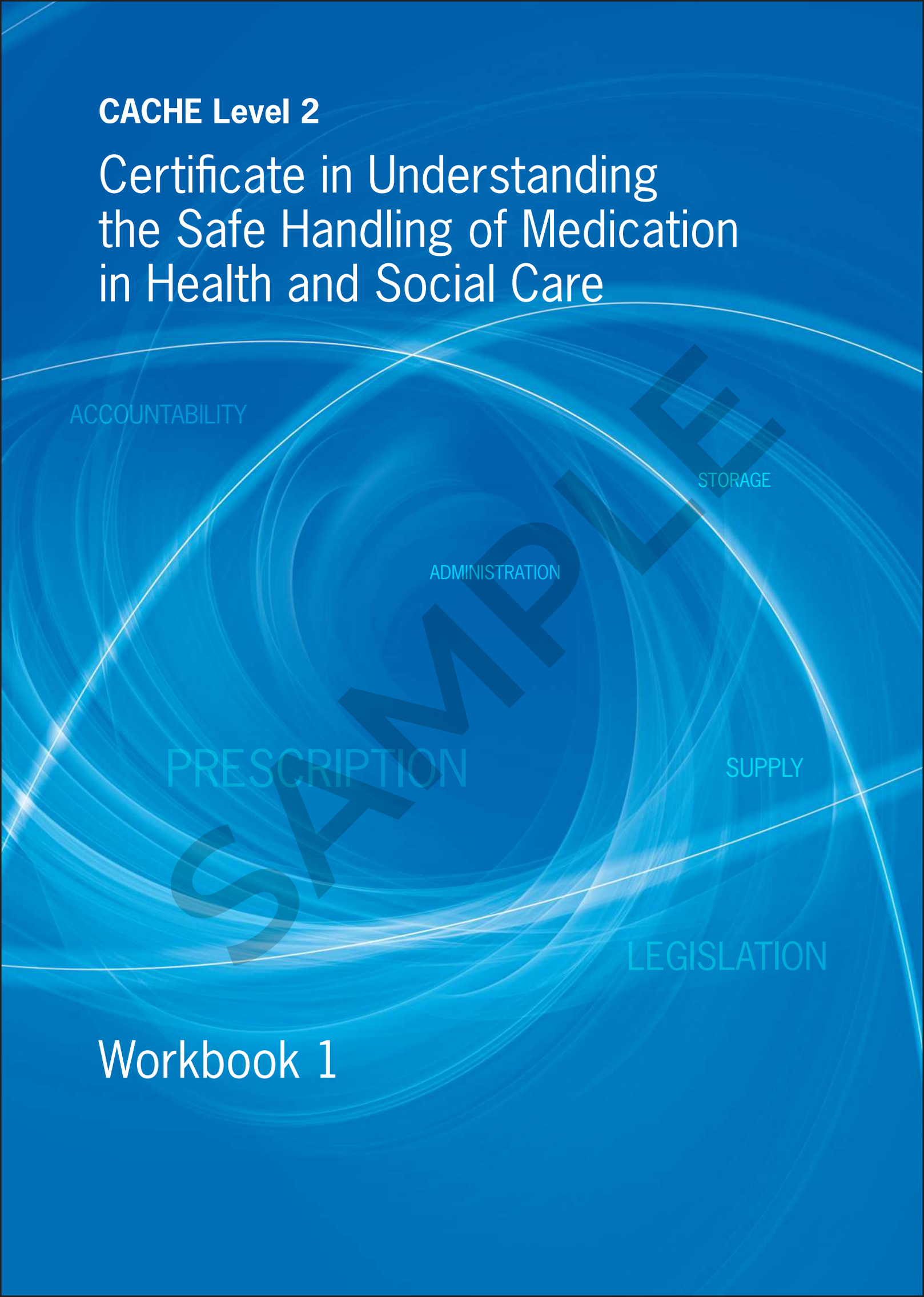
CACHE Level 2

Certificate in Understanding the Safe Handling of Medication in Health and Social Care



Workbook 1

As this is a knowledge based qualification, achievement will not allow learners to be considered to be occupationally competent to administer medicines

This section will introduce the types of medicine you will come across in the work environment. You will also look at legislation and guidance about medicines.

The different types of medicine available and why they are used

Please read the following as it will help you to answer question 1.

Medicines play an essential role in maintaining health, preventing illness, managing chronic conditions and curing disease. In some cases medicines can be life-saving, but every medicine, no matter how 'safe', can result in side effects and may be dangerous or even life-threatening if given in the wrong dose, by the wrong route or to the wrong person. For this reason, your employer must provide you with guidelines for the safe handling of medication. The guidelines are set out within the organisation's policies. The policies and associated procedures are there to protect everyone who is involved in handling medication, including individuals, colleagues and yourself. Therefore, if you handle medicine, it is vital that you are familiar with, and follow, these policies and procedures.

Medicine names

There are many different types of medicine on the market, and most of them are known by more than one name. There are literally thousands of different names for medicines, some of which are **brand names** and some of which are **generic names**.

Did you know?

Generic names are based on the main ingredient of each medicine, and names may often sound similar. For example, a group of antibiotics that all work in a similar way (penicillin, amoxicillin, flucloxacillin, ampicillin) have names that sound alike.

The **brand name** of a medicine is the name given by the manufacturer. Several companies may make the same medicine and each one will have their own brand name.

A very common medicine that is known by its generic as well as brand names is Paracetamol. Paracetamol is the generic name, but it is also sold under brand names such as Panadol and Calpol.

The brand name of a medicine is usually written most prominently on packaging, and can be recognised by the symbols ® or ™. The generic name must also be included on the packaging, but is often in smaller print.

Different brands of a medicine may vary in colour, shape and size. Some may have a different coating or taste. This can be confusing to an individual who has been used to taking a tablet of a certain size or colour. In such instances, it will be important to explain the reason for the difference, to help the individual understand that the medicine is the same, and it is just the brand that has changed.

Knowledge Activity 1: Take a look at some medicines that are commonly used. Make a note of their generic names and their brand names.

Types of medicine

There are many different medicines which are used for a variety of different conditions. Medicines can be put into groups depending on what they are used for. For example:

- The body part or system they affect – e.g. cardiovascular medicines are used to treat conditions of the heart (cardio) and blood vessels (vascular).
- The type of illness/condition or disease they are used to treat – e.g. antidepressants are used to treat depression.

Some medicines are classified according to the chemical group to which they belong.

Below are some of the more common groups of medicines that you are likely to come across in a health or care setting. These medicines have been grouped according to the type of illness/condition or disease they are used to treat.

Type of medicine	What this medicine is used for	Examples of medicines in this group
Antibiotics	Antibiotics are used to treat bacterial infections. Some antibiotics can be used to treat a wide range of bacterial infections and are known as broad spectrum antibiotics. Other antibiotics are only effective against specific types of bacteria and are known as narrow spectrum antibiotics.	Amoxicillin Penicillin Vancomycin Erythromycin
Analgesics	Analgesic medication, also known as painkillers, is used to relieve pain. There are several different types of analgesics that can be used for pain control, and the type of analgesic chosen would depend upon the type and severity of the pain.	Paracetamol Ibuprofen Tramadol Morphine
Anticonvulsants	Anticonvulsants are used in the treatment of seizures caused by epilepsy.	Carbamazepine
Antihypertensive medication	Antihypertensives are used to treat and lower high blood pressure.	Amlodipine Atenolol Propanalol
Antiemetics	Antiemetics are used to prevent and control vomiting and sickness.	Metoclopramide Prochlorperazine Domperidone
Antihistamines	Antihistamines are used to treat and relieve allergy-type symptoms associated with conditions such as hay fever. Antihistamines work by blocking the release of histamine, and consequently by reducing symptoms associated with allergies.	Chloramphenicol Loratadine Fexofenadine

Antacids	Antacids are a group of drugs which work to neutralise the acid content within the stomach. They are used to relieve the symptoms of indigestion or heartburn.	Maalox Rennies Gaviscon
Anticoagulants	Anticoagulants, also known as blood thinners, are used to treat and prevent blood clots that may occur in the blood vessels.	Warfarin Heparin Enoxaparin
Psychotropics medicines	Psychotropics medicines alter psychological processes, for example, moods, thoughts, perceptions, behaviour and emotions. These medications can include some antidepressants, sedatives, stimulants and/or tranquilizers and are therefore used to treat disorders such as depression, schizophrenia, anxiety, bipolar disorder and attention deficit hyperactivity disorder.	Fluoxetine Diazepam Haloperidol Amitriptyline Paroxetine
Diuretics	Diuretics (also known as water tablets) are used to help remove excess fluids from the body by increasing the amount of urine passed.	Bendrofluazide, Furosemide/Amiloride
Laxatives	Laxatives are used to relieve constipation.	Lactulose Senna Movicol
Hormones	Hormones are used to restore or maintain normal bodily functions that are imbalanced due to the body's natural hormones. These can include insulin used to treat diabetes; hormone replacement therapy used to relieve menopausal symptoms and steroids used to reduce inflammation.	Humulin S Prednisolone Hydrocortisone Estradiol
Cytotoxics medicines	Cytotoxic medications are used to treat some forms of cancer.	Methotrexate Procarbazine

The different routes by which medicines can be administered

Please read the following as it will help you to answer question 2.

The route by which medication is administered refers to the way the medication is taken into the body. Medicines may be applied onto, or taken into, the body by various routes. You must be aware of which routes are acceptable for you to use within your role; this will be covered by organisational and local policies.

Did you know?

There are many different routes by which medication can be taken into the body and in order to prevent errors, it is essential to check the route of administration for each drug on the medication container, the Patient Information Leaflet (PIL) and the Medication Administration Record (MAR) chart.

The route of administration will also be dependent on the form of the medicine.

Medicines can come in a variety of pharmaceutical forms. **The form of a medication relates to the way in which the medicine is presented, for example whether it is a liquid, tablet or cream.** The purpose of these various forms of medication is to carry the active ingredient of the drug to the area where it is most needed, and in doing so, to avoid, or keep to a minimum, any unwanted effects on other areas of the body.

The following table shows the different routes by which different medicines can be administered.

Route of administration	Description of this route
Oral	This is the most common route of administration and includes all medicines that are taken by mouth and swallowed into the stomach. This includes liquid medicines, tablets and capsules.
Buccal	Buccal medicines are tablets that are placed between the top gum and the cheek. Tablets administered by this route should be allowed to dissolve and should not be chewed, sucked or swallowed.
Sublingual	Sublingual medicines are administered under the tongue, usually in the form of a tablet or spray. Tablets administered by this route should be allowed to dissolve and should not be chewed, sucked or swallowed.
Inhaled	Inhalation allows the medicine to be administered directly into the lungs. The inhalation route is used to treat respiratory conditions such as asthma and chronic obstructive pulmonary disease. Administration can either be through an inhaler or a nebuliser.
Instillation	This includes medicines that are administered in drops to the eyes, nose and ears.
Topical	The topical route of administration involves administering medication to the outer surface of the skin. These types of medicines include solutions, suspensions, liquids, sprays, lotions, ointments, gels, shampoos, soaps and creams. These medicines are often used to manage skin conditions such as eczema and dermatitis, and also to provide other localised effects. It also includes ointments that are applied to the eyes, ears and nasal passages.
Rectal	The rectal route of administration involves administering medication into the 'back passage' or the rectum. The medication is absorbed through the lining of the rectum. Preparations which are administered by the rectal route include suppositories, enemas ointments and creams.
Vaginal	The vaginal route of administration involves administering medication into the vagina. Vaginal preparations are useful when a localised effect is required, for example, when an individual is experiencing a vaginal infection such as thrush. Preparations that are administered by the vaginal route include pessaries, ointments, creams and gels.

Disclaimer

Every effort has been made to ensure that the information contained within this learning material is accurate and reflects current best practice. All information provided should be used as guidance only, and adapted to reflect local practices and individual working environment protocols.

All legislation is correct at the time of printing, but is liable to change (please ensure when referencing legislation that you are working from the most recent edition/amendment).

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