Highlights of the Clinical Pharmacy Congress 2018

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Optimising COPD management, tackling hypoglycaemia in diabetes and NHS England’s Medicines Value Programme were among the topics discussed at Clinical Pharmacy Congress 2018 held in London in April. This article provides an overview of some of the presentations.

Recent developments in the treatment of COPD

“COPD is getting interesting. It is getting more complicated and the guidelines to help us aren’t straightforward,” said Dr Toby Capstick, Lead Respiratory Pharmacist at Leeds Teaching Hospitals NHS Trust and Chair of the UKCPA Respiratory Group, in his presentation on the current state of UK COPD management.

“Why are we interested in COPD?” asked Dr Capstick. “A lot of it is because of how many people it affects.” Around three million people in the UK are estimated to have COPD, with 2.2 million thought to be undiagnosed. Mortality rates are also increasing, with COPD the fifth biggest killer disease in the UK, attributed to 25,000 deaths per year in England and Wales (one person dies every 20 minutes from COPD in England and Wales). COPD also costs the NHS £1.9 billion each year, with over £987 million pounds spent on inhalers in England in 2017. “We are not spending money cost effectively,” said Dr Capstick. “We still prescribe the high-cost inhalers and we should be moving away from those to save money.”

So in which COPD patients should you switch treatment? People with poor inhaler technique, bad symptom control, poor adherence to treatment and those prescribed expensive inhalers “are all fair game”, said Dr Capstick. However, when moving patients from high-cost inhaler brands to cheaper generics it must be recognised that they are not always directly equivalent. For example, there are three budesonide/formoterol combination inhalers that a pharmacist can prescribe: the Symbicort Turbohaler, DuoResp Spiromax and Fobumix Easyhaler. “However, these devices are not the same and if you have taught a patient how to use a Turbohaler and the pharmacy prescribes a Spiromax or Easyhaler then you have wasted your time,” said Dr Capstick.

To avoid this situation, always prescribe by brand name to ensure a patient gets the correct device. Evidence shows that just one critical error in inhaler tech-
nique by COPD patients results in a significantly increased risk of exacerbations in their COPD when compared with patients without a technique error. However, only one in four COPD patients knows how to use their inhaler correctly, while a study of 150 doctors, nurses and pharmacy staff showed only 23% of healthcare professionals also knew the correct way to use a metered-dose inhaler (pMDI). “How then are we going to teach our patients to use their inhalers correctly?” asked Dr Capstick. “We need to upskill ourselves first.”

The most cost-effective inhalers are long-acting bronchodilators, while the overprescription of inhaled corticosteroids (ICS) is the main problem. Though ICS is an effective treatment in patients with eosinophils in their lungs (like in asthma), in patients with mild to moderate COPD (without exacerbations) there are no eosinophils for the steroid to work on. A London study of 3537 COPD patients showed that 38% were being overtreated, mostly through the inappropriate prescribing of ICS. Instead, the two most cost-effective interventions for COPD patients are flu vaccinations and stop smoking support. “These are more cost effective than any inhaler,” said Dr Capstick. “So make sure your COPD patients are up-to-date with their flu vaccinations and get them to stop smoking.”

“Generally, people are moving away from NICE at the moment as it is so out of date,” said Dr Capstick. The last NICE guidance on COPD was published in 2010, when there were around 35 inhalers available for the treatment of asthma and COPD. Today there are 102 drug/dose device combinations available to prescribe “and the list is getting longer”, warned Dr Capstick. “When prescribing an inhaler for a patient, it is important to ensure you have their consent and that they know the correct inhaler technique if you want to improve their treatment outcome.”

The newer drugs available for COPD are dual long-acting bronchodilators (long-acting beta agonist/long-acting muscarinic antagonists – LABA/LAMA) and triple therapy combination inhalers (ICS/LABA/LAMA). The dual long-acting bronchodilators include: Anoro Ellipta, Duaklr Genuair, Ultibro Breezhaler and Spiolto Respimat and “all seem to about the same job”, said Dr Capstick. In comparison to a single long-acting bronchodilator, the dual long-acting bronchodilators improve lung function by about 50-80ml. “However, the really interesting thing is that they improve exercise endurance time by around 40—90 seconds, which is important for some patients.” In fact, as most COPD patients will need to move to a dual long-acting bronchodilator at some point, “Why not just start all of them on it straight away to maximise their lung function and exercise endurance?” asked Dr Capstick.

The triple combination inhalers include Trimbow and Trelegy Ellipta. In the TRILOGY study, Trimbow improved lung function by 80ml compared with Fostair, while Trelegy showed an improvement in lung function of 171ml when compared to the Symbicort Turbohaler. However, as the latter study used different devices, “I am not going to get too excited by the huge variation in lung function,” said Dr Capstick.

The time you review a COPD patient is also a useful chance to check their diagnosis. In a study of 41 general practices in London, 29% of diagnosed COPD patients turned out not to have COPD once their spirometry was checked. Instead, they had normal spirometry, asthma or a restrictive pattern. “So always check the diagnosis,” concluded Dr Capstick.

Hypoglycaemia: a lifesaving pharmacist intervention

“At the moment, the reality is we don’t have enough clinicians to look after the number of diabetes patients, so the time is absolutely right for pharmacists to be stepping up and helping more with diabetes,” said Dr Philip Newland-Jones, Consultant Pharmacist for Diabetes and Endocrinology at University Hospitals Southampton NHS Foundation Trust, opening his presentation on how pharmacists can help their diabetic patients manage hypoglycaemia.

It all begins with the need to have accurate blood sugar measurements. “HbA1c is just an indicator of average blood glucose level,” said Dr Newland-Jones. “It is only a snapshot of when you are taking it, it does not show you what is happening before or after, and two people with a similar HbA1c can have very different blood glucose variability. So, when it comes to low blood sugar, rather than being just a number, focus on what that means for the person.”

To start, establish a plan with your patients of when to test blood sugar. Consider what you are trying to find out and what you are going to do with the test result. “For example, if a patient is on metformin and a gliptin, what are you going to do if their blood sugar is 9mmol/L?” asked Dr Newland-Jones. For reliable results, patients should take their blood glucose after regular meals and moderate their carbohydrate intake accordingly. Also, testing should not be reactive to when a patient is feeling unwell, which only shows the high/low blood sugar levels and not what is causing them.

So what is a low blood glucose reading? “We used to think of 4mmol/L as the floor,” said Dr Newland-Jones, but though the body starts its counter-regulatory hormone response below 3.8mmol/L, you only really get symptom onset below 3.2mmol/L. “Patients that run 3–4mmol/L are very different from patients that run below 3.0mmol/L, which is a ‘true hypoglycaemia’,” added Dr Newland-Jones.

The symptoms of hypoglycaemia also vary from person to person but are best described by patients as a sense of ‘impending trouble’. Age is an important factor, and in children and adolescents the symptoms of hypoglycaemia are usually behavioural as their organs are much better equipped to deal with low blood sugar, while in adults the symptoms are often mood change and cognitive impairment.

In the elderly, however, symptoms of hypoglycaemia are more likely to be neurological. “These are much more likely to not be identified, or to be misinterpreted,” said Dr Newland-Jones. In this patient group, hypoglycaemia can present similarly to dementia or a psychiatric disorder and may also mask an underlying cause such as hemiplegia or acute confusion. It should also be noted
that in older patients, episodes of hypoglycaemia increase with disease duration and are more prevalent in patients with type 1 diabetes. However, “comas and seizures are incredibly rare”, reassured Dr Newland-Jones.

The medications used to treat diabetes also carry a risk of hypoglycaemia. Insulins and oral antidiabetic drugs are in the top five medications most commonly associated with emergency hospitalisations, with insulin, sulfonylureas and meglitinides (glinides) the only diabetes drugs that increase insulin secretion without triggering the body’s feedback mechanisms. For example, in a UK study, 39% of patients with type 2 diabetes treated with sulfonylureas reported symptomatic hypoglycaemic events, compared with 51% of type 2 diabetes patients treated with insulin. However, GLP-1 agonists, SGLT2 inhibitors and DPP-4 inhibitors are not associated with a risk of hypoglycaemia.

“We should not accept hypoglycaemia as inevitable in our diabetic patients,” said Dr Newland-Jones. Hypoglycaemia has a detrimental impact on the body, increasing the risk of blood clotting, cell adhesion, inflammation and endothelial dysfunction. Low blood sugar also has an impact on cardiovascular health and can lead to myocardial ischaemia, cardiac arrhythmias and cardiac failure.

“Sometimes we also forget how the lives of family members of those suffering recurrent episodes of hypoglycaemia are affected,” concluded Dr Newland-Jones. “They can be at risk of exposure to aggressive and argumentative behaviour in a ‘Jekyll and Hyde’ situation and are sometimes in just as much need of emotional support as the patient going through the hypoglycaemia.”

**Items which should not be routinely prescribed in primary care**

“Keep an eye out for this as I predict it will make an impact on everyone’s clinical care,” said Dr Brian MacKenna, Deputy Head of Medicines Management at Islington CCG, in his presentation on the NHS England Medicines Value Programme and what it means for anyone prescribing in primary care.

NHS England guidance on items which should not be routinely prescribed in primary care was published in November 2017 to improve health outcomes from medicines and ensure taxpayers are getting the best value for money for their drugs. “We have finite resources and we have to make difficult decisions on what the NHS does and doesn’t do,” explained Dr MacKenna. “But basically, it is making sure that patients and taxpayers get the best from their medicine.” In 2016/17, the estimated overall spend on medicines in England was £17.4 billion, which was an increase of 34% from £13 billion in 2010/11, with pharmaceutical waste estimated to account for in excess of £300 million per year.

The guidance divides medicines recommended for removal from routine prescribing into three categories: items of low clinical effectiveness, items that are clinically effective but when more cost-effective options exist and items that are clinically effective but are deemed low priority for NHS funding. On this basis, 18 medicines have been selected to be restricted, which includes a ‘blacklist’ of items recommended to be contractually banned from being prescribed by GPs or pharmacists.

“It is the only mechanism that we have to effectively shut down prescribing of a certain product,” said Dr MacKenna. “We cannot enact these recommendations into legislation, which is the duty of the Department of Health, but expect to hear more about this in the future.” The blacklisted items include: co-proxamol, glucosamine and chondroitin, herbal treatments, homeopathy, lutein and antioxidants, omega-3 fatty acid compounds and rubefacients.

“Unsurprisingly, by far the largest group of medicines within the 18 listed are those prescribed for pain,” said Dr MacKenna. “There has been a lot of media attention on this recently; we have the opioid epidemic in the United States, as well as locally in London with prescription medicines, so we need to get better at treating pain.” The pain medicines included are co-proxamol, fentanyl (immediate release), glucosamine and chondroitin, lidocaine plasters, oxycodeone and naloxone combination product, paracetamol and tramadol combination product, and rubefacients.

As a painkiller that was routinely prescribed in the 1990s, co-proxamol had its UK licence withdrawn in 2007; however, £9 million is still spent on unlicensed use of co-proxamol each year as patients have been continued on the medication. “Are these patients being effectively reviewed?” asked Dr MacKenna. “I don’t think that just because a patient has had it before is a good reason to continue.” Instead, the review recommends that no new patients should be initiated on co-proxamol and that CCGs should support prescribers to deprescribe the drug in existing patients.

In the treatment of mental health, dosulepin and trimipramine are recommended for removal from routine prescribing in primary care. Dosulepin, formerly known as dothiepin, is a tricyclic antidepressant that NICE guidance states should not to be switched to, or started on, due to its association with an increased cardiac risk and toxicity in overdose. “We know depression is a terrible condition but we need to support these patients in getting the best treat-
ment, and dosulepin is not the best treatment,” said Dr MacKenna. The guidance advises that dosulepin should not be initiated in new patients and that CCGs support prescribers to deprescribe its use in current patients. In exceptional circumstances, it can be prescribed in primary care, but only in co-operation with a multidisciplinary team.

Other medicines included in the guidance include: liothyronine, once-daily tadalafil and travel vaccines. “Travel vaccines do definitely work, we just think that patients should pay for them,” explained Dr MacKenna. Liothyronine, on the other hand, is used to treat hypothyroidism and has significantly increased in price so that it is no longer cost effective in comparison to levothyroxine, which has a similar action. The guidance advises that liothyronine should not be initiated in new patients in primary care, and that current patients on it should be reviewed by an NHS consultant endocrinologist. Liothyronine can still be used in secondary care for patients with thyroid cancer.

Separate commissioning guidance for CCGs was published in March on 33 over-the-counter (OTC) items for ‘minor’ or ‘self-limiting’ conditions that should not be routinely prescribed in primary care.6 The conditions include: acute sore throat, coughs and colds, conjunctivitis, infant colic, and warts and verrucae. “The NHS cannot treat every single condition and we want to support patients towards self-care,” said Dr MacKenna. Exceptions to this include OTC products prescribed for long-term conditions, for example pain relief for chronic arthritis, or for complex forms of minor illnesses, such as severe migraines. Also included in the guidance are probiotics, vitamins and minerals – though with regards to vitamins this does not include those that are prescribed for diagnosed deficiencies, such as cystic fibrosis.

“It’s a little too early to tell what our progress has been and it will be interesting to see how this develops over the next 12 to 18 months,” concluded Dr MacKenna. “We want to be absolutely clear that there is still clinical discretion... We expect that there will be exceptions that the guidance cannot take account of, so it is down to the clinician – and if you think there is a justified need for a treatment then you still have the freedom to prescribe that.”

References