin along with a low-dose SGLT2 inhibitor in addition to her insulin. If her GFR does not recover, I'd offer a GLP-1 agent like semaglutide and titrate it up to the maximum tolerated dose.

Either way, I'd also offer Metamucil (psyllium husk) 1 tablespoon daily in water since it appears to lower the A1c by $\sim 0.6\%$, roughly equivalent to DPP-4 inhibitors like Januvia. I'd also offer a high-potency statin like atorvastatin ≥ 40 mg or rosuvastatin ≥ 20 mg daily. Please message me back if any of this is unclear or incomplete or if new issues come up with your patient's care.



ProConsult+

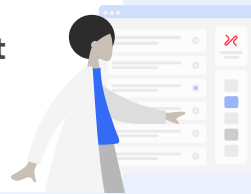
The next-generation eConsult solution

With **ProConsult+**, eConsults are deployed and recommendations are received before a patient arrives at the PCP visit, enhancing the patient and clinician experience. Proactive specialty insights help guide care across disciplines, and enable PCPs to manage T2DM patients more effectively, in less time. Patients benefit from comprehensive care plans presented quickly and tailored to their needs, while PCPs optimize chronic condition management outcomes at the population level.

STEP 1

Determine target population

Uncontrolled T2DM



STEP 2

Establish clinical criteria

Patients with elevated HgbA1c >9 and visit within last 90 days

STEP 3

Select patients & enroll cohort in ProConsult+

Happening at a batch level, cohort of patients that meet criteria enrolled in **ProConsult+**

STEP 4

Clinical staff submits eConsults

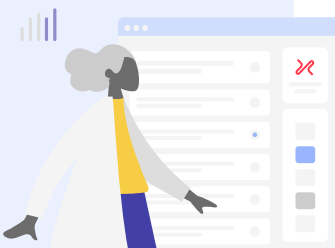
Templated submissions include standardized background info and questions



STEP 5

Specialist reviews cases & provides recommendations

- Before the patient visit, charts updated with specialist recommendations for review
- Medication management strategies and guidance on patient education and self-management



Integrate specialty care into your model and achieve the Quadruple Aim with **ProConsult+**



Patient-specific insights for at-risk patients



Remove burden of submission from the clinician



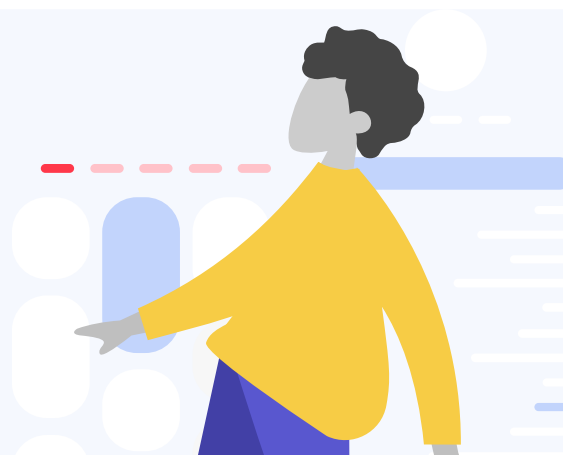
Focus PCP time on the specialist response and care planning



Added value for your patients getting specialist insight without travel to another doc

Proactive use of eConsults for diabetes management have been shown to reduce population health A1c by **1.5%** while also reducing referrals per visit by **15%**.

RubiconMD pilot data with major MA partner



ProConsult+ offers a way to further enhance your ROI with your disease management program.

Contact RubiconMD to schedule a demo
www.rubiconmd.com





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