Offering a cholesterol measuring service will not be mandatory for the sale of over-the-counter simvastatin (as a 10mg tablet), but it will be deemed to be good practice by the Royal Pharmaceutical Society. It could be argued that providing such a service will improve public perception of pharmacists as health professionals in addition to benefiting individuals. However, providing such a service in a pharmacy setting requires significant resources and these need to be considered carefully.

Basic requirements

Before offering a service, consider whether or not you have enough space to allocate a designated area to it. You will also need to devote time to providing the necessary support to both clients and staff.

Before undertaking testing, pharmacists should ensure they are adequately covered by insurance with respect to themselves, their staff and the clients being tested. All members of staff coming into direct contact with any blood sampling procedure should be inoculated against hepatitis B. In the first instance, individuals should ask their own GPs. If the GP provides an occupational health vaccination service, the hepatitis B vaccine should be free. However, this is not an essential GP service. Alternatively go to a travel clinic or contact your primary care organisation.

If the task of measuring cholesterol is to be assigned to a member of staff, the pharmacist in charge must make sure that he or she is properly trained. In addition, all staff must be made aware of the following:

- The importance of professional conduct
- The confidential nature of personal health information
- Standards for the designated area (eg, no food or drink to be consumed)
- Counter-infection measures, for example, prevention of accidental puncture wounds and correct disposal of clinical waste
- How to deal with emergency situations, such as fainting
- The importance of accurate information reporting and documentation

Marketing the service

Pharmacists should consider how best to target the people most in need of the service. Attention must be paid to the Code of Ethics governing the publicity and promotion of services, as detailed in ‘Medicine, ethics and practice’. Ideas include:

- Putting leaflets through doors or in shopping and prescription bags
- Displaying posters in the pharmacy, surgery, community centre, post office or library
- Local newspaper, television or radio interviews to highlight the service — this is often less expensive than you might imagine and could be jointly funded by a group of pharmacies and the primary care trust, local health board or local pharmaceutical committee
- Patient selection either by surgeries involved or from patient medication records to identify likely users of the service (if PMRs are used to contact individuals directly, prior consent is needed)
- Special campaigns in local businesses or health clubs
- Co-ordination with the local NHS organisations

It is also important to liaise with your local GPs before setting up a service so that a policy for referrals can be agreed.

Measuring cholesterol

A variety of devices are available to measure cholesterol levels, including portable and desktop analysers, but you should choose one with a satisfactory full Medicines and Healthcare products Regulatory Agency evaluation. There is a brief guide to available blood cholesterol analysers in MIMS. Examples of common devices include: Accutrend GC, CardioChek (portable meters that use test strips) and Cholestech LDX (desktop machine). Non-invasive tests, measuring cholesterol in the skin, have become available, but results have not been validated in the UK so, as yet, we cannot recommend them.

Note that some devices are only able to measure total cholesterol (TC) but, as discussed in a previous article (PJ, 10 July, p57), the testing of cholesterol in isolation is not always helpful in predicting coronary risk. Calculations to predict coronary risk require TC to high-density lipoprotein (HDL) cholesterol ratio.

Testing equipment represents a significant investment (they can cost from a couple of hundred to several thousand pounds) so make sure you do your research thoroughly. Your research should include a review of accuracy because some devices are less accurate than others. Consider all of your requirements, both now and in the future. For example, it is important to consider whether or not you might want to offer other tests, such as blood glucose or liver function tests, and if your chosen device will support this. You could also think about the likelihood of future tests becoming more readily available (eg, high sensitivity C-reactive protein).

Other considerations include:

- How easily a test can be performed
- The time taken for a result
- Whether or not training is included
- Whether calibration is manual or automatic
- Whether there is the option to print out results or just view a visual display

Some companies may offer the option of leasing testing equipment.

Quality assurance

Whichever device is chosen, regular quality assurance will be essential to keep the machine in calibration and offer a consistent, high quality service. Accurate and precise measurements are critical for the classification and referral of individuals. Internal quality control procedures (regular analysis of known standards) and external quality assessment (comparative analysis of
How to take a blood sample

- Use the middle finger of the non-writing hand
- The hand should be warm and relaxed (you can wash the client’s hand in warm water or gently massage the finger from base to tip to bring the blood to the fingertip)
- Clean the finger with an alcohol swab to remove grease and other contaminants and dry thoroughly with sterile gauze
- Using a single use lancet perform a firm puncture deep enough for blood to flow freely
- Wipe off the first large drop of blood because it can contain tissue fluid
- Keeping the patient’s hand below heart level, squeeze the finger gently until a second large drop of blood forms (squeezing too hard can contaminate the sample)
- Depending on the analyser used, collect blood into a capillary tube (which is used to dispense the recommended volume of blood for testing) or guide the patient’s finger to the test strip and place the blood onto the reagent area
- Wipe off any excess blood and get the patient to apply pressure with gauze until bleeding stops

Collecting a good quality blood sample

When obtaining whole blood fingerprick samples for lipid measurement, it is important to follow a protocol to help you consistently collect good samples, with no contamination with fats from soaps, make up etc. The panel above suggests a protocol. The client does not need to fast if only TC and HDL cholesterol are measured. If a more complete lipid profile is required (including triglyceride levels), the individual should fast for between nine and 12 hours. This means that it is probably best to do a full lipid profile in the morning.

Feedback

When discussing test results with patients, care and sensitivity are needed. All information should be delivered in a way that individuals will understand so try to avoid unnecessary technical terms and jargon. Patients should also be provided with their results in a written form. Any lifestyle advice must be supported by information that the patient can take away to read. It is particularly important to make lifestyle changes manageable (eg, divide them into achievable increments). All advice given should be documented for clinical governance.

If cholesterol levels are not within the desired range, the patient’s consent must be sought for this information to be sent to his or her GP. Patients should be given their own copy of the referral. If patients do not consent they must be advised to seek medical advice.

Calculating coronary heart disease risk

The indication for the sale of simvastatin is for the prevention of a first coronary event in people likely to be at a moderate risk of coronary heart disease (CHD). Risk of CHD is usually expressed in terms of the probability (absolute risk) of a non-fatal MI or coronary death over 10 years. In this case, “moderate” means a 10 to 15 per cent risk. It would therefore, make sense for pharmacists to be able to calculate CHD risk as well as measuring cholesterol.

However, according to the manufacturers of Zocor Heart-PRO, moderate risk does not have to be calculated as such. Pharmacists will be able to sell the product based on individual reported risk factors, such as age and smoking status. Full details will be available in Society practice guidance, which will be sent out with The Journal shortly.

For pharmacists who do wish to calculate coronary risk for people, this can be done using a computer program or coronary risk prediction charts for primary prevention, which are all based on the Framingham heart study (see practice point 3). Both methods require further information about the individual including:

- Sex
- Age
- Systolic blood pressure (mmHg)
- TC to HDL cholesterol ratio
- Whether or not the person is a smoker or has smoked in the past five years
- Whether or not the person has diabetes
- If left ventricular hypertrophy is present (detected by electrocardiogram)

It is important not to omit any of these factors so that the risk is not over- or underestimated. To offer a complete service, pharmacists could, therefore, consider providing a service to measure blood pressure. Practice guidance on blood pressure testing is available from the Society.

Other factors that can be useful to record include:

- Family history of CHD (heart attack in father or brother before 55 years of age or in mother or sister before 65 years)
- Ethnicity
- Body mass index
- Waist size
- Use of oral contraceptive or hormone replacement therapy

These factors can increase risk, but are not part of the probability calculation (eg, family history was not included in the Framingham study). Any discussion about lifestyle could also be documented.

People identified as being at high risk of CHD (over 30 per cent) should be referred to their GP for treatment immediately.

Summary

Considering the new general medical services contract (where GPs are rewarded for meeting targets and are able to subcontract services to other providers, such as pharmacies or pharmacists) and the future pharmacy contract, a cholesterol measuring service could well be offered to primary care organisations.

An excellent example of a successful lifestyle project, which included a full blood lipid and glucose profile, and assessments of blood pressure, height, weight, smoking status, diet, alcohol consumption and degree of physical activity is that started in Neyland Pharmacy in Pembrokeshire (PJ, 8 May, p572). Funding came from the local health board’s pot for targeting areas with high rates of CHD (“inequalities in health” budgets).

Pharmacists are uniquely placed to improve the health of the nation by providing tests and advice. They should be aware that other health care professionals are also looking to provide these kinds of service. It would be a pity if pharmacists miss out.

References


Resources

Practice guidance on blood pressure testing is available from the Royal Pharmaceutical Society at: www.rpsgb.org.

The Joint British Recommendations suggest use of a computer program, wherever possible, to calculate CHD risk. One such program can be downloaded from www.heartuk.org.uk.

Coronary risk prediction charts for primary prevention are at the back of the British National Formulary.

The Wolfson laboratory, based at the Queen Elizabeth Medical Centre in Birmingham offers an independent national external quality assessment scheme for cholesterol measuring devices. Contact 0121 414 7300 or ClinChem@ukneqas.org.uk for details.

Action: practice points

Reading is only one way to undertake CPD and the Society will expect to see various approaches in a pharmacist’s CPD portfolio.

1. The Society’s guidance on cholesterol testing is currently under revision. Watch out for the updated guidance later this year.

2. Do you think that pharmacists should sell statins? What are the pros and cons? Review some of the letters The Journal has published on this subject over the past few months.

3. Find out more about the Framingham heart study. Visit www.framingham.com/heart

Evaluate

For your work to be presented as CPD, you need to evaluate your reading and any other activities. Answer the following questions:

What have you learnt?

How has it added value to your practice? (Have you applied this learning or had any feedback?)

What will you do now and how will this be achieved?