Some of the factors that influence HbA1c and its measurement*. Adapted from Gallagher et al (24)



6.5% does NOT exclude diabetes which may have been diagnosed using glucose tests.

Finger-prick HbA1c tests should be carried out by trained staff but should also <u>be confirmed by</u> <u>laboratory venous HbA1c</u> in ALL patients. (generally when patients present, a standard finger-prick glucose test should be carried out and if level is above 11mmol/L, then do an urgent lab glucose test)

A value of 6-6.4% is classed as a <u>high risk of potential to develop diabetes</u>; here the following should be carried out:

- Intensive lifestyle advice
- Warn patients to report symptoms of diabetes
- Monitor HbA1c annually (or repeat test sooner if symptoms develop e.g. within 6 months)

If HbA1c is below 6%, then these patients may still have a high risk of diabetes, thus the patients personal risk should be reviewed and the same interventions described above for a potential high risk should be carried out.

In patients <u>without</u> symptoms of diabetes, there should be a repeat of the laboratory HbA1c; if the value is below 6.5% patient should be managed as an individual at high risk of getting diabetes (e.g.

Group 2: same as that for insulin (see above)

Standard measures for driving; (see diabetes PDF sheet; IMPORTANT)



Oral anti-diabetic drugs (read NICE type 2 diabetes qrg in line with this):

These are used for the treatment of type 2 diabetes, and should ONLY be prescribed if patient fails to respond adequately to AT LEAST <u>3 months'</u> restriction of energy and carbohydrate intake and increase in physical activity. (NB used to <u>augment</u> diet and exercise; not to replace)

When even these don't prove to be effective, insulin can be added or substituted with them. If insulin is added this is done so during bedtime (usually isophane or long-acting insulin (which can cause nocturnal hypo in type 1)) or if insulin has replaced oral therapy, can be given as twice daily of a biphasic insulin, or a multiple injection regimen. (weight gain may be a complication due to insulin, however addition of metformin can help reduce weight).

ONLY GLIBENCLAMIDE AND METFORMIN CAN BE USED IN PREGNANCY AND BREASTFEEDING

Sulphonylureas: glibenclamide, gliclazide, glimepiride, glipizide, tolbutamide

Several sulphonylureas are available and choice is determined by side-effects, duration of action, patients age, and renal function. Insulin therapy may be needed intercurrently during <u>illnesses</u> such as MI and stroke; sulphonylureas should be stopped in morning of surgery and insulin started (due to increased risk of hyper in such cases).

Considered for patients who are <u>NOT overweight</u>, or in whom <u>metformin is contra-indicated</u> of sulfonylureas don't work in the combo of drug and diet, other combinations incluse consisting with metformin; combining with pioglitazone; combining with dipeptidylocal dasa----mhibs; GLP-1 receptor agonists; acarbose; bedtime isophane.

Mode of action: <u>augment</u> insulin secretion is only effective when there is some residual pancreatic beta-cell activity. Jong-term administratic matches show an extrapancreatic action. Glibentia in the cong-acting but a social e Unit greater risk of hypo thus avoided in elderly and short

acting atternatives used instead

Gliclzide and tolbutamide; short-acting

Usual dose: single dose normally taken <u>after breakfast</u>; glipizide can be given before lunch or breakfast

Cautions and contra-indications: cause weight gain (should only px if there is poor control and symptoms when dieting); use with caution in elderly and those with <u>G6PD</u> deficiency; AVOID in acute porphyria and <u>presence of DKA</u>.

Use at low doses with care in <u>hepatic</u> and <u>renal</u> impairment due to increased risk of hypo; AVOID glipizide if there is BOTH renal and hepatic impairment. If necessary the short-acting tolbutamide or gliclizide can be used in renal impairment.

Do NOT use in pregnancy and breastfeeding; <mark>glibenclamide may be used in 2/3 trimesters and</mark> breastfeeding.