

## South Asian Specialist Intervention (SASI): Pilot Study

#### Aim

To improve health outcomes for South Asian patients with Diabetes, using tailored lifestyle interventions to reduce health inequalities.

### Objectives

- Improve the quality of life for South Asian patients with diabetes.
- Control levels of HbA1c, cholesterol and blood pressure.
- Show evidence of empowerment and increased confidence in South Asian patients.
- Improve patient's knowledge and understanding of diabetes and related conditions.
- Evaluate the impact of the consultant clinic on the diabetic patients.

#### Methods

The programme got Apnee Sehat clinics into the community, by the diabetologist setting the clinic in the patients GP Practice. All patients were given written care plans, incorporating clinical interventions, tailored education and lifestyle advice. Our strategy was to treat patients from both a clinical and lifestyle perspectives.

#### Results

#### **Behavioural and Lifestyle Changes**

Patients were advised behavioural and lifestyle changes through SASI clinic's structured education and materials in their own languages.

- They reduced sugary, oily and salty food consumption.
- They used sweeteners instead of sugar for their hot drinks.
- They even changed the type of milk they were using from full fat to semi-skimmed or skimmed milk.
- They also became more active and started exercising regularly.

All these lifestyle changes proved to be invaluable. Some patients claimed that they now have a healthier outlook on life and felt much more confident in self-managing their diabetes at home. Their confidence rate rose from an average of 5/10 before the SASI clinic intervention to as high as 8/10 on a Likert scale (with 10/10 being very confident).



### Reduction in HbA1c level

Prior to attending SASI clinic, 76% of patients had an HbA1c of 8.0% or higher. This illustrated that these patients were not managing their diabetes effectively in the community and they needed help to reduce their long-term mortality from diabetes and related complications.

However, SASI clinic successfully addressed this issue and more than 77% of patients improved their HbA1c with the mean improvement of 1.3% (Chart 1). This was a remarkable achievement, considering this was done only within a span of 4 months, as according to NICE Guidelines a reduction of 1.5% in a year is an ideal improvement.

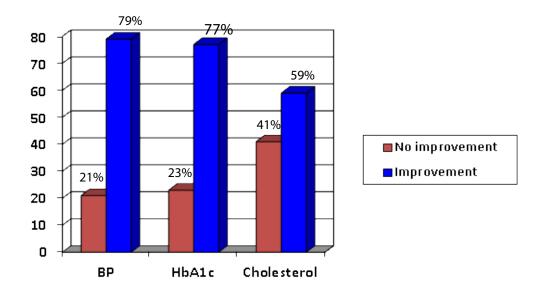
#### **Reduction in Blood Pressure**

79% of the patients who attended SASI clinic managed to reduce their blood pressure readings, with a mean reduction of 14.9 mm Hg systolic and 9.9 mm Hg diastolic (Chart 1). This was yet another outstanding achievement of this intervention in these ethnic minority patients which they had not paid much attention to, prior to this

#### **Reduction in Cholesterol level**

Before the clinic reviewed, 45% of registered patients had a total Cholesterol level greater than 4.0 mmol/L. Following the tailored education focusing on the South Asian diet and lifestyle, 59% of patients improved on their previous Cholesterol results (Chart 1), with the mean result being 4 mmol/L. This improvement can be seen as a direct result of the tailored education and/or the medication intervention made by the Apnee Sehat Consultant.

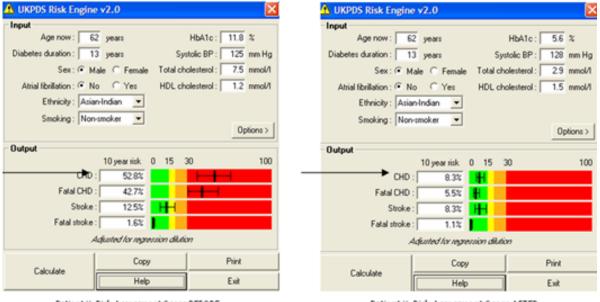
# Chart 1: Results of HbA1c level, Blood Pressure, and Cholesterol level before and after South Asian Specialist Intervention.





#### **Cardiovascular Risk Reduction**

We used the type 2 diabetes specific United Kingdom Prospective Diabetes Study (UKPDS) risk calculator. The UKPDS risk engine provides risk estimates for coronary heart disease for individuals with type 2 diabetes not currently known to have heart disease. According to this study, 36% of the registered patients had a cardiovascular risk greater than 25%. Following SASI clinic reviews, this risk was reduced to 15%. One patient had a cardiovascular risk score of 51.9% before the clinic; however, this came down considerably to 8.3% (Figure 1).



Patient X, Risk Assessment Score BEFORE

Patient X, Risk Assessment Score AFTER

# Figure 1 – Considerable reduction of cardiovascular risk in one patient following SASI clinic intervention.

#### **SASI** Overview

From the results, it is evident that Apnee Sehat's intervention has the capacity and capability to effectively improve health outcomes in South Asian patients with poor diabetes control and high cardiovascular risks.

GP Practises are enabled to reach their QOF (Quality and Outcomes Framework) targets, by ensuring that the needs of their patients are effectively addressed, whilst being culturally sensitive and tailored around their lifestyle. Patients were empowered to self-manage their conditions and this improved their confidence.

The SASI clinics help in lowering morbidity and mortality rates. This in effect will improve life expectancy and will reduce the likelihood of micro and macrovascular complications in South Asian patients with Diabetes.



The cost for SASI clinic consultations, including all the educational materials such as booklets, DVDs and the 30 minutes education by the nutritionist or the nurse, were approximately  $\pm 250$  per patient. This is cheaper than the traditional secondary care service which costs around  $\pm 340$  for 2 hospital consultations per patient.

This shows that these consultations are more cost effective in dealing with patient's clinical and lifestyle care, which in turn creates huge savings for the NHS. Less cardiovascular disease or diabetic events presenting to A&E will also create long-term cost savings for the NHS.

Apnee Sehat is continuously adapting to the needs of the health economy and strives to be the best, being a one-stop solution in reducing health inequalities with regards to diabetes, cardiovascular risks and obesity. Apnee Sehat is pivotal in meeting the needs of the South Asian communities within local health economies, by delivering tailored interventions to patients and their cultural needs.

Apnee Sehat is owned, managed and led by well-respected, professorial clinicians, who have local, national and international reputation. We aim to be the market leader whilst continuing to be an exemplary Community Interest Company, delivering services throughout the United Kingdom. This will ensure that our community objective is met and the great outcomes from this Pilot study can be transitioned to many deprived areas experiencing the same health disadvantages.

The SASI Programme by Apnee Sehat is fully compliant with nine out of the thirteen NICE (National Institute for Health and Care Excellence) care quality standards (March 2011). Most of the criteria for the NICE diabetes quality standards are fulfilled in this programme of education. This particularly includes advice on lifestyle, addressing cardiovascular risk factors, personalising the glycaemic control targets and managing insulin. The programme also covers detection of foot problems and early complications. SASI approach is based on the NICE website shared learning alphabet

#### **References:**

1. http://www.nice.org.uk/usingguidance/sharedlearningimplementingniceguidance /examplesofimplementation/eximpresults.jsp?o=445