



Easing the Financial Burden of Diabetes Management: A Guide for Patients and Primary Care Clinicians

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More than one in 10 Americans today are living with diabetes (1). To prevent acute and chronic complications of diabetes, including death, patients with diabetes often require multiple medications and medication management supplies to enable effective, safe, and evidence-based control of hyperglycemia. These include insulin and noninsulin medications, technologies for glucose monitoring, and equipment for administration of injectable medications (both insulin and noninsulin injectables).

Management of hyperglycemia is increasingly expensive for patients and the health care system, having increased 240% from the period 2005–2007 to 2015–2017, from \$16.9 billion to \$57.6 billion annually (2). Although the majority of these costs are borne by public and private payers (2), patients and caregivers increasingly report cost-related distress, nonadherence, and adverse health outcomes stemming from the costs of managing their disease (3–5). It is therefore vital for primary care clinicians, who care for the majority of people with diabetes (6), to be cognizant of the financial impact of diabetes management on their patients and to reduce it as much as possible.

Insulin is just one component of comprehensive diabetes care, but it is the most critical for people who require it to live (i.e., people with type 1 diabetes and some with longstanding type 2 diabetes). In 2018, 18.6% of U.S. adults with diabetes were treated with

insulin alone, and an additional 15.1% were treated with insulin and noninsulin glucose-lowering medications (7).

The average list price of insulin in the United States rose by 15–17% each year between 2012 and 2016 (8). The greatest increase in insulin-related costs stems from greater use, and higher per-unit costs, of analog insulins (2). New insulin products such as ultra-long-acting or ultra-rapid-acting insulins offer important clinical and safety advantages to certain patients; however, these formulations are among the most expensive to obtain. Between the period 2005–2007 and 2015–2017, the cost-per-user for insulin therapy increased from \$1,106 to \$4,562 annually, including an increase from \$509 to \$1,718 for human insulin and an increase from \$1,549 to \$5,031 for analog insulin (2).

The reasons for increased costs of insulin are multifactorial, involving the medication manufacturers, wholesalers, pharmacy benefit managers (PBMs), insurers, and pharmacy providers (8). Medications' list prices are set by manufacturers, which sell them either directly to pharmacy chains or to wholesale distributors that then sell them to retail pharmacies with an additional fee. Pharmacies process prescriptions through patients' insurance plans before filling them, also charging a processing fee. In parallel, PBMs, which often manage prescription drug coverage for insurance companies, receive rebates for fractions of the list price back from the manufacturers for filled medications and pass along some of that savings back to the insurance company. Although this lowers medication costs for the insurance plans and generates income for PBMs, these rebates do not translate to cost savings for patients. The end result of this opaque and complicated process is increased costs to patients, which have been associated with medication nonadherence, worsened health outcomes (9), and even death (10).

Importantly, insulin is not the only source of financial strain for people living with diabetes. In 2018, 57.5% of people with diabetes were treated with noninsulin glucose-lowering medications (7). The rising costs of noninsulin diabetes management reflects a rapidly

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evolving landscape. The glucagon-like peptide 1 (GLP-1) receptor agonist and sodium–glucose cotransporter 2 (SGLT2) inhibitor medication classes offer added benefits such as weight loss, low risk of hypoglycemia, prandial glucose control, and improved cardiovascular and kidney outcomes in at-risk patients (11). As a result, these expensive, brand-name medication classes are often preferred as second-line agents for many people with type 2 diabetes over less expensive generic alternatives such as sulfonylureas and thiazolidinediones (11). Although clinical practice guidelines call for individualized management of hyperglycemia that takes into consideration both glycemic and nonglycemic benefits, medication classes recommended preferentially for many people are increasingly expensive. Indeed, while the annual costs-per-user of metformin and older noninsulin medications decreased from \$371 to \$240 and from \$803 to \$208 between 2005–2007 and 2015–2017, respectively, the cost for newer medications

increased from \$1,316 to \$3,665 (2). As a result, the total cost-per-user for noninsulin therapies increased from \$922 to \$1,346 during this time period.

Table 1 summarizes the median average wholesale prices and national drug average acquisition costs of commonly prescribed antihyperglycemic medications. The presented costs do not depict what patients might pay for the medications given variability in insurance availability and coverage (both in terms of health benefit design and where patients are with respect to deductibles and out-of-pocket maximums, if present, at the time of the fill) and are meant to show relative costs of these agents. Population-level data on patient cost-sharing is lacking and represents an opportunity for future research.

An often-overlooked contributor to the high patient costs of diabetes management is the need for supplies required to optimize medication delivery and safe

TABLE 1 Cost Estimates of Glucose-Lowering Therapies by Medication Class (38,39)

Medication Class	Median Product AWP Range*	Median Product NADAC Range*
<i>Commonly used noninsulin agents (30-day supply at maximum approved daily dose)†</i>		
Metformin	\$87–\$242	\$2–\$188
Sulfonylureas (second-generation)	\$48–\$93	\$4–\$11
Thiazolidinediones	\$348–\$407	\$5–\$330
α-Glucosidase inhibitors	\$106–\$241	\$28–\$311
Meglitinides	\$155–\$878	\$31–\$38
DPP-4 inhibitors	\$234–\$568	\$175–\$456
SGLT2 inhibitors	\$354–\$627	\$284–\$501
GLP-1 receptor agonists	\$774–\$1,161	\$706–\$930
<i>Insulin products (cost per 1,000 units)‡</i>		
Rapid-acting	\$157–\$924	\$125–\$606
Short-acting	\$165§	\$133§
Intermediate-acting	\$165–\$208§	\$133–\$167§
Long-acting	\$190–\$407	\$210–\$325
Premixed	\$165–\$424§	\$133–\$340§

*Ranges are inclusive of all commercially available products within each listed medication class and include costs for generic options, when available. †For additional detail on pricing for individual medications within each class, refer to Tables 9.2 and 9.3 in ref. 11. ‡Ranges for insulin products include prices for vials and pen devices and include costs for generic products, when available. §Median price does not account for ReliOn brand products, which can be purchased for approximately \$25/vial. AWP, average wholesale price; NADAC, national average drug acquisition cost.

glucose monitoring. Depending on the glucose-lowering regimen, most patients with diabetes need to check their blood glucose levels between one and four times per day, with more frequent monitoring required in situations of high glycemic variability, illness, and symptoms suggestive of hypoglycemia (12). The majority of patients with diabetes monitor their glucose levels using a glucose meter, which also requires acquisition of a lancet device, lancets, and test strips. Glucose meters and lancet devices require regular replacement to ensure functionality, and lancets and test strips can only be used once each. In addition, an increasing number of patients with diabetes are now using continuous glucose monitoring (CGM) systems to allow for uninterrupted monitoring of glucose levels, real-time alerts in the event of hypoglycemia, and (in some cases) integration with insulin pumps for optimizing insulin dosing and delivery. Table 2 summarizes the median average wholesale prices of common CGM systems. Glucose monitoring devices and supplies can be expensive, resulting in high out-of-pocket costs to patients (13) and high rates of rationing (3) at the expense of safety and efficacy of glycemic management.

In addition to glucose monitoring, injectable medications cannot be administered without additional equipment. Insulin requires either syringes (for vials),

needles (for pens), or continuous subcutaneous insulin infusion (CSII; also called insulin pump) sets. Some GLP-1 receptor agonists also require a separate purchase of needles for their administration. Recently, Chua et al. (14) examined annual out-of-pocket costs for children and adults with type 1 diabetes. After accounting for the cost of insulin, diabetes-related supplies, and other services, the estimated mean annual out-of-pocket costs were \$2,414 and \$2,298, for adults and children, respectively. People with type 2 diabetes face these hidden costs as well, although data on their scope and impact are scarce.

With the significant financial barriers that patients face, it is crucial for clinicians and their care teams to ask patients about their concerns and devise ways to proactively address them. The practice of sending a prescription without anticipating issues and preemptively investigating patient-centric solutions may lead to delays in care, patient dissatisfaction, and cost-related nonadherence. Prescribing the lowest-cost clinically appropriate options, offering cost-sharing support and financial assistance resources, and helping patients navigate their health insurance programs requires knowledge, time, and sustained effort on the part of the health care team. However, if much of that work is done up front, barriers that lead to medication nonadherence and hinder patient access to therapies can be avoided.

TABLE 2 Cost Estimates for Personal CGM Systems (38)

	AWP Per Unit*	Duration of Use
Abbott FreeStyle Libre 14-Day		
FreeStyle Libre 14-Day Reader	\$84	Not necessary if using a smartphone 14 days
FreeStyle Libre 14-Day Sensor	\$47	
Abbott FreeStyle Libre 2		
FreeStyle Libre 2 Reader	\$84	Not necessary if using a smartphone† 14 days
FreeStyle Libre 2 Sensor	\$65	
Dexcom G6		
Dexcom G6 Receiver	\$456	Not necessary if using a smartphone 90 days 10 days
Dexcom G6 Transmitter	\$297	
Dexcom G6 Sensor	\$140	
Medtronic Guardian Sensor 3		
Guardian Transmitter	\$1,023	Life of transmitter (1-year warranty) 7 days
Guardian Sensor 3 Sensor	\$146	
Senseonics Eversense	NA‡	90 days

*Pricing does not account for discounts, rebates, insurance, or other price adjustments that may affect actual cost-shares for the patient. †A smartphone application (app) was undergoing U.S. Food and Drug Administration review as of May 2021. The reader must be used until an app is available. ‡Pricing information not listed within RED BOOK. Online cost estimate is approximately \$1,400 for sensor, transmitter, and supplies, plus the cost of insertion. AWP, average wholesale price; NA, not available.

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Legislative Updates

The cost of prescription medications in the United States in 2018 and 2019 was nearly four times the average cost of 11 similar countries (15). Despite rebates from the pharmaceutical industry, this translates to higher costs to patients. The reasons for lower prescription medication prices in other countries are multifactorial, but often involve how prices are negotiated. Most use average pricing from similar countries as a benchmark for negotiation with pharmaceutical companies. Many other countries also have universal health coverage, through which a single entity can better negotiate drug prices.

In response to rising insulin prices and advocacy by people living with diabetes and their caregivers, 14 states and the District of Columbia have instituted legislation to cap monthly out-of-pocket costs to patients as of July 2021. These states include Connecticut, Delaware, Illinois, Kentucky, Maine, New Hampshire, New Mexico, New York, Utah, Virginia, Washington, and West Virginia. Notably, the price caps are limited to patients insured by state-regulated plans. In May of 2020, federal legislation was approved to cap out-of-pocket costs at \$35 per month for certain “enhanced” Medicare part D plans starting in 2021 (16). Medicare part D beneficiaries can opt into one of these plans during open enrollment in November of each year. Qualifying health plans can be identified using a newly added filter on the Medicare.gov website (Figure 1) (17). Although current legislation may save certain beneficiaries a significant amount of money on insulin acquisition, there are important gaps such as limited inclusion/exclusion

criteria for reduced cost-sharing eligibility and no comparable support for glucose monitoring and insulin administration supplies (18).

Minnesota has enacted unique legislation to provide qualifying patients with emergent insulin needs irrespective of health insurance coverage. The Alec Smith Insulin Affordability Act provides eligible patients with a 30-day supply of any insulin (including analog insulin) for \$35, and some patients can qualify for a second 30-day supply during a 12-month period (19). The Act also includes a long-term provision for a 90-day supply of insulin for \$50, with an option for annual renewal for select patients. However, gaps in emergency coverage for insulin remain, particularly as no other state has similar provisions as of March 2021, and the Alec Smith Act is being challenged in court.

Tools and Resources for Primary Care Clinicians

While awaiting further legislative action to help patients afford the medications and supplies they need to manage their disease safely and effectively, we have outlined strategies and tools that clinicians can use to better support their patients in clinical practice. Before reviewing tools and resources, it is helpful to first have a clear understanding of terms commonly used when discussing insurance, which are detailed in Table 3.

Forming a Multidisciplinary Care Team

A crucial resource available to primary care clinicians is a well-integrated multidisciplinary team that can actively

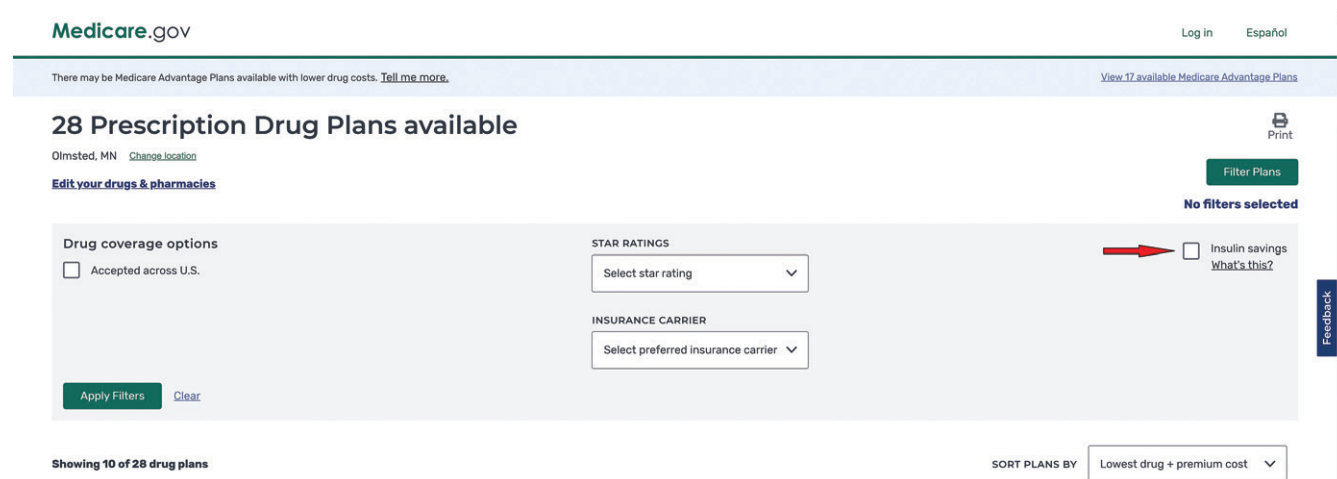


FIGURE 1 Screenshot from the Medicare.gov website illustrating the insulin savings check box (red arrow) to filter enhanced Medicare part D plans that offer capped insulin copayments.

TABLE 3 Definitions of Terms Pertinent to Insurance Coverage

Term	Definition
Deductible	Predetermined amount that must be paid annually before any insurance cost-sharing
Copayment	Set amounts paid for a particular service (e.g., \$10 for a visit to the primary care clinician or \$15 per medication prescription filled)
Coinsurance	Percentage patients pay after they meet their deductible and insurance pays their portion; only applies to prescriptions and services that are covered under their health plan
Medication tier	Levels of insurance coverage such that lower tiers have a lower patient cost-share and higher tiers have a higher patient cost-share
Out-of-pocket maximum	Annual limit for patient cost-share, after which insurance pays 100% of covered services; deductibles, copayments, and coinsurance all apply toward the out-of-pocket maximum
Prior authorization	Request made from prescribing clinician to patient's insurance company for provisional coverage of a medication or service
Quantity limit	Formulary limitation on the number of medication or service units covered per period of time
Step therapy	Medication(s) that must be documented as failed, insufficient, or intolerable prior to approval of the requested medication. For example, step therapy with metformin is often required prior to approval of brand-name noninsulin diabetes medications.

and proactively navigate cost-related concerns. Pharmacists, nurses, certified diabetes care and education specialists, administrative staff, and social workers offer unique skill sets that can be deployed based on individual patient needs. Care teams should be encouraged to work to the top of their licensure by enacting nurse protocols and establishing pharmacist collaborative practice agreements when possible; each of these can increase autonomy and share workload. Opportunities such as identifying a centralized prior authorization team or utilizing administrative staff to help with patient assistance program paperwork can also help to offload the burden on clinicians. It is important to continue to explore novel ways to appropriately direct the increasing workload to the most appropriate care team resources (20).

Navigating Insurance Formularies

To find cost-effective diabetes management solutions, care teams must first know how to identify preferred formulary options. There are hundreds of formularies and plans, all of which can have significant differences in coverage. Guessing formulary options or limiting prescribing to a clinician's preferred medication or medication class can lead to higher costs to patients and delayed acquisition and initiation of treatment, inevitably resulting in wasted time and energy on the part of patients, pharmacies, and care teams. Some electronic health record systems offer real-time feedback on formulary and out-of-pocket expense options, whereas others are inaccurate or lack this feature. Websites such

as the Fingertip Formulary from Decisions Resources Group, offer free, easy-to-use access to search individual medications and formularies of private and public health plans by state (21).

Securing CGM Systems and CSII Devices

CGM systems have uniform coverage requirements through Medicare part B, although exceptions have been made in response to coronavirus disease 2019 as of March 2021 (22). Patients with type 1 or type 2 diabetes can qualify for coverage of CGM use if they are injecting insulin at least three times per day or using a CSII device. Patients' insulin regimen must also require frequent dose adjustments, and patients must have had an in-person visit with the treating clinician within 6 months to determine whether the criteria have been met.

Key to obtaining CGM approval is providing clear documentation of patient eligibility and medical necessity. As of July 2021, Medicare CGM coverage no longer requires self-monitoring of blood glucose at least four times daily. Many Medicaid and private insurers may still have this requirement. In these cases, it is crucial to emphasize the importance of frequent blood glucose testing to patients if they are interested in obtaining a CGM system, as this criterion is ascertained using pharmacy fills for glucose meter test strips. Although glucose testing supplies are available over the counter, prescriptions should always be sent to ensure there is documentation of

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consistent use. Other requirements for Medicaid and private insurance plans may follow similar guidelines; however, individual plan requirements may vary. Patients who would benefit from CGM but cannot afford a traditional real-time CGM system such as those sold by Dexcom, EverSense, and Medtronic may consider the intermittently scanned FreeStyle Libre CGM system, which was recently upgraded (FreeStyle Libre 2) to include hypoglycemia and hyperglycemia alert features.

Medicare coverage for CSII devices is more complex. Insulin pump therapy is generally covered for patients with type 1 or type 2 diabetes with documentation of an undetectable C-peptide level who have required at least three insulin injections per day for at least 6 months (23). Private health plans may follow Medicare guidance, but do not always do so. Patients therefore need to communicate directly with their insurance plan to confirm coverage and eligibility requirements. Clinicians should also encourage patients to speak directly with device manufacturers to inquire about financial assistance and insurance coverage.

Efficiently Handling Prior Authorizations

The prior authorization process can be a frustrating challenge for health care teams to navigate. Forming a team dedicated to prior authorizations and using available processing software, when feasible, can reduce clinician burden and help streamline the process. Clinicians' role should focus on clearly and objectively documenting pertinent patient history details and the rationale for prescribing a specific medication. Requirements for coverage of noninsulin brand-name medication classes such as GLP-1 receptor agonists and SGLT2 inhibitors are generally less restrictive for patients with certain diagnoses and may not require validation of step therapy with metformin or elevated A1C. For example, a GLP-1 receptor agonist may be covered with documentation that a patient has or is at high risk for atherosclerotic cardiovascular disease (ASCVD), whereas SGLT2 inhibitor therapy may be approved with documented ASCVD, chronic kidney disease, or heart failure. Clear documentation of medical necessity during face-to-face or telehealth encounters can preempt prior authorization queries and denials.

Resources for Patients

Clinicians and pharmacists can aid patients by educating them about available resources they can use to offset the burden of high prescription medication and diabetes supply costs. Patients can be directed to the

American Diabetes Association's website for helpful information and links specific to insulin affordability (24). Key patient resources are discussed briefly below. Social workers, community health workers, and community paramedics (25)—when available—may help patients identify and navigate available support programs to address financial barriers to care.

Manufacturer Copayment Reduction Cards

Manufacturers of most brand-name medications, including those for diabetes, offer copayment savings cards on their websites. These cards are applied after insurance and reduce patients' out-of-pocket payments to a stated dollar amount, provided that the medication is on a patient's formulary and the limit on any one fill is not exceeded. The reduction limit on each fill is usually contained within the small print or full details of the card, and sometimes there are different limits based on the number of days supplied. For example, if a 30-day supply of a medication has a cash price at the pharmacy of \$600 and the coinsurance covers 80%, the copayment card would then be applied to the remaining \$120 patient cost-share. If the card specifies that it will bring the copay as low as \$10 and has a maximum savings per 30-day fill of \$100, the patient would be left with a \$20 total cost-share. Eligible patients can be instructed to go to the medication manufacturer's website to access an online form, which, in most cases, immediately allows them to download the savings card. The card can be printed and presented to the pharmacy, or the patient can call the pharmacy to communicate the needed information from the card. These savings cards have expiration dates, but generally a new card can be downloaded at that time. Patients should generally fill a 30-day supply of the medication to maximize the number of times the card can be applied, unless the card specifically states there are higher maximum savings for longer-day supplies (e.g., if an individual fills for a 90-day supply instead of a 30-day supply). Importantly, copayment reduction may not be applied to deductibles or out-of-pocket maximums. In the above example, only the \$20 total cost-share the patient paid would be applied to a deductible.

The most significant limitation of manufacturer savings cards is their eligibility criteria that exclude patients with government-sponsored prescription medication plans. Patients with a Medicare part D or Medicare Advantage health plan often struggle to afford expensive brand-name medications for this reason. An important distinction with some of these cards is whether they exclude patients who are "eligible" for a Medicare

part D plan, as this is even more restrictive. Medicare-eligible patients may be able to use these cards if they do not enroll in a Medicare part D plan and instead have private insurance.

Strategic Prescription Fills

Many patients, particularly those with Medicare part D plans, will meet the requirement for catastrophic coverage benefits close to the end of each year (26). These patients have an opportunity to ensure that prescriptions are refilled close to the end of the year rather than the beginning of the following year, when spending requirements have to be met again. Health care teams should remind patients of this, and pharmacies should work with patients strategically to maximize supplies heading into a new year.

Patient Assistance Programs

Medication manufacturers also offer patient assistance programs (PAPs) designed to help qualifying uninsured and Medicare-insured patients procure medications free of charge. Needymeds.org is a resource to help care teams find available PAPs, along with eligibility information and links to forms (27). Forms can also be obtained through medication manufacturers' websites. It is important to note that some PAPs do not offer an option to have the medication sent directly to a patient's home, if approved. Having medications sent directly to the medical clinic can be problematic, as the clinic is then responsible for adhering to state laws governing dispensing and record-keeping. Some PAPs, such as Eli Lilly Cares, do offer the option to ship to a patient's home and have several diabetes medication options, including insulin (28). Finding PAPs that cover multiple needed medications and glucagon for appropriate patients can maximize utility.

It is important to set appropriate expectations with patients regarding PAPs. The PAP process can take multiple weeks, and an interim plan is often required for patients in need of treatment initiation or intensification. The process for completing forms and having patients gather necessary information can be difficult. One suggestion is for clinicians to print and complete their portion of the form first, and then have patients complete the part of the form with the required financial information and submit the form to the manufacturer. Additional resources may be necessary for some patients, such as social workers, nurses, community health workers, community paramedics, or caregivers

to help patients complete the required documentation before submission.

Pharmacy-Specific Pricing

Some insurers have preferred pharmacies for their enrollees and incentivize their use with a lower patient cost-share. This is often true for mail-order pharmacies that require a 90-day supply. Patients can be encouraged to inquire with their health plans about preferred pharmacies and communicate this to the health care team.

In addition, Walmart offers discount insulin and testing supplies through its ReliOn brand (29), which offers ReliOn Novolin N, Novolin R, and Novolin 70/30 for less than \$30 per vial or five pens for less than \$45. In June 2021, Walmart announced its first private-brand analog insulin, ReliOn NovoLog, which at the time of writing was anticipated to be available in mid-July 2021. This product will be sold for approximately \$73 and \$86 for a vial and five pens, respectively. Dose adjustments and close monitoring are required when switching insulin types. ReliOn testing supplies may also be a more cost-effective option for patients who are uninsured or have a high cost-share using insurance. ReliOn insulin and supplies, with the exception of ReliOn NovoLog, are available over-the-counter, but, as mentioned above, we recommend always sending a prescription. This is important for appropriate medication labeling to reduce errors and may also allow for application of costs toward out-of-pocket maximums. If a patient is interested in obtaining a CGM system in the future, a prescription for glucose meter test strips also serves as a record of the required consistent testing frequency.

Walmart and many other pharmacies have discounted formularies for generic medications as well. Because included medications are often well covered by insurance plans, these discount programs (e.g., the Walmart \$4 Plan) are most helpful for the uninsured.

There are several discount coupon websites such as goodRx.com, werx.org, and RxSaver.com that patients can use to identify one-time discount offers for prescription fills (30–32). When patients search these websites, they need to ensure the medication form, strength, and amount exactly match a prescription active at that particular pharmacy. Patients also need a new coupon for each prescription fill. Because these prescriptions are not processed through insurance, they do not count toward a deductible or

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out-of-pocket maximum. These coupons may be most useful for uninsured patients; however, in some cases, lower prices can be found compared with insurance copayments. Pharmacies do have the right of refusal on coupons and may choose to deny a coupon if its use results in a financial loss to the pharmacy.

Navigating the extensive insurance options for Medicare part D and Affordable Care Act Marketplace health plans can be overwhelming for patients. Social workers and community health workers should be used where available to assist patients with the process. The National Council on Aging and the Centers for Medicare & Medicaid Services (CMS) offer websites to help patients find and enroll in Medicare part D plans (17,33). The Low-Income Subsidy and Extra Help program through Medicare can save qualifying patients approximately \$5,000. Patients can apply for this program by phone or online via the Social Security Administration website (34). Patients can search and enroll in Marketplace health plans through another CMS website (35). There are more than 1,400 charitable clinics in the United States that can provide a safety net for qualifying patients in need. The National Association of Free and Charitable Clinics provides information on services and a search engine to find clinic locations (36).

Access to Medicaid Programs

Medicaid programs are operated by individual states within a broad federal guideline. Programs differ among states in many ways, including patient eligibility, provided benefits, and medication coverage. Patients apply on the state or local level, with instructions and contact information found on the Medicaid.gov website (37). Health care teams can support patients by connecting them to local resources and referring them to social workers, public health departments, and community health workers, where available.

Once patients acquire coverage through a Medicaid program, they will have low-cost access to medications within that program's formulary. Formularies are typically updated annually and can be found through search engines or by using a formulary identification website (21). Unlike most private or Medicare prescription medication plans, Medicaid formularies generally also include common over-the-counter medications; however, a prescription is required for coverage.

Conclusion

Assisting patients with diabetes in navigating the payment landscape can positively affect diabetes care. These resources and tips can be used to assist clinicians and health care teams in providing proactive cost-conscious care to their patients. Given the substantial burden of diabetes, it is vital for care teams to routinely ask patients about cost-related barriers and work with them to identify the best tools and resources available to help them obtain the care they need. A proactive approach will prevent delays in care while improving outcomes through enhanced medication adherence. The effort may also save the care team time, as fewer prescriptions are denied by insurance or refused by patients.

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AUTHOR CONTRIBUTIONS

J.R.H. wrote the manuscript and researched data. J.J.N. reviewed/edited the manuscript and created the tables. R.G.M. reviewed/edited the manuscript and researched data. J.R.H. is the guarantor of this work and, as such, had full access to all the data included and takes responsibility for the integrity of the data and the accuracy of the manuscript.

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