Researchers find a simple blood test can predict diabetes risk much earlier

Dr Nataly Lerner of Tel Aviv University’s Sackler Faculty of Medicine and her colleagues have discovered that a simple blood test reveals an individual’s risk of developing type-2 diabetes before they develop either condition — far earlier than previously believed. The findings, published in the European Journal of General Practice, could help doctors provide earlier diagnosis and treatment. Dr Michal Shani and Prof Shlomo Vinker of the Sackler Faculty of Medicine and Clalit Health Services collaborated on the study. “Our study supports the idea that the A1c [glycated haemoglobin] test, used to diagnose type-2 diabetes, can also be used at a much earlier stage to screen for the disease in the high risk population, like overweight patients,” said Dr Lerner.

In healthy people, glucose is absorbed from the blood for use by various tissues. But the cells of people with type-2 diabetes are resistant to insulin, which is produced by the pancreas and is central to regulating carbohydrate and fat metabolism in the body. These individuals have higher-than-normal blood glucose levels. People with prediabetes have blood glucose levels somewhere between normal and diabetic.

Blood glucose can be directly tested in several ways, but these tests only provide a snapshot. To get a picture of blood glucose levels over time, doctors test for levels of glycated haemoglobin, or A1c, in the blood. When blood glucose levels are high, more A1c is formed. So A1c serves as a biomarker, indicating average blood glucose levels over a two- to three-month period. The A1c test has long been used to monitor type-2 diabetes. And in the past few years, the American Diabetes Association and World Health Organization have added the test to their guidelines as a criterion for diagnosing type-2 diabetes. According to the ADA, having an A1c level of 6.5 per cent or more is an indicator of the disease and an A1c level of between 5.7 and 6.4 per cent is an indicator of prediabetes. As a bonus, the test is simpler to administer than the most common blood glucose tests, requiring neither fasting nor consuming anything.

**DEPARTMENTAL ACTIVITIES**

**Swine Flu Awareness Camp at Nearby Village Durgapuram**

**CLINICAL SERVICES:**

<table>
<thead>
<tr>
<th>Month</th>
<th>No. of drug information queries attended</th>
<th>No of patients counselled</th>
<th>ADRs reported</th>
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