Prediabetes: A Pragmatic approach to counselling and coaching
Sanjay Kalra,1 Arbinder Singal,2 Nitin Kapoor3

Abstract
Prediabetes is often considered as the link between normoglycaemia and diabetes. Though a lot of emphasis is given to an individual after the development of diabetes, prediabetes is often not adequately addressed in clinical practice. Given a distinct diagnostic criterion, its association with metabolic complications, an opportunity to prevent further progression to diabetes and the large number of people affected with it, makes it a subject of great importance and opportunity. In this brief manuscript we compare and contrast prediabetes with diabetes mellitus. We also describe a pragmatic approach to address a patient with prediabetes.

Keywords: Prediabetes, Diabetes, Diabetes Education, Counselling, Diabetes coach, Lifestyle therapy, Behavior change.

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Introduction
Prediabetes, often considered a younger sister or poor cousin of diabetes, is termed the Cinderella of metabolic syndrome. This is unfortunate, because prediabetes is a distinct syndrome, with its own definition and diagnostic criteria.1,2 It also represents an opportunity to prevent diabetes and its complications, and promote metabolic health care. This has also gained importance during COVID times.3 In this article we highlight the similarities and differences between prediabetes and diabetes. We also focus on the unique skills required to counsel people living with prediabetes, and coach them towards a healthier future.

Definition
Prediabetes is defined according to criteria laid down by the World Health Organization and American Diabetes Association1 (Table-1). The cut offs are based upon an assessment of the risk of developing chronic vascular complications such as retinopathy. As the concept, definition and spectrum is well standardized, prediabetes deserves to be approached as a distinct medical entity.

Comparison and Contrast
Table-2 lists some of the similarities and differences between diabetes and prediabetes. While both of these have distinct identities, prediabetes is more challenging to manage. The absence of symptoms, and the lack of societal awareness leads to the difficulty in explaining the need for management of prediabetes. One must have a robust mechanism of education, and motivation, in order to ensure optimal health care seeking and acceptance for its management.

Management
Prediabetes can be managed both non-pharmacologically and with drugs. The American Association of Clinical Endocrinologists lists various drugs that can be used in the management of prediabetes. One must have a robust mechanism of education, and motivation, in order to ensure optimal health care seeking and acceptance for its management.4,5

BOX: Non-pharmacological and pharmacological therapy of prediabetes: The 6S model.
Sensible sustenance (medical nutrition therapy)
Systematic physical activity/exercise
Stress management
Sleep hygiene
Substance abuse management
Selected use of pharmacological therapy

Table-1: Definition of prediabetes.

<table>
<thead>
<tr>
<th></th>
<th>ADA</th>
<th>WHO</th>
<th>NICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fasting plasma glucose</td>
<td>100-124 mg/dl</td>
<td>110-124 mg/dl</td>
<td>110-124 mg/dL</td>
</tr>
<tr>
<td>2-hour oral glucose tolerance test</td>
<td>140-199 mg/dL</td>
<td>140-199 mg/dL</td>
<td>140-199 mg/dL</td>
</tr>
<tr>
<td>HbA1c</td>
<td>5.7-6.4%</td>
<td>Not recommended</td>
<td>6.0-6.4%</td>
</tr>
</tbody>
</table>


Table-2: Prediabetes and diabetes.

<table>
<thead>
<tr>
<th>Similarities</th>
<th>Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aetiology-insulin resistance</td>
<td>Definition - different cut offs</td>
</tr>
<tr>
<td>Global epidemiology- similar trends</td>
<td>Regional epidemiology-endemicity of diabetes</td>
</tr>
<tr>
<td></td>
<td>means that prediabetes may be less prevalent</td>
</tr>
<tr>
<td></td>
<td>in some regions</td>
</tr>
<tr>
<td>Natural history-progression of disease</td>
<td>Clinical features-prediabetes is usually</td>
</tr>
<tr>
<td></td>
<td>asymptomatic; diabetes is often symptomatic</td>
</tr>
<tr>
<td>Management-similar approach, esp.</td>
<td>Motivation-different techniques are needed</td>
</tr>
<tr>
<td>first-line therapy</td>
<td>to motivate asymptomatic person</td>
</tr>
<tr>
<td>Outcomes-similar targets</td>
<td>Satisfaction-based on motivational factors</td>
</tr>
</tbody>
</table>

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prediabetes. These are indicated in people who have multiple risk factors for progression of disease or occurrence of complications. First-line therapy, however, is lifestyle modifications, which are enshrined in the Box. All these aspects of self-management require relevant information and knowledge to be practiced.

Motivational Therapy
The common thread that connects all forms of therapy is behavioural change. In order to achieve behavioural modification, a person needs high levels of motivation. This is especially important if long-term adherence is required, and if the disease being addressed is asymptomatic. Hence, motivation becomes the cornerstone of prediabetes management. Motivational therapy must be person-centered, and should be based upon an assessment of the individual’s needs, preferences and values.

A 360-degree history-taking, which encompasses information gathering about a person’s biomedical, psychological and social well-being and environment, can help unearth appropriate motivational cues in prediabetes, like in other chronic diseases. While someone may be keen on managing prediabetes in order to prevent possible complications, another may need to avoid a label of diabetes for job security or professional reasons. For someone, motivation may be a strong family history of diabetes; for another, it may be an equally strong desire for perfection in health.

The Physician as A Coach
To ensure timely and optimal management of prediabetes, the physician has to work not only as a drug-prescriber, but as a counselor and a coach as well. This will entail prescribing therapy, sharing information and knowledge, empowering the patient, and most importantly, keeping him or her motivated to accept, initiate, and adhere to prescribed lifestyle and drug regimens.

The primary care physician care has to shoulder all these responsibilities, and fulfill all these roles, simultaneously. American Association of Diabetes Educators has recently provided a comprehensive framework for healthy behaviours which form pillars of preventive strategies for diabetes and related metabolic conditions. Such strategies can help physicians as well as coaches in creating a framework for patient education and support. Having a diabetes care team or utilizing the services of digital therapeutics-based tools, helps to reduce this burden. Various studies have shown up to 60% risk reduction in diabetes with digital lead therapies focusing on behaviour change. Common elements in these approaches are digital education programme (via mobile app), professional health coaching, tracking (activity, weight) and group therapy support. The digital approach complements a physician’s diagnosis and care and is effective even in seniors as well as has shown to have sustained benefits even at 2 years post the programme.

Summary
Prediabetes is a distinct syndrome, with a clear-cut definition and etiology, well established clinical trajectory, and robust management approaches which can retard the progression of disease. The primary care physician should use motivational skills and act as a coach or counsellor, to ensure that prediabetes is managed in a timely manner. New age digital tools like digital therapeutics can help physicians in providing continuous support to patients beyond their clinic for sustained behaviour change.

References