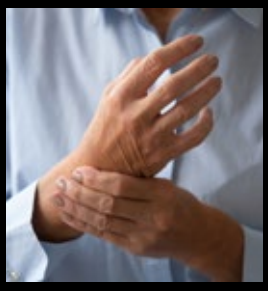
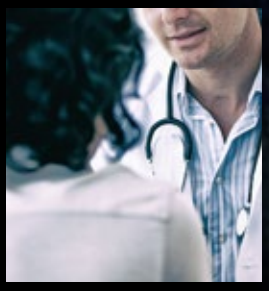
Scottish Pharmacy Review

ISSUE **127** - 2020

COVID-19

PRESSURES OF AN ONGOING PANDEMIC





LUPUS
How to optimise management

TEENAGE CANCER
Calls for age-appropriate care

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The challenges ahead

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2'-FL HMO: 2'-fucosyllactose human milk oligosaccharide. HMOs are a diverse group of bioactive, non-digestible carbohydrates and the third most abundant solid component of breast milk.[7,8]

References. 1. Kainonen E, *et al. Br J Nutr.* 2013;109(11):1962–1970. **2.** Walker A. *J Pediatr.* 2010;156(Suppl 2):S3–S7. **3.** Flom JD, Sicherer SH. *Nutrients.* 2019;11(5):E1051. **4.** Oddy WH. *Ann Nutr Metab.* 2017;70(Suppl 2):26–36. **5.** Lifschitz C, Szajewska H. *Eur J Pediatr.* 2015;174(2):141–150. **6.** Jo J, *et al. Mediators Inflamm.* 2014;2014:249784. **7.** Triantis V, *et al. Front Pediatr.* 2018;6:190. **8.** Castanys-Muñoz E, *et al. Adv Nutr.* 2016;7(2):323–330.

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WELCOME

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EDITOR'S LETTER

Welcome to the latest edition of Scottish Pharmacy Review!

It feels strange to be writing this letter. As I tap on my laptop keys, I'm shielded by the safety of my kitchen walls, yet those I'm seeking to address – you, our readers – are currently on the frontlines of this terrifying pandemic; courageously protecting, assisting, and saving countless lives.

Although I know that the gratitude I can express to all of you will never match the enormity of your efforts, and so much now is trivial in comparison to them, it feels equally as wrong to sweep over COVID-19 in this letter. It's what everybody is talking about – what is flooding our phone screens – what is dictating a new normal for our daily lives. We have had to adjust, distance, and for you, sacrifice so much for those suffering.

What has personally been helping me through this descent into the unknown is keeping tabs on the things that bring me light – that break through the darkness and present hope for when the world opens back up again. Here are just a few:

1. Although conditions are forcing us to physically distance from one another, I've never felt as connected to people. From using video technology to stay in touch with my loved ones, to exchanging personal stories and worries via email with this issue's contributors, the unity is palpable.

2. One of my favourite quotes in times of distress is from the late Fred Rogers, 'Look for the helpers. You can always find people who are helping.' And finding helpers and volunteers during the COVID-19 crisis couldn't be easier. In fact, Scotland's recruitment drive registered a speedy and mammoth response.

3. Having learned of just some of the innovative potential of the sector as Editor of SPR, I am comforted by the acceleration of scientific developments centring on COVID-19 – and the determination of those at the helm of them.

4. Never has it been more evident that in spite of our profession, age, or circumstances, we can all play our part. Children are inking posters of support for their NHS neighbours; people are stitching and donating protective equipment to local hospitals; tradesmen are volunteering their vans and time to deliver essential items to the vulnerable.

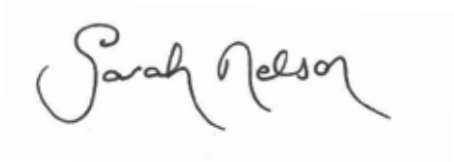
In this edition – a pandemic special – we are aiming to bring you the latest professional information, advice, and updates to help you navigate this unprecedented time.

We delve into just some of the modes of action taken to curtail the spread of COVID-19 across Scotland (page four), and how The Pharmacists' Defence Association are drawing attention to the Personal Protective Equipment needed in community pharmacy (page seven).

Elsewhere, the Medical Defence Union present some of the changes to practice (page 14), while the British Heart Foundation explore the risk of coronavirus for those with heart and circulatory disease (page 11).

We hope that our raft of other features and topics also grant you some light and interest – including a showcase of the extraordinary work conducted by the second half of the Scottish Pharmacy Awards winners (beginning on page 19).

Take care – and thank you.



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We wanted to say a special thank you to pharmacy teams up and down the UK who are on the front lines, ensuring that patients continue to receive their medicines.

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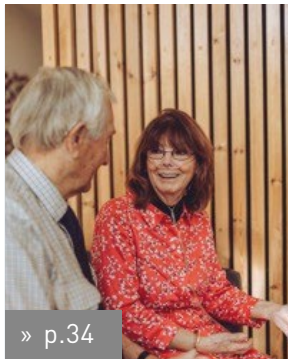
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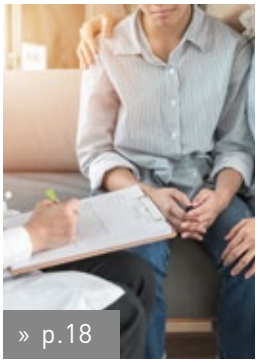
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COVID-19: A CRISIS IN MOTION

Sweeping through the world and thrusting a torrent of panic and fear upon populations – as well as unprecedented pressures on critical healthcare services – the COVID-19 crisis continues. SPR recaps some of the major pandemic-centred developments across Scotland thus far, from the initial confirmed case, to the concerted efforts to protect the public.

THE EARLY STAGES

When did the virus first descend upon Scotland and subsequently pick up pace?

Although we could be forgiven for believing that the COVID-19 situation in Scotland has been spiralling for a greater period of time, it was only a few months ago – at the very beginning of March – when the testing of a patient resulted in the first positive test for coronavirus.

The patient was reported as a resident of the Tayside area and had travelled from Northern Italy.

Commenting at the time, First Minister Nicola Sturgeon said, 'Our first thoughts must be with the patient diagnosed with coronavirus, I wish them a speedy recovery.

'Scotland is well-prepared for a significant outbreak of coronavirus but there is currently no treatment or vaccine. Early detection measures will continue to be vital in helping to prevent the spread of the virus.'

Following this reveal, the rate of those directly impacted by the virus soon accelerated. At the time of going to print, the total confirmed COVID-19 cases in Scotland has reached more than 15,000 – while the tragic number of COVID-19-related deaths is now 2,304.

TAKING ACTION

SPR rounds up a few of the main measures which have been implemented with the aim of curtailing the rate of the COVID-19 spread in Scotland, as well as bolstering support for both the public and the sector.

THOUSANDS COME FORWARD TO HELP IN COVID-19 EMERGENCY

Consistent efforts to ensure sufficient patient care throughout the surge has included a rigorous push to recruit former healthcare professionals and volunteers into the health and social care workforce. Garnering an immediate and effective response, more than 22,000 students and returning health and social care workers have come forward to support the NHS during the coronavirus outbreak.

The figure includes nearly 7,000 students in nursing and midwifery, medicine and the allied health professions and scientific disciplines. In addition, there are almost 3,000 former social care workers, professionals and experienced healthcare workers who have returned from career breaks and retirement, and individuals joining the NHS from the independent sector.

Applicants are being held on a list, with Protecting Vulnerable Groups and Disclosure checks being fast-tracked to allow new recruits to take up posts as soon as possible.

Offers of employment are being made across NHS Scotland, with more than 160 applicants ready to be deployed and more than 3,600 returners in the process of completing their pre-employment checks.

ENHANCED ROLE FOR COMMUNITY PHARMACISTS

The emergence of new COVID-19 cases has resulted in community pharmacists adopting increasing responsibility in the communities they serve. In light of the profession's heightened input during the outbreak, interventions have been implemented in order to help pharmacists feel further empowered.

Pharmacists have been able to support more patients, reducing the pressure on other parts of NHS Scotland through the extension of the Minor Ailment Service, while the Scottish government also accelerated plans to expand access to Emergency Care Summary data, which mainly contains medication information, to pharmacists. Health boards have been asked to provide access to this information to pharmacists and pharmacy technicians working in communities.

More than 1,000 community pharmacies have been providing a range of NHS pharmaceutical care services on behalf of the NHS in Scotland.

Health Secretary Jeane Freeman explained, 'The vital work of community pharmacies up and down the country is key in ensuring that we continue to reduce the burden across the NHS, and patients continue to get the necessary medicines they need to stay healthy.

'Many people visit a community pharmacy every day, with these

numbers increasing in the current COVID-19 outbreak. This makes them the most accessible healthcare professionals on the frontline of community health services, and a valuable resource to NHS Scotland.

'Strengthening the role of pharmacists, and easing some of the pressure from frontline NHS services, is therefore an important step in our wide-ranging response to the current crisis.'

EXPANSION OF MENTAL HEALTH SUPPORT

As the situation evolves, never has it been more important to equip people in need across Scotland with vital, trusted advice.

In response to this urgent requirement – and adapting to the new challenging conditions – additional support to help people look after their mental health and wellbeing during and after the coronavirus pandemic was announced by First Minister Nicola Sturgeon.

The support has incorporated an investment of more than £1 million towards the expansion of the Distress Brief Intervention (DBI) programme to help people in distress, and the launch of a new mental health marketing campaign across television, radio, print and online.

The DBI programme – which was previously operating in four pilot areas – is now rolling out across Scotland, offering people over the age of 16 who are in emotional distress due to COVID-19 the opportunity to speak to specially trained staff. People who are in distress but do not need clinical intervention will be referred to the DBI programme by frontline staff, including NHS 24.

The first phase of the new mental health campaign centres on the provision of practical advice on coping with the current restrictions. Signposting to existing advice will be included and those who need extra support will be directed to NHS Inform as a key information resource and helplines operated by NHS 24, Breathing Space, SAMH and Samaritans.

The new mental health marketing campaign will respond to the public's needs by moving into a second phase focused on resilience, and a third phase for when restrictions are lifted and we re-emerge into society.

WHAT'S NEXT?

With so much still shrouded in uncertainty at this time, research is playing a crucial role in depicting how things may proceed in the weeks and months to come. SPR takes a look at how Scotland is cultivating and contributing much-needed findings.

MORE THAN 50 SCOTTISH STUDIES TO TACKLE VIRUS AND ITS IMPACT

Research projects to increase the understanding of coronavirus, screen potential treatments, and support clinical trials, will benefit from almost £5 million of Scottish government funding.

The money will support 55 rapid research projects in 15 Scottish universities and research institutions, contributing to global efforts to combat the virus and its wider effects, including research to:

- Better understand the effects of infection
- Develop and test new diagnostics and treatments
- Investigate new disease surveillance approaches
- Inform interventions to prevent transmission of infection
- Support the mental health of frontline health and social care workers
- Understand the physical and mental health implications of lockdown measures

Chief Scientist for Health, Professor David Crossman, explained further, 'The range of projects – both scientific subject areas and the different research institutions – that are receiving funding will help us understand many aspects of this terrible disease. The projects selected for funding all aim to give results as quickly as possible.

'Scotland is in a strong position to undertake clinical research and the response from universities and research institutions to this COVID-19 research call emphatically reinforces that view.'

DETAILED 3D MODEL OF SARS-COV-2 REVEALED

As the world races to understand more about SARS-CoV-2, the virus responsible for the COVID-19 pandemic, scientists are gaining increasing amounts of information about the viral components that make up the infectious particles.

While each new discovery on the virus provides scientists and governments with vital new information on SARS-CoV-2, none of them are able to give a clear overall image of the virus particles that can infect us. Now, a collaboration between experts has created one of the most detailed 3D models of both the interior and the exterior of the SARS-CoV-2 virus particle.

The collaboration includes Annabel Slater, a freelance scientific Illustrator and graduate of The Glasgow School of Art – University of Glasgow Masters in Medical Visualisation and Human Anatomy; scientists at MRC-University of Glasgow Centre for Virus Research; and experts from the School of Simulation and Visualisation at the GSA. The striking new images and videos are available to see on the UK Research and Innovation (UKRI) COVID-19 website, Coronavirus Explained.

Piecing together the complex scientific jigsaw of all the known details about this new coronavirus so far, the cross-disciplinary team have created a series of striking images and videos. They are one of the first and most detailed 3D representations of the virus particles.

It was possible to create the detailed illustrations so quickly, thanks to a long-standing collaboration between the University of Glasgow and The Glasgow School of Art. By visualising existing data about the particles that transmit COVID-19, it's hoped that this model will provide a valuable resource for anyone who wants to have a mental image of the invisible agent behind the current pandemic.

Dr Ed Hutchinson, research fellow at the CVR who led the virology work in this project, said, 'No single experiment can directly produce a detailed image of a SARS-CoV-2 virus particle. Not only are they incredibly small, like all viruses, but they are also irregular – every virus particle is slightly different from the next – and getting detailed information requires each component of the virus to be studied in isolation.

'Fortunately, for several years we've worked with students doing projects for the MSc in Medical Visualisation and Human Anatomy, including Naina Nair who developed one of the most detailed models of the influenza virus particles – which are also very irregular, and then found ways to use those models for science communication.

'When the current pandemic began, Annabel got in touch and asked if we could collaborate on a model of the SARS-CoV-2 virus particle. As a graduate of the MSc programme herself, she was able to quickly pick up the methods needed to build a model of the virus, working with us to interpret a set of data that combined the most up-to-date studies of SARS-CoV-2 with 'missing information' from studies of related viruses.'

COVID-19 NEWS

MARS SCIENTISTS DEVELOP VENTILATOR TO HELP COVID-19 EFFORT

Space scientists have used their expertise in the development of life support systems for manned space missions to build a ventilator for use in the fight against COVID-19.

The Planetary Science Group, based at the University of Aberdeen's School of Geosciences, have established the device in response to worldwide efforts to produce more ventilators to treat COVID-19 patients.

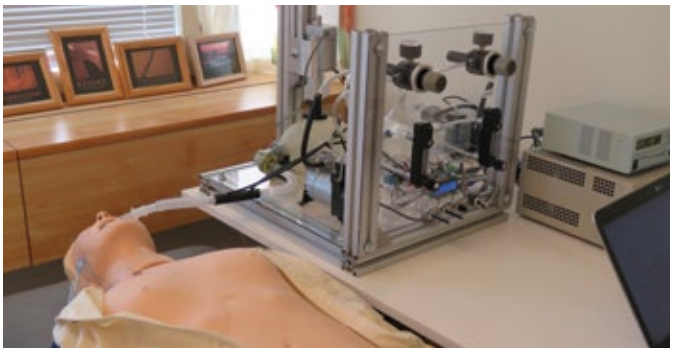
Using certified and low-cost components which are commercially available for common use on Earth, the scientists believe that the device – known as ATMO-Vent (Atmospheric Mixture Optimisation Ventilator) – is quicker to build, more cost-effective, and more user-friendly than any other model currently in development.

They are now working to have the device officially certified, so that it can be rapidly deployed in healthcare settings worldwide. The design team are led by Professor Javier Martín-Torres, who heads the Planetary Science Group.

He explained, 'As a multidisciplinary research group specialising in Martian study, we have a wealth of experience in building, calibrating and qualifying space instruments using commercial components.

'We've used this expertise to design and build a fully operating prototype ventilator using widely-available parts. This means that it is easy to build and ideally suited to rapid, mass deployment in healthcare settings. This will be especially useful in countries with underdeveloped healthcare infrastructure.

'The ATMO-Vent has been designed to comply with UK regulatory guidelines, and we are now in the testing phase as we seek industrial and healthcare partners to collaborate with us on its continued development.'



UNIVERSITY TO SUPPORT NHS BY TESTING COVID-19 SAMPLES

Scientists, laboratory space and equipment from the University of Edinburgh are being used to support NHS Lothian's testing efforts to combat the COVID-19 pandemic.

A pool of 25 scientists from across the university – selected from more than 750 volunteers – will support NHS Lothian staff in delivering up to 1,000 additional tests per day.

Testing will be taking place in the laboratories of the university's Institute of Genetics and Molecular Medicine at the Western General Hospital.

Tests will be to diagnostic standards, fully integrated into NHS systems and under NHS Lothian oversight. Results will be available directly to NHS Lothian clinical staff within 24 hours.

In addition to providing NHS Lothian with scientific expertise and laboratory space, the university will supply key reagents – special chemicals used to detect the presence of coronavirus – and testing machines.

Scientists will use real-time polymerase chain reaction machines to identify the active presence of the virus in people who are symptomatic for the disease. University research scientists are being trained and supervised by NHS Lothian Laboratory Medicine personnel. Several similar hybrid university-NHS testing centres are in development in other Scottish universities that will also operate under NHS oversight.

University of Edinburgh Vice-Chancellor and Principal, Professor Peter Mathieson, said, 'The University of Edinburgh is making numerous contributions to the response to COVID-19 and I am delighted to see this latest example. Our collaboration with the NHS will always be vitally important to us and we are pleased to be helping to bolster testing capacity. My sincere thanks to everyone involved.'

EMERGENCY FOOD PACKS DELIVERED ACROSS TAYSIDE TO VULNERABLE STUDENTS

Over 300 food and care packages have been delivered to students facing financial hardship during lockdown.

Dundee University Students' Association (DUSA) and the university's own Student Services Team have been working together over the past few weeks to help vulnerable students and their families get through lockdown by providing emergency care packs.

All of the emergency care packs have been packaged by a small group of staff and volunteers and supplied by the campus Premier shop, which opened especially to help with the effort.

Students that reached out for support from Student Services and DUSA were given collection times for their emergency packs and some were even delivered across Tayside to students unable to travel due to self-isolation.

The care packs contain everything from basic foodstuffs to cleaning products, and have benefitted hundreds of vulnerable students stuck at home. Any students coming to collect their packs in person followed strict social distancing to ensure the safety of all staff and students.

Lauren Macgregor, Vice President of Student Welfare at DUSA, commented, 'The students I've seen while delivering the packs have been so grateful, and I think knowing that they're part of a university that cares so deeply really reminds us of our strong community.

'This is different to any other welfare campaign I've been involved in and it's fantastic to see the direct benefit of all the hard work everyone has put in.

'Working in collaboration with Student Services has been absolutely essential in making sure every student that needs our help can be supported.'

Support for students facing financial hardship or isolation will continue with more packages being put together for distribution in the coming weeks.

COVID-19: TAKING NOTE

The Pharmacists' Defence Association have written direct to the Scottish government's Cabinet Secretary for Health and Sport, Jeane Freeman MSP, requesting that she intervene to provide the Personal Protective Equipment needed in community pharmacy in Scotland.

Dear Cabinet Secretary,

We represent more than 30,000 pharmacists throughout the UK.

On their behalf, we would like to thank you and the First Minister for your recognition of pharmacists on social media. It is often easy for healthcare workers to be collectively referred to as 'doctors and nurses' in political shorthand. The reality as a result of COVID-19 is that many healthcare professionals are on the frontline – and we are keen to highlight that pharmacists in particular are as exposed as GPs, if not more so.

As hundreds of GP surgeries close their doors to patients, providing only pre-screened and, in many cases, virtual appointments, pharmacists have become the frontline and have maintained their accessibility to the public. As the most accessible healthcare setting it is under increasing pressure to provide advice in addition to medicine distribution. Despite the efforts of the Scottish and UK governments, Health Protection Scotland (HPS) and the NHS, patients are still going into pharmacies and displaying symptoms of COVID-19.

We are concerned therefore that community pharmacy is not being provided with the necessary Personal Protective Equipment (PPE) to protect the pharmacy teams and that the advice issued by HPS is not sufficient to protect those working in pharmacy. The advice from HPS would be appropriate in normal times where many pharmacists would have limited physical contact with patients and could utilise PPE in those circumstances as per the advice. But we are not in normal circumstances. The frontline is not general practice; it is now in community pharmacy where there has been more than a 30 per cent increase in visits by patients in this last week alone.

We are increasingly concerned at the risks being faced by our members and others in the pharmacy team, from patients with COVID-19, whether they have symptoms or not, and the inevitable contamination of surfaces and products in the retail environment. If pharmacies are unable to operate because of self-isolation of staff, it will become impossible for the government to deliver on its support to the public and especially those who are vulnerable and shielding. Some community pharmacies have taken their own decisions to issue all staff with masks, gloves and aprons. They have erected plastic screens at the counter and limited the number of customers who can be in the store as well as requiring them to maintain a safe distance from pharmacy staff and each other.

To add to those pressures, some employers are failing to recognise the risks facing employees, with one pharmacist recently exposing the instructions of a regional manager that 'no masks or gloves are to be worn under any circumstances'. This failure to protect pharmacy staff cannot be allowed to continue. In contrast, Boots for example, have made clear that they will be providing PPE to staff with additional resources having been ordered.

The HPS advice to Ministers does not take account of the reality in many pharmacies today. Dispensaries are often too small to allow for social distancing, especially where extra staff are in place to deal with the massive increase in workload. For many staff, the increased risk is adding to their fear for themselves, their families and patients. This impact on morale is unsustainable at a time when pharmacy services are so desperately needed.

It is not only the pharmacists and their teams for whom we are raising concerns. Should a pharmacist catch the virus this places all of their subsequent patients at greater risk, and with the longest queues and the highest volume of dispensing on record community pharmacists are among those individuals who are now interacting with more people than at any other time.

It is also worth noting that anecdotally we are receiving information that where employers are supporting the wearing of PPE, especially masks, patients are changing their behaviour as they now see the staff as healthcare professionals, rather than retailers. This is helping to reinforce the role of community pharmacy during this crisis and becomes a consistent message especially when all other retailers bar essential providers have been required to close. It is vital that pharmacy is seen by patients as a core part of the health service.

We ask that you help to end this inconsistent approach to the protection of the pharmacy workforce and we urge you to ensure that all pharmacies receive sufficient quantity and quality PPE to protect them from infection and to ensure that HPS revises its guidance to take account of the risks now being faced by pharmacists in reality. This is not the time for community pharmacy to be the poor relation of frontline healthcare support.

We stand ready to support the government and the NHS to ensure our members do all that they can to protect and support patients. We ask you do all you can to support our members and their colleagues too.

Yours sincerely,

Mark Koziol B.Sc (Hons) D.Sc (Hon) M.R.Pharm.S. Chairman

Cc: Professor Mahmood Adil – Health Protection Scotland

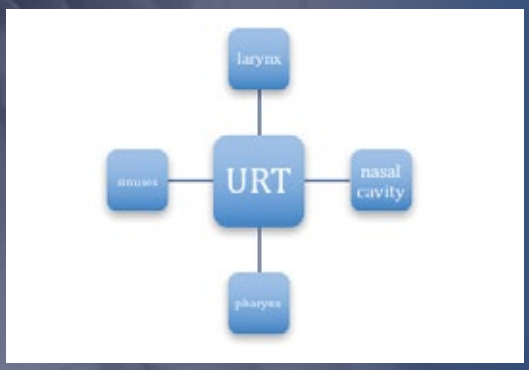
Rose Marie Parr – Chief Pharmaceutical Officer for Scotland

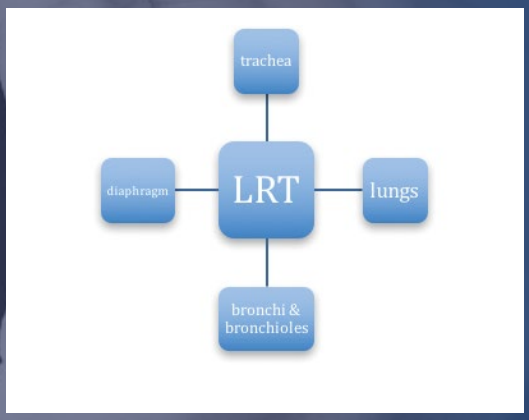
RESPIRATORY

NOSOCOMIAL LOWER RESPIRATORY TRACT INFECTIONS

Respiratory tract infections have garnered a huge amount of media attention recently with the global outbreak of COVID-19, however, they have always been at the forefront of infections faced by both primary and secondary healthcare professionals. SPR finds out more.

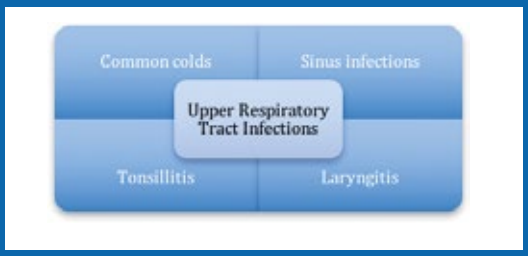
Respiratory tract infections can be divided into upper respiratory tract infections (URIs) and lower respiratory tract infections (LRIs). The upper respiratory tract consists of the nasal cavity, sinuses, larynx and pharynx while the lower respiratory tract is made up with the trachea, bronchi/ bronchioles, diaphragm and lungs.

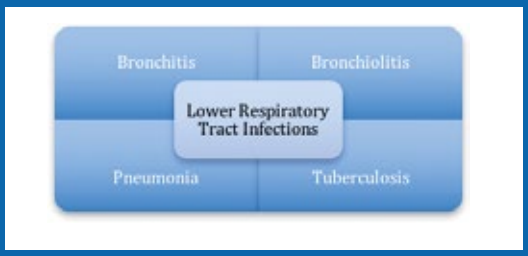




With LRIs being the fifth leading cause of death worldwide they are significantly more severe than URIs. LRIs will usually have coughing as the primary symptom and are caused by one of four organisms – viruses, bacteria, funghi and mycoplasma. Having said this, bacteria are the dominant pathogens accounting for the highest percentage meaning the majority of patients can be treated successfully with antibiotics.

Examples of both can be illustrated below:

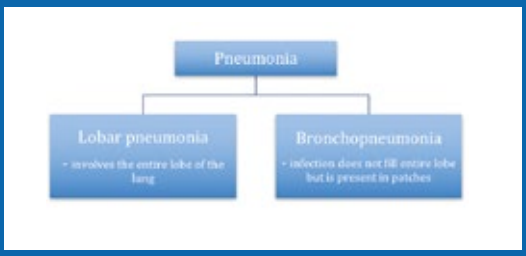




Nosocomial lower respiratory tract infections (NLRTIs) are ones that originate in either a hospital or care home setting. Due to where they are contracted the patients are usually vulnerable being either elderly or having a lowered immune system. NLRTIs have a history of being underappreciated causes of morbidity and mortality in both paediatric and adult patients.

The most serious NLRTI is hospital-acquired pneumonia (HAP). This can be described as pneumonia that occurs 48 hours or more after hospital admission and is not incubating at hospital admission. HAP can be segmented into early onset and late onset – early onset being within the first four days of admission and late onset five or more days after. HAP not only has a detrimental affect on the patient but also the resources available to the local hospitals as it usually increases hospital stays by seven to nine days.

Pneumonia can be characterised as the inflammation of the lung parenchyma with early symptoms consisting of a cough, chest pain, fever, shortness of breath and an increased production of sputum. For this reason, in this current climate, some of the symptoms are similar to that of COVID-19, which can be extremely difficult for a healthcare professional to differentiate. Pneumonia can be further sub-divided into two types:



One treatment for HAP is IV fosfomycin – a phosphonic acid derivative (cis-1,2-epoxypropyl phosphonic acid) known to have low levels of toxicity and a low rate of adverse effects. The majority of adverse effects reported involves the gastrointestinal tract and skin and normally do not require cessation of treatment.

Fosfomycin's low molecular weight and relatively long half-life allows it to penetrate various tissues (including inflamed tissue) with ease therefore allowing it to inhibit the growth of many Gram-positive and Gram-negative bacteria.

IV fosfomysin is indicated for NLRTIs when first line treatment is either not recommended or ineffective. The usual dose is 12-24g daily in 2-3 divided doses (maximum of 8g per dose). For patients with a severe infection or when it is thought their infection is caused by a less sensitive organism, the high does regimen should be used. It must be noted that throughout treatment, the patient's electrolyte and fluid balance must be closely monitored.

Preparation of the solution for infusion

Potency	Reconstitution (1) → stock solution	Dilution (2)	Ready-to-use solution	Rate of infusion	Infusion time (brief infusion)
Fomicyt 2g	+ 20 ml*	+ 30 ml*	approx. 40-60 ml	3.5 ml/min	at least 15 min.
Fomicyt 4g	+ 20 ml*	+ 80 ml*	approx. 100 ml	3.5 ml/min	at least 30 min.
Fomicyt 8g	+ 40 ml*	+ 160 ml*	approx. 200 ml	3.5 ml/min	at least 60 min.

Name and active ingredients: Fomicyt 40 mg/ml powder for solution for infusion. One ml of reconstituted solution contains 40 mg fosfomycin. 2 g presentation: Each bottle with 2.69 g of powder contains 2.64 g disodium fosfomycin, corresponding to 2 g fosfomycin and 0.64 g sodium, for reconstitution in 50 ml of solvent. Fomicyt 4 g presentation: Each bottle with 5.38 g of powder contains 5.28 g disodium fosfomycin, corresponding to 4 g fosfomycin and 1.28 g sodium, for reconstitution in 100 ml of solvent. Fomicyt 8 g presentation: Each bottle with 10.76 g of powder contains 10.56 g disodium fosfomycin, corresponding to 8 g fosfomycin and 2.56 g sodium, for solution in 200 ml of solvent Indications: Treatment in adults & children including neonates: osteomyelitis, complicated urinary tract infections, nosocomial lower respiratory tract infections, bacterial meningitis, bacteraemia that occurs in association with, or is suspected to be associated with, any of these infections. Fomicyt should be used only when it is considered inappropriate to use antibacterial agents that are commonly recommended for the initial treatment of the infections listed, or when these agents have failed to demonstrate efficacy. Consideration should be given to official guidance on the appropriate use of antibacterial agents. Dosage and administration: Daily dose is determined based on the indication, severity and site of the infection, susceptibility of the pathogen(s) to fosfomycin and the estimated creatinine clearance. In children, it is also determined by age and body weight. For adults and adolescents 12 years, > 40 kg and with normal renal function (creatinine clearance > 80 ml/min): osteomyelitis 12–24 g in 2–3 divided doses, complicated urinary tract infection 12–16 g in 2–3 divided doses, nosocomial lower respiratory tract infection 12–24 g in 2–3 divided doses, bacterial meningitis 16–24 g in 3–4 divided doses. Individual doses must not exceed 8 g. Dose reductions in patients with renal impairment are required. Paediatric population; Dose recommendations are based on very limited data. Neonates, infants and children <12 years of age (<40 kg) the dosage should be based on age and body weight. Method of administration: Intravenous infusion only. The solvent must be water for injections, 5% or 10% glucose infusion. The duration of infusion should be at least 15 minutes for the 2 g pack size, at least 30 minutes for the 4 g pack size and at least 60 minutes for the 8 g pack size. Contraindications: Hypersensitivity to fosfomycin, or to any of the excipients. Special warnings and precautions: Consideration should be given to co-administering intravenous fosfomycin with another antibacterial agent. Caution advised in patients with cardiac insufficiency, hypertension, hyperaldosteronism, hypernatraemia or pulmonary oedema. One bottle of Fomicyt 2 g contains 28 mmol (640 mg) sodium. One bottle of Fomicyt 4 g contains 56 mmol (1280 mg) sodium and one bottle with 8 g of fosfomycin contains 111 mmol (2560 mg) sodium. A low-sodium diet is recommended during treatment. Potassium substitution may be necessary in some cases. Serum electrolyte levels and water balance must be monitored. Acute, potentially life-threatening hypersensitivity reactions (anaphylactic shock) may occur in very rare cases. Antibacterial agent-associated colitis and pseudo-membranous colitis have been reported. It is important to consider this diagnosis in patients presenting with diarrhoea during or subsequent to administration of Fomicyt. During prolonged treatment with high doses, blood potassium levels should be monitored in particular in digitalized heart failure patients. Interactions: No drug-drug interaction studies have been performed with Fomicyt. No clinically relevant pharmacological interactions between fosfomycin and other agents have been reported. In-vitro tests have shown that the combination of fosfomycin with a β-lactam antibiotic such as penicillin, ampicillin, cefazolin or the class of carbapenems, usually shows an additive to synergistic effect. The same applies to the combination of fosfomycin with most anti-staphylococcal (linezolid, quinupristin/dalfopristin, moxifloxacin) agents in the treatment of staphylococcal infections. The combination of fosfomycin with aminoglycosides has predominantly indifferent to additive effects. Undesirable effects (see SmPC for full details): Common: Retching, stomach ache, injection site phlebitis, hypernatraemia and/or hypokalaemia, erythematous eruption. Uncommon: decreased appetite, oedema, dysgeusia, headache, vertigo, dyspnea, nausea, vomiting, diarrhea, rash, fatigue, transient increases in blood alkaline phosphatase, aspartate aminotransferase and alanine aminotransferase. Rare: aplastic anaemia, eosinophilia. Very rare: anaphylactic shock, visual impairment, fatty liver (reversible on withdrawal). Unknown frequency: agranulocytosis, granulocytopenia, leucopenia, pancytopenia, thrombocytopenia, neutropenia, confusion, tachycardia, asthmatic attack, pseudomembranous colitis, hepatitis, cholestatic hepatitis, icterus, gamma-GT increased, angioedema, facial oedema, pruritus, urticarial. Pack size: 30/50/100 ml clear glass bottle with rubber stopper and pull off cap containing 2 g, 4 g or 8 g. Date of preparation: January 2019

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COVID-19 NEWS

SUPPORT FOR LOCAL CARE HOMES AND NHS STAFF

A wide range of actions have been taken to support the safety and wellbeing of care home residents and staff across Forth Valley during the COVID-19 pandemic.

Cathie Cowan, Chief Executive of NHS Forth Valley, acknowledged the excellent partnership working, led by the two Health & Social Care Partnerships and supported by the NHS board, at a recent board meeting which was conducted by teleconference.

NHS Forth Valley has carried out an initial assessment on all 66 care homes in the area to ensure that local staff are aware of infection control procedures and the safe use of Personal Protective Equipment (PPE).

A daily care home meeting, chaired by Jennifer Champion, NHS Forth Valley Consultant in Public Health Medicine, is now taking place to identify and address any emerging issues or concerns. A multidisciplinary Outbreak Mobilisation Team have also been established in order to respond to and manage any future outbreaks of COVID-19 in local care homes.

Additionally, dedicated mobile testing teams have been implemented so that appropriate infection control and isolation measures can quickly be put in place for any care home staff or residents with positive test results. Local care staff have access to nursing, medical and pharmacy support, as well as ongoing public health advice, to help prevent the spread of infection. The two Health & Social Care Partnerships in Forth Valley are also working closely with NHS Forth Valley to support local care home staff and ensure that they continue to receive regular supplies of PPE from local hubs.

UNDERSTANDING THE 'SYMPTOM-LESS' COVID-19 CARRIERS KEY TO STOPPING SPREAD

Lockdowns will not create enough herd immunity to control and eradicate COVID-19, but the measure is probably our best approach while we wait for a vaccine or faster and more thorough mass testing, according to physicists at the University of Aberdeen.

They have estimated that in the specific outbreaks they modelled, only around eight per cent of the population will have been exposed to the infection which they have said will not lead to the levels of herd immunity required. They have reported that testing, including those showing no symptoms, is essential to combat the spread of COVID-19.

The paper, by Dr Francisco J. Pérez-Reche and Professor Norval Strachan, has yet to be peer reviewed but can be downloaded from medRxiv – the preprint server for health services.

The researchers constructed a mathematical model based on tested and untested infectious individuals using data from the early stages of the outbreak in Germany, Italy, Spain, UK and the Hubei province in China.

The team found that the predicted percentage of untested individuals, who may be 'silent carriers' of the infection, was 50-to-80 per cent of the cases in these areas.

Combining their predictions with studies in Iceland and the Diamond Princess cruise, the researchers have concluded that people who have the infection but display no symptoms are likely to be the main contribution to the 'untested cases' figure in all analysed outbreaks, however a fraction of cases with mild symptoms are also likely to be untested.

PUBLIC URGED TO LOOK AFTER ONE ANOTHER DURING PANDEMIC

People helping those in their communities affected by COVID-19 are being encouraged to carry on while following advice to keep themselves and others safe.

The Scottish government's Caring Communities Campaign will celebrate the help people are already giving each other, and encourage safe and effective assistance, like keeping in touch, shopping, picking up prescriptions and running errands for those who are unable to.

Communities Secretary Aileen Campbell explained, 'Together we can help each other through the challenges ahead and our Caring Communities Campaign will recognise the efforts of people from across Scotland who are supporting and helping others.

'It's been inspiring to hear how people have responded to this pandemic by offering help to those around them. Whether that's been formally volunteering or informally helping out neighbours and friends, we all have a part to play in supporting those around us, however we want to make sure that is done in a safe and effective way.

'There are lots of ways to help while minimising or avoiding face-to-face contact, including shopping, picking up prescriptions and medicines, general errands or a daily phone call to stay in touch. People can also offer help without the need for direct contact such as using social media to arrange activities and putting people in touch with other services or charities if there is need for further support.'

National Clinical Director for the Scottish government, Jason Leitch, added, 'At times of crisis, we need each other more, yet we need to stay physically apart. We can still communicate and offer comfort. Phone or Skype loved ones. Text neighbours or drop a note through their door to see if they need help. Maybe even write a letter to your grandparents. We are all in this together.'

COVID-19: THE HEART OF THE MATTER

The medical experts from the British Heart Foundation explore the potential impact of COVID-19 on people with heart disease – and offer an insight into the questions most likely to be posed by your patients

WHAT IS CORONAVIRUS AND WHAT IS COVID-19?

Coronaviruses are a large group of viruses that are responsible for different illnesses, including the common cold, so many of us have had a coronavirus before. However, the virus that is causing the current outbreak was described as 'novel' because it had not been identified previously in humans. It is named COVID-19. This specific outbreak started in animals and then transmitted to humans.

WHAT ARE THE SYMPTOMS OF CORONAVIRUS?

The main symptoms to watch out for are a cough and fever, as well as shortness of breath. If an individual experiences any of these symptoms, no matter how mild, it's important that they self-isolate for seven days and follow the government's advice. If they live with other people, they should stay at home for 14 days from the day the first person got symptoms.

ARE PEOPLE WITH HEART AND CIRCULATORY DISEASE AT INCREASED RISK OF CORONAVIRUS?

The majority of people diagnosed with coronavirus (COVID-19) have mild symptoms and make a full recovery. However, early indications are that people with heart and circulatory diseases are at risk of a more severe illness which could require admission to hospital.

If their symptoms become significant or get worse, they should call 111 in line with the government's advice.

IF THE INDIVIDUAL HAS A HEART OR CIRCULATORY CONDITION, WHAT SHOULD THEY DO TO AVOID CORONAVIRUS?

It is thought that COVID-19 is spread by coughs and sneezes. It can also be spread if you touch a surface or object that has the virus on it and then touch your face.

The current advice says that if you are over 70 years old, pregnant, or under 70 years old and have a long-term underlying health condition, you should take extra care.

This includes people with:

- Chronic heart conditions
- Stroke
- Diabetes
- High blood pressure (hypertension)
- Lung disease
- Chronic kidney disease

If an individual has received a heart transplant and are on immunosuppression medication, social distancing is especially important.

WHAT ELSE CAN HEART DISEASE PATIENTS DO TO REDUCE THEIR RISK OF CORONAVIRUS?

Patients may be able to protect themselves further if they follow the advice provided by the NHS and the government.

- Stay at home according to government guidelines
- Wash your hands with soap and water often – do this for at least 20 seconds
- Cover your mouth and nose with a tissue or your sleeve (not your hands) when you cough or sneeze

Continued onto next page

• Put used tissues in the bin immediately and wash your hands afterwards
• Try to avoid people who cough and sneeze or who you know are currently unwell with the symptoms
• It's still really important for the patient to carry on taking any medication they have been prescribed, even if they feel unwell. They should get someone to collect their prescriptions from the pharmacy if necessary

IF A PATIENT HAS HEARD THAT THEIR HIGH BLOOD PRESSURE OR THEIR BLOOD PRESSURE MEDICATIONS COULD CAUSE MORE SEVERE CORONAVIRUS INFECTION, SHOULD THEY STOP TAKING THEIR BLOOD PRESSURE TABLETS?

We'd strongly advise people to continue taking all their medications unless advised differently by their doctor.

It's understandable that newspaper headlines like this can make people feel uncertain about their blood pressure and heart failure medicines, especially at such an unsettling time. The medical profession has a number of expert groups who have reviewed the scientific information and they are agreed that there is a lack of evidence to support speculation that ACE inhibitors and angiotensin receptor blockers (ARBs) increase the chances of severe COVID-19 infections.

What is clear, is that stopping your medication could be very dangerous and could make your condition worse. These drugs are very effective for heart failure, and to control high blood pressure to help prevent a heart attack or stroke. It's really important that people continue to take them as prescribed, unless advised differently by their doctor.

WHAT SHOULD PATIENTS WITH CONGENITAL HEART DISEASE DO?

It's important for everyone to follow the most up-to-date government and NHS advice on avoiding infection, when to self-isolate and for how long, including children and adults with congenital heart disease.

Congenital heart disease comes in many different forms and many patients may have mild COVID-19 symptoms, just like everyone else.

According to specialists, congenital heart disease patients that are at particular risk of more severe COVID-19 illness include those that are over 70, have lung disease, complex congenital heart disease, pulmonary hypertension or heart failure. The risk to children from coronavirus is lower, and the main concern is that children may spread the virus to more vulnerable groups.

Individuals should contact their specialist nurse or specialist centre for specific advice on their child if they have additional concerns, and continue to check any new advice from the government.

At this stage all congenital heart disease patients, including children, should follow the same advice as other high-risk groups and be extra vigilant. If they experience COVID-19 symptoms and they get worse, they should contact 111 in line with the government's advice.

The British Heart Foundation recommend that everybody closely follows the advice provided on the NHS and government webpages, as they are updating their information daily. If those living with heart and circulatory diseases, or its risk factors, would like to speak with a cardiac nurse, they can contact the British Heart Foundation's helpline.

For more information, visit www.bhf.org.uk.

REMOTE PERSONAL ECG MEASUREMENT BEING USED IN THE US TO MITIGATE THE RISK OF DRUG-INDUCED VENTRICULAR ARRHYTHMIAS

As the COVID-19 pandemic rages across the globe, the race to prevent and treat this deadly disease has led to the 'off label' re-purposing of drugs, such as hydroxychloroquine and lopinavir / ritonavir, with the potential for unwanted QT interval prolongation, and a risk of drug-induced sudden cardiac death.

The QTc is a heart rate corrected interval that reflects the integrity of the heart's electrical recharging system. Abnormal prolongation of the QTc can stem from congenital long QT syndrome, many disease states, electrolyte abnormalities. Patients with a prolonged QTc are at greater risk for their hearts to go into a potentially dangerous arrhythmia called Torsades de Pointes which can lead to sudden cardiac arrest and even worse, SCD.

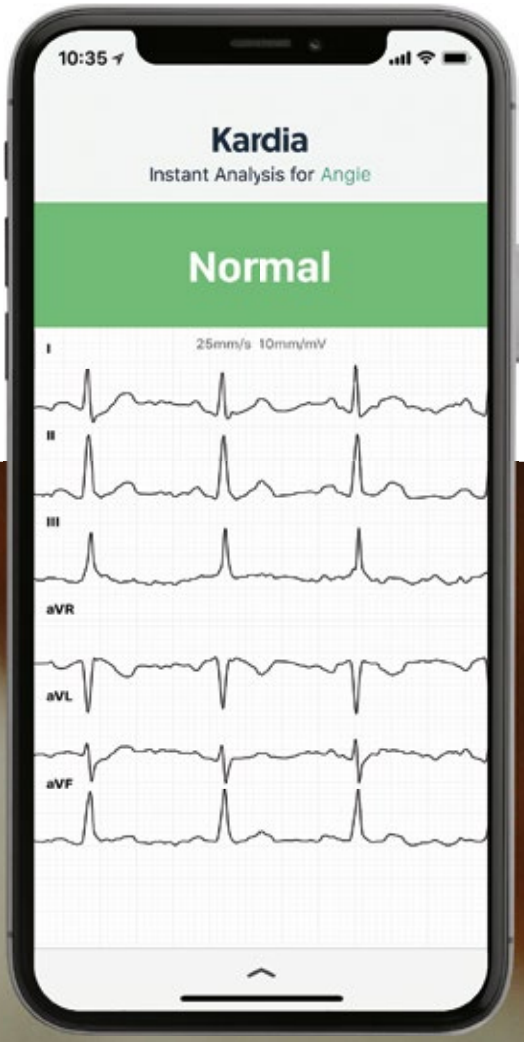
In order to help healthcare providers to mitigate the risk of drug-induced ventricular arrhythmias while minimising risk to personnel of COVID-19 exposure and conserving the limited supply of Personal Protective Equipment (PPE), new FDA guidance allows use of KardiaMobile 6L to Measure QTc in COVID-19 patients. The six-lead personal ECG is now allowed for use in the measurement of a patient's QTc and detection of potentially dangerous QT prolongation.

Healthcare professionals in the US will now be able to use KardiaMobile 6L to collect a six-lead ECG (Lead I, II, III, aVR, aVL, aV), use manual tools to calculate QT duration, and then make assessments with respect to patient medication. The KardiaMobile 6L is the only personal ECG to provide data from Lead II, which is unavailable from smart watch-based ECGs and is critical for the detection and monitoring for potentially life-threatening QT prolongation. This gives medical professionals the power to monitor QTc in patients receiving what will hopefully be life-saving treatment for COVID-19, whether in hospital, or at home.

The technology can 'play a key role in obtaining the patient's QTc as a vital sign to help guide the rapid and safe use of these drugs,' said Michael J. Ackerman M.D., Ph.D., Genetic Cardiologist and Director of Mayo Clinic's Windland Smith Rice Genetic Heart Rhythm Clinic and Sudden Death Genomics Laboratory.

'In addition, the patient's QTc can be obtained without exposing ECG technicians to affected patients which helps to conserve PPE and thereby expand the capacity of our strained medical resources.'

With growing numbers of coronavirus cases worldwide and billions of people trying to fight off infection, with the possibility that a significant proportion of the world's population could receive COVID-19 pharmacotherapies with torsadogenic potential for therapy or post-exposure prophylaxis, the immediate availability of a device that can measure the potential life-threatening effects of medications prescribed to treat COVID-19 has never been more critical.



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MEDICAL DEFENCE UNION

FROM A DISTANCE

The summer months can be stressful for many medical professionals, illustrated by the pressures placed on staff and systems – particularly during the current COVID-19 climate. Here, Dr Catriona James, Medico-Legal Adviser at the Medical Defence Union, discusses why the implementation of effective measures is important in order to ensure the safety of staff and patients – as well as the efficient running of the practice – throughout this complex period.

Dr Catriona James

AVAILABILITY OF STAFF

During summer there may be a greater number of staff members taking annual leave and it is important that reception staff have accurate and up-to-date information about which members of staff are currently available and the return dates of those on holiday which they can share with patients. Reception staff should also have an up-to-date list of locums so that patients can make an appointment with a different member of the clinical team.

This is assuming availability of staff and locums is unaffected by a significant disease outbreak, as seen recently with COVID-19.

WORKING OUTSIDE YOUR SCOPE OF PRACTICE

Currently, the regulators have recognised that healthcare professionals may need to depart from established procedures and stated that concerns 'will always be considered on the specific facts of the case, taking into account the factors relevant to the environment in which the professional is working. We would also take account of any relevant information about resource, guidelines or protocols in place at the time.'

The General Medical Council's coronavirus guidance says that when deciding the safest and best course of action, you should consider:

- What is within your knowledge and skills
- The options for support from other clinicians, working collaboratively across the healthcare team
- What will be best for the individual patient given available options
- The protection and needs of all patients
- Minimising the risk of transmission

If you are asked to carry out clinical duties which are outside your clinical competence, explain your concerns to the clinician in charge. It may well be the case that the needs of patients can only be met by some doctors working outside their primary field. If you think that you have been asked to do something which is not appropriate, even in the current circumstances, contact the Medical Defence Union or your own medical defence organisation for specific advice.

REMOTE CONSULTATIONS

The NHS is encouraging the increased use of remote triage and online consulting. However, a decision would need to be made about the suitability of remote consultations in each case, taking into account the patient's individual circumstances and whether, for example, an examination or prescription was needed. You should be able to justify your decision but when reaching it you can take in to account the risks to a patient of a face-to-face consultation in the current circumstances.

The General Medical Council's 'ethical hub' includes a flowchart to help determine whether a remote consultation is appropriate in a given situation.

ORGANISING A HANDOVER

It is the responsibility of clinical staff to ensure that patients will be suitably cared for during a period of annual leave. The General Medical Council says that doctors must share all relevant information with colleagues involved in their patient's care when handing over or delegating care. Clinical staff must also be satisfied that the person providing care has the appropriate qualifications, skills and experience needed to provide safe care for your patients.

Additionally, clinical staff may wish to handover summaries on patients with particularly complex or unusual conditions. This information can help those covering periods of leave to provide appropriate and safe clinical care. Handovers would ideally be in a written format, delegate tasks to named individuals, and be easily accessible to all relevant staff.

LOCUMS

When employing locums over the summer, it is important to ensure that all information is up-to-date and that any necessary training and an induction of practice systems and procedures is completed. Locums, especially those who have not previously worked in the practice, should have an appropriate induction to the electronic record system. Locums should also be made aware of how to raise concerns about any administrative issues they have in relation to accessing required information and practice systems.

REPEAT PRESCRIPTIONS

Sometimes, patients may fail to order enough medication for the duration of their holiday or ensure that they have an adequate supply when they return. Consequently, it may be worth publicising the methods of requesting repeat prescriptions and the timescales within which requests will be processed, to an even greater extent.

Please note, all information was correct at the time of writing (March 2020). Please keep up-to-date with the latest information in your area.

MDU

HEALTH VISITORS CONTINUE TO PROVIDE CRUCIAL LIFELINE FOR FAMILIES

Frontline community work continues despite COVID-19, thanks to the efforts of health visitors across NHS Greater Glasgow & Clyde, such as Laura Gordon.

Since the pandemic began, Laura has continued to manage a caseload; maintaining frequent contact, building therapeutic relationships, and providing a crucial role in delivering support and advice to children and families in the Inverclyde community.

Home visits have had to be reduced, but Laura remains in the community doing face-to-face consultations at least two-to-three days per week. She believes that providing swift support is key, and despite restrictions on face-to-face contact, health visitors around Greater Glasgow & Clyde have adapted to ensure that families in need are able to receive the care and advice which they require.

From increased telephone consultations and video calls to provide high quality care and support, to risk assessments over the phone before visiting to ensure use of the correct Personal Protective Equipment, keeping children and families safe is a top priority.

As well as assisting with the child's physical and mental wellbeing, Laura works with families to ensure that they have access to any services which they may require, including for urgent needs, such as financial aid or for food banks in the area. Health visitors additionally continue to visit families with additional support needs; supporting postnatal depression, assisting with parenting advice, and working in partnership with third sector agencies and social work for child protection support plans.

Laura, who has worked within Inverclyde for a number of years, said, 'The way we engage with patients may have changed due to COVID-19, but we are all still here, and we are all still working within the communities to help families access the services they need while providing them with practical advice and support so they get the best outcomes for their children.'

Laura Gordon

STUDY COULD REVEAL WHO IS MOST AT-RISK FROM CORONAVIRUS

A group of researchers funded by the British Heart Foundation (BHF) have set up a clinical study of NHS healthcare workers to better understand the spread of coronavirus and why some people are more affected by the virus than others.

This study – which could pave the way for new treatments – is the first to collect samples from healthcare workers on the frontline (doctors, nurses, allied health professionals, administrators and others) who didn't have symptoms of the virus. It started before the UK reached the COVID-19 peak.

As part of the study, samples of blood, saliva and nasal swabs from healthcare workers in three London hospitals are being collected in a bid to answer key questions about the virus. They also want to know whether people exposed to the virus develop immunity, and if there are any 'hotspots' of exposure within a hospital.

Dr Thomas Treibel, BHF Intermediate Research Fellow at Bart Health and University College Hospital London, said, 'COVID-19 is devastating families and severely disrupting our way of life right across the world. There is a lot we don't know about how the virus works, and so we have acted with speed to set-up this clinical study in response to the pandemic.

'Looking at samples from 1,000 frontline staff who are exposed to the virus will be crucial in understanding why some people become hospitalised with COVID-19, whereas some develop mild symptoms. By collaborating with the best minds and scientific labs in the UK and beyond, we will be able to get quick answers on how the virus works, including the role genetics plays and the immune response to COVID-19. Answering these questions will enable us to design much-needed treatments before a second wave occurs.'

GREEN LIGHT FOR COVID-19 MASS SCREENING RESEARCH

Aberdeen researchers will use artificial intelligence to try to fast-track a test to allow mass screening for COVID-19, after the £140,000 project was green lit by the Scottish government.

Existing tests can be unreliable and some are not suited to rapid, mass deployment. The University of Aberdeen team will work with Vertebrate Antibodies Ltd (VAL) and will use VAL's proprietary artificial intelligence technology to identify the specific elements of the virus that trigger the body's defence systems.

It's hoped that this approach could allow the development of a sensitive test that could be used for mass screening of NHS staff / keyworkers, identification of high-risk patients / carriers, provide data on the prevalence of COVID-19, surveillance, and in the future allow targeted vaccination programmes.

The project was proposed in response to the Scottish government's CSO Rapid Research in COVID-19 programme call which was developed to support leading research at Scotland's universities which could help the national effort.

In addition to the £101,903 from the Scottish government, the project is being supported by a £38,000 in kind contribution from VAL – a biotech spinout company from the University of Aberdeen specialising in the design and production of sensitive and selective antibodies against multiple targets. Dr Tiehui Wang, co-investigator from the University of Aberdeen's School of Biological Sciences, will also play a key role.

PROMOTION

SUPPORTING PHARMACY HEROES THROUGH COVID-19

A Q&A with Cegedim's Product Director, Tracey Robertson.

Tracey Robertson

WHAT KEY CHALLENGES HAS COVID-19 IMPOSED ON THE CEGEDIM TEAM?

Following the government recommendations, we immediately moved all our employees to a fully remote home working operation. We have robust business continuity plans in place as part of our ISO accreditation so we were able to do this in less than a week.

As the situation developed, the NHS began to request new PMR developments. We responded quickly to these changes by deploying a dedicated team focussed on functionality to support emergency pharmacy working practices. We continue to support the NHS – across England, Scotland and Wales, as they move through their business continuity plans and the new PMR requirements these generate.

HOW HAVE YOU BEEN ABLE TO EFFECTIVELY OVERCOME THESE?

Clear and regular communication across all levels of the business, and with our customers and NHS stakeholders is key. New channels have been set-up to ensure all employees can regularly check in and digital forums offer everyone an opportunity to hear from senior leaders and raise questions frequently.

Our Product and Development teams have utilised online mediums and explored additional technology to support collaborative working, to ensure the momentum of innovation and delivery is unaffected.

Regular updates have also been provided to customers so they know what steps we are taking to support and protect the critical NHS services that they rely on, what new products and services we are delivering to enable them to meet new levels of demand and what support is available to them.

HOW ARE THE COMMUNITIES OF HEALTHCARE PROFESSIONALS YOU WORK WITH HAVING TO ADAPT AS A RESULT OF THE CRISIS?

Healthcare professionals across the country are having to take extraordinary measures to ensure continuity of care for all patients; community pharmacy is a vitally important sector now under immense pressure to maintain the supply of essential medication to patients, under increasingly challenging circumstances.

Our pharmacy customers are significantly busier at the moment with more patients requiring medication as well as those seeking to 'stock up' their repeat prescription or access more over-the-counter medication as a reaction to perceived or actual shortages and the lockdown rules restricting regular trips to shops. Difficulty contacting GP practices has increased the number of patients seeking pharmacist advice. These factors – combined with new government guidance – has driven changes in pharmacy working hours to ensure medication supplies can be restocked.

All pharmacies have had to adapt to new business practices as they implement necessary social distancing. In some stores this has reduced both the number of patients they can serve, increased queuing and reduced the sale of non-medical over-the-counter items – hitting pharmacy profit. There is also a new requirement for all pharmacies to offer a delivery service and this is further extending pharmacy costs.

All of these demands must be managed by the pharmacy despite increased staff absences due to self-isolation and illness. In these circumstances, it's vitally important that their key system – the PMR, is smart, efficient and fully supported, helping them effectively deliver patient care.

HOW IS CEGEDIM ASSISTING PHARMACISTS IN DELIVERING ONGOING CARE IN SUCH SHIFTING WORKING CONDITIONS?

Our latest PMR releases are focused on pharmacy time savers which will have an immediate impact during this exceptionally busy time. We have also taken steps to develop solutions that would support pharmacies in the event of a necessary site closure as a result of COVID-19. This includes the ability to remotely access the Pharmacy Manager PMR from another location. If a pharmacy has an alternative site, we can now offer support to move essential PMR machines to new alternative premises allowing the pharmacy to continue to serve patients with minimal interruption.

ARE THERE ANY OTHER RESOURCES HELPING TO ALLEVIATE THESE UNPRECEDENTED PRESSURES?

We have already extended our Service Desk opening hours an additional 20 hours every week and implemented Live Chat on our website to ensure any pharmacy queries can be resolved as quickly and efficiently as possible.

We have also launched a free Learning Zone full of bite-sized video content to help quickly upskill pharmacy teams on Cegedim's Pharmacy Manager PMR. The Learning Zone is accessible anywhere and on any device, so pharmacists can refresh their PMR knowledge on their commute, at home or within the pharmacy.

With additional pressure to deliver more medicines direct to patients' homes, Cegedim is offering all customers four months free access to Pro Delivery Manager (PDM). PDM is a delivery tracking app which enables pharmacies to improve the efficiency of their delivery service, providing cost savings and enhancing patient relationships.

WHAT HAS USER FEEDBACK BEEN LIKE?

We've received a great deal of positive feedback on Pharmacy Manager, including customers taking to social media to share the details of new features with others in their network. Pharmacies have reported that the new intuitive dashboard and interactive tiles are helping to 'save time and make life easier and safer in the pharmacy'.

HOW ARE PATIENTS SUBSEQUENTLY BENEFITING?

Enabling pharmacists to work more safely and effectively ensures patients can benefit from continued access to pharmacy services, support and medication throughout this crisis period.

WHAT DOES THE PATH AHEAD LOOK LIKE FOR CEGEDIM – BOTH IN THE SHORT AND LONG-TERM?

The Cegedim programme of work is geared towards continually driving efficiencies in pharmacy across a number of key business areas, ultimately helping pharmacy teams provide exceptional patient care while reducing pharmacy costs and increasing their profit.

We have dedicated teams that are aligned to key areas of pharmacy business, for example; Stock & Ordering, Patient Management & Services, Automated Dispensing & Fulfilment, Pharmacy Intelligence and of course Dispensing Services. All teams were already pressing ahead with new functionality and they continue to do so.

We recognise that now, more than ever, smart efficient technology is essential in the pressured pharmacy environment and we remain focused on delivering our promises to Pharmacy Manager customers as quickly as possible during 2020.

Pharmacy Manager
A Cegedim Solution

We know that times are challenging right now and community pharmacies are under increasing pressure.

We are working hard to support our customers during this pandemic and are continuing to listen to YOU.

That's why we've **extended our Service Desk opening hours** and **introduced live chat** on our website. We've also launched a **free Learning Zone** to give everyone easy access to bite sized eLearning videos to help you get the most from Pharmacy Manager.

There's lots more ways we are helping pharmacies right now.

Find out more by visiting
www.cegedimrx.co.uk
or calling us on 0330 303 3342

cegedim
Healthcare Solutions

TEENAGE CANCER TRUST

OF A CERTAIN AGE

Ben Sundell, Head of Policy and Public Affairs at Teenage Cancer Trust, addresses shortfalls within the teenage and young adult cancer service and outlines the urgent need for age-appropriate care.

Teenagers and young adults with cancer have distinct needs that differ from those of a child or adult, and this must be reflected in their care. Young people benefit from age-appropriate support, reporting better experiences, as well as improving access to potentially life-saving clinical trials.

For the past 30 years, Teenage Cancer Trust has been working to ensure that all young people with cancer in the UK can access age-appropriate, specialist care. We now have 28 specialist units within hospitals across the UK, along with teams of expert nurses and youth support staff who offer young people with cancer the very best care from the moment they are diagnosed.

Despite advancements that have been made in the past 30 years, there is still a way to go. Cancer remains the leading cause of death from disease in teenagers and young adults in the UK. In addition, the number of teenagers and young adults with cancer has risen gradually in the past 20 years, meaning that it is vital that the NHS workforce keeps apace with this increase, as well as developments in age-appropriate care. As we look towards the next 30 years, Teenage Cancer Trust has identified barriers in the current system that must be addressed to ensure that all young people have the best support available.

EARLY DIAGNOSIS

It can be especially difficult for teenagers and young adults to get a timely diagnosis. Young people often lack knowledge and awareness of cancer, so can miss symptoms or be too scared to speak to a doctor about them. In addition, GPs may be less likely to suspect a young person's symptoms could be cancer as the disease is rare among this age group.

A recent study found that 35 per cent of 13-to-24-year-olds with cancer who consulted with their GP had three or more consultations before being referred, compared to only 18-to-23 per cent of adults. The NHS Long-Term Plan places a particular emphasis on improving cancer diagnosis timelines in order to save more lives. The government must ensure that GPs are equipped to spot the signs and symptoms of cancer in teenagers and young adults, enabling them to make efficient and confident referrals. We welcome the government's commitment to roll-out Rapid Diagnostic Centres across the UK. We hope that this will play a vital role in ensuring that young people with cancer receive a timely diagnosis.

FERTILITY

Chemotherapy, radiotherapy and surgery are commonly used in the treatment of cancer and can affect fertility. It is important that young people with cancer understand how their treatment may affect their fertility but many – over a quarter of young people that we spoke to – have told us that they didn't get any information and that even when they do, they can still face barriers actually accessing the fertility preservation services. As a result, many young people with cancer have very negative experiences.

Every young person must have their fertility options discussed with them, regardless of whether their prognosis is expected to directly affect fertility. It is important that healthcare teams are trained to properly do so, allowing teenagers and young adults to make fully-informed decisions.

MENTAL HEALTH

Young people report that mental health support is one of the most important services they can access when dealing with cancer. Young people with cancer often experience difficulties, such as depression, anxiety, loneliness and body image worries, throughout their treatment and into recovery.

A survey by Teenage Cancer Trust found that only 61 per cent of young people said that they had access to a psychologist or counsellor throughout their treatment for cancer – this fell to 44 per cent after treatment had finished.

It is vital that every young person with cancer who requires mental health support has access to it. The right services must be available for each teenager and young adult who is referred for expert psychological support during and after treatment as a routine part of their care.

To be a young person diagnosed with cancer is hard enough, but missing out on vital support services and important information makes it all the harder. Timely and appropriate diagnosis, accessible fertility options, and mental health support are of vital importance to a young person with cancer's quality of life as they look towards adulthood.

Teenage Cancer Trust will continue to raise awareness of the problems young people with cancer face and push for meaningful change so that young people living with the disease in 30 years to come are not faced with the same barriers.

For more information, visit www.teenagecancertrust.org.

Continued from the last edition, read on for the remaining 2019 Scottish Pharmacy Awards winners

DELIVERY OF PHARMACEUTICAL CARE AWARD WINNER, THE CARE AT HOME PHARMACY TECHNICIAN SERVICE (NHS AYRSHIRE & ARRAN), WITH CHRIS FLANNAGAN, MEDICAL COMMUNICATIONS, AND NOEL WICKS, RIGHT MEDICINE PHARMACY GROUP

WINNER

DELIVERY OF PHARMACEUTICAL CARE

THE CARE AT HOME PHARMACY TECHNICIAN SERVICE NHS AYRSHIRE & ARRAN

The Care at Home Pharmacy (CAP) Technician Service represents a remarkable example of partnership working in order to deliver the highest level of safe, patient-centred care. Its success is testament to the committed individuals working within it who have developed excellent inter-professional working relationships and fully understand the specific roles and responsibilities of all partners.

The pharmacy technician works with elderly and / or vulnerable residents within the Health & Social Care Partnership (HSCP) area who have been identified by a health or social care professional as requiring help with a medication-related problem. This is particularly pertinent to those patients recently discharged from hospital, but also relates to those living at home and having difficulty with their medicines. The CAP technician visits patients in their own homes to review concordance and compliance with medicines, with onward referral to other services where required.

The service initially focussed on elderly people discharged from hospital with a care package, but now receives referrals from the multidisciplinary team involved in adult care: social work, care managers, homecare managers, district nurses, occupational therapists, enablement teams, and third sector organisations.

Indicative of the importance placed on collaboration with the wider sector, the CAP technician has close links with community pharmacists, the GP practice support pharmacist team and hospital pharmacists, following the patient journey to and from hospital. The CAP technician often refers patients to the practice pharmacist for medication review and rationalisation of therapy, where appropriate. After discharge, patients may be confused with their medication and this vital link may prevent inadvertent errors and re-admission.

The technicians are located within the HSCP Integrated Care and Enablement Team or Social Work Team, and have access to both health and social care IT systems from a single point, which has streamlined the process of gathering relevant patient information, and facilitates a joint approach to patient care after hospital discharge, or in some cases preventing a hospital admission.

In their cohesive approach to patient care, the technicians employ EMIS web to record all patient interventions. This system is used by the wider multidisciplinary health team, including district nursing, physiotherapy, occupational health and integrated care. Patient consultation data is accessible to all professions, enabling efficient sharing of patient information, and improved communication.

Upon receipt of referral, the CAP technician contacts the patient, obtains consent from them or their representative for the review, discusses the situation and arranges a home visit, if appropriate. Sometimes the issue can be resolved without a home visit. During the patient review, the CAP technician can assess the patient's social situation and undertake a medication assessment which incorporates a comprehensive medicines reconciliation, with appropriate communication with acute / GP / community pharmacy, as well as an assessment of their ability to manage medicines independently (to be repeated after an appropriate review period if required).

The service was initially funded through the Scottish government Integrated Care Fund, an investment to support HSCPs in focussing on prevention, early intervention and care and support for people with complex and multiple conditions, especially in areas where multi-morbidity is common in adults under 65, as well as in older people. The success of the project resulted in mainstream funding from September 2017, with resource included for additional CAP technicians in East and South Ayrshire HSCPs.

> 'It's amazing to win. Thank you so much.'
>
> The Care at Home Pharmacy Technician Service
> NHS Ayrshire & Arran

> 'On behalf of the team behind the Scottish Pharmacy Awards, we are continually in awe of the exceptional standard of applicants and pharmaceutical talent across Scotland, and this year has been no exception. Congratulations to all the brilliant finalists and to the incredibly worthy winning team.'
>
> Chris Flannagan
> Medical Communications

STUDENT LEADERSHIP AWARD WINNER, ERIN GILMOUR, ROBERT GORDON UNIVERSITY, WITH PAUL FLYNN, THE PHARMACISTS' DEFENCE ASSOCIATION, BOOTS SCOTLAND, ALIMA BATCHELOR, THE PHARMACISTS' DEFENCE ASSOCIATION, AND CHERYL SMITH, THE PHARMACISTS' DEFENCE ASSOCIATION

WINNER
STUDENT LEADERSHIP
ERIN GILMOUR
ROBERT GORDON UNIVERSITY

Sponsored by The Pharmacists' Defence Association

Through the consistent demonstration of her interpersonal skills, organisational abilities, understanding, and collaboration with others, Erin has helped to not only positively impact the university experience for her fellow peers, but to elevate the profile of the profession to them.

As president of the student-led Aberdeen Interprofessional Education (IPE) Society, Erin has worked to bring health and care students from both Robert Gordon and Aberdeen Universities together to learn from and about one another. Driven by the objectives of growing the society, achieving broader representation, and attaining enhanced support from lecturers, she has taken on an assortment of responsibilities. These include chairing the committee and working with them to promote the society to students at both universities, and organising learning events, social activities and committee meetings throughout the year.

As a result of the committee's efforts – including the increased utilisation of social media for promotion and the sharing of information – at the end of the year they finished with their highest number of members ever at 256 and were the largest society at Robert Gordon University.

Erin has also actively worked to establish relationships with other student societies, in particular with medicine, physiotherapy, radiography and nursing schools. Although students from these professions attended the events, it was a struggle getting them to lead workstations. However, through collaboration with their own societies, Erin was able to provide them a platform at IPE events where they presented to a multi-professional audience. As a consequence, some have now taken up the role as a member of the committee, as well as their own.

Seeking to further boost the society's credibility, Erin worked to gain recognition and support from lecturers, and contacted the Robert Gordon University interprofessional learning lead (IPL), which resulted in an invite to attend the Aberdeen IPL Symposium. The symposium facilitated a beneficial opportunity to present the student perspective and forge links with other healthcare lecturers.

Erin's vision for the future of the profession is that pharmacists will be embedded in multidisciplinary teams, working as prescribers and taking the lead role in the governance of patients' treatment with medicines. Aiming to contribute to its evolution in any way possible, in 2018-to-2019 the society organised four events: Journey of the Surgical Patient; Dementia; Substance Misuse; and Could it be Sepsis? Aware of the potential for improving the pharmacy-led workstations at each of these, Erin asked the pharmacy students to present on issues that other professions should be aware of and which could improve patient safety and reduce harm. Sparked by feedback on what had worked well, Erin additionally suggested that they structured the workstations into small group discussions and made them interactive with the use of voting apps etc.

Another example of engagement was at the Journey of the Surgical Patient event where pharmacy and nursing students conducted a joint workstation that looked at the pain ladder and responsible prescribing of opioids. Everyone enjoyed the discussion on the impact that both pain and analgesics have on patients' physical and cognitive function; the significance of drugs that make patients drowsy and the need to consider how long it takes analgesics to work was of particular interest to physiotherapy students who have to consider when it is best for them to work with patients.

> 'I really appreciate even just being nominated for the award and being among such an amazing group of people. Thank you.'
>
> Erin Gilmour
> Robert Gordon University

> 'We are really impressed by what Erin has achieved and by what she will continue to achieve in the future. She is a fantastic winner – well done!'
>
> Paul Flynn
> The Pharmacists' Defence Association, Boots Scotland

INNOVATIVE USE OF TECHNOLOGY IN COMMUNITY PHARMACY AWARD WINNER, NOEL WICKS AND TEAM, RIGHT MEDICINE PHARMACY GROUP, WITH ADAM DENNETT, CEGEDIM RX, AND GEORGE ROMANES, ROMANES PHARMACY

WINNER

INNOVATIVE USE OF TECHNOLOGY IN COMMUNITY PHARMACY

NOEL WICKS AND TEAM
RIGHT MEDICINE PHARMACY GROUP

Sponsored by Cegedim Rx

The team's path of continued innovation has been paved with a determination to both improve patient safety and support families in their care for loved ones, as well as ensure the appropriate deployment of NHS and council resources, and keep people healthier and independent in their homes for longer.

The new form of technology which has been introduced is an electronic MDS solution that prompts patients to take medicines and incorporates GSM technology in order to deliver SMS alert messages in the event of any forms of non-compliance, in addition to monitoring and recording medicines adherence. The system is called the YOURmeds Alert Medpack and the Right Medicine Pharmacy Group are Scotland's first and only provider.

The overarching objective of this innovative advancement has centred on encouraging the use of device technology to support an existing delivery of care package around medicines management for people within an independent living setting (be that their own home or as part of a larger facility). This includes enhancing medicines adherence, safety, and maintaining independence for service-users through a tailored and person-specific approach to medicines management by utilising the device's technology. This outcome is being achieved by tailoring medication alerts to each service-user's requirements and preference, and bolstering safety through the real-time monitoring of service-users' medication-taking habits and the infrastructure.

A further aim was to produce a more streamlined service for the team members of the service provider, the service-user, and the pharmacy staff. Constant communication between pharmacy staff and the service provider, in addition to competent paperwork, has enabled the pharmacy-delivered service to become more efficient.

The team were also propelled to improve medicines adherence and independence among service-users within the home setting; achieved by tailoring device alerts specifically for users, and using the YOURmeds software to remotely monitor medication-taking behaviours of the individuals. This has been hugely beneficial, resulting in the easy identification of those needing more support around medicines management or those that were evidently becoming more independent with the new device technology. The ongoing nature of the monitoring and the powerful analysis of the data displayed in the online dashboard also allows for changes in a patient's medicines adherence to be pinpointed and appropriate action taken i.e. support redirected if not required or put in place if it is.

The co-operation of the team with non-medical professionals has proven to be a key exercise in understanding not just the pharmaceutical care challenges of patients requiring support for medications, but also the complex social care set-up. By working in close partnership with the support network of patients and conducting regular meetings and visits, an established working relationship has been cultivated which bridges the normal 'care chasm' that exists between medical and non-medical care. This may mean something as simple as being included in notifications when a patient is admitted to hospital or perhaps when there is a deterioration in their health or change in their medical or social conditions.

Ultimately, in many ways this work demonstrates how the bringing together of social and healthcare remits through health and social care professionals can benefit patient-centred care in the community in addition to improving inter-professional relations.

> 'This is great recognition of the work that the pharmacy team does in bringing new technology to community pharmacy. We're very excited about it and to see where it takes us moving forward.'
>
> Noel Wicks and Team
> Right Medicine Pharmacy Group

> 'The team are really making a difference to patients and the way they use their medicines. It's great to promote transformative technology like this.'
>
> Adam Dennett
> Cegedim Rx

INNOVATIONS IN PRESCRIBING, QUALITY AND EFFICIENCY IN SCOTLAND AWARD JOINT WINNER, THE COMMUNITY PHARMACY PHARMACOTHERAPY SERVICE TEAM (NHS AYRSHIRE & ARRAN), WITH CHRISTINE ALLAN, NAPP PHARMACEUTICALS LIMITED, AND FIONA THOMSON, LEAD PHARMACIST (NHS HIGHLAND)

JOINT WINNER

INNOVATIONS IN PRESCRIBING, QUALITY AND EFFICIENCY IN SCOTLAND

THE COMMUNITY PHARMACY PHARMACOTHERAPY SERVICE TEAM NHS AYRSHIRE & ARRAN

Sponsored by Napp Pharmaceuticals Limited

Striving to enhance the provision of safe, effective, patient-centred pharmaceutical care, the team identified a prime opportunity to integrate the community pharmacist further within the general practice team, subsequently improving communication and information-sharing.

In recognition of the fact that general practice clinical pharmacists have an increasing workload with traditional prescribing efficiency work and the demand of the pharmacotherapy service, part of the new General Medical Services Contract, the project explored the possibility of transferring some of this workload to community pharmacists. Actioning the investigation, the team set about developing a test of change to evaluate whether specific elements of the pharmacotherapy service can be delivered through community pharmacy.

The initiative's objectives included increasing the clinical role of community pharmacists by identifying pharmacotherapy activities that could be delivered in their pharmacy, and achieving greater patient awareness of the role of the community pharmacist in medicines management and supporting patients to manage stable long-term conditions. Additionally, the team sought to establish closer partnership working between the 'pharmacy family' – general practice clinical pharmacists, community pharmacists, hospital pharmacists – and support the continuous development of patient care through effective transfer of information between primary care and community pharmacy.

Jane Rorison, community pharmacist at Ogg & Co Pharmacy, and Alan McGeer, general practice clinical pharmacist at Cathcart St Surgery, were identified to participate in this project, as the pharmacy and GP practice already had close links and an excellent working relationship. As an independent prescribing pharmacist, Jane runs a Common Clinical Conditions Clinic in her pharmacy, in collaboration with Cathcart St. Patient requests to the GP practice are triaged by practice staff and, where appropriate, referred to this clinic. Remote EMIS access allows full 'read and write' access from the community pharmacy to the GP patient record, and the GP practice electronic diary has specific appointment slots for community pharmacy appointments. Similar referral pathways were followed for this project.

Four elements of the pharmacotherapy service were decided upon for inclusion in this test of change: prescription requests; medication queries; medication reviews (high-risk medicines, polypharmacy); and clinical treatment reviews (asthma). NHS Ayrshire & Arran Pharmacotherapy Service Standard Operating Procedures were in place for each of these elements, which Jane followed.

The project ran one day per week for three months, from April to June 2019. Locum cover was organised to ensure protected time to undertake the activities, record interventions, and results for evaluation. The community pharmacist accomplished 48 pharmacotherapy interventions, fully completing 32 consultations, while only 16 were referred back to the GP.

Ultimately, the test of change successfully demonstrated that certain aspects of the pharmacotherapy service could be delivered through community pharmacy, saving substantial time. There was additionally bolstered recognition within this patient group of the role of the community pharmacist in medicines management and supporting patients to manage stable long-term conditions, and the ease of access to these services through the Pharmacy First. Future work will, however, be required to determine what level of workload could be managed in the future, scalability, costs and, importantly, what could safely be delivered.

> 'It's really important in pharmacy today to look at different ways of delivering services. We have tried, through our idea, to address the issue of the lack of pharmacists. We're really grateful for this award, thank you.'
>
> The Community Pharmacy Pharmacotherapy Service Team
> NHS Ayrshire & Arran

> 'We are thrilled to sponsor this award and honour the important work of pharmacy teams in Scotland, including the two fantastic winners.'
>
> Christine Allan
> Napp Pharmaceuticals Limited

INNOVATIONS IN PRESCRIBING, QUALITY AND EFFICIENCY IN SCOTLAND AWARD JOINT WINNER, AMY ROBINSON AND THE WIGTOWNSHIRE PRESCRIBING SUPPORT TEAM (NHS DUMFRIES & GALLOWAY), WITH CHRISTINE ALLAN, NAPP PHARMACEUTICALS LIMITED, AND FIONA THOMSON, LEAD PHARMACIST (NHS HIGHLAND)

JOINT WINNER

INNOVATIONS IN PRESCRIBING, QUALITY AND EFFICIENCY IN SCOTLAND

AMY ROBINSON AND THE WIGTOWNSHIRE PRESCRIBING SUPPORT TEAM NHS DUMFRIES & GALLOWAY

Sponsored by Napp Pharmaceuticals Limited

Although the roll-out of the pharmacotherapy service presented a logistical challenge, the team's industrious nature rose to the fore – identifying it as a platform for transforming their way of working, and looking at new methods for delivering extended services and utilising the increased workforce as a team.

In line with this, a pharmacy hub was recognised for its potential to provide services from a central point using the varied skillmix of the existing team, offer peer support and training, cut down travelling, and maximise the number of hours spent on delivering specialist services. The team presented the idea to their locality management team and received their full support to set-up an initial test.

The team subsequently approached the Stranraer Medical Centre regarding the utilisation of a vacant room for the hub; comprising five desks in a square set-up with double screen PCs connected to the three GP practices computer systems (EMIS and Docman) with two telephones, a printer and numerous whiteboards. As a result of this additional scope, for the first time, the team were able to include a general practice clinical pharmacist, a trained and a trainee technician, and two prescribing support officers – all working together in a supervised training environment which also acted as a central location for the rest of the team to use as a base.

SOPS and workflow guidelines were also executed, and through a process of training, a triage system was created whereby the hub pharmacist and the prescribing support worker triaged work coming into the hub. The main work taken on incorporated medicines reconciliation of discharge letters and outpatient clinics, acute prescriptions, and tasks and drug information queries from practices and community pharmacies.

The benefits reaped due to the new methods of working have been widespread; allowing the team to provide a five days per week service to the GP practices, and enabling them to undertake both prescribing support and CRES audits and pharmacotherapy. The prescribing support workers have been able to adopt many prescribing support and cost-saving audit searches and forward the details to the technicians and / or pharmacists for review, and then under supervision, action the changes deemed appropriate. This includes inviting patients in for medication review with the pharmacists when they are in clinic.

Positive feedback centring on the introduction of the hubs has been substantial; owing to the efficient, supportive and productive environment which has been crafted for the delivery of the initial elements of pharmacotherapy. The team have had the opportunity to take on much more than anticipated and being able to connect pharmacotherapy work with prescribing support duties has enhanced their ability to deliver on CRES audits. Furthermore, the model allows the core duties of pharmacotherapy to be spread across the team, providing job variety and developing roles.

In light of the progress achieved, the team believe that the problems which they encountered are not unique to Wigtownshire and that this way of working may benefit other rural locations who are struggling to access rooms in GP surgeries or lose excessive amounts of worktime travelling.

> 'We're ecstatic to win. It shows the dedication of the team and the innovation that has been applied. It's great to be recognised for the hard work which we've put in.'
>
> Amy Robinson and The Wigtownshire Prescribing Support Team
> NHS Dumfries & Galloway

> 'We are thrilled to sponsor this award and honour the important work of pharmacy teams in Scotland, including the two fantastic winners.'
>
> Christine Allan
> Napp Pharmaceuticals Limited

LIFETIME ACHIEVEMENT AWARD WINNER, EVELYN MCPHAIL, FORMER DIRECTOR OF PHARMACY (NHS FIFE), WITH ROSE MARIE PARR, CHIEF PHARMACEUTICAL OFFICER IN SCOTLAND, AND BRIDGET MCCABE, MANAGING DIRECTOR, MEDICAL COMMUNICATIONS

WINNER
LIFETIME ACHIEVEMENT
EVELYN MCPHAIL
FORMER DIRECTOR OF PHARMACY
NHS FIFE

Year after year the Scottish Pharmacy Awards setting has served as not only an important opportunity for celebration – allowing us to rejoice in the triumphs of our finalists – but as a platform for reflection; in which we can acknowledge the formative steps which have put the profession on the path to success.

In particular, the presentation of the Lifetime Achievement Award aims to steer into the spotlight a much-valued member of the sector, and what their contribution has meant. And once again the 2019 event brought with it an exceedingly worthy and popular recipient – Evelyn McPhail – hot on the heels of her retirement as Director of Pharmacy at NHS Fife.

Having cultivated an extensive and impactful career, Evelyn's work has touched the lives of her peers and patients alike. From the outset, she demonstrated her passion for pharmacy in that following her studies, she took on the post of a Pre-Registration Pharmacist at Western General Hospital, Edinburgh and Syntex Research Centre, Riccarton Campus, Heriot Watt University, before moving on to further pharmacy roles at Bangour Hospital, West Lothian, and Eastern General Hospital, East Lothian.

Being rapidly recognised for her impressive skillmix and expertise, as well as her personable and friendly manner, Evelyn soon garnered experience as Principal Pharmacist at the Priority Care Unit, and Pharmacy Prescribing Adviser at Fife Health Board for a number of years prior to being appointed as Trust Chief Pharmacist, Fife Primary Care.

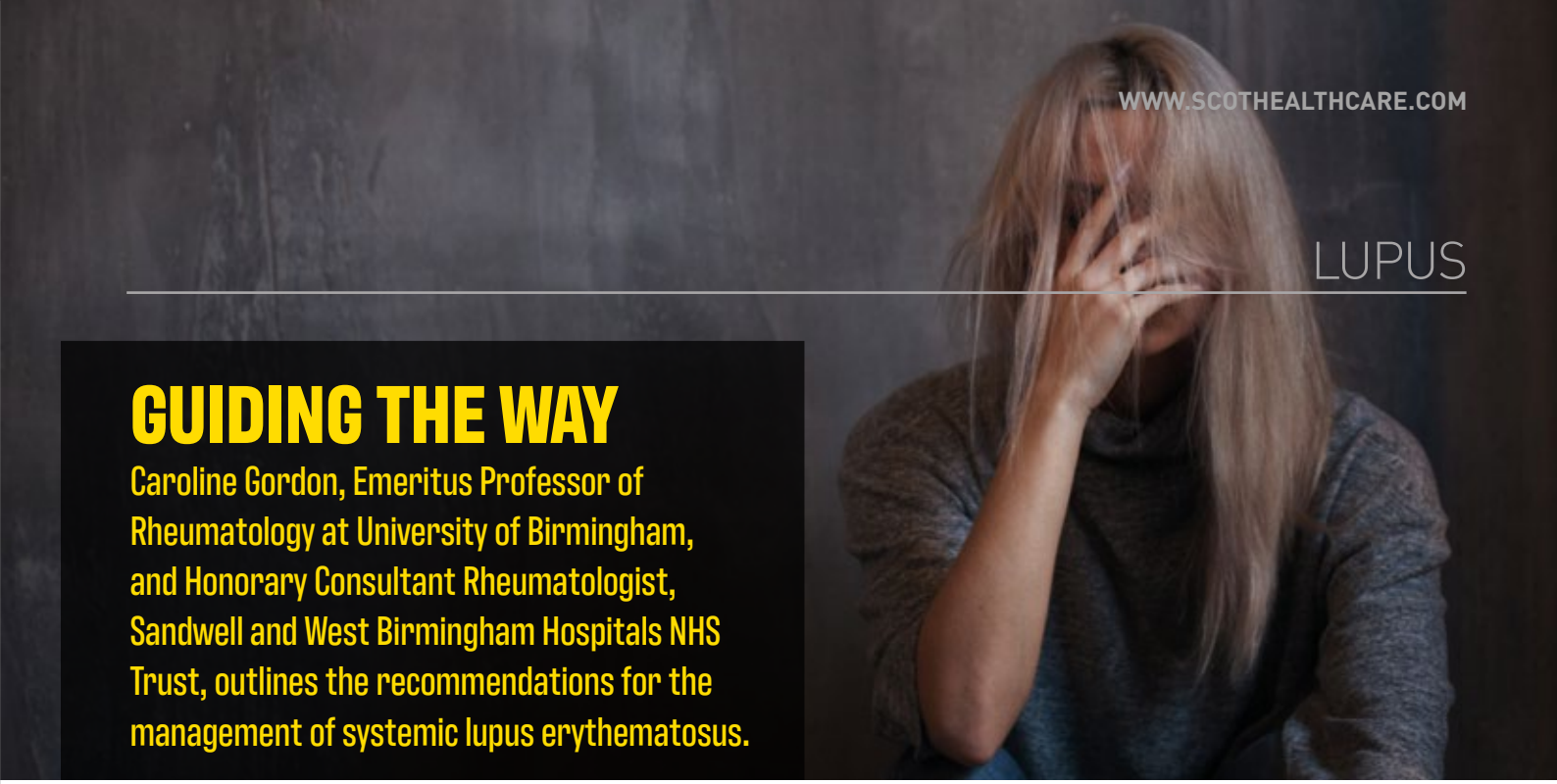
Throughout each and every one of her professional endeavours, Evelyn has been innovative and forward-thinking – subsequently rising through the ranks and becoming Chief Pharmacist and Director of Pharmacy at NHS Fife where she was at the helm of transformational change for many years.

Although a keen, respected, and formidable leader, Evelyn has remained a team player through and through. Her passion for the sharing of ideas and the necessity of co-operation resulted in her being an integral council member of the General Pharmaceutical Council, as well as a council member on the sub-groups: Finance and Planning, and Inspections of Registered Premises. Notably, Evelyn was also appointed as a Fellow of the Royal Pharmaceutical Society – one of the highest honours that can be bestowed upon members.

Having now stepped down as Director of Pharmacy at NHS Fife, Evelyn's infectious nature and exceptional abilities have been missed – however, her momentous contribution to pharmacy and the NHS in Scotland as a whole endures.

> 'I'm trembling with shock! I'm absolutely delighted and never expected anything like this. Thank you very much.'
>
> Evelyn McPhail
> Former Director of Pharmacy
> NHS Fife

> 'I'm so pleased that Evelyn has won – she's a very worthy recipient for her many years of dedication. The Lifetime Achievement Award is so important in celebrating success.'
>
> Rose Marie Parr
> Chief Pharmaceutical Officer in Scotland



GUIDING THE WAY

Caroline Gordon, Emeritus Professor of Rheumatology at University of Birmingham, and Honorary Consultant Rheumatologist, Sandwell and West Birmingham Hospitals NHS Trust, outlines the recommendations for the management of systemic lupus erythematosus.

Caroline Gordon

BACKGROUND: WHY LUPUS NEEDS SPECIALIST CARE

Systemic lupus erythematosus (SLE or lupus) is a multisystem, autoimmune disease that may develop at any age. It affects about one-in-1,000 of the UK population and is most common in women. Diagnosing lupus can be challenging as lupus causes a large variety of clinical features affecting any system in the body and expert advice is required to confirm the diagnosis. About 30 per cent of lupus patients develop kidney disease, especially those of African descent. The commonest causes of death are infection and cardiovascular disease and death may occur prematurely, as the mean age of death was 54 years in a recent UK study.

MANAGEMENT OF LUPUS

The British Society of Rheumatology (BSR) published a NICE-accredited guideline for the management of systemic lupus erythematosus in adults in 2018 to optimise management and to improve the outcome of this variable and potentially life-threatening disease. The guideline covers the diagnosis, assessment, monitoring and the treatment of active lupus disease (available open access online: see below) and a longer version of this article is available on the LUPUS UK website.

- **Full length article – www.lupusuk.org.uk/recommendations-for-the-management-of-sle**
- **Full BSR guideline – www.academic.oup.com/rheumatology/article/57/1/e1/4318863**
- **Executive summary – www.academic.oup.com/rheumatology/article/57/1/14/4318864**

The diagnosis of lupus requires a combination of relevant clinical features and at least one immunological abnormality. Delays in diagnosis are common as it takes a mean of six years from onset to be recognised.

Environmental triggers include infection, ultra-violet light, oestrogen, and smoking. Drug-induced lupus is most often caused by tetracyclines but can be due to other drugs.

An autoantibody screen should be requested in anyone in whom there is a clinical suspicion of lupus. If ANA is negative, there is a low clinical probability of the patient having SLE, however a minority have other autoantibodies or low complement without ANA. The ANA test can become negative in treated patients. In active lupus CRP is usually low despite raised ESR but CRP rises in infection or lupus effusion.

Patients suspected of lupus should be referred to a physician with experience of managing lupus. They should assess disease activity, distinguish damage and co-morbidity and provide advice on treatment and prevention of flares. The only licensed drugs for lupus are prednisolone, hydroxychloroquine and belimumab but immunosuppressants are used off-license by experienced physicians. The BSR guideline for the management of SLE divides the treatment of lupus in to three sections covering mild, moderate and severe lupus. There is a separate BSR guideline on the use of drugs in rheumatic diseases in pregnancy and breastfeeding.

SLE patients should have access to a multidisciplinary team, including rheumatologists, nephrologists, dermatologists, haematologists, obstetricians, nurse specialists, physiotherapists, psychologists, podiatrists and occupational therapists. They should work as a collaborative clinical network involving regional and national specialist centres, local hospitals and GPs.

The aim of lupus treatment is to achieve a low level of disease activity using hydroxychloroquine, immunosuppressants and the minimum amount of corticosteroids. Biological agents may be required in refractory patients. Managing lupus patients can be challenging due to the risk of infection, attribution of cytopenias, and the need to distinguish disease activity from damage and co-morbidities. Fatigue is common, difficult to manage and may be due to lupus, anaemia for other reasons, hypothyroidism, physical deconditioning and / or co-existing fibromyalgia. Management should ensure regular sunscreen, adequate vitamin D3, weight control, exercise, not smoking, vaccinations and other measures to reduce risk of infection, atherosclerosis and osteoporosis. Advice on contraception, pre-pregnancy counselling and cancer screening are important.

FURTHER READING

1. Gordon C, Amissah-Arthur MB, Gayed M, Brown S, Bruce IN, D'Cruz D et al. The British Society for Rheumatology guideline for the management of systemic lupus erythematosus in adults: Executive Summary. Rheumatology (Oxford) 2018; 57(1):14-18
2. Gordon C, Amissah-Arthur MB, Gayed M, Brown S, Bruce IN, D'Cruz D et al. The British Society for Rheumatology guideline for the management of systemic lupus erythematosus in adults. Rheumatology (Oxford) 2018; 57(1):e1-e45
3. Flint J, Panchal S, Hurrell A, van d, V, Gayed M, Schreiber K et al. BSR and BHPR guideline on prescribing drugs in pregnancy and breastfeeding-Part I: standard and biologic disease modifying anti-rheumatic drugs and corticosteroids. Rheumatology (Oxford) 2016; 55(9):1693-1697
4. Flint J, Panchal S, Hurrell A, van d, V, Gayed M, Schreiber K et al. BSR and BHPR guideline on prescribing drugs in pregnancy and breastfeeding-Part II: analgesics and other drugs used in rheumatology practice. Rheumatology (Oxford) 2016; 55(9):1698-1702

For more information, visit www.lupusuk.org.uk.

THE FULTIUM-D$_3$ DOSING RANGE OFFERS A SIMPLE APPROACH TO THE TREATMENT OF VITAMIN D DEFICIENCY[1-5]

Vitamin D deficiency is a serious National problem

Vitamin D deficiency is a serious problem in the UK.[6] Up to 50% of the adult population become vitamin D insufficient during winter and spring[6,7] and a further 16% suffer vitamin D deficiency.[7] This can have a significant negative impact on people's lives.[6-10] Not only does vitamin D deficiency cause fatigue, muscle weakness and pain,[8] it can lead to reduced bone density (a contributor to osteoporosis and fractures).

Specific groups are at greater risk of vitamin D deficiency

Some people are at greater risk of vitamin D deficiency, including:[9,11]

- Pregnant and breastfeeding women
- Individuals with dark or covered skin
- The very young (under 4 years)
- Those over the age of 65 years
- Those who are housebound.

NICE and the ROS recommend that those at increased risk of vitamin D deficiency should receive supplements whenever possible[8,9]

Fultium-D$_3$ dosing range

The Fultium-D$_3$ dosing range offers a simple approach to both loading and maintenance vitamin D supplementation and is formulated to suit all patient groups including pregnant and breast-feeding women*.[1-5]

Fultium-D$_3$ Capsules 3,200 IU:[1]

A simple once-a-day treatment for vitamin D deficiency for a wide variety of patients, including pregnant and breast-feeding women, for up to 12 weeks

Fultium-D$_3$ Capsules 20,000 IU:[2]

An option for twice-weekly loading doses over 7 weeks

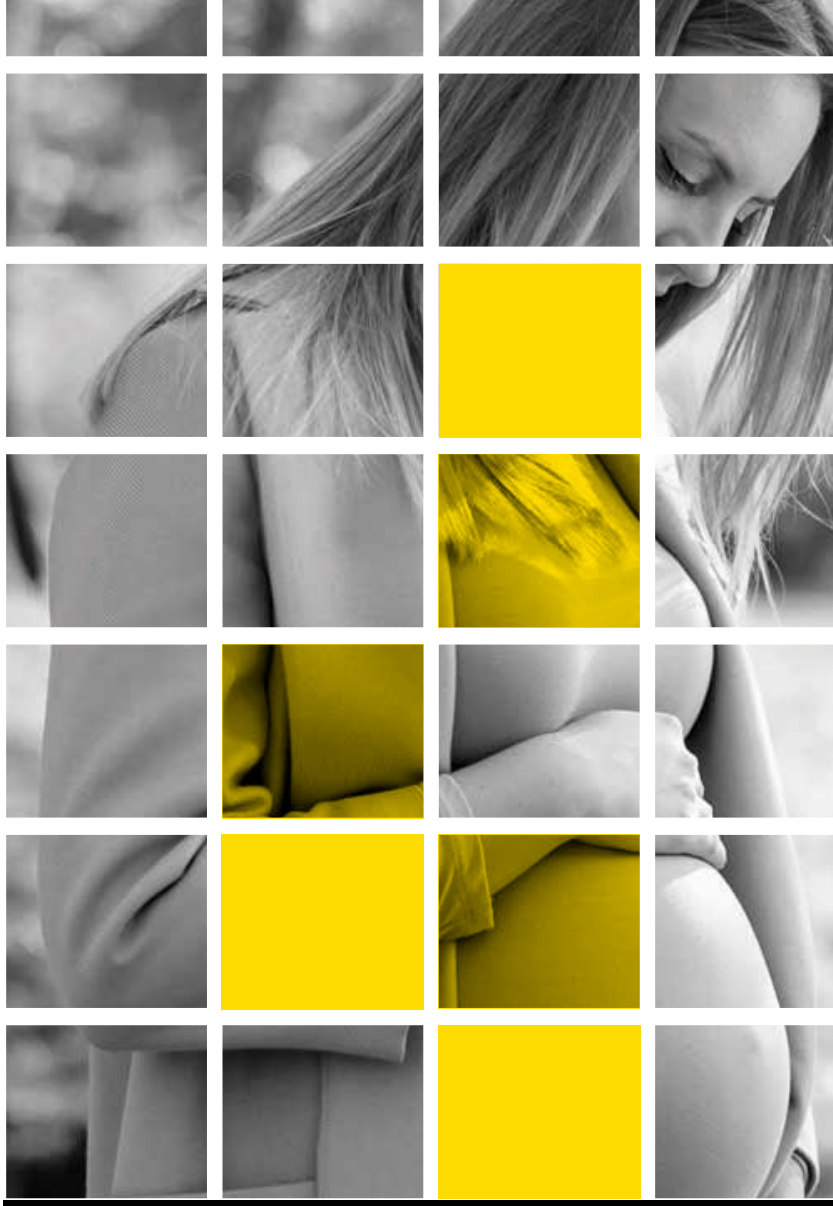
Fultium-D$_3$ Capsules 800 IU:[4]

Providing a once-a-day maintenance dose. Approved for use in pregnancy and lactating women[4]

Fultium-D$_3$ Drops Colecalciferol 2,740 IU/ml[3]:

Allowing patients a variable dosage regimen for deficiency or ongoing maintenance; suitable for use from birth and in adults

*Not all doses have posology in pregnancy and breastfeeding. Use care when prescribing in pregnancy, as high doses of colecalciferol may affect the foetus. Always refer to the SmPC prior to prescribing.



Recommended Dosing Strategies

- In adults, a once-a-day loading dose can be given for up to 12 weeks, for a total loading dose of approximately 300,000 IU[8].
- After correcting vitamin D deficiency, the CMOs of England and NICE recommend on-going maintenance therapy in all high-risk groups.[13]

By selecting Fultium-D$_3$ by name, healthcare professionals can be confident they are prescribing an effective licensed treatment that is consistent and of pharmaceutical-grade quality.[14]

Fultium-D$_3$ – the UK's leading range of licensed vitamin D[12]

Fultium-D3 800 IU, 3,200 IU & 20,000 IU Capsules Abbreviated Prescribing Information Please refer to the appropriate Summary of Product Characteristics (SmPC) before prescribing Fultium-D3. Use care when prescribing in pregnancy, as high doses of colecalciferol may affect the fetus. **Fultium-D3 Capsules:** Each Fultium-D3 800 IU capsule contains colecalciferol 800 IU equivalent to 20 micrograms vitamin D3. Each Fultium-D3 3,200 IU capsule contains colecalciferol 3,200 IU equivalent to 80 micrograms vitamin D3. Each Fultium-D3 20,000 IU capsule contains colecalciferol 20,000 IU equivalent to 500 micrograms vitamin D3. **Indication:** Fultium-D3 800 & 20,000 IU capsules. Prevention and treatment of vitamin D deficiency. As an adjunct to specific therapy for osteoporosis in patients with vitamin D deficiency or at risk of vitamin D insufficiency. Fultium-D3 3,200 IU capsules only. Treatment of vitamin D deficiency. **Dosage and administration:** Adults and the elderly. Treatment of Vitamin D deficiency (serum levels <25nmol/l (<10ng/ml)). Depending on the severity of the disease and the patient's response to treatment: 1-4 Fultium-D3 800 IU capsules daily for up to 12 weeks or 1 Fultium-D3 3,200 IU capsule daily for up to 12 weeks or 2 Fultium-D3 20,000 IU capsules per week for 7 weeks. Prevention of vitamin D deficiency. 1-2 Fultium-D3 800 IU capsules (800-1600 IU) daily or 1 Fultium-D3 20,000 IU capsule per month. Long term maintenance therapy following deficiency treatment or vitamin D insufficiency (serum levels 25-50nmol/l (10-20ng/ ml). 1-2 Fultium-D3 800 IU capsules daily. Children over 12 years. Depending on the severity of the disease and the patient's response to treatment: 1 Fultium-D3 800 IU capsule daily (for prevention/ treatment), or 1 Fultium-D3 3,200 IU capsule daily for up to 12 weeks (treatment), or 1 Fultium-D3 20,000 IU every 6 weeks (prevention), or 1 Fultium-D3 20,000 IU every 2 weeks to 6 weeks (treatment). Should only be given under medical supervision. **Not recommended for use in children under 12 years.** For oral use. Swallow capsules whole with water. Contraindications: Hypersensitivity to vitamin D or any of the excipients in the product; hypervitaminosis D; nephrolithiasis; diseases or conditions resulting in hypercalcaemia and/or hypercalciuria; severe renal impairment. Warnings and Precautions: Use with caution in patients with impaired renal function or sarcoidosis and monitor the effect on calcium and phosphate levels. In patients with severe renal insufficiency, vitamin D in the form of colecalciferol is not metabolised normally and other forms of vitamin D should be used. In cases of long-term daily doses exceeding 1,000 IU, monitor serum calcium levels. Use caution in patients receiving treatment for cardiovascular disease. Consider vitamin D supplementation from other sources. **Interactions:** Concomitant treatment with phenytoin, barbiturates and glucocorticoids can decrease the effect of vitamin D. Attenuation of digitalis and other cardiac glycosides. Absorption of vitamin D may be reduced by ion exchange resins and laxatives. **Pregnancy and lactation:** Use only under medical supervision. Studies have shown safe use up to 4,000 IU daily but reproductive toxicity has been seen in animal studies. The 20,000 IU dose should not be used during pregnancy. Vitamin D is excreted in breast milk, when prescribing additional vitamin D to a breast-fed child consider the dose of any additional vitamin D given to the mother. **Undesirable effects:** Allergic reactions are possible. Uncommon adverse reactions include hypercalcaemia and hypercalciuria. Rare adverse reactions include: pruritus rash and urticaria. **Overdose:** Refer to SmPC. **Legal Category:** POM. **Pack size:** Fultium-D3 800 IU capsules x30 – NHS Price £3.60. Fultium-D3 800 IU capsules x90 – NHS Price £8.85. Fultium-D3 3,200 IU capsules x30 – NHS Price £13.32. Fultium- D3 3,200 IU capsules x90 – NHS Price £39.96. Fultium-D3 20,000 capsules x15 – NHS Price £17.04. Fultium-D3 20,000 capsules x30 – NHS Price £29.00. **MA Number:** 40861/0002 [Fultium-D3 800 IU capsules]. 40861/0003 [Fultium-D3 3,200 IU capsules]. 40861/0004 [Fultium-D3 20,000 IU capsules]. **MA Holder:** Internis Pharmaceuticals Ltd. Linthwaite Laboratories, Linthwaite, Huddersfield, West Yorkshire HD7 5QH, UK. Full Prescribing Information is available from Internis Pharmaceuticals Ltd. **Date of preparation:** August 2018. unique ID no. FUL-458. **Fultium-D3 Drops Abbreviated Prescribing Information** Please refer to the appropriate Summary of Product Characteristics (SmPC) before prescribing Fultium-D3. Use care when prescribing in pregnancy, as high doses of colecalciferol may affect the fetus. **Fultium-D3 Drops:** 1 ml of oral solution contains 2740 IU (68.5 mcg per ml) colecalciferol; 3 drops contains 200 IU colecalciferol. **Indications:** Prevention and treatment of vitamin D deficiency in adults and children, and as an adjunct to specific therapy for osteoporosis in patients with vitamin D deficiency or at risk of vitamin D insufficiency. **Dosage and administration:** For oral use. Can be taken directly or mixed with a small amount of food. Adults. Treatment of deficiency: 12-60 drops (800-4000 IU) daily; During pregnancy and breast-feeding: 6-60 drops (400-4000 IU) daily; Osteoporosis adjunctive therapy: 12 drops (800 IU) daily. Maintenance or prevention of deficiency: 12-24 drops (800-1600 IU) daily; During pregnancy and breast-feeding: 6-30 drops (400-2000 IU) daily. Children. Treatment of deficiency: 0-2 years: 6-15 drops (400-1000 IU) daily; 2-11 years: 6-30 drops (400-2000 IU) daily; 12-18 years: 6-60 drops (400-4000 IU) daily. Maintenance or prevention of deficiency: 0-2 years: 3-15 drops (200-1000 IU) daily; 2-11 years: 6-15 drops (400-1000 IU) daily; 12-18 years: 6-24 drops (400-1600 IU) daily. **Contraindications:** Hypersensitivity to vitamin D or any of the excipients; hypervitaminosis D;
nephrolithiasis; diseases or conditions resulting in hypercalcaemia and/or hypercalciuria; severe renal impairment. **Warnings and Precautions:** Use caution in patients with impaired renal function or sarcoidosis. Monitor effect on calcium and phosphate levels in these patients. Consider risk of soft tissue calcification. Use other forms of vitamin D in cases of severe renal insufficiency. Consider the need for calcium supplementation in individual patients. Where calcium supplementation is necessary, close medical supervision is required. Use caution in patients receiving treatment for cardiovascular disease. Make allowances for vitamin D supplementation from other sources. Monitor to prevent hypercalcaemia. **Interactions:** Concomitant phenytoin, barbiturates and glucocorticoids can decrease the effect of vitamin D. Ion exchange resins, laxatives, actinomycin and imidazole may also reduce the effect of vitamin D. Oral calcium and vitamin D potentiates the effect of digitalis and other cardiac glycosides. **Pregnancy and lactation:** Limited clinical data in pregnancy. Animal studies have shown reproductive toxicity. RDI in pregnancy is 400 IU. Pregnant women who are vitamin D deficient may need a higher dose. Pregnant women should follow the advice of their GP, as their requirements may vary depending on disease severity and response to treatment. Vitamin D and metabolites are excreted in breast milk. Overdose in nursing infants has not been observed, however, when prescribing additional vitamin D to a breast-fed child, consider the maternal dose of any additional vitamin D. **Undesirable effects:** Hypercalcaemia and hypercalciuria. Refer to the SmPC for the full list of side effects. **Legal Category:** POM. **Pack size:** Fultium-D3 Drops, 1 x 25 ml – NHS Price £10.70. **MA Number:** 40861/0005. **MA Holder:** Internis Pharmaceuticals Ltd. Linthwaite Laboratories, Linthwaite, Huddersfield, West Yorkshire HD7 5QH, UK. Full Prescribing Information available. **Date of preparation:** August 2018. unique ID no. FUL-263.

Adverse events should be reported. Reporting forms and information can be found at: www.mhra.gov.uk/yellowcard or search for MHRA Yellow Card in the Google Play or Apple App Store. Adverse events should also be reported to 01484 848164.

References

1. Fultium-D3 3,200 IU capsules. Summary of Product Characteristics. January 2018
2. Fultium-D3 20,000 IU capsules. Summary of Product Characteristics. January 2018.
3. Fultium-D3 Drops. Summary of Product Characteristics. August 2015
4. Fultium-D3 800 IU capsules. Summary of Product Characteristics. January 2018.
5. IMS Data. May 2019.
6. Hyppönen E, Power C. Am J Clin Nutr 2007; 85: 860-868.
7. Pearce SH, Cheetham TD. BMJ 2010 Jan 11; 340: b5664.
8. Francis R, Aspray T, Fraser W, et al. Vitamin D and Bone Health. Royal Osteoporosis Society, December 2018.
9. NICE. Vitamin D: increasing supplement use among at-risk groups. Public health guidance 56. NICE, 2014. Updated August 2017.
10. http://bestpractice.bmj.com/topics/en-gb/641/history-exam#keyFactors
11. Scientific Advisory Committee on Nutrition (SACN) vitamin D and health report 21 July 2016.
12. IMS data. May 2019.
13. Vitamin D - Advice on Supplements for At Risk Groups. Letter from the Chief Medical Officers for the United Kingdom.
14. NHS Clinical Commissioners. Over the counter quick reference guide.

Job code (FUL-529) and date of preparation (March 2020)

L IS FOR LIGHT

...AND LICENSED

Don't stay in the dark by **DISPENSING AN UNLICENSED VITAMIN D** against an open prescription

Fultium®-D$_3$

Colecalciferol

ALWAYS DISPENSE FULTIUM-D$_3$, THE UK'S No.1 LICENSED VITAMIN D BRAND[1]

Fultium-D$_3$ 800 IU, 3,200 IU & 20,000 IU Capsules Abbreviated Prescribing Information
Please refer to the appropriate Summary of Product Characteristics (SmPC) before prescribing Fultium-D$_3$. Use care when prescribing in pregnancy, as high doses of colecalciferol may affect the fetus.
Fultium-D$_3$ Capsules: Each Fultium-D$_3$ 800 IU capsule contains colecalciferol 800 IU equivalent to 20 micrograms vitamin D$_3$. Each Fultium-D$_3$ 3,200 IU capsule contains colecalciferol 3,200 IU equivalent to 80 micrograms vitamin D$_3$. Each Fultium-D$_3$ 20,000 IU capsule contains colecalciferol 20,000 IU equivalent to 500 micrograms vitamin D$_3$. **Indication:** Fultium-D$_3$ 800 & 20,000 IU capsules. Prevention and treatment of vitamin D deficiency. As an adjunct to specific therapy for osteoporosis in patients with vitamin D deficiency or at risk of vitamin D insufficiency. Fultium-D$_3$ 3,200 IU capsules only. Treatment of vitamin D deficiency. **Dosage and administration:** Adults and the elderly. Treatment of Vitamin D deficiency (serum levels <25nmol/l (<10ng/ml)). Depending on the severity of the disease and the patient's response to treatment: 1-4 Fultium-D$_3$ 800 IU capsules daily for up to 12 weeks or 1 Fultium-D$_3$ 3,200 IU capsule daily for up to 12 weeks or 2 Fultium-D$_3$ 20,000 IU capsules per week for 7 weeks. Prevention of vitamin D deficiency. 1-2 Fultium-D$_3$ 800 IU capsules (800-1600 IU) daily or 1 Fultium-D$_3$ 20,000 IU capsule per month. Long term maintenance therapy following deficiency treatment or vitamin D insufficiency (serum levels 25-50nmol/l (10-20ng/ml). 1-2 Fultium-D$_3$ 800 IU capsules daily. Children over 12 years. Depending on the severity of the disease and the patient's response to treatment: 1 Fultium-D$_3$ 800 IU capsule daily (for prevention/ treatment), or 1 Fultium-D$_3$ 3,200 IU capsule daily for up to 12 weeks (treatment), or 1 Fultium-D$_3$ 20,000 IU every 6 weeks (prevention), or 1 Fultium-D$_3$ 20,000 IU every 2 weeks to 6 weeks (treatment). Should only be given under medical supervision. **Not recommended for use in children under 12 years.** For oral use. Swallow capsules whole with water. **Contraindications:** Hypersensitivity to vitamin D or any of the excipients in the product; hypervitaminosis D; nephrolithiasis; diseases or conditions resulting in hypercalcaemia and/or hypercalciuria; severe renal impairment. **Warnings and Precautions:** Use with caution in patients with impaired renal function or sarcoidosis and monitor the effect on calcium and phosphate levels. In patients with severe renal insufficiency, vitamin D in the form of colecalciferol is not metabolised normally and other forms of vitamin D should be used. In cases of long-term daily doses exceeding 1,000 IU, monitor serum calcium levels. Use caution in patients receiving treatment for cardiovascular disease. Consider vitamin D supplementation from other sources. **Interactions:** Concomitant treatment with phenytoin, barbiturates and glucocorticoids can decrease the effect of vitamin D. Attenuation of digitalis and other cardiac glycosides. Absorption of vitamin D may be reduced by ion exchange resins and laxatives. **Pregnancy and lactation:** Use only under medical supervision. Studies have shown safe use up to 4,000 IU daily but reproductive toxicity has been seen in animal studies. The 20,000 IU dose should not be used during pregnancy. Vitamin D is excreted in breast milk, when prescribing additional vitamin D to a breast-fed child consider the dose of any additional vitamin D given to the mother. **Undesirable effects:** Allergic reactions are possible. Uncommon adverse reactions include hypercalcaemia and hypercalciuria. Rare adverse reactions include: pruritus rash and urticaria. **Overdose:** Refer to SmPC. **Legal Category:** POM. **Pack size:** Fultium-D$_3$ 800 IU capsules x30 – NHS Price £3.60. Fultium-D$_3$ 800 IU capsules x90 – NHS Price £8.85. Fultium-D$_3$ 3,200 IU capsules x30 – NHS Price £13.32. Fultium- D$_3$ 3,200 IU capsules x90 – NHS Price £39.96. Fultium-D$_3$ 20,000 capsules x15 – NHS Price £17.04. Fultium-D$_3$ 20,000 capsules x30 – NHS Price £29.00. **MA Number:** 40861/0002 [Fultium-D$_3$ 800 IU capsules]. 40861/0003 [Fultium-D$_3$ 3,200 IU capsules]. 40861/0004 [Fultium-D$_3$ 20,000 IU capsules]. **MA Holder:** Internis Pharmaceuticals Ltd. Linthwaite Laboratories, Linthwaite, Huddersfield, West Yorkshire HD7 5QH, UK. *Full Prescribing Information is available from Internis Pharmaceuticals Ltd.* **Date of preparation:** August 2018. unique ID no. FUL-458.

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Adverse events should be reported. Reporting forms and information can be found at: www.mhra.gov.uk/yellowcard or search for MHRA Yellow Card in the Google Play or Apple App Store.
Adverse events should also be reported to 01484 848164.

Reference: 1. IQVIA Data (52 weeks RxA and HPA) November 2019.

Thornton & Ross PHARMACEUTICALS STADA GROUP

FUL-527a Date of preparation: January 2020

ASTHMA

UNDER THE SUN

Feeling the warmth of the sun can be a welcome relief after months of cold weather, but the start of summer can herald months of misery for millions of people with asthma. While we often think of asthma symptoms being worse in the winter, there are lots of asthma triggers around in the warmer weather too, leading to coughing, wheezing and life-threatening asthma attacks. Here, Jessica Kirby, Head of Health Advice at Asthma UK, imparts her expert advice on how people with asthma can stay well during the summer.

Jessica Kirby

Asthma is a long-term breathing condition that affects 5.4 million people in the UK. People have an asthma attack when something triggers the muscles in their airways – the tubes that carry air in and out of your lungs – to tighten and cause sticky mucus to build up. This narrows the airways and makes it hard for people to breathe, leading to asthma symptoms, such as chest tightness, wheezing, coughing or waking at night with a cough.

HOW IS ASTHMA TREATED?

Most people with asthma are prescribed two types of inhalers; a preventer inhaler, which is usually brown, and a reliever inhaler, which is usually blue.

Preventer inhalers are a long-term treatment and taking them regularly as prescribed – usually every day – is the most important thing people with asthma can do to manage their asthma. They help to reduce the sensitivity and inflammation in the airways, meaning that people will be less likely to experience asthma symptoms and are less likely to have an asthma attack.

Everyone with asthma should also make sure that they carry their reliever inhaler with them at all times, as they're used to quickly treat the symptoms of asthma during an asthma attack.

WHAT SPECIFIC FACTORS CAN MAKE ASTHMA WORSE DURING THE SUMMER?

Over the summer months, people with asthma are exposed to many triggers at the same time, such as pollen, air pollution and smoke from barbeques and cigarettes. Being around many asthma triggers at once can put people at an increased risk of a life-threatening asthma attack.

Humid and stormy weather conditions can also make things worse, as it can break particles of pollen and pollution into much smaller pieces. These tiny particles can be inhaled much more deeply into people's lungs and irritate their airways.

Compared to winter time, people with asthma may feel generally better during the summer months as there aren't as many cold and flu viruses going around. But this may mean that people are less likely to take their preventer inhaler (usually brown), which could make them more likely to react to their asthma triggers.

UP TO 80 PER CENT OF PEOPLE WITH ASTHMA ALSO HAVE HAY FEVER. WHAT CAN ASTHMA SUFFERERS WHO ALSO HAVE HAY FEVER DO TO ALLEVIATE SYMPTOMS?

Pollen is a top trigger for asthma attacks at this time of year, affecting an estimated 3.3 million people in the UK with asthma. People with asthma have airways that are more sensitive to certain allergens, like pollen, so hay fever and asthma are closely linked.

People with asthma who also have a pollen allergy not only

experience classic hay fever symptoms, such as itchy eyes and a running nose, but are also at an increased risk of a life-threatening asthma attack. Asthma UK's research has revealed that people with asthma say hay fever can disrupt their work, and has even caused teenagers taking exams to drop a grade.

People who have asthma and a pollen allergy should take hay fever medicines, such as antihistamines and nasal steroid sprays, and make sure that they take their preventer inhaler as prescribed. These will help to relieve their symptoms and reduce their risk of an asthma attack.

For more information on asthma and pollen, visit www.asthma.org.uk/advice/triggers/pollen.

WHAT PRACTICAL ADVICE CAN HEALTHCARE PROFESSIONALS GIVE TO PEOPLE WITH ASTHMA DURING THE SUMMER MONTHS?

It can be difficult to avoid triggers like pollution and pollen entirely, and the most important thing that people with asthma can do is take their preventer medication regularly as prescribed (usually every day). This reduces and soothes the inflammation in people's airways, meaning that they are less likely to react to asthma triggers. There are also a few simple things people with asthma tell us they find helpful to limit their exposure to triggers like pollen and pollution:

- During peak pollen months, keep doors and windows closed and dust regularly with a damp cloth to minimise the amount of pollen inside the house. Some people find that it helps to change their clothes and shower when they get home, as this washes away any pollen particles in their hair
- When going outside, people should always check the pollen forecasts beforehand and try to avoid spending too much time outside when the count is particularly high. It may also help if people avoid drying clothes outside on high count days as pollen particles can stick to clothes and sheets, which can make symptoms worse at nighttime
- If people find that pollution triggers their asthma, it's a good idea to check the pollution forecast in their area before heading out. Air quality tends to be better earlier in the day, so it's better to go out in the morning to avoid higher levels of pollution. When this isn't possible, people should try to stick to back streets where there are fewer cars, and try to avoid exercising close to main roads
- Everyone with asthma should always keep their reliever inhaler with them at all times, as triggers can be unpredictable. Reliever inhalers quickly address asthma symptoms, such as wheezing, coughing and a tight chest

HOW TO KEEP CHILDREN WITH ASTHMA SAFE DURING THE HOLIDAYS

Throughout the summer it's vital for parents to keep up their child's normal preventer medicine routine. It's easy for health routines to go out of the window as children enjoy their time off from school, but taking a preventer inhaler regularly will help to protect their child from an asthma attack.

WHAT PARENTS SHOULD DO IF THEIR CHILD HAS AN ASTHMA ATTACK

If a child needs to use their reliever inhaler three or more times a week, they are feeling out of breath, waking at night with a cough due to their asthma, or struggling with daily activities compared to normal, parents should treat this as an emergency and get medical help and see their GP urgently to try to get their symptoms back under control. If their child is having an asthma attack, they should help them sit up and keep calm and help them take one puff of their reliever inhaler every 30-to-60 seconds, up to 10 puffs. Parents should call the local emergency number for an ambulance if their symptoms are getting worse, they don't feel better after 10 puffs, or if they're worried at any time. They should repeat, helping them take one puff of their reliever inhaler every 30-to-60 seconds if the ambulance is taking longer than 15 minutes.

It's a good idea for them to take a photo of Asthma UK's asthma attack infographic for children and keep it on their phone, as this will provide the step-by-step information which they need to help their child.

ABOUT ASTHMA UK

Asthma UK provides advice and guidance to people with asthma through its website and nurse-staffed telephone helpline, and funds research into a cure for asthma.

For more information on managing asthma triggers, visit www.asthma.org.uk/triggers.

PROMOTION

A HARD ACT TO SWALLOW

Working with the aim of making life easier for individuals contending with gastroesophageal reflux disease, an innovative new product is providing an effective solution for swallowing issues. SPR gets to the bottom of the condition and the new help at hand for this patient group.

Despite being a common disorder and a source of considerable distress, the emotional and physical burden experienced by individuals with gastroesophageal reflux disease (GORD) – and often their parents – is frequently under-estimated. To help alleviate stress and pave a path of improvement for this segment of patients, it is crucial to guide them towards a workable management plan.

THE ROOT OF THE PROBLEM

Reflux – widely identified as heartburn – can cause irritation and damage. Although mild reflux is fairly common, consistent, severe occurrences, taking the form of GORD, represent a cause for concern; subsequently warranting assistance.

The digestive disorder is generally accepted as being caused by gastric acid from the stomach flowing back up into a person's food pipe, or oesophagus. This back-up can happen when the lower oesophageal sphincter, a muscle that briefly opens to let food into the stomach and closes to take food inside, relaxes too often or for too long. Besides causing the burning sensation in the throat and chest via heartburn, GORD can damage tissues and cause food to be regurgitated.

In terms of its presentation, GORD's symptoms can vary from person-to-person, but tend to be persistent, such as chronic heartburn and regurgitation of acid. However, sometimes there are no apparent symptoms, and the presence of GORD is revealed when complications become evident.

A BETTER WAY FORWARD

As the experts in developing effective solutions for patient groups with swallowing issues – boasting over 50 years' dedicated experience in this specialty – Rosemont are now proud to announce the launch of their latest innovation for these vulnerable patients, the first licensed liquid omeprazole. Rosemont Omeprazole Powder for Oral Suspension will be available in 2mg/ml and 4mg/ml strengths.

Omeprazole in a liquid format has long been an unsatisfied need in patients with swallowing issues, previously having only been available as an unlicensed special. Licensed tablets and capsules can also present problems for patients with swallowing difficulties, patients with PEG/NG tubes and infants from one month requiring treatment for GORD.

Rosemont Omeprazole Powder for Oral Suspension is the result of extensive research and development; it is a major advance in formulation, overcoming some of the obstacles of the previously available options.

Omeprazole Powder for Oral Suspension has been developed in an innovative and patented format that makes constitution easy. It avoids the limitations of enteric coated pellets and has a pre-constitution shelf life of two years. The product negates the need to crush tablets, open capsules or order specials. To meet the needs of all patient groups, it is available in both 2mg/ml and 4mg/ml strengths and is licensed for use with PEG/NG tubes.

Howard Taylor, General Manager, Rosemont Pharmaceuticals, commented on the product launch, saying, 'I am delighted that following extensive research and development, Rosemont are able to bring to market this much requested, innovative product which fulfils a previously unmet need for both patients and healthcare professionals.'

ONE FOR THE AGES

Gastric reflux is common in infants because the band of muscle, or sphincter, that squeezes the top opening of the stomach shut, does not yet close at full strength. As a result, babies often have reflux and spit up after feeding. When reflux happens within several minutes of other more alarming symptoms, such as a drop in heart rate, apnoea, coughing or gagging, arching of the back, incessant crying, and wheezing, physicians may suspect gastric reflux disease, or GORD.

With this in mind, Rosemont's new development is also significant in meeting the special needs of infants with GORD. It is the only PPI formulation licensed for babies from one month, and the only liquid PPI with mg/kg dosing, allowing for dose titration below 10mg.

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Abbreviated Prescribing Information: Omeprazole 2mg/ml and 4mg/ml, Powder for Oral Suspension. **Consult Summary of Product Characteristics before prescribing. Presentation:** The reconstituted suspension will be a white / off-white / brownish suspension containing 2mg/ml or 4mg/ml omeprazole. **Therapeutic Indications:** *Adults:* Treatment of duodenal ulcers, gastric ulcers, NSAID-associated gastric and duodenal ulcers, reflux esophagitis, symptomatic gastro-esophageal reflux disease, prevention of relapse of duodenal ulcers, gastric ulcers, NSAID-associated gastric and duodenal ulcers, in combination with appropriate antibiotics, Helicobacter pylori (H. pylori) eradication in peptic ulcer disease, long-term management of patients with healed reflux esophagitis. *Paediatric use:* Children over 1 month of age: treatment of reflux esophagitis, symptomatic treatment of heartburn and acid regurgitation in gastro-esophageal reflux disease. Children over 4 years of age and adolescents: In combination with antibiotics in treatment of duodenal ulcer caused by H. pylori. **Posology and Method of Administration:** *Adults: Treatment and prevention of relapse of duodenal ulcers, gastric ulcers:* 10 – 40mg once daily. *H. pylori eradication* 20 – 40mg once or twice daily + suitable antibiotic for one week, which may be repeated. *Treatment and prevention of NSAID-associated gastric and duodenal ulcers:* 20mg once daily, for 4 weeks, which may be repeated. *Treatment of reflux esophagitis:* 20mg once daily for 4 weeks, which may be repeated. Severe esophagitis 40mg once daily for 8 weeks. *Long-term management of patients with healed reflux esophagitis:* 10 – 40mg once daily. *Treatment of symptomatic gastro-esophageal reflux disease:* 10 – 20mg daily. **Paediatric population:** 1 month to 1 year: 1mg/kg once daily. ≥ 1 year 10 – 20mg once daily. ≥ 2 years of age 20 – 40mg once daily. *Reflux esophagitis:* Treatment 4 – 8 weeks. *Symptomatic treatment of heartburn and acid regurgitation in gastro-esophageal reflux disease:* Treatment 2 - 4 weeks. *Children over 4 years of age and adolescents: Treatment of duodenal ulcer caused by H. pylori:* 10 – 20mg depending on weight + suitable antibiotic twice daily for one week. *Special populations:* Dose adjustment is not needed in patients with impaired renal function. In patients with impaired hepatic function a daily dose of 10 – 20mg may be sufficient. Dose adjustment is not needed in the elderly. *Method of administration:* Oral suspension should be taken on an empty stomach, at least 30 minutes before a meal. Can be administered via nasogastric (NG) or percutaneous endoscopic gastrostomy (PEG) tubes. **Contra-indications:** Hypersensitivity to the active substance, substituted benzimidazoles or to any of the excipients. Omeprazole must not be used with nelfinavir. **Excipient warnings:** contains sodium, potassium, sodium methyl para hydroxybenzoate, sodium benzoate and maltitol. **Drug interactions:** Active substances with pH dependent absorption. *Not recommended:* atazanavir, digoxin, dopidogrel, posaconazole, erlotinib, ketoconazole, itraconazole and active substances metabolised by or inhibitors/inducers of CYP2C19 or CYP3A4. *Unkown mechanism:* Saquinavir/ritonavir, tacrolimus, methotrexate. **Special Warnings and Precautions for use:** malignancy, reduced vitamin B_{12} absorption, severe hypomagnesaemia, increased risk of bone fracture, subacute cutaneous lupus erythematosus (SCLE), gastrointestinal infections may occur, treatment should be stopped for at least 5 days before CgA measurement. **Fertility, Pregnancy and Lactation:** Omeprazole can be used during pregnancy. Omeprazole is excreted in breast milk but is not likely to influence the child when therapeutic doses are used. Animal studies do not indicate effects on fertility. **Effects on Ability to Drive and Use Machines:** Is not likely to affect the ability to drive or use machines. **Undesirable Effects:** Adults and children: Common: headache, abdominal pain, constipation, diarrhoea, flatulence, nausea/vomiting, fundic gland polyps. Uncommon: Insomnia, dizziness, paraesthesia, somnolence, vertigo, increased liver enzymes, dermatitis, pruritus, rash, urticaria, fracture of the hip, wrist or spine, malaise, peripheral oedema. Rare: leukopenia, thrombocytopenia, hypersensitivity reactions, hyponatraemia, agitation, confusion, depression, taste disturbance, blurred vision, bronchospasm, dry mouth, stomatitis, gastrointestinal candidiasis, hepatitis, alopecia, photosensitivity, arthralgia, myalgia, interstitial nephritis, increased sweating. Very rare: agranulocytosis, pancytopenia, aggression, hallucinations, hepatic failure, encephalopathy in patients with pre-existing liver disease, erythema multiforme, Stevens-Johnson syndrome, toxic epidermal necrolysis, muscular weakness, gynaecomastia. Not known: hypomagnesaemia, hypocalcaemia. Hypomagnesaemia may also be associated with hypokalaemia, microscopic colitis, subacute cutaneous lupus erythematosus. **Overdose:** The symptoms described have been transient, and no serious outcome has been reported. Treatment is symptomatic. **Shelf Life and storage:** Dry Powders: 24 months. Constituted suspension: 28 days. The constituted suspension should be stored in a refrigerator (2°C - 8°C). Store in the original container in order to protect from light. Keep the bottle tightly closed. For up to 2 days it may be stored below 25°C. Dry Powders: Do not store above 25°C. Store in the original foil pouch in order to protect from light and moisture. **Legal Category:** POM. **Pack Size and NHS Price:** 2mg/ml x 75ml - £92.17, 4mg/ml x 75ml - £178.35. **Marketing Authorisation Number:** 2mg/ml – PL 34111/0002, 4mg/ml – PL 34111/0003. **Marketing Authorisation Holder:** Xeolas Pharmaceuticals Limited, Hamilton Building, DCU, Glasnevin, Dublin 9, IRELAND. **Date of Preparation:** January 2020.

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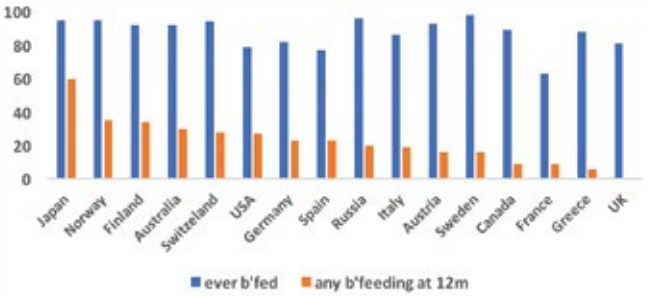
FEEDING FOR THOUGHT

Despite its established benefits, breastfeeding is no longer a norm in many communities. Wendy Jones PhD MRPharmS MBE highlights the UK's breastfeeding rates and weighs in on the myriad of underlying factors relating to new mothers' reluctance.

According to the 2016 Lancet Series on breastfeeding, 'The success or failure of breastfeeding should not be seen solely as the responsibility of the woman. Her ability to breastfeed is very much shaped by the support and the environment in which she lives. There is a broader responsibility of governments and society to support women through policies and programmes in the community.' (Rollins, 2016)

The last accurate data we have on the incidence and prevalence was reported in 2012 (McAndrew) when 81 per cent of women initiated breastfeeding but at 12 months the UK has the lowest breastfeeding rate in the world at 0.5 per cent. (Lancet Series, 2016)



Incidence of breastfeeding at delivery (Lancet, 2016)

Due to financial governmental constraints, national support for breastfeeding is being slowly eroded. A recent report by Better Breastfeeding found that at least 44 per cent of local authority areas in England had experienced recent cuts to funding that they could use to support breastfeeding mothers. (Guardian, 2018) In the absence of skilled face-to-face support, mothers are finding it increasingly hard to achieve effective feeding which is pain-free and are turning to peer supporters of the voluntary organisations, such as the Breastfeeding Network (BfN), Association of Breastfeeding Mothers (ABM), NCT and La Leche League.

Around 17 per cent of pregnant mothers (McAndrew, 2012) said that they did not wish to breastfeed and planned to formula feed from birth.

The reasons cited for this are in the table below:

	PER CENT
Fed previous children with infant formula	21
Did not like the idea of breastfeeding	20
Convenient / due to mother's lifestyle	19
Other people can feed baby	17
Breastfed previous children and didn't get on with it / put off by others' experience	11
Medical reasons for not breastfeeding	10
Would be embarrassed to breastfeed	10
Can see how much the baby has had	5
Had problems breastfeeding (unspecified) / not enough support (1)	4
No particular reason	4
Domestic reasons, coping with other children	3
Expecting to return to work / college soon	1
Feeding with infant formula is less tiring / is quicker	1

Reasons cited by mothers for choosing to formula feed from birth (McAndrew, 2012)

According to the Infant Feeding Survey (McAndrew, 2012), 69 per cent of mothers who chose not to breastfeed were aware of the health benefits and 56 per cent could name at least one, with almost one-fifth having received the information from a healthcare professional. We know that being younger at the time of delivery, leaving school before 18, having friends and family who formula fed, are all indicators that a mother may be less likely to choose to breastfeed. (McAndrew, 2012) However, we can't make assumptions and all mothers, in my opinion, should be asked how they are feeding their baby each time they seek medical advice or treatment. Some professionals will be working in areas where the uptake of breastfeeding is very low, others where it is higher, but everyone is an individual. All babies are now left in skin-to-skin after birth and some will latch on even if the mother had previously decided not to breastfeed.

The economic costs of not breastfeeding have recently been estimated at $1 billion USD each day globally. (Lancet Series, 2016) The marketing of breastmilk substitutes negatively affects breastfeeding: global sales in 2014 of US$44·8 billion show the industry's large, competitive claim on infant feeding.

However, since the sudden and rapid changes following the declaration of the pandemic of COVID-19, at the National Breastfeeding Helpline (a government-funded initiative operated by BfN and ABM) there have been many calls from mothers wishing to re-lactate having recently stopped breastfeeding, or to seek support for breastfeeding problems.

These queries are being answered by supporters who have breastfed, in their own homes using the telephone or options, such as Skype. There have been national difficulties with sourcing artificial baby milk and together with the protection offered to babies from breastfeeding even if the mother has contracted the virus herself (UNICEF and BfN), a movement to protect breastfeeding seems to be building. Whether this continues after the current crisis, we can't know.

Breastfeeding initiation and continuation is affected by so many factors. It has long been said that it takes a village to raise a child – society can do much to undermine breastfeeding by negative images, lack of breastfeeding-friendly facilities, and just the assumption that all babies need bottles and formula. Currently local communities seem to be functioning more like villages with more compassion for everyone. Will breastfeeding rates change? Who can tell? Stay safe and well.

For more information, visit www.breastfeeding-and-medication.co.uk.

REFERENCES

- Guardian (2018) Breastfeeding support services failing mothers due to cuts (27/07/18) www.theguardian.com/lifeandstyle/2018/jul/27/breastfeeding-support-services-failing-mothers-due-to-cuts
- McAndrew F, Thompson J, Fellows L, Large A, Speed M. Renfrew MJ Infant Feeding Survey 2012
- The Lancet. Breastfeeding Series 2016. www.thelancet.com/series/breastfeeding
- UNICEF and Coronavirus Guidelines. www.unicef.org.uk/coronavirus-facts/
- The Breastfeeding Network and Coronavirus. www.breastfeedingnetwork.org.uk/coronavirus

Wendy Jones

Abbott

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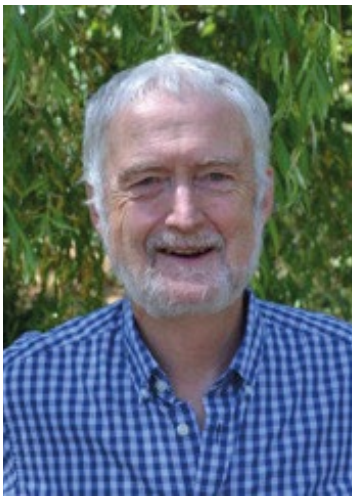
REFERENCES: 1. Sampson HA *et al. J Pediatr* 1991:118(4): 520-525. **2.** Data on file. Abbott Laboratories Ltd. 2013 (Similac Alimentum case studies). **3.** Borschel MW and Braggs GE. *T O Nutr J* 2015:9:1-4. **4.** MIMS. Sept. 2019.

Date of preparation: October 2019 | ANUKANI190323

SPOTLIGHT ON: IDIOPATHIC PULMONARY FIBROSIS

Idiopathic pulmonary fibrosis is a devastating condition characterised by increasing breathlessness, disability and death three-to-four years after diagnosis. (1) How can the sector move towards greater equality in care and treatment for patients? Steve Jones, Chair, Action for Pulmonary Fibrosis, offers his view.



Steve Jones

Idiopathic pulmonary fibrosis (IPF) is an incurable lung disease in which scars are formed in the lung tissues. Only 25 per cent of people survive for five years. IPF has a worse prognosis than most cancers.

Over 30,000 people in the UK live with IPF and over 5,000 people a year die from the disease. It is remorseless and the fourth biggest respiratory killer after lung cancer, COPD and pneumonia. (2) IPF kills more people in the UK than leukemia (3), but few people have heard of the disease. It generally occurs in people over 50 years of age and affects men more than women. Unlike many respiratory diseases, it is spread evenly through all sections of society.

Scientists don't know the exact cause of IPF. It's believed to be triggered, in people with a genetic precondition, by exposure to cigarette smoke, dust and pollution. Acid reflux from the stomach may also play a role. Similar progressive fibrotic diseases, where the cause is known, include asbestosis, bird fanciers' lung and farmer's lung disease.

Epidemiological research indicates that the incidence of IPF is increasing rapidly at two-to-three per cent annually. (4) The reason for this is not clear.

INEQUALITIES IN CARE AND TREATMENT

IPF generally starts slowly and patients are often treated for other conditions, such as chest infections, asthma and heart failure, before they get the IPF diagnosis. GPs misdiagnose up to 35 per cent of patients, which delays referral to hospital respiratory specialists. (5)

Long NHS waiting times for hospital appointments also delay diagnosis and treatment. Fewer than 50 per cent of patients get the diagnosis within six months of their first visit to their GP, and for 20 per cent of patients it takes over two years. (6)

Although IPF has such a poor prognosis, patients don't receive the same level of care as cancer patients. Cancer patients have a clear pathway designed to ensure timely and accurate diagnosis and treatment. They must start treatment within 62 days of a GP's referral and are provided access to a specialist nurse. The timeline for IPF patients is less strict – patients must be seen by a hospital doctor within 18 weeks. IPF patients who attend one of the 23 specialist centres in England generally have access to a specialist nurse, but this is generally not the case at district hospitals.

Two anti-scarring drugs are available, which slow down progress of the disease. They are expensive and have a number of side-effects. The National Institute of Health and Care Excellence will not allow them to be prescribed to early-stage patients. This restriction is of great concern to patients and their families. The UK is the only country in Europe where this is the case.

People with IPF may also be offered pulmonary rehabilitation (involving exercise classes and education), cough suppressants and oxygen therapy to help alleviate some of the severe symptoms, such as fatigue, cough and breathlessness associated with IPF.

As the disease takes hold, patients become more and more breathless. Initially, they are unable to climb stairs and eventually find walking on the flat difficult. They become dependent on supplementary oxygen. Their world closes in on them and they feel isolated.

Patient support groups can play a vital role in helping patients and their families overcome this feeling of loneliness and find information and support.

Patient charities, such as Action for Pulmonary Fibrosis, have galvanised the community by raising money, funding research, helping to set-up over 75 local support groups and providing educational resources for patients, carers and healthcare professionals.

HOPE FOR THE FUTURE

Although IPF is a deadly disease, increased collaboration between doctors, scientists and patient advocacy groups is leading to real improvements in outcomes for patients with this devastating disease. New anti-scarring drugs are being developed and new genetic insights into the disease have raised the prospect of precision medicine using targeted treatments tailored to patients with specific genetic or molecular abnormalities. The main challenge, in the years ahead, will be to ensure adequate funding for research on IPF and to pay for costly new treatments needed for rising numbers of IPF patients.

Action for Pulmonary Fibrosis is the leading pulmonary fibrosis charity in the UK. The charity supports patients and their families and raises awareness through campaigning, fundraising and education, as well as funding innovative research to find a cure for the disease.

For more information, visit www.actionpulmonaryfibrosis.org.

REFERENCES

1. Ley, B. et al. 2011. Clinical Course and Prediction of Survival in Idiopathic Pulmonary Fibrosis. American Journal of Respiratory Critical Care Medicine. Vol 183. Pp 431-440
2. British Lung Foundation. Idiopathic Pulmonary Fibrosis Statistics. https://www.blf.org.uk/support-for-you/idiopathic-pulmonary-fibrosis-ipf/statistics. Last accessed 2nd September 2019
3. Cancer Research UK. Cancer Statistics by type – Leukemia. https://www.cancerresearchuk.org/health-professional/cancer-statistics/statistics-by-cancer-type/leukaemia. Last accessed 2nd September 2019
4. Hutchinson, J. et al. 2014. Increasing global mortality from idiopathic pulmonary fibrosis in the twenty-first century. AnnalsATS Volume 11, Number 8, pp 1176-1185
5. Action for Pulmonary Fibrosis. 2018 Patient Survey – Giving Patients a Voice. https://www.actionpulmonaryfibrosis.org/wp-content/uploads/2019/03/APF-Report-Final-070319-crop.pdf. Last accessed 2nd September 2019
6. Action for Pulmonary Fibrosis. 2018 Patient Survey – Giving Patients a Voice. https://www.actionpulmonaryfibrosis.org/wp-content/uploads/2019/03/APF-Report-Final-070319-crop.pdf. Last accessed 2nd September 2019

ON THE RIGHT PATH

What approach should healthcare professionals take when treating and managing chronic constipation and faecal impaction in children? Brenda Cheer, Paediatric Specialist Continence Nurse and Nurse for ERIC, The Children's Bowel & Bladder Charity, shares the key guidelines and resources which can help inform their strategy and provide support to patients and their parents alike.

Brenda Cheer

The most common bowel problem in children is constipation. This distressing and frequently misunderstood condition can start at any age (including babies) and affects up to 30 per cent of all children. (Tabbers & Benninga (2015) Constipation in Children: Fibre and Probiotics) Characterised by the inability to do a poo regularly or to completely empty the bowel, this distressing medical condition is particularly common among toddlers and pre-schoolers.

CONSTIPATION MYTH BUSTING

Contrary to the widely-held belief, even among the healthcare community, constipation is rarely the result of a poor diet, laziness or poor parenting. It is a common medical condition which some children and young people are simply prone to. It's also not something that sufferers will necessarily grow out of without the right treatment. Some children will need to continue with laxative treatment into adulthood to prevent a recurrence or worsening of their constipation.

Continue onto next page

CHRONIC CONSTIPATION

CONSEQUENCES OF MISDIAGNOSIS AND UNDERTREATMENT

Left untreated or treated too gently, faecal impaction can cause serious health complications. These include urinary tract infections (UTIs), day and night-time wetting accidents and soiling. These children are also at greater risk of being bullied by their peers, feeling isolated and suffering with low self-esteem. It can also have a serious impact on their academic potential.

IMPACT ON CHILDREN AND THEIR FAMILIES

Dealing with chronic constipation can take a devastating toll on family life. Parents and carers often suffer in silence, blaming themselves, and hoping that their child will grow out of it rather than seeking treatment. With the right treatment and support however, most children can overcome their problem or learn to manage it.

ERIC RESOURCES AND CHILDREN'S CONTINENCE PATHWAY

The ERIC website provides a wealth of free information for healthcare professionals keen to find out more about identifying and treating childhood constipation. All the information on the pathway is in line with The NICE Guideline CG99: Constipation in Children and Young People.

The resources include the following:

- ERIC's Guide to Children's Bowel Problems (www.eric.org.uk/guide-to-childrens-bowel-problems): a step-by-step explanation of the condition and treatment in simple terms and signposting to the other website resources. The guide details how constipation in children is typically indicated by a stool pattern of pooing fewer than four times a week or more than three times a day
- ERIC Children's Continence Pathway (www.eric.org.uk/childrens-continence-pathway): a generic tool, rather than focussing on service provision, it maps the children's journey through continence care. The overarching Children's General Continence Flowchart (www.eric.org.uk/childrens-general-continence-flowchart) describes that journey, starting with the Continence Assessment Form (www.eric.org.uk/pdf-initial-assessment-form)
- Specialists working in the field can download a print-ready copy of the assessment form. The online version is a great place for other healthcare professionals keen to familiarise themselves with the symptoms of constipation; the tool categorises what normal is, and what a deviation from normal might mean
- From there, a link leads to the Flowchart – Constipation (www.eric.org.uk/flowchart-constipation): an algorithm detailing the correct treatment for childhood constipation step-by-step
- Flowchart – Constipation includes a large number of links to a range of free-to-download factsheets. Titles such as How to Prepare Macrogol Laxatives and A Parent's Guide to Disimpaction are an invaluable resource for busy GPs, children's nurses and pharmacists to print and distribute
- For treatment to be successful it is crucial that laxatives are mixed in the right way, delivered in sufficient quantity, and for long enough to prevent recurrence. So parents need easy-to-understand yet comprehensive information, coupled with supportive tools such as the Poo Diary (www.eric.org.uk/pdf-poo-diary), Toileting Reward Chart (www.eric.org.uk/pdf-toileting-reward-chart) and the ERIC Poo Ladder (www.eric.org.uk/poo-ladder)

BEST PRACTICE FOR DIAGNOSIS AND TREATING CHILDREN CORRECTLY

All children need to be assessed by their GP to check for any underlying organic cause and rule out the red flags as specified by the NICE guidance. The guidelines make it very clear that dietary interventions alone should NOT be used as first-line treatment. Instead, children should be prescribed a macrogol laxative, initially in increasing doses until watery stool has passed, indicating the faecal impaction (backlog of stool) has cleared.

A daily maintenance dose should then be given, often for many months until the stretched bowel regains its tone and can be relied upon to indicate the need to go to the toilet. Meanwhile the child has to learn – or re-learn – how to poo, with a regular effective toileting programme supported by rewards and positive behaviour management.

AN OVERVIEW OF ERIC – ITS RESOURCES AND SERVICES

ERIC, The Children's Bowel & Bladder Charity, has been dedicated for over 30 years to improving the lives of all children and teenagers in the UK facing continence challenges. ERIC provides not only practical advice and reliable information, but also understanding to children and young people and those who care for them so they can establish good bowel and bladder health for life.

Alongside the Children's Continence Pathway, our core services include:

- A free helpline service – www.eric.org.uk/helpline – for families and professionals to talk to an expertly-trained childhood continence advisor
- A website – www.eric.org.uk – full of information and downloadable resources, including many useful documents linked to our Children's Continence Pathway
- An online shop supplying a comprehensive range of continence products
- Paediatric continence training courses for health professionals across the UK to raise standards of continence care
- Peer-to-peer support for families via the online health community: Health Unlocked
- Free parent and carer workshops where they can receive information from specialised nurses and share experiences with others

ERIC is highly regarded as a patient representative group and is a member of the NHS-led National Bladder & Bowel Project, the Bladder and Bowel Confidence Health Integration Team, Excellence in Continence Care Management Board, the Health Conditions in Schools Alliance, and the National Council for Child Health and Wellbeing.

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References

1. MIMS Online. Accessed March 2020.
2. Laxido® Paediatric Plain. Summary of Product Characteristics. October 2017.
3. MOVICOL® Paediatric Plain. Summary of Product Characteristics. April 2019.

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MAT-LAX PAED-UK-000013 Date of Preparation March 2020

SCIENTIST SHARES £1.1 MILLION PRIZE FOR PIONEERING BRAIN RESEARCH

The world's biggest neuroscience prize has been awarded to an Edinburgh scientist for his work to understand a rare neurological disorder.

Professor Sir Adrian Bird has been announced as joint winner of the Brain Prize – the most valuable research prize for neuroscience – in recognition of his ground-breaking research on Rett Syndrome.

He shares the prize of 10 million Danish krone – more than £1.1 million – with fellow scientist, Huda Zoghbi, for their work on the disease, which affects brain development, primarily among girls in early childhood. Symptoms include problems with co-ordination, language, and repetitive movements.

Adrian Bird is Buchanan Professor of Genetics in the university's School of Biological Sciences. Huda Zoghbi is a Professor of Genetics at Baylor College of Medicine and Texas Children's Hospital in Houston, America.

They received the prize for their insights in identifying the gene responsible for Rett Syndrome, known as MECP2, and for showing how it regulates brain function.

Professor Sir Adrian Bird commented, 'I am truly honoured to be awarded the Brain Prize. I have been fortunate to work with outstanding people over the years, and this recognition from the Lundbeck Foundation is also a credit to them. Like so many discoveries that have turned out to be biomedically important, the work we began in the 1990s started out as blue-skies research with no obvious practical benefit. I am grateful for all the generous support I've received from the university, the Wellcome Trust and the Rett Syndrome Research Trust since those early days.'

Professor Sir Adrian Bird

POTENTIAL FOR EXCITING NEW TREATMENT FOR SPINAL CORD INJURY

Research from the University of Aberdeen has found a new way to repair injured spinal nerves. Researchers achieved significant regrowth of injured spinal nerves in rats when they activated a specific molecule found in nerve cells.

Dr Wenlong Huang, Dr Derryck Shewan and Dr Alba Guijarro-Belmar, from the Institute of Medical Sciences at the university, found that activation of a molecule called Epac2 resulted in significant improvement in the regrowth of nerves that had been severed following spinal cord injury. This is the first time that activation of Epac2 has been found to enhance nerve growth following spinal cord injury.

In the study, published in The Journal of Neuroscience, the researchers modelled human spinal cord injury in rat nerve cells in a cell-culture dish. The treatment was delivered using hydrogel – a new dual-function technique that can carry treatments to a specific area and slowly release locally, and it can also provide a physical scaffold to support injured nerves across an injury site.

In another first, not only did Epac2 stimulate growth, the researchers also found that it changed the internal environment at the injury site, making it more amenable to nerve regrowth and healing.

Following this success, the team conducted pilot work in which the Epac2-activating hydrogel was injected into rats with spinal injuries. Again, this was successful, and the rats showed significant improvement in their ability to walk.

Mark Bacon, Executive and Scientific Director from International Spinal Research Trust, who partly funded the research, said, 'Repairing the damaged spinal cord remains one of the greatest challenges in medicine. We are really proud to have been able to support this exciting, ground-breaking work by Dr Huang and his team at Aberdeen.

'It is a fantastic demonstration of what can be achieved when combining therapeutic strategies. Discoveries such as this are paving the way to effective treatments that one day will help restore functions many of us take for granted.'

A LOT TO LEARN

Patient education is vital for increasing AAI (Adrenaline Auto Injector) use and achieving improved outcomes of anaphylaxis management. James Gardner, Allergy Nurse Consultant at the Great North Children's Hospital in Newcastle, explains why, and suggests key strategies for providing support.

James Gardner

It has been a turbulent 12 months in the supply of Adrenaline Auto Injectors (AAI) in the UK. Epipen had a supply problem last year which has resulted in many patients being displaced from their 'usual' device to 'another' and this has led to a shortage across all devices.

In the final quarter of last year the Medicines and Healthcare products Regulatory Agency (MHRA) recalled Emerade due to a risk of failure of activation and instructed prescribers to issue adrenaline pens of another brand until the error has been corrected, with all Emerade devices expected to be unavailable for the foreseeable future. However, due to the UK currently having 'insufficient supplies of alternative brands to replace all of the Emerade pens held by patients', patients should continue to use their Emerade pens until they expire, but be informed of the risk and ensure that they carry two devices. After expiry, patients should be prescribed a different brand — Epipen or Jext — which would 'avoid a serious shortage of adrenaline pens for the wider patient community' as the risk of not having a pen is much higher than having a pen that may not activate. (1)

Awareness of allergies and anaphylaxis has increased due to some high-profile deaths of young people from anaphylaxis. Approximately seven-in-100,000 people experience anaphylaxis in the UK. Of these, less than 30 per cent carry an AAI at all times. (2)

A large multi-centre study in the UK found that only 17 per cent of patients with anaphylaxis used their Adrenaline Auto Injector (AAI) (3) and the main reason for lack of treatment was failure to recognise whether adrenaline was necessary, implying that education was paramount in improving management. A more recent study by a Turkish group (4) found that only a third used their device when needed and recommended at every opportunity and each clinical visit, not only should training sessions be repeated, but also the patients and parents should be psychologically supported.

The consequences of poorly-managed anaphylaxis include emergency department admission, fatality (approximately two per cent of cases), and psychological distress.

Several studies indicate that for most patients, the prescription and formal instruction on how to prevent and treat anaphylaxis by a physician is insufficient (5, 6) in a number of areas, including carrying an Adrenaline Auto Injector (AAI) (7) and appropriately using it. (3)

Once diagnosed with an allergy, many patients are not followed up by an allergy service and the main points of contact are primary care services and most importantly, pharmacists at time of prescription renewal. For many patients this will be their only interaction.

Continued onto next page

ANAPHYLAXIS

Therefore, pharmacists are in a key position to offer an education opportunity / psychological intervention to patients / carers and improve outcomes. While pharmacists (at present) are not incentivised to train patients, there is of course a duty of care.

Patient education programmes are especially effective when using a written action plan (8), a multidimensional and multidisciplinary approach (9), or repeated clinic reviews (10) in other conditions.

A multidisciplinary approach (11) and provision of good educational printed / online materials for food allergy (12) have both been shown to improve knowledge, help with the correct use of autoinjectors and reduce reactions.

One study showed that repeated instructions on how to use an Adrenaline Auto Injector (AAI) improved correct use. (13) The way that we educate our patients is changing and a number of different strategies can be applied to anaphylaxis management and AAI training.

Healthcare professionals giving information on the future risk of anaphylaxis may lead to stress and anxiety in patients and their families. (14, 15) A recent study (16) by a UK team has shown that patient use is poor with conventional AAI training. Psychological barriers are acknowledged to exist but are often not considered when training patients to use autoinjectors. Health psychology principles suggest that exploring these factors with patients could improve their autoinjector use. Healthcare professionals underwent a training programme to enable them to use strategies and techniques for exploring and responding to psychological barriers to autoinjector use with patients. Training in psychologically-informed strategies led to sustained improvements in their confidence and knowledge around patient autoinjector education and would elude to improved patient outcomes.

Internet and social media have proven useful as a source of information for patients with other conditions, such as diabetes, psoriasis and psychiatric disorders. (17, 19) Signpost to web-based information on anaphylaxis and treatment / management plans (the BSACI / RCPCH allergy management plans are available online), use of social media videos on platforms, such as YouTube and Instagram, on how to give AAIs and the patient experience should be encouraged.

Patient-centered care and self-management are important and mobile health may offer a solution in anaphylaxis management. Mobile health (mHealth) uses mobile communication devices, such as smartphones and tablet computers, to support and improve health-related services, patient self-management, surveillance, and disease management. A recent position paper by the European Academy of Allergy (20) has suggested that mHealth is an integral part of clinical care aimed at improving quality of care, patient outcomes, and delivering efficiencies. mHealth apps could facilitate the change in the model of care from clinician to patient-centered care. (21)

Of the currently available AAIs, only Jext (ALK) has a mobile app which allows patients to access demonstration videos, expiry alerts, a step-by-step guide with voiceover on how to give the AAI in an emergency situation, as well as a host of information and translation features for travelling.

Pharmacists are at the coalface of offering support for these patients and psychological strategies and barriers should be considered. A variety of new media are available to improve patients' lives and a simple signpost to these is needed.

REFERENCES

1. MHRA
2. Turner PJ, Gowland MH, Sharma V, et al. Increase in anaphylaxis-related hospitalizations but no increase in fatalities: an analysis of United Kingdom national anaphylaxis data, 1992-2012. J Allergy Clin Immunol. 2015;135(4):956–63.e1. doi:10.1016/j.jaci.2014.10.021
3. Noimark L, Wales J, Du Toit G, Pastacaldi C, Haddad D, Gardner J, Hyer W, Vance G, 6 Townshend C, Alfaham M, Arkwright PD, Rao R, Kapoor S, Summerfield A, Warner JO, 7 Roberts G. The use of Adrenaline Auto Injectors (AAI) by children and teenagers. Clinical & 8 Experimental Allergy 2012;42:284-92.
4. S. Esenboga, M. Kahveci, P.G. Cetinkaya, U.M. Sahiner, O. Soyer, B. Buyuktiryaki, B.E. Sekerel Physicians prescribe Adrenaline Auto Injectors (AAI), do parents use them when needed? Allergol Immunopathol (Madr). 2020;48:3-7
5. Hompes S, Kohli A, Nemat K, Scherer K, Lange L, Rueff F, Rietschel E, Reese T, Szepfalusi Z, Schwerk N, Beyer K, Hawranek T, Niggemann B, Worm M. Provoking allergens and treatment of anaphylaxis in children and adolescents - data from the anaphylaxis registry of German- speaking countries. Pediatr Allergy Immunol 2011;22:568-74.
6. Braganza SC, Acworth JP, McKinnon DRL, Peake JE, Brown AFT. Paediatric emergency department anaphylaxis: different patterns from adults. Arch Dis Child 2006;91:159-63.
7. Kastner M, Harada L, Waserman S. Gaps in anaphylaxis management at the level of physicians, patients, and the community: A systematic review of the literature. Allergy: European Journal of Allergy and Clinical Immunology 2010;65:435-44.
8. Ducharme FM, Bhogal SK. The role of written action plans in childhood asthma.Current Opinion in Allergy & Clinical Immunology 2008 Apr;8(2):177-88
9. Lagger G, Pataky Z, Golay A. Efficacy of therapeutic patient education in chronic diseases and obesity. [Review] [43 refs]. Patient Education & Counseling 2010 Jun;79(3):283-6.
10. Powell H, Gibson PG. Options for self-management education for adults with asthma. Cochrane Database of Systematic Reviews (1):CD004107, 2003 28 2003;(1):CD004107.
11. Kapoor S, Roberts G, Bynoe Y, Gaughan M, Habibi P, Lack G. Influence of a multidisciplinary paediatric allergy clinic on parental knowledge and rate of subsequent allergic reactions. Allergy 2004 Feb;59(2):185-91.
12. Sicherer SH, Vargas PA, Groetch ME, Christie L, Carlisle SK, Noone S, Jones SM. Development 30 and validation of educational materials for food allergy. Journal of Pediatrics 2012 31 Apr;160(4):651-6.
13. Segal N, Garty BZ, Hoffer V, Levy Y. Effect of instruction on the ability to use a self-33 administered epinephrine injector. 2012;14:14-7.
14. Manassis K. Managing anxiety related to anaphylaxis in childhood: A systematic review. 2012. 35
15. Akeson N, Worth A, Sheikh A. The psychosocial impact of anaphylaxis on young people and 36 their parents. Clinical & Experimental Allergy 2007;37:1213-20.
16. Mahoney B, Walklet E, Bradley E, O'Hickey S. Improving Adrenaline Auto Injector (AAI) adherence: A psychologically informed training for healthcare professionals. Immun Inflamm Dis. 2019;7:214-228.
17. Giménez-Pérez G, Recasens A, Simó O, Aguas T, Suárez A, Vila M, et al. Use of communication technologies by people with type 1 diabetes in the social networking era. A chance for improvement. Prim Care Diabetes. 2016;10:121-8.
18. Orgaz-Molina J, Cotugno M, Girón-Prieto MS, Arrabal-Polo MA, Ruiz-Carrascosa JC, Buendía-Eisman A, et al. A study of internet searches for medical information in dermatology patients: The patient-physician relationship. Actas Dermosliogr. 2015;106:493-9.
19. Peters ME, Uible E, Chisolm MS. A Twitter Education: Why Psychiatrists Should Tweet. Curr Psychiatry Rep. 2015;17:94
20. MatricardiPM,DramburgS,Alvarez-PereaA,et al.The role of mobile health technologies in allergy care: An EAACI position paper. Allergy. 2020;75:259–272.
21. Whitehead L, Seaton P. The effectiveness of self-management mobile phone and tablet apps in long-term condition management: a systematic review. J Med Internet Res. 2016; 18(5): e97

ABOUT THE AUTHOR

James qualified at Great Ormond Street Hospital in London as a Paediatric Nurse and, after working in general paediatrics and paediatric haematology, joined the allergy team at St Mary's Hospital, London, then for many years was the Lead Allergy Nurse at the Royal Free Hospital & Royal National Throat, Nose and Ear Hospital, both in London.

After relocating, he is currently the Children's and Young Persons Allergy Nurse Consultant at the Great North Children's Hospital in Newcastle and Associate Clinical Lecturer in Newcastle University and teaches an Allergy E-module. He completed his MSc in Allergy from the University of Southampton and focused on the use of component resolved diagnostics in peanut allergy.

James is the Secretary of the Allied Health Working Group in the European Academy of Allergy and Clinical Immunology. He is involved in several European task force groups through the academy, including competencies for allied health working allergy and mHealth. He was part of the expert panel for the recent anaphylaxis and food allergy guidelines and Associate Editor of CTA Journal.

For more information, tweet @allergynurseuk.

SUPPORTED BY A FINANCIAL GRANT FROM ALK WHO HAVE HAD NO EDITORIAL INPUT INTO THE WRITING OF THIS ARTICLE

Please refer to the Summary of Product Characteristics before prescribing. **Name** Jext® 150 micrograms solution for injection in pre-filled pen Jext® 300 micrograms solution for injection in pre-filled pen **Active Ingredients** Jext® 150 micrograms: One pre-filled pen delivers one dose of 0.15ml solution for injection containing 150 micrograms of adrenaline (as tartrate). Jext® 300 micrograms: One pre-filled pen delivers one dose of 0.30ml solution for injection containing 300 micrograms of adrenaline (as tartrate). **Indication** Jext® is indicated in the emergency treatment of severe acute allergic reactions (anaphylaxis) to insect stings or bites, foods, drugs and other allergens as well as idiopathic or exercise induced anaphylaxis. **Dose** Patients between 15 kg and 30 kg in weight – The usual dose is 150 micrograms. Patients over 30 kg in weight – The usual dose is 300 micrograms. **Administration** For single use. Jext® is for intramuscular administration into the anterolateral thigh. It is designed to inject through clothing or directly through the skin. Massage around the injection area is advised to accelerate absorption. Please refer to the Summary of Product Characteristics for detailed instructions for use. In the absence of clinical improvement or if deterioration occurs, a second injection with an additional Jext® may be administered 5 – 15 minutes after the first injection. It is recommended that patients should carry two Jext® pens which they should carry at all times The patient should seek emergency medical assistance immediately after administering Jext® for monitoring of the anaphylactic episode and further treatment as required. **Contraindications** There are no absolute contraindications to the use of Jext® during an allergic emergency **Undesirable Effects** The alpha and beta receptor activity of adrenaline may cause undesirable effects on the cardiovascular system, central nervous system and other organ systems including hyperglycaemia, hypokalaemia, metabolic acidosis, anxiety, hallucination, headache, dizziness, tremor, syncope, tachycardia, arrhythmia, palpitations, angina pectoris, stress cardiomyopathy, hypertension, vasoconstriction, peripheral ischaemia, bronchospasm, nausea, vomiting, hyperhidrosis or asthenia. Please consult the Summary of Product Characteristics in relation to side-effects. **Warnings** Do not inject Jext® into the buttocks. Accidental injection into hands or feet may cause peripheral ischaemia due to vasoconstriction. In patients with thick subcutaneous fat layer, there is a risk of the adrenaline not reaching the muscle tissue resulting in a suboptimal effect. **Precautions** Special caution should be taken in patients with cardiovascular diseases, hyperthyroidism, phaeochromocytoma, narrow angle glaucoma, severe renal impairment, prostatic adenoma leading to residual urine, hypercalcaemia, hypokalaemia and diabetes. Caution is indicated in patients receiving drugs that may sensitise the heart to arrhythmias, including digitalis and quinidine. The effects of adrenaline may be potentiated by tricyclic antidepressants, monoamine oxidase inhibitors (MAO-inhibitors) and catechol-O-methyl transferase inhibitors (COMT inhibitors), thyroid hormones, theophylline, oxytocin, parasympatholytics, certain antihistamines (diphenhydramine, chlorpheniramine), levodopa and alcohol. Caution should also be taken in elderly and pregnant patients. Jext® contains sodium metabisulphite which may rarely cause severe hypersensitivity reactions in susceptible people. Susceptible people must be carefully instructed in regard to the circumstances under which Jext® should be used. All patients who are prescribed Jext® should be thoroughly instructed to understand the indications for use and the correct method of administration. It is strongly advised also to educate the patient's immediate associates (e.g. parents, caregivers, and teachers) for the correct usage of Jext® in case support is needed in the emergency situation. Patients should be advised to regularly check Jext® and ensure it is replaced within the expiry period. **Legal Category:** POM **Basic NHS Cost:** Jext® 150 and Jext® 300 are available as single unit doses at £23.99 each or as a twin pack of two injectors at £47.98. **Marketing Authorisation Numbers:** PL 10085/0052, PL 10085/0053 **Marketing Authorisation holder:** ALK Abelló A/S, Bøge Alle 6-8, DK-2970 Hørsholm. **Date of last revision:** June 2018 1238AD

Adverse events should be reported. Reporting forms and information can be found at www.mhra.gov.uk/yellowcard Adverse events should also be reported to ALK-Abelló Ltd.

ALK

Date of preparation: April 2020
Code: 1448AD

Jext®
Adrenaline Tartrate

DEMENTIA

A CAUSE FOR CONCERN

Swallowing difficulties are fairly common and can have serious consequences for older people, particularly for those with cognitive impairment or with dementia as it can lead to malnutrition and dehydration. Lesley Carter, Age UK's Clinical Lead for Professionals and Practice, explores further.

Having nutritious and varied food is important for good health and wellbeing throughout our life and as we age it becomes even more important, as ageing puts us all at risk. This is concerning because poor nutrition can be both a cause and a consequence of ill health (i), and the signs can often go unnoticed until they have developed and had a negative impact on health and wellbeing.

Malnourishment can affect health and wellbeing and worsen long-term health conditions. It may mean that more visits to the GP are needed, that there is an increase in the chances of being admitted to hospital, or it may result in having longer recovery times from illnesses. Malnutrition (or undernutrition) is characterised by low body weight or unplanned weight loss, which simply means that some older people are not eating well enough to maintain their health and wellbeing. Seemingly, overweight people will also feel the physiological effects of unintentional weight loss. (ii)

People with dementia are particularly at risk of becoming malnourished, which is why maintaining good nutrition is vital for their health, independence and wellbeing. Difficulties with eating and drinking often become more noticeable as dementia progresses and unwanted weight loss becomes a common problem.

The reasons that people with dementia have difficulty eating are extensive – and some dementias are more problematic than others. This is why understanding the reasons, spotting the signs, and recognising the symptoms that cause the reluctance to eat, chew and swallow are vitally important.

People with dementia sometimes lose the knack of identifying food and drink in their mouth and lose the ability to trigger swallowing on time. They may find it difficult to verbalise that they're experiencing pain or discomfort in their mouth or teeth or having difficulty swallowing and therefore need to rely on other people to notice and interpret their behaviour. For example, making strange grimaces, frequently pulling at their mouth or face, or removing or being reluctant to put in or keep dentures in their mouth. They may be showing signs of being more restless, moaning or shouting, or being aggressive to carers; all these behaviours would suggest that there is pain or discomfort. (iii)

Some medications can cause a dry mouth that can make mouths sore, some antipsychotic drugs can cause involuntary repetitive tongue and jaw movements and contribute to not wanting to eat.

Maintaining oral health as we age is a priority (1) as good oral health brings benefits in terms of self-esteem, dignity, social integration and nutrition. However, not all dentists are skilled at dealing with patients with complex medical or physical needs, and some older people can experience difficulties in getting dental appointments, or sometimes those with mobility issues may find getting access to dental premises impossible. Worryingly, reports have shown that older people who may be unable to carry out their own personal care and rely on others for help are often lacking in oral care – and it is poor oral health that can lead to pain and tooth loss and the inevitable reluctance or ability to eat. This is

particularly relevant in hospitals, community care settings and domiciliary care at home. (iv)

Progression of dementia may cause some older people to experience difficulties with fine motor skills. These are essential to make small, co-ordinated movements with the hands and fingers which require the muscular, skeletal, and neurological systems to co-ordinate. When these don't work well, people can struggle to use cutlery or pick up a glass and there may be challenges to get food from the plate to their mouth. Sometimes people with dementia may not open their mouth as the food approaches so it may require several prompts.

The consequences of this can lead to the person with dementia avoiding mealtimes altogether, or not eating with others because of feelings of embarrassment. These contribute to the social isolation that people with dementia and their carers experience so it's important to find other ways that people can feed themselves.

People with dementia can also get tired easily which is why eating soft, moist food that needs minimal chewing can help. Small regular meals and snacks are easier to manage than large meals, and finger food is sometimes easier to cope with than using cutlery. It's important to make sure that the food offered is appetising, easy to eat, and enjoyable, although bear in mind that food preferences may change or revert back to previous likes and dislikes.

As dementia progresses, people may develop other struggles with food, such as having difficulties chewing, forgetting to chew, continuous chewing, or holding food in their mouth. Swallowing difficulties (called dysphagia) can also become more common although it will vary enormously from person-to-person. Some will have problems swallowing certain foods or liquids, while others can't swallow at all.

Other signs include coughing or choking when eating or drinking, or bringing food back up, sometimes through the nose. Informal carers can find this very upsetting.

One of the most common problems is when food goes down the 'wrong way'. Chest infections or aspiration pneumonia (2) can develop after accidentally inhaling something, such as a small piece of food, and may need urgent medical treatment. Warning signs include, a wet, gurgly voice, coughing while eating or drinking, and having difficulty breathing, possibly with rapid and shallow breaths.

People with dementia who experience difficulties with swallowing should be referred to speech and language therapists who play a key role in the diagnosis of dysphagia and help people to regain their swallowing through exercises, techniques and positioning. They help to promote patient safety by advising informal carers and health and care staff to modify the texture of food and fluids, to help reduce the risk of malnutrition, dehydration and choking. Early identification and management of dysphagia by speech and language therapists helps to improve quality of life and reduces the possibility of further medical complications and death.

Speech and language therapists also give advice about the provision of thickened fluids and texture-modified foods is a routine part of the assessment and management of feeding and swallowing difficulties. However, recorded untoward incidents suggest that the continuing widespread use of the term 'soft diet' can lead to confusion to the type of modified diet people need. Recently, the International Dysphagia Diet Standardisation Initiative (3) has developed a standard terminology with a colour and numerical index to describe texture modification for food and drink.

Continuing and worsening complications with eating and swallowing are accepted as indications of advancing dementia and may be a sign that the person is entering the terminal phase of illness. Such problems cause considerable concern and anxiety among family members, carers and health professionals. They also raise moral and ethical issues about artificial nutrition and the emotional and practical aspects of end-of-life care.

REFERENCES

1. www.cqc.org.uk/news/releases/cqc-calls-improvements-oral-health-care-homes
2. www.nhs.uk/conditions/pneumonia/
3. www.iddsi.org/
www.iddsi.org/wp-content/uploads/2018/05/IDDSIFrameworkFeb2018web.jpeg
i. www.malnutritiontaskforce.org.uk/resources/malnutrition-england-factsheet
ii. www.malnutritiontaskforce.org.uk/sites/default/files/2019-09/State%20of%20the%20Nation.pdf
iii. www.malnutritiontaskforce.org.uk/
iv. www.mouthcarematters.hee.nhs.uk/

PROMOTION

MAKING YOUR VOICE HEARD

As the current climate continues to escalate both constraints and demands on the sector, a non-profit, member-owned buying group has emerged as a vital source of support. Richard Stephenson, Commercial Director at Edinpharm, talks to SPR about how the group is helping to protect and promote the growth of independent pharmacies through professional advice, measures for improving efficiency, and much more.

Richard Stephenson

FIRSTLY, WHO ARE EDINPHARM?

We are a pharmaceutical buying group, based in Edinburgh, supporting independent pharmacies across Scotland, Northern Ireland and the North of England.

WHAT ARE THE COMPANY'S CORE PRINCIPLES?

We provide support and assistance to independent pharmacies, giving them similar benefits to being part of a multiple, while still retaining their own independence and decision-making. We are a not-for-profit organisation, ensuring that the members' best interests are the priority.

HOW ARE EDINPHARM SUPPORTING INDEPENDENT PHARMACIES?

We provide a simple, time-saving and cost-effective Order Management System, with a one-click order to multiple suppliers. We have close working relationships with our five main suppliers, and negotiate with these suppliers on our members' behalf, ensuring that each member receives competitive pricing, and efficient delivery, regardless of their size.

The network of members across the country provide a source of information and knowledge for each other, ensuring that members never feel like they're on their own with any challenges that they may face. The Edinpharm team provides a voice that can collectively address any issues, and suggest improvements to suppliers that will have a positive effect across the membership.

WHAT ARE SOME OF THE KEY CHALLENGES IN PHARMACY TODAY, AND HOW ARE EDINPHARM HELPING TO COUNTER THEM?

The current challenges continue to be a mixture of pricing and time pressure. We are helping with this by being the intermediary for pricing. We speak to suppliers, we are aware of shortage information and changes to the market, and we can keep our members aware of this, while also continuing to ensure the best price in the market at the time.

We also have mechanisms in place to ensure that over tariff lines are flagged quickly to members using our Order Manager System. The time pressure issue for members is also an area which we continue to work to improve for them, from easy one-click ordering, to sourcing key items and equipment, and let's not forget negotiating preferential rates on PMRs, stationery, and everyday consumables essential to keeping a pharmacy running.

HOW ELSE ARE YOU STANDING OUT FROM OTHERS WITHIN THE MARKET?

The friendly 'family feel' ensures that any member feels comfortable to share ideas or discuss issues.

The usefulness of this has been highlighted and commented on an enormous amount during the recent few weeks, with members feeling that they have somewhere to go for support, that they might otherwise not have had, if they weren't part of Edinpharm.

Being a not-for-profit organisation is also a unique benefit, as members can be sure that their membership is good value for money, and is being invested for their benefit, and their benefit only.

WHAT HAS THE RESPONSE BEEN LIKE FROM MEMBERS?

We have had many emails and messages of thanks over the past few weeks as the pressure on community pharmacy has been at unprecedented levels. Edinpharm stepped up to negotiate with suppliers as supply and demand changed on a daily basis – we have sourced and delivered PPE for all our members, and have collated and distributed information regarding COVID-19.

Our members have commented on how much time this has saved them, and we have had members say that the benefit of membership has been highlighted over these few weeks. In fact, one member can be quoted as saying, 'I hope they think about you folks when the OBEs are being handed out!'.

HOW CAN INTERESTED INDEPENDENT PHARMACIES FIND OUT MORE ABOUT BECOMING MEMBERS?

Any and all of our directors and staff would be happy to chat to any independent pharmacy or pharmacy group regarding membership. We can be contacted by phone or email during office hours, and are happy to chat or pop out to visit people to discuss their individual circumstances and requirements (social distancing and lockdown rules being observed in the short-term of course).

WHAT DOES THE FUTURE HOLD FOR EDINPHARM?

Edinpharm have a desire to continue to support their members in the best way possible. We continue to grow and evolve, with the flexibility to change when and where pharmacy and market conditions demand it. We have been able to demonstrate this recently and are proud to say that we put our members first, and always will do.

For more information, visit www.edinpharm.co.uk.

edinpharm

supporting independent pharmacies

"The buying power of a multiple, whilst retaining your independence."

The Edinpharm Team would like to THANK OUR MEMBERS and their teams, plus our committed suppliers, for stepping up in these unprecedented times. We salute you!

Our members have stayed open throughout and gone to huge lengths to source and deliver vital medication. They have kept their teams safe and protected, and all the way through this crisis, continued to support other members in the Edinpharm group both mentally and physically.

We are not just a buying group WE ARE A FAMILY!

Who are Edinpharm?

Edinpharm offer independent pharmacy and groups the following and more:

- One click ordering to 5 suppliers
- Independent ordering cascade system
- Great pricing across a whole basket
- Exceptional value membership

Most of all...

we are a not for profit buying group, with no shareholders to answer to. We invest for the best interests of our members.

Here's what a selection of our members have to say about being part of Edinpharm...

"Over and above the competitive pricing, one of the greatest benefits I've experienced since joining Edinpharm is access to the pool of knowledge and experience of other members - There's a real sense of community - independent contractors willing to help and share advice. As an example I recently had issues with a fridge, within half an hour four members had been in touch to advise how they had managed similar situations."

– Neil, Connel Pharmacy, Oban

"I really appreciate all the work you guys at Edinpharm are doing to help us through this current situation, it makes such a difference to know we have your support."

– Raz, Carmunock Pharmacy

Want to discuss our membership further? Get in touch...

info@edinpharm.co.uk | www.edinpharm.co.uk | 0131 441 3773

ADHD

IN THIS DAY AND AGE

Dr Ryan O'Neill, Consultant Psychiatrist from the Royal College of Psychiatrists NI, talks to SPR about ADHD in adolescents, including the potential repercussions of poor or postponed management, and his hopes for the future of ADHD services.

Dr Ryan O'Neill

HOW PREVALENT IS ADHD AMONG THE ADOLESCENT POPULATION?

ADHD is common in the population, with prevalence estimates in the UK around three-to-four per cent. Follow-up studies of ADHD in children find that the disorder frequently persists into adult life, with around 15 per cent retaining the full diagnosis by the age of 25 years, and a further 50 per cent in 'partial remission' with some of the symptoms persisting and leading to continued impairments in daily life.

A recent review and meta-analysis estimated world prevalence of ADHD in adults to average 2.5 per cent or higher, with approximately one per cent expected to fall in the most severe group requiring immediate treatment.

DO THE SIGNS OF ADHD CHANGE WITH AGE?

Hyperactivity and impulsivity present differently and this makes adult ADHD evaluations more difficult. Presentation in adults does not usually match up neatly with diagnostic criteria as these were developed for children.

WHAT DOES THE DIAGNOSIS PROCESS FOR ADHD GENERALLY ENTAIL?

NICE recommends that adults presenting with symptoms of ADHD in primary care or general adult psychiatric services, who do not have a childhood diagnosis of ADHD, should be referred for assessment by a mental health specialist trained in the diagnosis and treatment of ADHD, where there is evidence of typical manifestations of ADHD. Large parts of the NHS do not have services set up or have inadequate services.

Once someone has been referred for assessment, this leads to a lengthy process, usually involving psychiatric assessment, mental state assessment, collateral information from a current informant and someone who knows the patient well from childhood. People also are assessed using a range of assessment tools to aid the diagnosis.

Reviewing school reports and work appraisals can also be helpful. If a diagnosis is made then people also require a physical health work-up and screening for a personal or family history of cardiac disorders.

AS A SOCIETY, DO WE OFTEN ENCOUNTER DELAYS IN ADHD DETECTION?

Sadly, delays in ADHD diagnosis regularly occur.

Adults with untreated ADHD are:

- More than twice as likely to have been arrested
- Twice as likely to have been divorced
- More than twice as likely to have dropped out of high school
- Twice as likely to have held six or more jobs in the past 10 years
- More likely to have substance dependency problems and have a teen pregnancy
- More likely to be accident-prone and be involved in serious car accidents

It's important to note that ADHD is under-recognised in girls and women. They are less likely to be referred for assessment for ADHD and they may be more likely to receive an incorrect diagnosis of another mental health or neurodevelopmental condition.

WHAT ARE THE RECOMMENDED APPROACHES FOR ADHD MANAGEMENT?

Following a diagnosis of ADHD, NICE recommends having a structured discussion with people on the positive impacts of receiving a diagnosis, such as improving their understanding of symptoms, identifying and building on individual strengths, and improving access to services.

NICE also recommends having a structured discussion with people on the negative impacts of receiving a diagnosis, such as stigma and labelling, a greater tendency for impulsive behaviour, the importance of environmental modifications, education and employment issues, and social relationship issues.

The main treatments include environmental modifications, pharmacological interventions and psychological interventions.

Environmental modifications will be specific to the circumstances of each person with ADHD and should be determined from an assessment of their needs. Examples may include changes to seating arrangements, changes to lighting and noise, reducing distractions, and having shorter periods of focus with movement breaks.

NICE recommends offering medication to adults with ADHD if their ADHD symptoms are still causing a significant impairment in at least one area of functioning after environmental modifications have been implemented and reviewed.

NICE advises the consideration of non-pharmacological treatment for adults with ADHD who have made an informed choice not to have medication, those with difficulties adhering to medication, and people who may have found medication to be ineffective or can't tolerate it.

ARE THERE ANY BARRIERS CURRENTLY OBSTRUCTING THE SECTOR'S ABILITY TO ADEQUATELY SERVE INDIVIDUALS WITH ADHD?

There is a lack of fully commissioned services. New services can get quickly overwhelmed as the number of people attending review clinics increases with time. People prescribed stimulants are required to continue to attend services as part of shared care agreements between primary and secondary care. This can lead to delays on new assessments.

Ideally, stabilised people on medication could be monitored and prescribed their medication treatments in primary care, and have access back to secondary care as required.

ARE THERE ANY OTHER RESOURCES WHICH HEALTHCARE PROFESSIONALS CAN SIGNPOST PATIENTS AND THEIR PARENTS TO?

There are many ADHD charities and support groups across the UK. The Royal College of Psychiatrists has useful patient information. UKANN and NICE also have patient information resources.

WHAT DOES THE FUTURE HOLD FOR THE FIELD?

It's a rewarding condition to treat and we are learning all the time, and tailoring treatment to the person. We need commissioned services that are fully multidisciplinary in approach and we need to move to transitional services that put people first.

For more information, visit www.rcpsych.ac.uk.

Xaggitin® XL

prolonged-release methylphenidate tablets

Ethypharm

Prescribing Xaggitin® XL tablets in place of Concerta® XL* tablets for ADHD patients could save the NHS 50%[1-3]

Xaggitin® XL is indicated as part of a comprehensive treatment programme for ADHD in children aged 6 years of age and over when remedial measures alone prove insufficient. Treatment must be under the supervision of a specialist in childhood behavioural disorders. Diagnosis should be made according to DSM-IV criteria or the guidelines in ICD-10 and should be based on a complete history and evaluation of the patient. Diagnosis cannot be made solely on the presence of one or more symptom. Xaggitin® XL treatment is not indicated in all children with ADHD and the decision to use the medicinal product must be based on a very thorough assessment of the severity and chronicity of the child's symptoms in relation to the child's age.[1]

*Concerta® is a registered trademark of Janssen-Cilag Ltd.

References: **1.** Xaggitin® XL prolonged-release methylphenidate tablets Summary of Product Characteristics. Available from https://www.medicines.org.uk/emc/search?q=%22Xaggitin%22 (last accessed March 2020). **2.** Joint Formulary Committee. British National Formulary (online) London: BMJ Group and Pharmaceutical Press. Available from: https://bnf.nice.org.uk/medicinal-forms/methylphenidate-hydrochloride.html (last accessed March 2020). **3.** Concerta XL prolonged-release methylphenidate tablets Summary of Product Characteristics. Available from https://www.medicines.org.uk/emc/search?q=concerta (last accessed March 2020).

Prescribing Information for Xaggitin XL® (methylphenidate hydrochloride) prolonged-release tablets
Please refer to the Summary of Product Characteristics (SPC) before prescribing.
Presentation: Available in a range of doses. Prolonged-release tablets containing 18mg, 27mg, 36mg or 54mg of methylphenidate hydrochloride, equivalent to 15.6 mg, 23.3 mg, 31.1 mg or 46.7 mg of methylphenidate, respectively. **Indication:** Attention Deficit/Hyperactivity Disorder (ADHD): Indicated as part of a comprehensive treatment programme for ADHD in children aged 6 years of age and over when remedial measures alone prove insufficient. Treatment must be under the supervision of a specialist in childhood behavioural disorders. Diagnosis should be made according to DSM-IV criteria or the guidelines in ICD-10 and should be based on a complete history and evaluation of the patient. Diagnosis cannot be made solely on the presence of one or more symptom. *Xaggitin XL treatment is not indicated in all children with ADHD and the decision to use the medicinal product must be based on a very thorough assessment of the severity and chronicity of the child's symptoms in relation to the child's age.* **Dosage and Administration: Refer to SPC for details and recommendations:** For oral use. Take once daily in the morning. The tablet must be swallowed whole with liquids and must not be chewed, broken, divided, or crushed. It may be administered with or without food. *Pre-treatment screening:* Conduct a baseline evaluation of a patient's cardiovascular status including blood pressure and heart rate prior to prescribing. A comprehensive history should document concomitant medications, past and present co-morbid medical and psychiatric disorders or symptoms, family history of sudden cardiac/unexplained death and accurate recording of pre-treatment height and weight on a growth chart. *Ongoing monitoring:* growth, psychiatric and cardiovascular status should be continuously monitored. Patients should be monitored for the risk of diversion, misuse and abuse of methylphenidate. *Dose titration:* Careful dose titration is necessary at the start of treatment. Dose titration should be started at the lowest possible dose and may be adjusted in 18 mg increments at approximately weekly intervals. The maximum daily dosage is 54 mg. *Patients New to Methylphenidate:* Lower doses of short-acting methylphenidate formulations may be considered sufficient to treat patients new to methylphenidate. Careful dose titration by the physician in charge is required. The recommended starting dose is 18 mg once daily. *Patients Currently Using Methylphenidate:* Dosing recommendations are based on current dose regimen and clinical judgement. Please refer to the SPC for dose conversion. *Long-term (more than 12 months) use in children and adolescents:* Methylphenidate treatment is usually discontinued during or after puberty. If prescribed for extended periods (over 12 months), the long-term usefulness of treatment with methylphenidate should be periodically re-evaluated with trial periods off medication to assess the patient's functioning without pharmacotherapy. It is recommended that methylphenidate is de-challenged at least once yearly to assess the child's condition. *Dose reduction and discontinuation:* Treatment must be stopped if the symptoms do not improve after appropriate dosage adjustment over a one-month period. If paradoxical aggravation of symptoms or other serious adverse events occur, the dosage should be reduced or discontinued. *Adults:* In adolescents, whose symptoms persist into adulthood and who have shown clear benefit from treatment, it may be appropriate to continue treatment into adulthood. Initiation of treatment with Xaggitin XL in adults is not appropriate. *Elderly or children under 6 years:* Xaggitin XL should not be used due to lack of data. **Contra-indications:** Hypersensitivity to the active substance or to any of the excipients, glaucoma, phaeochromocytoma, during treatment with non-selective, irreversible monoamine oxidase (MAO) inhibitors, or within a minimum of 14 days of discontinuing those medicinal products, hyperthyroidism or thyrotoxicosis, diagnosis or history of severe depression, anorexia nervosa/anorexic disorders, suicidal tendencies, psychotic symptoms, severe mood disorders, mania, schizophrenia, psychopathic/borderline personality disorder, diagnosis or history of severe and episodic (Type I) Bipolar (affective) Disorder that is not well-controlled, pre-existing cardiovascular disorders including severe hypertension, heart failure, arterial occlusive disease, angina, haemodynamically significant congenital heart disease, cardiomyopathies, myocardial infarction, potentially life- threatening arrhythmias and channelopathies (disorders caused by the dysfunction of ion channels), pre-existing cerebrovascular disorders, cerebral aneurysm, vascular abnormalities including vasculitis or stroke. **Precautions and Warnings: Refer to SPC for details and recommendations:** *Long-term use (more than 12 months) in children and adolescents*: Careful ongoing monitoring for cardiovascular status, growth, appetite, development of de novo or worsening of pre-existing psychiatric disorders. Psychiatric disorders to monitor for include (but are not limited to) motor or vocal tics, aggressive or hostile behaviour, agitation, anxiety, depression, psychosis, mania, delusions, irritability, lack of spontaneity, withdrawal and excessive perseveration. The use of methylphenidate for over 12 months in children and adolescents with ADHD should be periodically re-evaluated. Recommended that methylphenidate is de-challenged at least once yearly to assess the child's condition. *Use in adults, elderly or children under 6 years of age*: see above. *Cardiovascular status*: Careful history and physical exam should be carried out to assess for the presence of cardiac disease, and patients should receive further specialist cardiac evaluation if initial findings suggest such history or disease. Cardiovascular status should be carefully monitored. Blood pressure and pulse should be recorded at predefined intervals. *Sudden death and pre-existing structural cardiac abnormalities or other serious cardiac disorders:* Sudden death has been reported in association with the use of stimulants of the central nervous system at usual doses in children. *Misuse and cardiovascular events:* Misuse of stimulants of the central nervous system may be associated with sudden death and other serious cardiovascular adverse events. *Cerebrovascular disorders*: Contraindicated in those with certain cerebrovascular conditions (see above). Patients with additional risk factors should be assessed at every visit. Cerebral vasculitis is a very rare idiosyncratic reaction and this diagnosis should be considered in any patient who develops new neurological symptoms consistent with cerebral ischaemia. *Psychiatric disorders*: In the case of emergent psychiatric symptoms or exacerbation of pre-existing psychiatric disorders, methylphenidate should not be given unless the benefits outweigh the risks to the patient. *Consult SPC for additional information for specific psychiatric disorders. Growth:* Moderately reduced weight gain and growth retardation have been reported with the long-term use in children. Treatment interruption may be necessary. *Seizures*: Use with caution in patients with epilepsy. If seizure frequency increases or new-onset seizures occur, methylphenidate should be discontinued. *Abuse, misuse and diversion:* Use with caution in patients with known drug or alcohol dependency because of a potential for abuse. *Priapism*: Patients who develop abnormally sustained or frequent and painful erections should seek immediate medical attention. *Withdrawal*: Careful supervision is required during withdrawal. Long-term follow up may be required. *Fatigue*: Should not be used for the prevention or treatment of normal fatigue states. *Choice of methylphenidate formulation:* This would be the decision of the treating specialist. *Drug screening:* Methylphenidate may induce a false positive laboratory test for amphetamines, particularly with immunoassay screen test. *Renal or hepatic insufficiency*: No data available. *Haematological effects:* Discontinuation of treatment should be considered in the event of leukopenia, thrombocytopenia, anaemia or other alterations, including those indicative of serious renal or hepatic disorders. *Excipients:* Contains lactose, therefore patients with rare hereditary problems of galactose intolerance, the Lapp lactase deficiency or glucose-galactose malabsorption should not take this medicine. **Interactions**: *Pharmacokinetic interaction:* Caution is recommended at combining methylphenidate with other medicinal products, especially those with a narrow therapeutic window. Methylphenidate is not metabolised by cytochrome P450 to a clinically relevant extent. Inducers or inhibitors of cytochrome P450 are not expected to have any relevant impact on methylphenidate pharmacokinetics. However, reports indicate that methylphenidate may inhibit the metabolism of coumarin anticoagulants, anticonvulsants (e.g. phenobarbital, phenytoin, primidone), and some antidepressants (tricyclics and selective serotonin reuptake inhibitors). When starting or stopping treatment with methylphenidate, it may be necessary to adjust the dosage of these medicines already being taken and establish plasma concentrations (or for coumarin, coagulation times). *Pharmacodynamic interactions: Anti-hypertensive medicines:* may decrease the effectiveness of anti-hypertensives. *Use with medicines that elevate blood pressure:* Caution. *Use with alcohol:* Patients should abstain from alcohol during treatment. *Use with halogenated anaesthetics:* Risk of sudden blood pressure increase during surgery. If surgery is planned, methylphenidate treatment should not be used on the day of surgery. *Use with centrally acting alpha-2 agonists (e.g. clonidine):* Long-term safety of concomitant administration has not been systematically evaluated. *Use with dopaminergic (agonists and antagonists including antipsychotics) medicines:* Caution. **Fertility, pregnancy and lactation:** *Fertility:* No relevant effects observed. *Pregnancy*: Data from a cohort study of in total approximately 3,400 pregnancies exposed in the first trimester do not suggest an increased risk of overall birth defects. There was a small increased occurrence of cardiac malformations corresponding to 3 additional infants born with congenital cardiac malformations for every 1000 women who receive methylphenidate during the first trimester of pregnancy, compared with non-exposed pregnancies. *Breast-feeding*: Methylphenidate has been found in the breast-milk of a woman treated with methylphenidate. A decision must be made whether to discontinue breast-feeding or to discontinue/abstain from methylphenidate therapy taking into account the benefit of breast-feeding for the child and the benefit of therapy for the woman. **Effects on ability to drive and use machines:** Can cause dizziness, drowsiness and visual disturbances including difficulties with accommodation, diplopia and blurred vision. It may have a moderate influence on the ability to drive and use machines. If affected, patients should avoid potentially hazardous activities. **Undesirable effects**: *Very common (≥ 1/10):* insomnia, nervousness and headache. *Common (≥ 1/100 to < 1/10):* nasopharyngitis, upper respiratory tract infection, sinusitis, anorexia, decreased appetite, moderately reduced weight and height gain during prolonged use in children, affect lability, aggression, agitation, anxiety, depression, irritability, abnormal behaviour, mood swings, tics, initial insomnia, depressed mood, decreased libido, tension, bruxism, panic attack, dizziness, dyskinesia, psychomotor hyperactivity, somnolence, paraesthesia, tension headache, accommodation disorder, vertigo, arrhythmia, tachycardia, palpitations, hypertension, cough, oropharyngeal pain, upper abdominal pain, diarrhoea, nausea, abdominal discomfort, vomiting, dry mouth, dyspepsia, alopecia, hyperhidrosis, pruritus, rash, urticaria, arthralgia, muscle tightness, muscle spasms, erectile dysfunction, pyrexia, growth retardation during prolonged use in children, fatigue, irritability, feeling jittery, asthenia, thirst, changes in blood pressure and heart rate (usually an increase), weight decreased and alanine aminotransferase increased. **Consult SPC for other side effects. Overdose:** There is no specific antidote to methylphenidate overdosage. Treatment consists of appropriate supportive measures. See SPC for treatment guidance. **Marketing authorisation number and Basic NHS Price:** All strengths are sold in packs of 30 prolonged-release tablets. Xaggitin 18 mg PL 01883/0359 - £15.58; Xaggitin 27 mg PL 01883/0360 - £18.40; Xaggitin 36 mg PL 01883/0361 - £21.22 and Xaggitin 54 mg PL 01883/0362 - £36.80. **Marketing authorisation Holder:** Macarthys Laboratories Ltd, T/A Martindale Pharma, Bampton Road, Harold Hill, Romford, Essex, RM3 8UG, United Kingdom. **Legal category**: POM. **Further information:** Martindale Pharma, Bampton Road, Romford, RM3 8UG. Tel: 01277 266 600. **Date of Preparation:** December 2019.

Adverse events should be reported. Reporting forms and information can be found at www.mhra.gov.uk/yellowcard. Adverse events should also be reported to Martindale Pharma, an Ethypharm Group Company.
Tel: 01277 266 600.
e-mail: drugsafety.uk@ethypharm.com

Item code: UK-XAG-2a Date of Preparation: March 2020

ALZHEIMER'S DISEASE

ALZHEIMER'S DISEASE: INFORMATION IS KEY

Did you know that Alzheimer's disease is a type of dementia? Admiral Nurse, Helen Green, talks through some of the major questions she receives on Dementia UK's Admiral Nurse Dementia Helpline around the condition, which is the most common subtype of dementia, but still so widely misunderstood.

When things get challenging or difficult for families, Admiral Nurses work with them, understanding their unique situation and providing strategies to help them cope.

WHAT IS THE DIFFERENCE BETWEEN ALZHEIMER'S DISEASE AND DEMENTIA?

The short answer is that there is no difference. Alzheimer's disease is a form of dementia and so in essence they are the same thing. Alzheimer's differs slightly from other forms of dementia in the way it can affect the function and structure of the brain in all areas due to shrinkage, decreased chemical exchanges and the build-up of proteins.

WHAT IS THE TEST FOR ALZHEIMER'S?

Currently there is no specific test which can accurately and definitively diagnose Alzheimer's disease. When assessing the likelihood that someone has a diagnosis of dementia of any form, health professionals rely on a variety of assessment tools to form an overall picture. This is analogous to creating a large jigsaw puzzle from smaller pieces. An assessment is based on the progression of symptoms, cognitive functioning tests, physical health screens and a reliable history from the person or a family member. Occasionally further testing in the form of a CT or MRI scan is conducted.

DOES IT AFFECT MEN AND WOMEN DIFFERENTLY?

It's estimated that there are twice as many women as men affected by Alzheimer's disease and the rate at which the illness progresses tends to be faster in females. It is known that females tend to live longer than males and that age is a risk factor for dementia. It is also suspected that the female hormone, oestrogen, may be a factor but the reasons why remain unclear.

Research suggests that other risk factors, such as heart problems and depression, are more prevalent in females and so increase the risk of developing Alzheimer's disease. However, at this time there is insufficient evidence to provide a clear answer.

IS ALZHEIMER'S DISEASE GENETIC?

In general terms the answer is no. When there is a high prevalence of dementia in a family it tends to be down to similar lifestyle choices or other physical health issues that increase the risk. There are, however, some exceptionally rare forms of Alzheimer's disease where there is a direct genetic link and affects people under the age of 60.

HOW LONG DOES SOMEONE LIVE FOR WHEN THEY HAVE ALZHEIMER'S DISEASE?

There is no way of predicting life-expectancy for someone who is living with this condition due to the varying factors that affect the progression of dementia. Each person's experience of living with dementia is unique

For more information around Alzheimer's, visit www.dementiauk.org.

For anyone who has any questions around supporting a person with dementia, contact the Admiral Nurse Dementia Helpline on 0800 888 6678 or by emailing helpline@dementiauk.org.

Thank you 

for all the amazing work you are doing to help and support the communities you serve.

Johnson & Johnson
CONSUMER HEALTH

UK-PM-2000004

Scottish Pharmacy Review

THANK YOU TO ALL OUR HEALTHCARE PROFESSIONALS

As the spread of COVID-19 presents pressing and continued challenges to our community, the team at Scottish Pharmacy Review would like to express our gratitude to the tremendous members of our healthcare teams as they work tirelessly to assist and support patients.

Thank you for all that you do.

If you would like to share your story or utilise our platform to communicate messages of awareness, please don't hesitate to email the team at sarah.nelson@medcom.uk.com.