For My Teacher

Greater Glasgow & Clyde Children's Diabetes Service

A child attending your class has been diagnosed with diabetes. It is not known why people develop diabetes, but numbers are increasing rapidly each year.

In childhood, or **"Type 1" diabetes**, production of a hormone called insulin ceases. Made in the pancreas, insulin is released into the blood when eating carbohydrate. Examples of carbohydrate include simple sugars, as well as more complex forms such as the starches in bread, potatoes, pasta and rice. All carbohydrate is absorbed into the blood stream as sugar, and the simplest such sugar is known as "glucose".

Insulin moves glucose from the blood into the tissues, where it is used for energy (such as in muscle) or stored away for later (in the liver, or in fat). The pancreas, a gland lying in the upper abdomen, makes insulin. For some unknown reason, the immune system of a person with diabetes believes the insulin-producing cells of the pancreas to be different from the rest of the body, and these "beta cells" are then painlessly attacked and destroyed. Over a variable length of time, this results in a total failure to produce insulin. Insulin is essential to life, and must be replaced.

Unfortunately, insulin will be digested if taken by mouth, and so must be given by injection. Insulin is usually given several times a day, and many children may need to have a lunchtime injection. This would usually first be discussed with school staff by either the parents or the diabetes team. Children should check blood glucose results (especially before meals, and if unwell) to ensure good control of their diabetes.

Regular eating is important, and usually consists of three main meals and three snacks each day. Each of these should contain a recommended amount of carbohydrate. Exercise is very important, and sensible preparation means children with diabetes should always be able to take part in sporting activities. In this case, extra carbohydrate, agreed with the parents, will help prevent blood glucose falling - a situation called a "hypo" (an abbreviation for "hypoglycaemia").

The blood glucose target range is from 4 to 8 mmol/l. Carbohydrate makes blood glucose rise, while insulin and exercise make it fall. A balance is essential. A child with **high blood glucose results** (especially if 14 mmol/l or more) may pass urine more often, be constantly thirsty, and may also be tired and irritable. While not ideal, there is usually no immediate danger unless the child feels unwell, or there are other signs that concern you. The child's parents should be called if you are worried.

A child with **low blood glucose results** (under 4 mmol/l) will not be unusual. This situation is known as a "hypo", short for "hypoglycaemia" (literally, "low sugar in blood"). Mild hypo signs include feeling shaky, hungry or slightly dizzy, looking pale, concentrating poorly, feeling irritable, or complaining of feeling unwell. A low result can be confirmed using the child's blood glucose meter, and if less than 4 mmol/l must always be treated immediately with fast-acting carbohydrate, like Lucozade® (about 50 ml) or Dextrose tablets (three at a time). 10 minutes later check the blood glucose again, and if under 4 mmol/l repeat fast-acting carbohydrate. If 4 mmol/l or higher, take starchy carbohydrate, such as a biscuit or bread, or the child's snack or lunch if due. This should prevent a further fall. Such treatment will be discussed with you by the child's parents or by a member of the Diabetes Team.

Basic First Aid

1. If the child becomes very drowsy, give Glucogel® or jam (something with sugar in it). Although rare, if the child faints, has a fit, or appears unable to swallow
   - don't put anything in the child's mouth
   - do place the child in the recovery position, and
   - telephone 999 for an ambulance.
2. At times blood glucose results may be a little high. As discussed previously, this is shown by increased thirst and going to the toilet more often. If unwell, in the first instance contact the parents, but if unavailable then call the Diabetes Team.

With a little planning, a child with diabetes should be able to participate in all the activities of his or her peers. This is important psychologically for many reasons. If there are any concerns, then either the child's family or the GGC Children's Diabetes Service will be only too happy to help.

Clinical Nurse Specialists:

- ☐ Fiona Lamb
- ☐ Gavin Allison
- ☐ Audrey Kerr
- ☐ Lynne Porteous
- ☐ Dawn Scrimgeour
- ☐ Nicola Thomson
- ☐

Specialist Dietitians:

- ☐ Alison Johnston
- ☐ Janie Devine
- ☐ Jane Graham
- ☐ Anne Morrice
- ☐ Lyndsay Sinclair
- ☐
- ☐

Routine enquiries should be directed to the team based at the address marked below:

☐ **Royal Alexandra Hospital**
Corsebar Road
Paisley. PA2 9PN
T: 0141 314 6911

If call URGENT

Call Switch Board
RAH: 0141 887 9111
Page Diabetes Nurse Specialist
or
Dial 999 for an ambulance

☐ **Royal Hospital for Sick Children**
Dalnair Street
Glasgow. G3 8SJ.
T: 0141 201 0331

If call URGENT

Call Switch Board
RHSC: 0141 201 0000
Page Diabetes Nurse Specialist
or
Dial 999 for an ambulance

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