Why are veterinary medicines needed?
Many farmers use health plans to manage the common conditions that affect their livestock. However, even on the best managed farms, animals sometimes suffer from disease or health conditions. Farmers can then use veterinary medicines to promote and improve the welfare of their animals. The use of health plans and the careful use of veterinary medicines has led to the UK being a world leader in maintaining animal welfare.

The use of veterinary medicines can sometimes result in residues in foods taken from the treated animals. These are usually at very low concentrations – measured in parts per billion. It is important to the livestock industry and consumers that any residues are at concentrations that pose no threat to consumer health. This can be achieved by following the ‘Practical steps’ given later in this leaflet.

What tests are carried out before a medicine is authorised?
Before a veterinary medicine is authorised for use, it will be tested to ensure it works. If it is to be used in food-producing animals, such as sheep, cattle, pigs and poultry, tests are also carried out to set conditions on its use that ensure any residues are very unlikely to pose any health risks for consumers.

Government Scientists assess experimental data to establish what concentration of a particular residue is acceptable in meat or milk etc. This statutory limit is called the maximum residue limit, or MRL. Eating foods with residues of veterinary medicines with concentrations at or below the MRL are very unlikely to pose any health concerns. A one-off exposure to residues above the MRL is also unlikely to be of health concern, but each case would need to be assessed individually.

The scientists also assess how long it takes after the end of treatment with a particular medicine for any residues in food from the treated animal to fall below the MRL.

From this, they can set the withdrawal period – the minimum length of time after treatment that must pass before an animal may go for slaughter or have its products, such as milk or eggs, taken for human consumption. This will be one of the conditions of use of the medicine. Therefore, the farmer and their vet must take all of the necessary steps to comply with the withdrawal period. This will ensure consumers are not exposed to residues above the MRL and so are protected from potential health risks.

Who checks things work in practice?
The UK’s extensive analytical surveillance programme provides assurance to consumers that the system of authorising medicines is working correctly to prevent residues of health concern.

The Veterinary Medicines Directorate (VMD) organises the collection of over 35,000 samples of food produce (e.g. meat, milk, eggs) each year from farms and abattoirs. These are analysed for residues of veterinary medicines, illegal or unauthorised medicines and some environmental contaminants. This post-authorisation surveillance checks that any residues detected are below the relevant MRL or other limits in the case of environmental contaminants. If any residues above the MRL are detected a follow-up investigation is carried out to identify the cause.

What have the VMD found?
Overall, the surveillance shows that the UK has a very good record of using veterinary medicines responsibly. While residues above the MRL or other limits are detected, very few are of potential concern for consumer health. These are usually where the conditions for a particular medicine’s use have not been observed. Follow up investigations on farms help ensure that any residues above the MRL or other limits are not repeated.

VMD and other government agencies wish to continue the existing strong partnership with all sectors providing quality assured animal products in the UK.

What causes have there been for unacceptable residues?
We mentioned that when residues of veterinary medicines at concentrations above the MRL are detected, a follow-up investigation on the relevant farm is carried out. These investigations have found:

• The withdrawal period had not been observed – this can be the result of not knowing the withdrawal period, or poor record keeping of medicines use
• Animals were sent to slaughter where their medicines history was not known – some of the highest residues have been found in animals that had been sent to market for sale and further fattening, but were then sent directly to slaughter
• Animals have been treated with, or had access to, medicines that are not authorised for use in food-producing species – in particular, residues of phenylbutazone have been detected in both cattle and horses. This substance is banned from use in animals for human consumption

Some residues have occurred by inappropriately administering the medicine to an animal that is destined for the food chain. Others have occurred by housing treated and untreated animals in the same place, allowing access to medicated food or contaminated bedding
• Medicines bought from unauthorised sources – the VMD is aware of unauthorised sources for medicines that could pose a risk of unacceptable residues. These include car boot sales, on internet auction sites and overseas internet sites
• Incorrect withdrawal applied under the ‘Cascade’ – The ‘Cascade’ allows a vet to prescribe medicines outside their normal authorised uses, but only where there is no authorised medicine available for a particular use. In such circumstances, some vets have recommended to the farmer the statutory minimum withdrawal periods specified in EU legislation. However, for some medicines, with more persistent residues, longer withdrawal periods are needed
• Out-of-date medicines used – medicines have a shelf-life which is given on the label. If kept for longer than this, the ingredients may have started to break down.

www.vmd.gov.uk
What medicines records must be kept?
When a veterinary medicine is obtained for use in a food-producing animal, the keeper must at the time record:
• the name of the product and batch number
• the name and address of the supplier
• the date and quantity acquired.
For all farm animals, a record should be made as soon as possible when a veterinary medicine has been administered. The information recorded should include:
• if administered by a vet, their name
• the name of the product and if administered by a vet, the batch number
• the date of administration
• the quantity administered
• the withdrawal period
• the identification of the animals treated.

Practical steps to avoid unacceptable residues
Public confidence in the quality of animal products is a key factor in ensuring the commercial success of the UK farming industry in the face of intense competition from imported foods. We can help maintain consumer confidence in our food if those involved in the livestock industry:
• maintain close communication with their vet about the safe and appropriate way to use veterinary medicines
• use only veterinary medicinal products that are authorised in the UK for the purpose, or that are prescribed by a vet under the ‘Cascade’
• buy medicines from recognised sources, such as vets or veterinary pharmacies or from animal health retailers
• follow the instructions for use on the product label and package leaflet unless directed otherwise by a vet
• apply the appropriate withdrawal periods as specified in the product’s instructions unless the product has been prescribed under the ‘Cascade’
• note that the withdrawal periods set out in the ‘Cascade’ are the minimum required under law. To avoid unacceptable residues, a longer period may be needed – especially if a higher dose than normal is being used. These can be different for milk, meat and eggs
• consider if there is a risk of cross-contamination between treated and untreated animals and their feed
• keep up-to-date farm medicines records
• ensure that any farmed animals sold are accompanied by their medicines treatment history.

Where can I get more information?
Your vet or suitably qualified person will be able to give you information on the safe use of veterinary medicines in your animals.
The websites of the VMD and the independent Veterinary Residues Committee have information on residues and the surveillance programmes that check our food is safe www.vmd.gov.uk and www.vet-residues-committee.gov.uk.
You can also phone the VMD on 01932 336911 for any additional assistance about veterinary medicines.
You can also reach us by e-mail at: postmaster@vmd.defra.gsi.gov.uk.

www.vmd.gov.uk