



Diabetes Manual

Candidate

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Company

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Date

--	--	--	--	--	--	--	--

Learning Outcomes

- Know what is meant by diabetes
- Known risk factors for developing type 2 diabetes
- Know the treatment and management options for individuals with diabetes
- Know how to respond to hypoglycaemia
- Know how to respond to hyperglycaemia
- Know the links between diabetes and other conditions

Complementary manuals

- Diet and Nutrition
- Care and Administration of Medication
- Basic First Aid

Unit One

Understanding Diabetes

Under the Health and Social Care Act 2008 your employer has a duty to make sure that you and your colleagues are given appropriate information, support and training to understand the differing needs of clients with chronic health issues. (Regulation 23. Supporting staff).

When they assess your care The Care Quality Commission will look for evidence of the following;

People using services are safe and their health and welfare needs are met by competent staff because employers:

- Ensure that staff are properly supported to provide care and treatment
- Ensure that staff are properly trained, supervised and appraised
- Enable staff to acquire further skills and qualifications that are relevant to the work
- they undertake

(Essential Standards of Quality and Safety, October 2010)

What is Diabetes?

In the ancient world sufferers of Diabetes Mellitus were identified by the sweet smell (and taste) of their urine. The illness causes a build up of excess glucose (sugar) which also results in greater than normal amounts of sugar being excreted from the body.

The two main types of Diabetes are type 1 and type 2; type 1, which is responsible for around 5 - 15 % of cases, comes on quickly and can be immediately life threatening; type 2 progresses more slowly, but the effects of both can cause disability and premature death.

Type 1 diabetes happens when the body cannot produce insulin which is necessary to control levels of glucose in the blood.

Type 2 diabetes occurs when the body cannot produce adequate amounts of insulin to meet its needs or when their body cannot use the insulin effectively.

The pancreas is the organ which produces the hormone insulin; insulin is the 'key' which allows glucose to be used by cells in the body. If the supply of insulin is faulty or inadequate the glucose cannot be used and builds up in the blood stream.

Because people with type 1 diabetes produce no insulin at all they have to inject it on a regular basis.

Type 2 diabetes is far more common than type 1; like many health conditions the likelihood of developing type 2 diabetes increases with age so, as the population ages, so do levels of diabetes. Unfortunately, there is also a link between type 2 diabetes and obesity and for this reason it is becoming increasingly common in younger people; more people than ever are developing diabetes before the age of 40.

Although people with type 2 diabetes may produce insulin they are unable to properly regulate their blood glucose and will need to find suitable ways of gaining and maintaining control. They may be able to do this by changing their diet and lifestyle or they may require tablets or even insulin injections.

There is a common misconception that type 2 diabetes is a milder form of the illness; however, if left undiagnosed and untreated it will cause serious long term harm. Effects can include organ failure, heart disease, loss of sight and nerve damage resulting in amputations. For this reason it's important that you identify clients at risk and ensure that they are regularly tested by their GP so that treatment can be started as soon as possible.

Both type 1 and type 2 diabetes have similar signs and symptoms but they may go undetected for years if they are caused by type 2 whereas they will be evident within weeks if the person has type 1 diabetes.

Common Symptoms:

- passing urine more often than usual, especially at night
- increased thirst
- extreme tiredness
- unexplained weight loss
- genital itching or regular episodes of thrush
- slow healing of cuts and wounds
- blurred vision

(Diabetes UK 2013)

Type 1 and type 2 diabetes are different diseases with different causes but broadly similar effects. People with type 2 may find that they require insulin therapy if their condition deteriorates. Over time, as the person ages or if they fail to control their blood sugar levels, their pancreas may produce less insulin and they may become even less effective at regulating its use. This deterioration may mean that the person requires treatment with insulin to manage their condition.

Insulin

Diabetes was first treated with insulin in the 1920's, prior to that people with type 1 diabetes had a significantly reduced life expectancy as the only way they could control their blood glucose was by limiting their intake of food. Much money is spent

on the research and development of new ways administering insulin as the need for regular injections can be unpleasant.

Insulin is a treatment for diabetes, not a cure. Both type 1 and type 2 are incurable conditions but they can be well managed. Insulin therapy allows millions of people to live normal and healthy lives but they will always be dependent on medication, there is not currently any likelihood of a cure.

The biggest difference between the two types is the fact that a person with type 1 diabetes must take insulin and will be dependent on it for life; a person with type 2 may benefit from short term insulin therapy but be able to improve their blood glucose management and no longer have to take it.

The longer a person with type 2 diabetes takes insulin for, the less likely it becomes that their pancreas will be able to produce enough insulin itself, but, if the person makes lifestyle changes and improves their general health they may be able to stop injecting insulin.

Risk Factors

The actual causes of most cases of type 1 diabetes are not currently known but we are aware of various factors that increase an individual's risk of developing type 2 diabetes; they include:

- Having a close relative who has diabetes
- Being overweight
- Developing diabetes in pregnancy (gestational diabetes)
- Smoking
- Ageing

Eating sugar does not cause diabetes; but, eating a high sugar and high fat diet will increase the likelihood of becoming overweight. While most people who are overweight will never develop diabetes; 80% of people diagnosed with type 2 diabetes are overweight.

Lifestyle

Having diabetes does not mark a person out as having a poor lifestyle or being generally unhealthy.

Identifying all people with diabetes as 'Diabetics' and treating them all the same is unhelpful and could even be dangerous. Some people with diabetes may be seriously ill, they might suffer from disabling side effects and general poor health, others may be healthier and fitter than you. Take as an example Sir Steven Redgrave diagnosed with type 2 diabetes prior to winning his fifth Olympic gold medal.

Exercise can be extremely beneficial, and we will look at how your clients can be supported to manage their lifestyles for best control of their blood glucose levels.

The rules for healthy eating for people who have diabetes are the same as for anyone else and will be discussed in more detail in unit 3. A balanced diet will involve all types of food including ones with sugar in such as fruit and milk; people with diabetes should not be prevented from eating any foods and may actually need quick sugar fixes such as chocolate or fizzy drinks if they feel their sugar levels are dropping.

Specialist 'diabetic' foods are not recommended by health professionals or expert groups like Diabetes UK as they are overpriced, have no health benefits and may even cause side effects such as diarrhoea.

Unit One Questions

1. What hormone do people with type 1 diabetes have to inject?

.....
.....
.....

2. What factors may increase an individual's risk of developing type 2 diabetes?

.....
.....
.....

3. Give 3 examples of common symptoms of diabetes.

- 1.....
- 2.....
- 3.....

4. Which type of diabetes may come on quickly and be immediately life threatening?

.....
.....
.....

5. Why should so called diabetic products be avoided?

.....
.....
.....
.....

Unit Two

Improving Health

If a client has been diagnosed with diabetes or if they are known to be at risk of developing it they should be encouraged to visit their doctor; with a family member, carer or other advocate if necessary. Their GP can check their blood pressure, cholesterol and blood sugar levels and, if there is any cause for concern, prescribe medication and suggest lifestyle changes which will help to improve their condition.

To safeguard your clients' health you should be supporting them to make 'good' lifestyle choices and helping them to access advice and information.

Outcome 1 of the Care Quality Commission's essential standards of quality and safety requires that 'people who use services must be given relevant information to encourage them to change lifestyle behaviours that are placing their health at risk, so they can make an informed choice about whether they wish to lead a healthier life.'

The Mental Capacity Act 2005

The Mental Capacity Act 2005 was designed to protect the rights of potentially vulnerable adults who might otherwise be prevented from making their own choices and decisions.

The Act is based on five key principles which together ensure that individuals are respected as competent adults; given every opportunity to make their own decisions and choices; treated fairly without prejudice or discrimination and supported to be as independent as possible.

The statutory principles

1. A person must be assumed to have capacity unless it is established that he lacks capacity
 2. A person is not to be treated as unable to make a decision unless all practicable steps to help him to do so have been taken without success
 3. A person is not to be treated as unable to make a decision merely because he makes an unwise decision
 4. An act done, or decision made, under this Act for or on behalf of a person who lacks capacity must be done, or made, in his best interests
 5. Before the act is done, or the decision is made, regard must be had to whether the purpose for which it is needed can be as effectively achieved in a way that is less restrictive of the person's rights and freedom of action
- (Mental Capacity Act 2005 Code of Practice)

When you are working you must comply with the Mental Capacity Act and CQC guidance, therefore, it is up to your individual clients to decide whether to make changes or not. Even if you have to make decisions on a client's behalf you must base your decisions on your knowledge of their personal values, beliefs etc.

The following would be unacceptable care practices even if you believed you were acting in the client's best interests:

- Treating clients with diabetes differently at mealtimes e.g. giving them no menu choices and refusing to serve them desserts that were available to other clients
- Refusing to allow a client to smoke
- Forcing a client to exercise

If you feel that individuals could benefit from changes in their lifestyle and behaviours, you must find appropriate ways to encourage and support them. Your methods need to be gently persuasive without restricting people's rights and freedoms or overstepping the professional boundaries of your relationship.

Here are some examples of good and bad practice:

Good Practice:

- Make sure you are acting in the individual's best interests
- Use a person-centred approach based on fairness, respect and partnership
- Respect the individual's cultural and religious identity
- Identify benefits that mean something to the individual
- Educate, inform and empower

Bad Practice:

- Taking actions which restrict the individual's freedoms or rights
- Making assumptions about individual's knowledge or motivations
- Dismissing any fears or anxiety related to change
- Putting pressure on individuals to follow your values and beliefs

Making Changes

Annually the NHS spend £9.8 billion on diabetes; three quarters of this money pays for treatment of associated complications; that is for things like amputations and transplants that become necessary when diabetes is poorly managed. With education and support more people living with diabetes or at risk of developing diabetes could be helped to make the changes necessary to avoid complications; this would significantly reduce costs and the burden on health services.

Diet

Poor food choices can lead to obesity, high blood pressure, high cholesterol, and blocked arteries; these can reduce life expectancy and cause medical emergencies including stroke.

The benefits of a healthy diet include:

- Keeping weight down and avoiding excess strain on joints and internal organs
- Good energy levels
- Steady blood sugar levels (important to maintain energy and avoid fatigue)
- Protection against illness and injury (e.g. bone strength relies on adequate intake of vitamins and minerals)

Poor diets are likely to be high in saturated fat, sugars and salt while balanced diets include plenty of fibre, unprocessed carbohydrates and monounsaturated fats. You can get dietary advice from doctors' surgeries; libraries and online; good sources of common sense guidance are the live well section at www.nhs.uk and e-cert Healthcare Training's manual 'Diet and Nutrition'.

Guidelines for a Balanced Diet:

- It should be based on starchy carbohydrates in as unprocessed a form as possible – wholegrains, vegetables, brown rice and pasta, pulses etc. These will provide plenty of fibre and are low in fats; they will help to maintain blood sugar levels
- Aim to eat 5 portions of fruit and vegetables a day, 1 of which should be raw
- Keep processed carbohydrates, particularly refined sugars to a minimum
- Reduce intake of saturated fats (red meats, dairy products, cakes) and increase monounsaturated fats (avocados, olive oil)
- Reduce salt intake – salt raises blood pressure
- Protein is necessary but many people rely too much on red meat and dairy products; alternatives such as fish, nuts and pulses can provide essential nutrients with lower levels of saturated fat
- Eat regularly – people generally make better choices if they eat little and often

If you have a good cook or catering team they will work with care staff and individual clients to ensure that they are providing a range of attractive food options that encourage people to eat well.

Exercise

Maintaining a reasonable level of activity will help to lower your blood pressure and reduce your risk of stroke and chronic conditions such as diabetes.

Sports and organised physical activities aren't for everyone but almost anyone can increase their daily activity levels by making small changes to the way they do things or by setting aside time to exercise.

Of course, people may be limited by their physical abilities, but individuals could:

- Make an effort to walk more - use stairs instead of lifts stroll around corridors and gardens, avoid using the car for short journeys

- Try out new activities such as 'chairobics' , indoor bowls or Wii Sports
- Ask physiotherapists to recommend appropriate equipment for individuals with special needs

Ideally everyone should do 30 minutes of moderate activity (making them slightly out of breath) at least 5 times a week. If there are concerns about people's ability to exercise safely (for example if they are over 40 and get out of breath very quickly) refer them to their GP for advice and support.

Tip: If people are very overweight and experience pain when moving, exercising in water can give support to joints while enabling them to burn off calories.

Smoking

Every smoker risks health damage, but for people with diabetes the risks are particularly high. Diabetes already increases chances of developing cardiovascular disease, such as heart attack, stroke or circulatory problems in the legs; smoking doubles the likelihood of complications.

Potential damage:

- Increases the likelihood of neuropathy (nerve damage), nephropathy (kidney damage) and retinopathy (eye damage)
- Decreases the amount of oxygen reaching the tissues of the body, which can lead to a heart attack or stroke
- Causes narrowing of the arteries
- Increases the risk of blood clots
- Increases blood pressure

(Diabetes UK 2013)

So, like maintaining good blood glucose control, eating well, taking regular exercise and keeping to a healthy weight, giving up smoking is one of the most beneficial things you can do for your future health.

There are many different products available that can help people stop smoking, from self-help books to patches and pills. What works for one person may not for another so it's important to persevere until the right help is found.

The NHS stop smoking service is a good starting point; they can offer free advice, counselling, support groups and aids on prescription. Contact them on 0800 022 4 332 or go to their website www.smokefree.nhs.uk

Alcohol

Recent research suggests that a moderate amount of alcohol can be good for us, but drinking any more than the recommended amounts increases the risk of various health problems. Both binge drinking (more than 6 units in a session for women or 8 units for men) and longer-term excessive alcohol intake are dangerous.

Men can drink up to 21 units a week while women should limit themselves to 14; everyone should have a couple of alcohol-free days a week and limit the amount they drink each day to 2 / 3 units for women or 3 / 4 for men.

The size of a unit of alcohol varies but in general terms it's half a pint of normal strength lager, a small glass (125 mls) of wine or a measure (25 mls) of spirits.

If an individual is taking tablets or insulin to treat diabetes they will need to check for the possibility of reactions with alcohol, and they may need to alter their dosage when they have a drink.

Drugs

Certain recreational and performance drugs may cause harm to blood vessels and increase blood pressure; people who choose to take them should be aware of the risks they are taking.

Unit Two Questions

1. How much does diabetes cost the NHS each year?

.....
.....
.....

2. Why is it important to work in partnership with your client to identify changes they could make to their lifestyle?

.....
.....
.....

3. Where could you get advice about improving menu options?

.....
.....
.....

4. Give an example of a way in which cigarettes are harmful to health

.....
.....
.....

5. What should people who take insulin check if they are going to drink alcohol?

.....
.....
.....

Unit Three

Managing Blood Glucose Levels

Anyone who has diabetes will need to become an expert on their condition; if they lack the ability to understand the implications of their illness and the impact that their choices will make they must be supported by people who care enough about them to educate themselves about the disease.

Diabetes can't be managed just by taking medication at set times, there are all sorts of factors which will have an impact on what needs to be taken and when, and medication alone is not the answer. People with diabetes must also understand how their daily habits will affect their blood glucose levels.

Long term high blood glucose levels are what cause the complications associated with diabetes; there are 3 ways in which people should be supported to manage their blood glucose:

- Medication
- Lifestyle changes
- Education to understand why and how to manage all aspects of their condition

In an attempt to reduce the impact of diabetes the government has produced a National Framework for Diabetes setting out the standards of care which should be available. Your clients with diabetes should be benefiting from the following services:

- A well-informed GP or practice nurse – all surgeries should have in-house specialists who can carry out a full medical examination and give appropriate advice and support
- Access to a consultant when necessary – people with type 1 diabetes and those with type 2 who require extra support will be cared for by a hospital consultant who will see them on a regular basis
- Annual medical review
- Annual eye test
- Regular foot checks

The needs of all clients with diabetes are different, write down some of the factors that might be considered when planning their support

.....

.....

.....

.....

.....

.....

.....

.....

.....

Medication

The way in which your clients' medication and treatment is prescribed and managed must meet the requirements of the Health and Social Care Act 2008 and should reflect the aims of the National Service Framework for Diabetes created by the Department of Health for implementation in 2013.

Outcome 9: Management of medicines (Regulation 13) Health and Social Care Act 2008

Providing Personalised Care Through the Effective Use of Medicines

People who use services receive care, treatment and support that:

Ensures the medicines given are appropriate and person-centred by taking account of their:

- Age
- Choices
- Lifestyle
- Cultural and religious beliefs
- Allergies and intolerances
- Existing medical conditions and prescriptions
- Adverse drug reactions
- Recommended prescribing regimes

By taking a person-centred approach to prescribing doctors can help to improve compliance; this is particularly important for the treatment of chronic conditions such as diabetes when the medications can have unpleasant side effects and the benefits can be difficult to appreciate.

For example, some people are very regular in their habits and will suit a regime that fits around set mealtimes; others will have more chaotic lives and their treatment will need to be flexible enough to reduce likelihood of harm if doses are not taken or are taken at variable times.

It's important that clients are given as much information as possible about their health and treatment options because for as long as they have capacity to make their own decisions it is entirely up to them whether they follow doctor's advice or not. Even if they lack capacity consideration must be given to the choices they would have made. It can be difficult to avoid interfering if someone is refusing to take vital medication, but you have to respect their right to do so.

Common Treatments

People with type 2 diabetes may be able to control their blood glucose by eating well and exercising regularly; if this is not adequate they may take tablets, or, like all people with type 1 diabetes, they may need insulin.

Tablets

Tablets may be used on their own or in combination with insulin; there are different types available and they each have their own benefits and side effects.

Commonly used tablets include metformin, gliclazide and acarbose; it's important that you read the information that you receive about specific medications and familiarise yourself with their administration, expected effects and possible risks.

Potential problems with these medications include:

- Life threatening hypoglycaemia (low blood glucose, see unit 4)
- Facial flushing when alcohol is drunk
- Nausea and diarrhoea
- Weight gain
- Fluid retention

Insulin

As we have previously mentioned all people who have type 1 diabetes have to take insulin as well as some of those with type 2.

Insulin comes in many forms and doctors should work closely with patients to identify the best type, or types, of insulin for them. Some insulin works quickly and lasts for a short time only; some takes time to take effect but will work for several hours. Typically someone might take fast acting insulin before their meals and then a slower type before bed, but everyone is different.

Insulin cannot go through the digestive system as it would be destroyed by the stomach's juices so, currently, it has to be injected. Your clients may have pen systems or they may have to draw up insulin into a syringe; there are other systems available but they are little used at the moment. If a reliable alternative to injections is developed it will transform the lives of millions of people who currently have to inject themselves several times a day.

If clients are insulin dependent they should be supported to self-administer for as long as possible; they should be injecting into a fatty area such as their stomach or thigh and making sure that they vary the injection site. If they regularly inject in the same place they will develop unsightly lumps of fatty tissue.

If clients cannot self-administer a district nurse or suitably trained carer will give them their injections.

People who take insulin must monitor their blood glucose to ensure that they are maintaining safe levels; they should have been taught to use this information to adjust their insulin intake. Insulin requirements will be affected by amount of food eaten, amount of physical exercise and the presence of any infection. The client's GP should have identified the appropriate level of blood glucose they should aim for as people have different needs and levels will be affected by food intake.

The main danger with insulin is hypoglycaemia; insulin dependent clients must be properly monitored and there should be policies and procedures for situations such as delayed meals, client illness and overdose. (see unit 4 for the signs and treatment of low blood sugar).

Regular Checks

People who have diabetes are at higher risk of complications associated with high blood pressure and high cholesterol, such as heart disease and stroke. For this reason they should be having regular blood pressure and cholesterol checks and may be being treated with medication to lower blood pressure or tablets such as Simvastatin to reduce cholesterol. Clients with these complications may also need to reduce their intake of salt and dietary cholesterol.

Unit Three Questions

1. What are the 3 ways in which clients should be supported to manage their blood glucose levels?

- 1.....
- 2.....
- 3.....

2. Give 3 examples of factors a GP should consider when prescribing medication for a patient with diabetes.

- 1.....
- 2.....
- 3.....

3. What dangers are associated with tablets that control blood glucose levels?

.....

.....

.....

4. Why is insulin administered by injection?

.....

.....

.....

5. Why do clients who take insulin need to monitor their blood glucose levels?

.....

.....

.....

Unit Four

Recognising and Managing Complications

If people do not maintain satisfactory blood glucose levels they will experience complications. These may be immediately life threatening or result in painful and disabling conditions.

As a carer you have a responsibility to understand your clients' health conditions and to recognise signs and symptoms which may give cause for concern. Older people in particular are more likely to be at risk from high blood glucose (hyperglycaemia) emergencies.

All clients with diabetes should have their blood glucose monitored on a regular basis and action should be taken when readings are outside a normal or acceptable range. The information below is to support your general understanding; you should also be given information by individual clients' GPs about their personal health needs.

Long Term Complications

Clients with diabetes must be made aware of the risks they take if they don't manage their blood glucose levels; for example, if they continue to smoke, eat a poor diet or don't take their medication properly. To avoid serious complications people must be highly motivated; lifestyle changes can require significant willpower and injecting insulin can be unpleasant and lead to weight gain.

The complications of diabetes mean that people with the disease have certain special care needs:

- they must be monitored for deterioration in sight, organ function etc. they should have regular appointments with appropriate specialists for this purpose; if problems are recognised early treatment may be more effective
- particular attention must be paid to their feet – they may have reduced sensation, or no sensation at all, at their extremities. Their feet are at risk if they put them in hot water, stand on sharp objects or wear ill fitting shoes. Good foot care is essential with daily checks and referrals to chiropodists when necessary
- diabetes is a leading cause of amputation – if you notice ulcers forming or become aware of cuts or wounds that are not healing refer the client to their GP as a matter of urgency

If people do not manage to control their blood glucose long term hyperglycaemia will cause serious harm to their body, this could include:

- nerve damage
- damage to sight / blindness
- heart disease
- damage to kidneys

Depression and Diabetes

People with diabetes are more prone to depression than the general population so it is important that you look out for the signs and symptoms and can offer support for clients to cope with poor mental health. Signs and symptoms include:

- Feeling tired or having little energy
- Crying all or some of the time
- Lack of concentration
- Sleep problems
- Avoiding social contact
- Having little interest or pleasure in doing things
- Finding it hard to function
- Loss of appetite or overeating
- Physical aches and pains
- Feelings of despair and hopelessness

If you suspect that a client may be depressed refer them to their GP for further investigation.

Treating Diabetes During Illness

People with diabetes can be more prone to infections, especially if their blood glucose levels are at a higher than normal level. In addition, nearly all infections will cause blood glucose levels to rise.

Infections in older people, if not dealt with properly, can lead to serious complications which may make admission to hospital necessary. Sometimes signs and symptoms are not obvious, but a change in mobility or the onset of a confused state may indicate infection.

What to do

- Make an urgent referral to GP
- Make sure the person does not become dehydrated
- If someone has diarrhoea, carers should be aware that they may be more prone to hypoglycaemia
- Keep testing blood glucose to monitor improvement or deterioration

Important!

Do not stop diabetes treatment. The dose of diabetes medication may need to be increased for the duration of infection.

Medical Emergencies

Hypoglycaemia (low blood sugar)

If someone takes too much insulin; doesn't eat enough; is more active than normal; has sexual intercourse; is in a stressful situation; drinks excessive amounts of alcohol or has an infection they may experience a sudden drop in blood glucose levels. If their condition is not recognised they may become unconscious; without treatment this condition can be fatal.

People who have diabetes become good at recognising the warning signs and can treat themselves, however, sometimes glucose levels can drop so quickly that they will have to rely on someone else realising that they are in trouble and knowing what to do about it.

If the individual has a blood glucose testing kit, they should test their blood sugar; if it is not possible to do this treat them for hypoglycaemia as you will not cause any further harm and it could be lifesaving.

Everyone reacts differently but the early warning signs of mild hypoglycaemia may include:

- feeling hungry
- sweating
- dizziness
- tiredness (fatigue)
- blurred vision
- trembling or shakiness
- anxiety or irritability
- going pale
- fast pulse or palpitations
- tingling of the lips

Signs of more severe hypoglycaemia include:

- difficulty concentrating
- confusion
- disorderly or irrational behaviour, which may be mistaken for drunkenness (NHS 2013)

First Aid

Conscious patient:

- give sugar e.g. chocolate, fruit juice, cola
- talk to the patient and monitor condition
- if they don't recover quickly call 999
- if they recover they should be encouraged to eat a starchy carbohydrate snack to
- maintain blood glucose levels; they are likely to have a headache and may benefit
- from painkillers and a rest

If the person has reduced consciousness, or is unconscious, it will not be safe to give them anything to eat or drink; they may carry a drug called glucagon, if you have been trained to use this you can inject them with it if you suspect hypoglycaemia.

Unconscious Patient

- open airway, check breathing
- if breathing place in recovery position and call 999
- if not breathing, call 999 and commence cpr (if trained)

Ketoacidosis

Ketoacidosis is a high blood sugar condition which is generally associated with people who take insulin, however, it is possible for other people with diabetes to develop this condition when they are ill. Clients with diabetes should be carefully monitored when experiencing illness or infection to maintain control of blood glucose levels.

If this is not recognised and dealt with it may result in coma.

Symptoms:

- increased thirst
- nausea / vomiting
- sweet smelling breath (often described as like pear drops)
- increased level of ketones (urine can be tested for these)
- high blood glucose levels

Action

Call 999; this can only be diagnosed and treated by medical professionals.

Hyperosmolar Hyperglycaemic State

This is another high blood glucose condition; it should be dealt with as a medical emergency as it may be life threatening.

Symptoms

- very high blood glucose (often 40+)
- frequent urination
- greater than normal thirst
- dry skin
- dehydration
- nausea
- disorientation
- drowsiness
- loss of consciousness

Action

- call emergency services
- manage conscious / unconscious patient if trained in first aid
- condition requires hospital treatment

If a person with diabetes has high blood sugar it may be tempting to suggest they take insulin; insulin is never an emergency medication; it must only be taken as prescribed by the individual's GP.

Excess sugar in the blood causes serious physical health problems.

Unit Four Questions

1. Why is it important for you to know about individual clients' health conditions?

.....
.....
.....

2. Why should clients with diabetes have their eyes tested regularly?

.....
.....
.....

3. Give 3 examples of signs of depression.

- 1.....
- 2.....
- 3.....

4. What action would you take if you suspected a (conscious) client was hypoglycaemic?

.....
.....
.....

5. When would you administer insulin to a client?

.....
.....
.....