

## WORKSHOP III – TYPE 2 OHA NON – RESPONDERS : CONSENSUS GUIDELINES FOR MINIMUM BASIC CARE

### DEFINITION :

Sulphonylurea non-responders are defined as patients with type 2 diabetes mellitus who previously showed adequate response to standard doses of sulphonylureas [1<sup>st</sup> and 2<sup>nd</sup> generation], but now fail to respond to them in the absence of :

Physical inactivity,  
dietary non compliance,  
weight gain,  
infection,  
stress or  
concomitant use of medications that cause hyperglycaemia.

$\beta$  -cell exhaustion or failure is often the cause of oral hypoglycemic agents (OHA) non-response.

### PATIENTS AT RISK OF $\beta$ -CELL FAILURE :

The following categories of patients are at risk of  $\beta$  -cell failure.

Age of onset < 30 years  
Low BMI  
Duration of diabetes > 10 years  
History of DKA in type 2 diabetes mellitus  
Recent unexplained weight loss  
Stress  
Use of concomitant drugs that cause hyperglycaemia  
Aversion to physical activity  
Poor dietary compliance with a tendency to put on weight

### RECOGNISING $\beta$ -CELL FAILURE :

Patient with  $\beta$  -cell failure can be recognized by the following tests:

FBG > 140 mg/dl on more than one occasion.  
PPBG > 180 mg/dl on more than one occasion.  
HbA1c more than 2% above upper limit of normal

Low C-peptide levels – Basal and stimulated [if available]

### INTERVENTIONS THAT MIGHT POSSIBLY DELAY $\beta$ -CELL FAILURE :

$\beta$  -cell failure can possibly be delayed by interventions outlined below:

Good metabolic control  
Proper diet therapy and compliance with it.  
Regular reduction in overweight and obese Patients  
proper management of stress  
Judicious use of combination therapy

### WHAT TO DO WHEN $\beta$ -CELLS FAIL?

When sulphonylureas fail to achieve desired results. The addition of the following drugs may be considered.

Metformin  
Acarbose  
Insulin

When  $\beta$  -cell failure is total, the only effective treatment would be insulin.

### COMMUNICATING $\beta$ -CELL FAILURE AND NEED FOR INSULIN ADMINISTRATION TO PATIENTS:

It is important to properly communicate  $\beta$  -cell failure and the need for insulin administration to the patients.

Explain the nature of the disease and reasons for failure of current therapy.

Possibility of impending complications if good glycemic control is not maintained.

Benefits of insulin therapy.

Improvement in quality of life following insulin administration.

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Possibility of withdrawal of insulin for a period of time and possible implications of insulin withdrawal.

**INITIATING INSULIN THERAPY : [ALONE OR COMBINATION]**

Combination therapy is preferred with insulin as an add on therapy

Basal insulin therapy is preferred with intermediate acting insulin as a high time dose.

Initiating dose 0.1-0.2 u/kg body weight .

If dose is more than 200 U the dose should be split in two doses.

Some patients may requires split doses of mixed insulin. Premixed insulin increases convenience and compliance of patients.