PHARMACY MAGAZINE CPD MODULE
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module 242

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GOAL

To provide community pharmacists with an overview of the major developments in pharmacy practice during 2015.

OBJECTIVES

After completing this module you should be aware of:

- The safety issues that were raised during the year and their implications for patients
- The clinical guidelines of relevance to pharmacy practice that were either launched or updated
- Other changes that occurred during the year that affect how community pharmacy operates.

First in professional development pharmacy magazine

the continuing professional development programme

CPD

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This module is suitable for use by community pharmacists as part of their continuing professional development. After reading this module in the magazine or online, complete the scenarios and post-test at **www.pharmacymagazine.co.uk** and include in your personal learning log. CPD is one aspect of professional development and can be considered alongside other activities for inclusion in your **RPS Faculty portfolio.**

Key therapeutic developments of 2015

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Introduction

Healthcare never stands still and the constant stream of new medicines, regulations and guidance can sometimes feel overwhelming. This module looks back at some of the most significant changes that have taken place during 2015 and considers their implications for community pharmacy practice.

NSAID safety concerns

The year kicked off with something of a blow – the withdrawal of an OTC medicine. In a letter sent to healthcare professionals in January, the Medicines and Healthcare products Regulatory Agency (MHRA) stated that the non-steroidal anti-inflammatory **diclofenac** was associated with a small increased risk of serious cardiac side-effects in some patients, particularly if used at high doses and for long-term treatment. This led the UK Committee on Human Medicines (CHM) to conclude that individuals required a medical assessment in order to determine if oral diclofenac was suitable.

The decision followed the 2013 publication of a Europe-wide review that concluded that the small increased risk of arterial thromboembolic events associated with COX-2 inhibitors (also known as the coxibs) also applied to systemic diclofenac.

High-dose ibuprofen linked to cardiovascular problems

The review recommended the addition of a new cardiovascular contraindication plus strengthened warnings and precautions for all oral diclofenac products.

As **aceclofenac** exerts its action via its metabolites, which include diclofenac, this NSAID is also now contraindicated in patients with established ischaemic heart disease, peripheral arterial disease, cerebrovascular disease and congestive heart failure. The MHRA says aceclofenac should only be started in patients who have had a careful assessment of their risk factors for cardiovascular events, such as smoking, hyperlipidaemia, diabetes and hypertension.

NSAIDs were back in the spotlight when the European Medicines Agency (EMA) warned that **high-dose ibuprofen** – defined as at or above 2,400mg per day – was linked to the same risk of cardiovascular problems as the COX-2s and diclofenac. The EMA advised minimising the dangers by avoiding use of the drug and its active enantiomer (dexibuprofen) in patients with serious heart or circulatory problems, such as heart failure or a history of heart attack or stroke, and reminding doctors to carefully assess a patient's risk factors for cardiovascular conditions before considering long-term treatment with ibuprofen.

The EMA stressed that OTC doses of oral ibuprofen, which do not generally exceed 1,200mg per day, were not associated with increased cardiovascular risk, and said that its review had also concluded that occasional ibuprofen use was unlikely to affect the benefits of low-dose aspirin when taken for its anti-platelet action.

Another NSAID under the spotlight was **ketoprofen**. Pharmacists were reminded of the need to explain the risk of photosensitivity reactions to patients prescribed topical ketoprofen, and provide advice on some of the steps that can be taken to minimise the possibility, such as:

- Washing hands thoroughly after every application
- Not exposing treated areas of skin to sunlight (even if cloudy) or to UVA during treatment and for two weeks afterwards
- Not using under occlusive bandaging
- Stopping use straightaway if any kind of skin reaction occurs.

Over-the-counter changes

Two products gained GSL status this year. **Nexium Control** was granted a GSL licence for the short-term treatment of reflux symptoms (e.g. heartburn and acid regurgitation) in adults. Esomeprazole 20mg tablets were switched from POM to P two years ago.

Soleve Sunburn Relief, a cutaneous emulsion containing ibuprofen 1% and isopropyl myristate 10%, has moved to GSL after being granted a Pharmacy-only licence in 2009.

There may be another new OTC product in the near future, following an application by Novartis to reclassify **Otrivine Extra Dual Relief** for the short-term (up to seven days) symptomatic treatment of nasal congestion and rhinorrhoea in connection with common colds for adults. The nasal solution contains xylometazoline hydrochloride 70mcg and ipratropium bromide 84mcg per spray.

In its submission to the MHRA, Novartis highlighted the well-established safety profile of both ingredients when administered nasally and pointed out that the combination product is already available as a non-prescription medicine in other European countries.

Meanwhile cough and cold remedies containing **ephedrine or pseudoephedrine** are to remain OTC. In an assessment report, the MHRA said that the measures introduced in 2007-08 to manage the potential misuse of these medicines had been successful, with the pharmacy profession lauded for its efforts.

The MHRA did, however, ramp up its warning about the use of **codeine** in cough and cold products, following a review by the EMA that highlighted the unpredictable way in which codeine is converted to morphine in children below 12 years of age.

Codeine is converted into morphine by the CYP2D6 enzyme and some people (known as ultra-rapid metabolisers) convert codeine into morphine faster than others. This results in high morphine levels in the blood, which can cause toxic effects such as breathing difficulties.

Codeine is therefore contraindicated in children younger than 12 years old and patients of any age known to be CYP2D6 ultra-rapid metabolisers. The MHRA stressed that codeine is also contraindicated in breastfeeding mothers, and said that it should not be used in adolescents aged 12 to 18 years who have problems with breathing.

Paracetamol for lower back pain and osteoarthritis: Paracetamol has long been recommended for lower back pain and

osteoarthritis but a review of 13 clinical trials published in the *British Medical Journal* called for clinical practice guidelines to be overhauled, saying there was little evidence that the analgesic is effective when used for these indications and it put patients at risk of liver problems.

The authors of the review said there was "high quality" evidence that paracetamol provides a significant, albeit clinically unimportant, effect on pain and disability in hip or knee OA short-term, whereas there was good evidence of the analgesic's ineffectiveness in lower back pain, not only for reducing pain and disability but also in terms of the impact on quality of life.

Their research, they said, showed that patients taking paracetamol were nearly four times as likely to have abnormal results on liver function tests, but they were unable to comment on the clinical importance of this effect.

Controlled drugs

There were several changes affecting controlled drugs this year. They are described below:

Drug driving regulations came into force in England and Wales in spring, making it an offence to drive while under the influence of any amount of the most commonly used illegal drugs or have an amount of amphetamine, clonazepam, diazepam, flunitrazepam, lorazepam, methadone, morphine, oxazepam or temazepam in the body that is considered unsafe.

Pharmacists and their teams should advise patients on any of these drugs to not drive until they are sure that their ability to concentrate, make decisions and feel awake and alert are not affected, and to consider carrying evidence of their prescribed medication in case they are stopped by the police. It is worth noting that anyone taking any of the above drugs in accordance with instructions issued by a healthcare professional can use a medical defence if they are stopped and found to be over the level specified in the new regulations – assuming, of course, that their driving ability is not impaired.

Schedule 2 and 3 CDs: Temazepam has finally been brought into line with other schedule 3 CDs. Prescriptions must now include dose, form and strength information, and state the total quantity of the preparation in both words and figures.

In England, computer-generated paper prescriptions for schedule 2 and 3 CDs are now allowed, enabling these items to be prescribed and dispensed using the electronic prescribing service (EPS). Pharmacists and their teams should be aware that any schedule 2 or 3 CD prescriptions received in this way still need to state the dose, form and strength information (where appropriate) and total quantity in both words and figures, and be mindful of the 28-day validity from the date of signing – the only element that cannot be computer generated. Repeat dispensing is not allowed, but instalment prescriptions are. Other adjustments include:

- The introduction of a mandatory form for the requisition of schedule 2 and 3 CDs in the community
- Making it a requirement for veterinary practitioners to include their Royal College of Veterinary Surgeons registration number on prescriptions for schedule 2 and 3 CDs

Seasonal flu vaccinations

Pharmacies across England started providing seasonal flu vaccinations on the NHS as part of a national service in September. Eligible groups are all those aged 65 years or over, pregnant women, patients in at-risk groups aged 18 years or older, those in long-stay residential care facilities, carers, and household contacts of immunocompromised individuals.

The service can be provided in care homes as well as in pharmacies. Full information is at psnc.org.uk/services-commissioning/advanced-services/flu-vaccination-service.

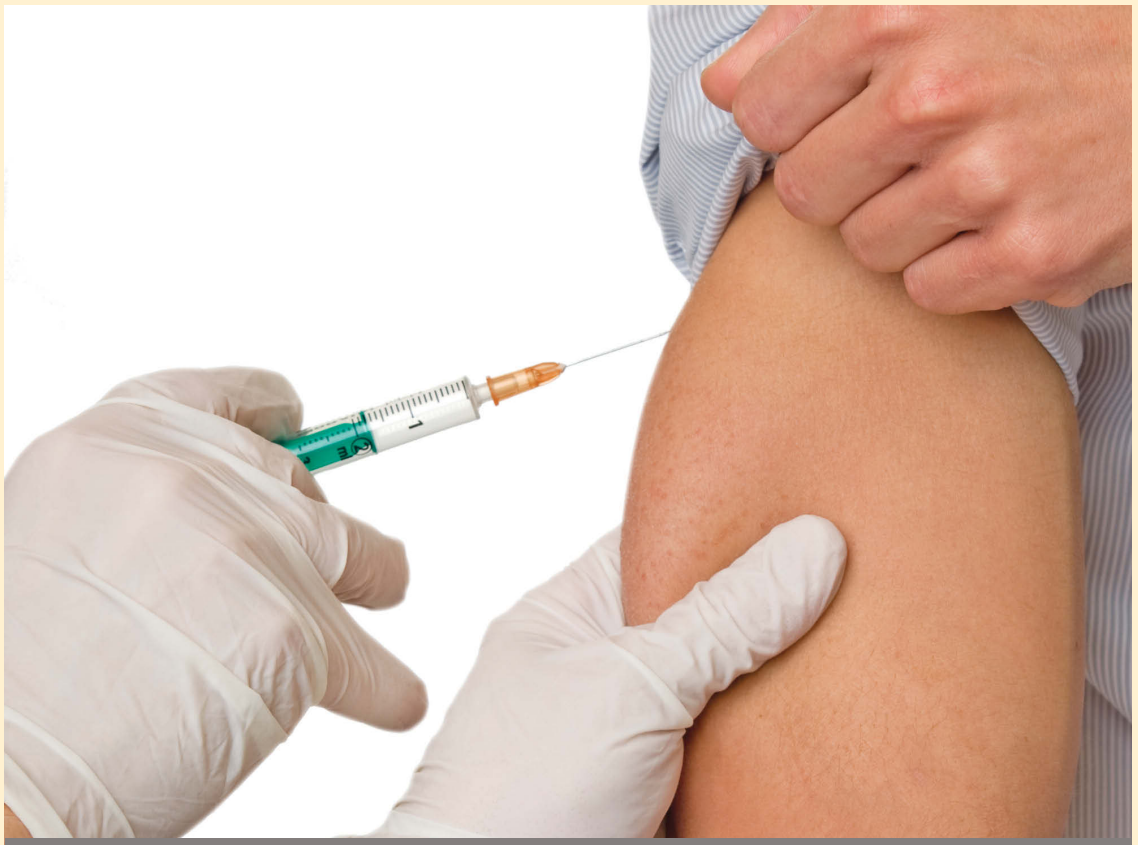
The only other change to England's national flu immunisation programme this year was the inclusion of all school children in years 1 and 2. This also applied in Wales.

This year's vaccine protects against three viral strains:

- **A/H1N1, cause of the 2009 swine flu pandemic**
- **A/H3N2, an avian and mammal variant that was active in 2011**
- **B/Phuket/3073/2013.**

The nasal spray format additionally protects against B/Brisbane/60/2008.

In Scotland, morbidly obese people (i.e. those with a BMI at or above 40kg/m^2) were included in the eligible at-risk groups for the first time.



Pharmacists in England have been providing seasonal flu vaccinations

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- Regularising emergency supplies of phenobarbital in the absence of a prescription
- Moving ketamine from schedule 4 to schedule 2.

Opiate substitutes while in police custody: Public Health England issued a briefing to bring consistency to how people in police custody get hold of opioid substitutes. Accessing the usual pharmacy-held prescribed dose is described as the preferred option. Pharmacies can therefore expect a phone call if someone they normally supply is in custody in order to confirm the current prescribed dose and the date and time the previous dose was collected, and to agree how many doses need to be supplied and when the supply can be picked up.

Good practice dictates that the pharmacist should record all details of the phone call, including the name of the police station where the individual is being detained, and verify the legitimacy of the caller.

Police officers collecting doses for detainees must present a "bearer's note". As well as including the usual information (e.g. the name and address of the patient and authorising healthcare professional, and details of the medication), the note must:

- Be signed by both the detainee and the police officer authorising the collection
- Include both the name and address of the collector
- Have a statement that the dose will be given on the same day under the supervision of the authorising healthcare professional unless the clinical circumstances change.

Pharmacies must retain the bearer's note for two years and annotate the prescription as unsupervised for the dose supplied in addition to completing all records as usual.

If the dose is not administered for any reason, the pharmacy should be notified and pass on the information to the detainee's usual prescriber but without disclosing that the patient has been in custody.

Reflection exercise 1

How informed are your patients about antimicrobial use and resistance? Leaflets are a good starting point for discussions; consider signing up to the Antibiotic Guardian campaign (see box) if you haven't already done so.

Antibiotic Guardian campaign

Public Health England and the British Society for Antimicrobial Chemotherapy launched the Antibiotic Guardian campaign to try and improve behaviours around antibacterial prescribing and use. The materials single out community pharmacy as well placed to provide advice on OTC medicines to treat symptoms and help with self-care, and the sector can certainly be instrumental in spreading the key message that while antibiotics are essential medicines, they need to be used wisely to ensure they remain effective when needed.

If the usual pharmacy is not accessible, a new prescription can be written for dispensing at another location, although this can be for symptomatic relief only if it is not possible to verify the detainee's current prescribed medicines. At the moment, private prescriptions are usually used because police forces commission healthcare services for detained people, but this may change in 2016 when the NHS takes over commissioning responsibility for these services.

NICE is currently putting together guidelines on the safe use and management of CDs, with publication expected in March 2016.

Infectious diseases

Meningitis B, the bacterial strain responsible for approximately 90 per cent of meningococcal infection in the UK, was added to the childhood immunisation schedule this year, with doses at two and four months of age, and a booster at 12-13 months. The Joint Committee on Vaccination and Immunisation (JCVI) recommended the use of prophylactic paracetamol at the same time or shortly afterwards to prevent and treat fever associated with the MenB jab.

Meningococcal ACWY immunisation was also introduced in response to an increase in cases of invasive MenW disease. All year 13 students should have been vaccinated through GP surgeries in the summer, with a catch-up campaign introduced for those in year 11 from September 2015 onwards through schools.

MenACWY replaces the MenC vaccine routinely offered at around year 9 (age 14) and to new university entrants up to the age of 25 years. Pharmacists have an important role in providing information and advice on the change, particularly to those who erroneously believe they do not need the ACWY jab as they have already received the MenC vaccine.

Antimicrobials: NICE published guidance on antimicrobial stewardship this year, with the aim of changing prescribing practice to help slow resistance and ensure currently available drugs remain an effective treatment for infections.

The document recommended that all organisations, whether commissioners or providers, establish antimicrobial stewardship teams, which should include an antimicrobial pharmacist among the core members, to provide regular updates on local and national prescribing, and resistance rates and trends.

The guidance also recommended analysing patient safety incidents related to antimicrobial use, including hospital admissions for potentially avoidable life-threatening infections and adverse drug reactions.

The document can be viewed at **nice.org.uk/guidance/NG15**.

Guidance on the same topic for the public is currently being put together by NICE, with publication expected in spring 2016.

Antibiotic stewardship was a major focus of the last 12 months

Diabetes

Given the ever-growing burden diabetes places on the health of the nation and the finances of the NHS, it is no surprise there are concerted efforts to improve clinical management and reappraise the effectiveness and safety of treatments using the results of new research.

This year saw NICE publish several guidance documents on diabetes, including: **Diabetes in pregnancy (NG3)**, which replaced the 2008 guidelines that were considered out-of-date in light of research published in the interim, most notably the landmark Hyperglycaemia and Adverse Pregnancy Outcomes (HAPO) study.

HAPO led to the World Health Organization adopting a new definition of gestational diabetes, which means many more women are being diagnosed with the disease. Also of relevance to pharmacy is the emphasis placed on pregnancy planning for women with diabetes, particularly the need for tight glycaemic control (5-7mmol/L plasma glucose upon waking and 4-7mmol/L before meals), and the recommendation to advise women with an HbA_{1c} in excess of 86mmol/mol (10 per cent) to not conceive because of the risk of congenital malformations.

Women who develop gestational diabetes should be offered advice about diet and exercise, with metformin used if these measures prove ineffective. Insulin and glibenclamide should be reserved for second and third-line treatments.

Type 1 diabetes in adults (NG17) replaces guidance that was more than a decade old, and reflects changes in diagnosis, such as not discounting the disease in older adults or those with a BMI of 25kg/m^2 or above, setting a target HbA_{1c} of 48mmol/mol (6.5 per cent) or lower to minimise the risk of long-term vascular complications, self-testing blood glucose at least four times a day, and using multiple daily injectable basal-bolus insulin as first choice rather than twice-daily mixed insulin regimens, with consideration given to adding metformin in overweight patients.

Diabetes (types 1 and 2) in children and young people up to the age of 18 years (NG18) describes stricter blood glucose control than had been recommended in the past in order to reduce the impact of the condition on future health.

Plenty of guidance on diabetes management was issued in 2015

In type 1 diabetes, tighter management can be achieved by intensive insulin regimens involving multiple daily injections or pump therapy from diagnosis plus carbohydrate counting, and should be aided by individualised and ongoing education that covers all aspects of diabetes.

Continuous glucose monitoring with alarms may be necessary for very young or highly active patients, those with frequent severe or impaired awareness of hypoglycaemia, and individuals with comorbidities such as anorexia nervosa or on treatments that can make glycaemic control difficult (e.g. corticosteroids).

Diabetic foot problems (NG19) updated and replaced three previously published guideline papers with the aim of reducing variations in practice that currently means one diabetes sufferer may be four times more likely to experience an amputation than another simply because of where they live.

Pharmacists and their teams have a valuable role to play in providing basic foot care advice to anyone with diabetes, no matter what their age, and making sure patients know who to contact if they develop a problem (see also p18).

Medicines optimisation guidance

Of considerable significance to pharmacy was the medicines optimisation guidance brought out this year by NICE. The document stressed the importance of patient engagement and collaboration across health and social care in order to achieve the best possible outcomes. It highlighted three areas of priority for implementation:

- **Setting up systems that facilitate the identification and reporting of, plus learning from, medicines-related patient safety incidents at an organisational level. The approach should be agreed locally and reviewed regularly to ensure it is as up-to-date as possible with any learning that has emerged at both local and national level**
- **Sharing information – including with a nominated community pharmacy – when patients move from one care setting to another, including details of current medication, changes to medicines such as an item being discontinued or a dosage alteration plus the reason, the information that has been provided to the patient and/or carer, and anything else relevant such as the date when the medicines should be reviewed, any adherence support considered necessary and ongoing monitoring needs. Consideration should be given to sending discharge information to a patient's nominated pharmacy when possible**
- **Medicines reconciliation to be carried out by a trained and competent professional, such as a pharmacist, pharmacy technician, doctor or nurse.**

The full document can be seen at: nice.org.uk/guidance/ng5.

It was a mixed year for **sodium-glucose transporter 2 (SGLT-2) inhibitors**, or those antidiabetic agents suffixed with -gliflozin (e.g. canagliflozin). A NICE technology appraisal (**nice.org.uk/guidance/TA336**) recommended using empagliflozin:

- In combination with metformin for people with type 2 diabetes who cannot take sulphonylureas or who are at significant risk of hypoglycaemia or its consequences
- In triple therapy alongside metformin and a sulphonylurea or thiazolidinedione
- With insulin, either with or without other oral antidiabetic agents.

However the drug class, which also includes dapagliflozin, hit the headlines when the EMA announced a review because of concerns about a link with diabetic ketoacidosis (DKA). The main issue is that patients on a SGLT-2 inhibitor who develop DKA do not always display hyperglycaemia – usually a classic symptom – which has meant that some cases have not being diagnosed as promptly as they should have been.

Interim advice is to make sure patients on SGLT-2 inhibitors are aware of the signs of DKA, which can include polyuria, polydipsia, fatigue, blurred vision, nausea and a distinctive smell of pear drops on the breath. Healthcare professionals should test ketone levels if they suspect the condition, even if glucose levels are not elevated.

Insulin confusion: The EMA is also looking at ways to minimise the risk of errors when prescribing and using certain insulin products, specifically the high strength (100 units per ml or higher) formulations of Tresiba, Humalog and Toujeo, the fixed insulin degludec and liraglutide combination Xultophy, and Abasaglar, a biosimilar of insulin glargine. Potential sources of confusion include:

- The two-unit dosing step of the Tresiba 200 units/ml pen compared to the one-unit dose step of the lower strength Tresiba, and all prefilled pens of Lantus, Toujeo and Humalog
- Non-bioequivalence between Toujeo and Lantus
- The potential for dose adjustment that exists when switching patients between Abasaglar and Lantus, despite the two products appearing to be pharmacokinetically and pharmacodynamically equivalent
- The launch of Xultophy, the first product to combine insulin with another injectable diabetes treatment.

Healthcare professionals should ensure patients understand how to use their medication and are supplied with a patient booklet and insulin passport or safety card.

Warnings about sodium valproate have been strengthened

New safety issues

Mycophenolate mofetil: Patients on mycophenolate mofetil who suffer recurrent infection should have their serum immunoglobulin levels measured. This is because the drug has been discovered to cause hypogammaglobulinaemia.

This condition may in turn explain some cases of bronchiectasis that can affect adults and children on mycophenolate mofetil – sometimes years after starting treatment – which usually presents with a persistent, productive cough and sometimes recurrent respiratory infections. Switching to another immunosuppressant can help resolve IgG levels and relieve respiratory symptoms. Mycophenolate mofetil is licensed for the prevention of acute transplant rejection in combination with ciclosporin and corticosteroids.

Sodium valproate: Warnings about the use of sodium valproate, valproic acid and valproate semisodium have been strengthened following a Europe-wide review which stated that children exposed to the agents *in utero* are at high-risk of developmental disorders, such as autism and congenital malformations. For this reason, valproate should not be prescribed during pregnancy or for females of child-bearing potential unless other treatments are not effective or not tolerated.

Figures from the Clinical Practice Research Datalink suggest that, for each year between 2010 and 2012, around 35,000 women aged 14 to 45 years were prescribed sodium valproate and at least 375 a year had a prescription for the medicine while pregnant.

Reflection exercise 2

Do your staff understand the tighter sales restrictions that have been brought in for certain products such as codeine-containing medicines?

Yellow Card scheme simplified

Incident reporting was simplified this year when devices and counterfeit and defective medicines were brought under the umbrella of the Yellow Card scheme, alongside suspected adverse drug reactions – including those caused by medication errors – to all medicines, including vaccines and complementary and alternative remedies. A free-access mobile app has also been launched. For more information, see yellowcard.mhra.gov.uk.

Reflection exercise 3

NICE has worked hard to make its guidance as jargon-free and user-friendly as possible. Identify a NICE document mentioned in this module. Is it as daunting and difficult to read as you thought it might be?

Ivabradine, which is used in the management of chronic heart failure and chronic angina in patients who cannot take beta-blockers or who find beta-blocker monotherapy is insufficient, should only be started if the resting heart rate is at least 70 beats per minute and should not be used alongside other drugs that can cause bradycardia (e.g. verapamil and diltiazem).

Patients should be regularly monitored for atrial fibrillation, and ivabradine stopped if there is little or no symptom improvement after three months, said the MHRA. This is because the drug increases the risk of cardiac side-effects such as slow heart rate, AF, cardiovascular death or non-fatal myocardial infarction.

Uterine perforation is more likely when intrauterine contraceptives are fitted to women who are breastfeeding and in the first 36 weeks after giving birth, the MHRA said in light of a Europe-wide observational study involving over 61,000 women. However, because the benefits of the contraception method outweigh the rare risk of perforation, no new usage restrictions have been put in place. However women should be made aware that severe pelvic pain after insertion, pain or heavy bleeding that continues for more than a few weeks, sudden menstrual changes, dyspareunia and not being able to feel coil threads are all signs that warrant seeking medical attention.

Subacute cutaneous lupus erythematosus: A causal link has been identified between proton pump inhibitor use and subacute cutaneous lupus erythematosus (SCLE), a non-scarring dermatosis that can develop when the skin is exposed to sunlight and may be accompanied by arthralgia. SCLE is almost three times higher in patients on PPIs than the general population, and may occur weeks, months or even years after exposure to the drug.

In most cases, symptoms resolve when the drug is discontinued, although someone who experiences SCLE after PPI use may be at risk of the same reaction from another agent within the class. SCLE is rare, with worldwide incidence ranging from 17 to 48 cases per 100,000 people, but the high rate of PPI usage means that this is something community pharmacists need to be aware of.

Hydroxyzine: The maximum recommended daily dose of hydroxyzine, usually used to treat pruritus but also employed as an anxiolytic, has been reduced to 100mg for adults, 50mg for the elderly (although use should be avoided if possible) and 2mg per kg bodyweight in children up to 40kg.

NICE guidance published in 2015

Many guidance documents published by NICE during 2015 have already been mentioned in this module but others of relevance to community pharmacy practice include:

- **Gastro-oesophageal reflux disease in children and young people (NG1), which can help identify what is normal and what warrants medical investigation**
- **Preventing excess weight gain in children and adults (NG7) by means of making changes to diet and activity levels with the aim of reducing other health risks such as diabetes and coronary heart disease**
- **Managing winter risks (NG6) in people vulnerable to the cold, such as the elderly and those on a low income, to improve general health and wellbeing and reduce pressure on health and social care services**
- **Nalmefene is recommended as an option for reducing alcohol consumption in dependent individuals (HTTA325)**
- **Interventions to delay or prevent the onset of dementia, disability and frailty in later life, such as stopping smoking, being more active, reducing alcohol consumption and improving diet, as a way of trying to help people live independently for longer (NG16).**

The year also saw the publication of a number of quality standard documents – a set of concise and measurable standards drawing on existing guidance that aim to improve service provision in a defined care or service area. Topics included:

- **Urinary incontinence in women (QS77)**
- **Reducing and preventing tobacco use (QS82)**
- **Medicines management in care homes (QS85)**
- **Alcohol harm reduction (QS83)**
- **Falls prevention (QS86)**
- **Drug allergy (QS97)**
- **Atrial fibrillation (QS93)**
- **Cardiovascular risk assessment and lipid modification (QS100).**

All NICE documents can be accessed at nice.org.uk/guidance.

Services at a distance

The GPhC published guidance for pharmacies providing services at a distance (for example, the electronic prescription service, collection and delivery schemes and internet pharmacy services) with the aim of ensuring safety in situations where the patients may not have face-to-face contact with a pharmacy professional.

Key issues covered include maintaining the security of patient information, risk assessments and the provision of information to patients. The document is available at: pharmacyregulation.org/sites/default/files/guidance_for_registered_pharmacies_on_distance_and_internet_services_.pdf

The move follows concerns that the drug causes heart rhythm abnormalities, particularly QT interval prolongation and Torsade de Pointes, which are more likely in people with pre-existing risk factors such as cardiovascular disease, a family history of sudden cardiac death, concomitant use of drugs that prolong the QT interval, significant bradycardia, hypokalaemia and low magnesium levels.

Mirabegron: The beta-3 adrenoceptor agonist mirabegron, used in the management of urinary frequency, urgency and incontinence in overactive bladder syndrome, is now contraindicated in patients with severe uncontrolled hypertension (systolic ≥ 180mmHg and/or diastolic ≥ 110mmHg). Anyone prescribed the drug should have regular BP monitoring. This is due to the reporting of cases of severe hypertension, including events such as transient ischaemic attack and stroke, in patients prescribed the drug.

Nitrofurantoin, increasingly used first-line for uncomplicated lower urinary tract infections due to emerging trimethoprim resistance, should not be used in patients with an estimated glomerular filtration rate below 45ml/min/1.74m^2. This is because the antibacterial effect relies on the drug being renally secreted into the urinary tract, and this may be reduced in patients with renal impairment, which increases the risk of treatment failure and side-effects.

This module is also online at pharmacymagazine.co.uk

KEY THERAPEUTIC DEVELOPMENTS IN 2015

assessment questions

1. Find the TRUE statement about NSAIDs:
a. Diclofenac tablets can still be sold OTC
b. The coxibs are more likely to increase the risk of arterial thromboembolic events than diclofenac tablets
c. Skin should be occluded after applying topical ketoprofen
d. High dose ibuprofen has been linked to the same risk of CV problems as COX-2 inhibitors

2. Which statement is FALSE?
a. Esomeprazole is now available as a GSL medicine
b. Pseudoephedrine is likely to revert to POM amid concerns of widespread misuse
c. Cough and cold products containing codeine should not be given to the under 12s
d. Ipratropium looks likely to become available OTC soon

3. Which statement about controlled drugs is TRUE?
a. Prescriptions for temazepam can be completely computer generated
b. Ketamine is a schedule 2 CD
c. Bearer's notes, used to collect opioid substitutes for people detained in custody, must be retained for a year
d. GHB and sodium oxybate are schedule 3 CDs

4. Find the FALSE statement about immunisation:
a. University students who have had the MenC vaccine do not need to receive the ACWY jab
b. MenB is responsible for around 90 per cent of UK meningococcal infection
c. The nasal form of the seasonal flu vaccine protects against more strains than the injectable product
d. In England, pharmacies can visit care homes to administer flu vaccinations to the residents

5. Which is TRUE regarding diabetes?
a. Insulin is first-line treatment for gestational diabetes
b. NICE has updated its guidance on type 2 diabetes in adults
c. SGLT-2 inhibitors have not been linked to diabetic ketoacidosis
d. A fixed insulin degludec and liraglutide combination was launched in 2015

6. Which has NOT been the subject of NICE guidance published during the course of this year?
a. CDs use and management
b. Medicines optimisation
c. Antimicrobial stewardship
d. Diabetic foot problems

7. Ivabradine should only be started if the resting heart rate is at least:
a. 70 beats per minute
b. 75 beats per minute
c. 80 beats per minute
d. 85 beats per minute

8. The maximum RDA of hydroxyzine for adults has been reduced to:
a. 50mg
b. 75mg
c. 100mg
d. 200mg

CPD record

Pharmacy Magazine CPD December 2015

Use this form to record your learning and action points from this module on Key Therapeutic Developments in 2015 or record on your personal learning log at pharmacymagazine.co.uk. You must be registered on the site to do this. Any training, learning or development activities that you undertake for CPD can also be recorded as evidence as part of your RPS Faculty practice-based portfolio when preparing for Faculty membership. So start your RPS Faculty journey today by accessing the portfolio and tools at www.rpharms.com/Faculty.

Activity completed. (Describe what you did to increase your learning. Be specific)
(ACT)

Date: Time taken to complete activity:

What did I learn that was new in terms of developing my skills, knowledge and behaviours? Have my learning objectives been met?*
(EVALUATE)

How have I put this into practice? (Give an example of how you applied your learning). Why did it benefit my practice? (How did your learning affect outcomes?)
(EVALUATE)

Do I need to learn anything else in this area? (List your learning action points. How do you intend to meet these action points?)
(REFLECT & PLAN)

You can also record in your personal learning log at pharmacymagazine.co.uk

*** If as a result of completing your evaluation you have identified another new learning objective, start a new cycle. This will enable you to start at Reflect and then go on to Plan, Act and Evaluate. This form can be photocopied to avoid having to cut this page out of the module. You can also complete the module at www.pharmacymagazine.co.uk and record on your personal learning log**