Intermountain Healthcare Diabetes Prevention

Summary Statement

Intermountain Healthcare is nonprofit healthcare system that has developed a focus on Diabetes Prevention to reduce the number of patients diagnosed with Type 2 diabetes within the state of Utah.

Background Facts:

Liz Joy, MD, MPH serves as the Senior Medical Director of Wellness & Nutrition and Jessica Shields, MS, RD serves as the Director of the Office of Health Promotion & Wellness within Intermountain Healthcare. Together they oversee research for the Intermountain Healthcare Diabetes Prevention. This program is built to encourage small dietary and exercise changes, such as taking the stairs or reducing sugar intake, to provide pragmatic lifestyle shifts that are easy for patients to adopt and result in the anticipated 5% reduction of the patient's body weight. The program has been approved by the CDC as an effective diabetes prevention program and is internally evaluated utilizing the RE-AIM framework within a large integrated delivery system.

Objective

To prevent or delay the onset of Type 2 diabetes by enabling at risk patients to lose 5% of their body weight. This has been proven to reduce the chance of developing diabetes by 58% in two years. Administrators combine diabetes prevention, weight loss, and behavior modifications to instill lifestyle changes.

Program Design

The primary facets of this plan involve spreading information around prediabetes and the prevention of Type 2 diabetes. In addition to informational videos about prediabetes in both English and Spanish, the program offers four channels for patients of varying lifestyle needs and preferences. These channels include:

- Medical nutrition therapy
  - A 1-1 consultation with a registered dietitian
- "Prediabetes 101" group classes
  - Two-hour virtual or in-person meetings
  - Helps patients with prediabetes learn about and reduce their risk of Type 2 diabetes through lifestyle and behavioral changes.
- The Weigh to Health program
  - Intermountain's CDC recognized DPP.
  - 16 sessions over six months followed by seven additional sessions over the following six months via:
  - Three hour-long one-on-one visits with Registered Dietitian Nutritionists
    - Focused on setting goals, reviewing progress, and tailoring the remainder of the program to best serve the patient.
  - Twenty 90-minute group sessions (with no more than 20 other participants)
    - Focused on exercise, behavior basis, healthy eating, and menu planning.
- Omada Health
  - A virtual program currently available to Intermountain Health employees and their adult dependents that will soon be expanded and made available to a wider population of patients.

Prospective patients can fill out a preliminary questionnaire online to understand if they are prediabetic or at risk for Type 2 diabetes. Should the patient be deemed "high risk", the patient is encouraged to make an appointment with their primary care physician for a blood test or attend a Weigh to Health class to learn more about how to manage their condition.

Only patients with lab-confirmed pre-diabetes are invited into the program.

- In order to be considered for the program, insurance providers or Medicare must submit information around qualifying patients':
  - Age
  - Disease history
  - BMI requirements
- Medicare Part B and Medicare Advantage cover the Weigh to Health as a one-time benefit for patients with:
  - BMIs of over 25.0
  - Proof of a prediabetes diagnosis via blood test within the last 12 months.
  - No previous diagnosis of Type 1 or Type 2 diabetes (other than gestational diabetes)
  - And have never had End State Renal Disease

Outcome Measures

The RE-AIM framework is used to identify outcome measurements and successes of the program. RE-AIM stands for reach, effectiveness, adoption, implementation, and maintenance.

Markers used to evaluate outcomes include:

- Percentage of Intermountain patients with prediabetes who received a referral to any of the DPP pathways
- Percentage of patients with a referral who participate in the DPP
- Percentage of patients with lab-confirmed prediabetes who participate in any of the 4 pathways.
- Number of patients with lab-confirmed prediabetes (they are placed in the Intermountain registry)
- Number/percentage of patients prescribed metformin.
- Percentage of Intermountain employees with prediabetes who participate in any of the 4 DPP pathways
- Data as required by the CDC for the Weigh to Health Program

Summary of Findings

- Patients that participate are 70% more likely to lose 5% of their body weight within 6-12 months.
- 20% participation rate of those that have received lab confirmed pre-diabetes, over the past nine years.
- Less than 5% of patients tracked in prediabetic database (not just those that participate in the program) converted to diabetic within 2 years.
- Patients when considering an intervention, were found to be three times more likely to participate in the program.

Program Limitations

Scalability during COVID and operating in differing modalities to best meet patients' needs was a recent challenge. As most of the targeted service population is prediabetic and immunocompromised, COVID forced them to move quickly to adopt virtual classes during Covid to ensure they were able to continue their services. Dr. Joy also identifies challenges implementing an exercise component alongside virtual classes as another recent challenge that, when overcome, could help provide more comprehensive lifestyle change options for patients.

Implications for LM Practice

Prevention of Type 2 Diabetes by implementing lifestyle and behavioral shifts can improve the health of patients for the rest of their lives and alleviate comorbid health risks such as strokes, heart attacks, and other cardiovascular issues. Dr. Joy emphasized the deep importance of supporting diabetes prevention work, as diabetes is a gateway disease and number one cause of chronic kidney disease, blindness, and amputations. The widescale implementation of diabetes prevention programs can save time, money, and lives.

AMERICAN COLLEGE OF Lifestyle Medicine