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Involving patients in the decision-making process
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Respiratory Health

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Why we need to be more focussed on lung health

Changes are happening to prevent more people from developing lung disease and transform the care of people living with lung disease says Alison Cook, Chair of the Taskforce for Lung Health.



INTERVIEW WITH:

ALISON COOK
Chair of the Taskforce
for Lung Health

“One in five people have been diagnosed with lung disease in the UK, which translates to 700,000 hospital admissions every year.”

Lung disease doesn't make eye-catching healthcare headlines in the same way that, say, cancer or heart disease does. But it should because, incredibly, one in five people have been diagnosed with lung disease in the UK, which translates to 700,000 hospital admissions every year.

Even more sobering is this statistic: the UK has the fourth highest mortality rate from lung disease in Europe. Unfortunately, patients with lung disease or suspected lung disease have been let down by the healthcare system in the past because of late diagnosis, misdiagnosis, or the variable quality of treatment. Currently, the NHS doesn't have a defined pathway for someone who presents with respiratory symptoms. If you go to the doctor displaying a persistent cough or breathlessness, there's no guarantee that you'll be offered the right test, get a speedy

and accurate diagnosis or be given access to the best treatment.

Taskforce fighting to make respiratory health a priority

Clearly this situation has to change, which is why the Taskforce for Lung Health was launched last December, with a remit to prevent more people from developing lung disease, and to transform the care of people living with lung disease.

The Taskforce — a loud, collective voice that has outlined practical ideas around prevention, diagnosis and treatment — has over 30 members including patients, healthcare

professionals, the voluntary sector and professional associations.

43 recommendations for changes to NHS practice

We've been working to get the NHS to recognise respiratory disease as a clinical priority and, last year, published our national plan setting out 43 recommendations for changes that need to be made in the next five years.

For example, pharmacists should be able to formally refer people with signs of lung disease directly to GPs, and we want to persuade the NHS to make pulmonary rehabilitation — a treatment that

is both clinically effective and cost-effective — available to a wider variety of patients. I'm pleased to say that the plan was broadly welcomed and has helped NHS England make respiratory disease a clinical priority at last.

Tracking information on progress being made

Now we need to build on this success. In the new year, we will be publishing our one-year-on report outlining what has happened since we published the plan, and what we've been doing to help effect change for patients.

We're also creating an online data tracker so people can access statistical information about the improvements in prevention, diagnosis and treatment for lung disease that are being made as a result of the Taskforce's work.

I'm optimistic that things can and will change, but the Taskforce is not complacent. We can't afford to be. Lung disease needs to be a top priority for the NHS because we spend so much money every year on people who have poor respiratory health.

I'm pleased to say that respiratory has been identified as a clinical priority area in the new NHS Long Term Plan, but it still needs the right funding and support from across the health service. Making changes to improve outcomes makes sense from the NHS's point of view — but, more importantly, from the patient's point of view, too. ■

WRITTEN BY:
TONY GREENWAY
IMAGE: © MOHAMMED HANEEFA NIZAMUDEEN

Read more at healthawareness.co.uk

A turning point for lung cancer

I was given a 50% chance of surviving five years. I am now lung cancer free. Mine is a happy story, an opportunity for cure. The same cannot be said for the majority of people diagnosed with lung cancer... Until now, that is.

WRITTEN BY:
NICK WHITEHEAD
Patient Advocate,
Roy Castle Lung Cancer Foundation



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At the beginning of the year, NHS England announced the roll-out of lung health checks in several areas across the country. Its aim is simple — to improve the early detection of lung cancer and other respiratory diseases. It is trying to save the lives of people like me.

Because, at present, I am the minority. In nearly 50 years, long-term survival for lung cancer has barely budged. In the 1970s, 10-year survival rate for lung cancer was less than 5%. Now, at the dawn of a new decade, it is still just 5%, while other cancer survival rates have doubled.

This is because lung cancer is difficult to diagnose early. Symptoms, at best, are vague and

easily dismissed as something less sinister. At worst, they are non-existent, only surfacing when the cancer has spread, and curative treatment is no longer possible.

I was lucky to spot early warning signs

I was fortunate. I coughed up two blood clots about the size a two-pound coin. I went straight to the doctor and, after a series of tests, was diagnosed with stage 3 lung cancer, still not 'early early' but early enough to have curative treatment.

Less than 12 months after surgery, I was back scuba diving. I was back in full-time employment. I was back living my life and planning a future with my wife, Paula.

Now, I am working with Roy Castle Lung Cancer Foundation to give others the same opportunity.

do receive an invitation, please go. I cannot stress this enough.

I know we are busy. I know the thought of it is quite scary, but you have nothing to lose and, potentially, everything to gain.

Chances are, everything will be okay, and you'll be reassured by that. However, if you do have lung cancer, it is not going to go away on its own, so the sooner you go, the better your chances of getting diagnosed early.

The better your chance of having a similar experience to me, where lung cancer is a bump in the road rather than the end of it. ■

For more information about lung health care checks, visit: www.roycastle.org/lunghealthchecks

“In 2020, those eligible for a lung health check will start to receive an invitation from their GP.”

A life-saving invitation

In 2020, those eligible for a lung health check will start to receive an invitation from their GP. If you

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The risk of poor indoor air pollution to families at home



WRITTEN BY:

DR CHRIS ETHERIDGE

Medicinal Chemist, Medicinal Herbalist,
College of Practitioners of Phytotherapy (CPP)

Poor air quality and pollution inside our homes is a big part of our growing respiratory problems.

New research¹ commissioned by Puressestiel, makers of evidence-based essential oil products reveals that families who are most at risk are blind to the threat from poor indoor air quality.

A survey of parents who have a child with asthma, respiratory problems or allergies, found that fewer than half (49%) had heard of indoor pollution and only a quarter (26%) had concerns about poor air quality indoors. And only a quarter (28%) realised they could be exposed

to air pollution inside their homes, compared to 71% who perceived it as a problem on city streets.

Air quality in the home

There is so much focus on outdoor pollution and vehicle emissions that we barely give a thought to the air quality in our homes — and when we do think about indoor air quality, it's usually in terms of neutralising nasty odours rather than potential problems from airborne toxins.

Sadly, this often compounds the problem, because our most common strategies for eliminating odours are air fresheners and scented candles, which add to airborne pollution rather than reduce it.

Fortunately, there is a product available that has been proven to help tackle indoor air pollutants as well as helping respiratory symptoms on several fronts. Specific, scientifically proven essential oils appear to be a very useful weapon in our air-quality arsenal. ■

1. A OnePoll omnibus survey of 1,000 parents with children with asthma, allergy or a respiratory condition conducted in Summer 2019



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Puressestiel, makers of evidence-based essential oil products

Puressestiel Purifying Air Spray

Laboratory tests and clinical trials confirm this broad-acting air purifier, which uses 41 essential oils, combats three common triggers for respiratory symptoms as well as improving lung function including:

- Airborne bacteria: viable cells of bacteria including Staphylococcus and E. coli reduced by a factor of 100,000².
- Fungal spores: viable cells of candida and Aspergillus niger were reduced by a factor of 10,000³.
- House-dust mites: 100% of dust mites killed within an hour of use on carpet and mattress fabric.
- Significant improvement in lung function in 53 patients with a history of respiratory symptoms after four weeks of use.
- Well tolerated and no inflammation of the airways reported in a study of 25 patients with asthma.

Puressestiel Purifying Air Spray neutralizes odours and improves air quality by combatting bacteria, mould and fungus spores, dust mites and other respiratory irritants.

uk.puressestiel.com

2. Bactericidal study report, Puressestiel Purifying Air Spray, 2009. On file.
3. Fongicidal study report, Puressestiel Purifying Air Spray, 2009. On file.

COULD THE AIR INSIDE YOUR HOME BE MORE POLLUTED THAN OUTDOORS?

Scientific research suggests that it could be¹

PURESSESTIEL PURIFYING AIR SPRAY 100% PLANT-BASED PATENTED FORMULA PROVEN TO REDUCE HOUSEHOLD BACTERIA²

- GENTLE ON YOU AND YOUR FAMILY³
- ALSO SUITABLE FOR ASTHMA SUFFERERS⁴
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- 99.4% USER SATISFACTION⁵



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Use biocides safely. Always read the label and product information before use. 1- Data on file. 2- Reduces bacteria on surfaces. Microbiological Environmental study, randomised, blind, controlled, May 18. 3- Suitable from 1 year. 4- Suitable for mild to moderate asthma sufferers. Journal Of Asthma 2018: Tolerance to essential oils exposure in patients with allergic asthma. 5- Study of 9,486 users, 31st October 2019.

Why a cough and breathlessness can't wait



WRITTEN BY:
BEVERLY BOSTOCK
Asthma Lead,
The Association of Respiratory
Nurse Specialists (ARNS)



WRITTEN BY:
DR NICOLA ROBERTS
Research and Education
Sub Committee,
The Association of Respiratory
Nurse Specialists (ARNS)

Respiratory disease is the focus of 20% of all general practice consultations, the second most common reason for hospital admission, and the cause of one in five deaths in the UK, but it commands far less attention than heart disease or cancer.

Around 10,000 people in the UK are diagnosed with a lung disease every week.¹ A cough and breathlessness are symptoms that should not be ignored. Five respiratory conditions – COPD, asthma, pneumonia, tuberculosis and lung cancer – are the most common causes of severe illness and mortality around the world and each can present with these symptoms.² Symptoms lasting more than four weeks should be investigated through a combination of accurate history-taking, examinations, and the appropriate use of spirometry or other diagnostic tests.^{3,4,5}

of an infection, although this doesn't always need antibiotics. Yellow phlegm may be seen in asthma.

Is shortness of breath normal as we age?

Shortness of breath often creeps up on older adults and it is important to ascertain how individuals perform against their peers. In smokers, breathlessness can be another red flag, but any disproportionate breathlessness, even in non-smokers, will need to be investigated.

What will a respiratory diagnosis mean?

It's vital to get a confirmed diagnosis to ensure that appropriate, evidence-based treatment is provided. Post diagnosis, annual reviews and follow-ups are essential. All those with a long-term condition should be getting the flu vaccination, smoking cessation advice and, where appropriate, referral to pulmonary rehabilitation.

What can individuals do?

Lifestyle changes can have a big

impact. Smoking cessation is crucial. Physical activity is important in respiratory conditions but too many people avoid this because of breathlessness so they get out of condition, which makes the breathlessness worse. Weight loss and a healthy diet can also help to reduce symptoms.

What else is being done?

The good news is that research is ongoing into the causes and treatment of lung diseases. The ultimate aim is to find cures, where possible. ■

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What causes lung disease?

There are multiple causes of respiratory disease. Smoking, genetics and air pollution all play a part in different conditions.

What does phlegm tell us?

Phlegm (sputum) can provide a lot of information. Coughing up blood can be a red flag – a sign of a significant underlying illness – and will normally trigger a fast-track referral to hospital. Green phlegm may be a sign

Failure to tackle air pollution is putting millions with asthma in danger

Air pollution could affect more than three million people with asthma in the UK and is a leading cause of life-threatening asthma attacks. Joe Farrington-Douglas, Head of Policy and External Affairs at Asthma UK explains the impact air pollution is having on people with asthma and why tougher measures are needed.

Imagine being scared of leaving the house or stepping off a train because breathing in toxic air could leave you fighting for breath. This is a daily reality for many people with asthma. Two thirds say that poor air quality makes their asthma worse, putting them at an increased risk of a life-threatening asthma attack.

and cause inflammation in the airways making it harder for people to breathe.

Air pollution can also cause asthma in children. Research part-funded by Asthma UK found that traffic fumes in particular can stunt children's lung growth, making them more susceptible to developing asthma.

Other recent studies revealed that babies born in the most polluted areas have an increased risk of dying by up to 50% and revealed that days of high air pollution trigger an extra 193 hospitalisations for asthma across nine major UK cities each year.¹

For nearly a decade, the UK has been failing to meet its current clean air targets, set and enforced by the EU. In October this year, NHS boss, Simon Stevens, declared air pollution 'an emergency'.

Asthma is a public health crisis

Asthma is a serious respiratory condition that affects around 5.4 million people in the UK, leaving people coughing, wheezing and struggling to breathe. Tens of thousands are hospitalised each year with the condition and three people die from an asthma attack every day.

Air pollution can trigger asthma attacks as it can irritate the airways

LIFE IS A HEALTH JOURNEY.

For one in five people in England this journey includes respiratory disease, the third biggest cause of death.¹ Sanofi is committed to improving the lives of people living with respiratory disease.

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1. NHS England. Respiratory disease: <https://www.england.nhs.uk/ourwork/clinical-policy/respiratory-disease/>. Accessed: November 2019.

“Recent studies revealed that babies born in the most polluted areas have an increased risk of dying by up to 50%.”



WRITTEN BY:
JOE FARRINGTON-DOUGLAS
Head of Policy and External Affairs,
Asthma UK



Toxic air is driving people out of cities

The personal stories of the impact of filthy air are just as shocking as the statistics. Fern, 26, moved to London from the countryside in 2013 to attend university but the air pollution triggered life-threatening asthma attacks. After nine hospital admissions - including an admission where she spent 10 days in an induced coma - she was told by her respiratory consultant that it was too dangerous for her to stay in the capital. Fern was forced to move out of London and say goodbye to her dreams of working as a criminal lawyer in the capital.

In recent years we have seen tragic cases of children dying from asthma attacks potentially linked to pollution. Ella Kissi-Debrah died from

an asthma attack in 2013 when she was just nine years old and her family have been campaigning as experts believe that the pollution caused by living by one of London's busiest roads contributed to her death.

The solution? Stronger, legally binding targets to reduce air pollution

Asthma UK funds research into the effects of pollution on asthma and is part of the Healthy Air Campaign, a

coalition of 19 organisations, raising awareness of air pollution and actively lobbying the UK Government for cleaner air.

There is a proposed law to tackle air pollution - the Environment Bill - but it's missing something quite important... tangible targets to replace the EU laws after Brexit. Without targets, the government cannot be held to account, it is merely paying lip service to the issue and has missed a huge opportunity to protect people with asthma from toxic air.

“We now urgently need the government to commit to a stronger environment bill with legally binding, enforceable targets for clean air.”

We now urgently need the government to commit to a stronger environment bill with legally binding, enforceable targets for clean air, based on meeting World Health Organization limits by 2030. In the meantime, more than three million people with asthma in UK could continue to be affected by harmful air.

Cut your risk of an asthma attack

If you have asthma and are worried about air pollution, there are things you can do to protect yourself. Take your preventer inhaler (usually brown) as prescribed to soothe the inflammation in your airways and make them less likely to react to asthma triggers. People should follow their written asthma action plan (which sets out how to recognise and manage worsening

symptoms) and make sure that they have an asthma review with their GP or nurse at least once a year.

Everyone with asthma should also carry their reliever inhaler (usually blue) with them at all times in case of emergency. If people are affected by pollution, it may help to avoid pollution hotspots like junctions and bus stations and stick to back streets where pollution levels are lower. ■

1. <https://erscongress.org/about-ers-2019/media-centre/press-releases/162-press-releases/701-air-pollution-linked-to-increased-risk-of-infant-deaths-and-reduced-lung-function-in-children.html>

For more information and top tips, visit:

asthma.org.uk/pollution





How indoor allergens are impacting quality of life

Up to 40% of the UK population is affected by respiratory allergies, including allergic rhinitis and asthma¹.

WRITTEN BY:
AMENA WARNER
Head of Clinical Services,
Allergy UK



These allergic conditions are linked: around 80% of asthmatics also have allergic rhinitis, and those with allergic rhinitis are three times more likely to develop asthma¹.

Indoor allergy – the allergens in our homes

Common allergens that trigger asthma and rhinitis include pollen, house dust mite, mould and pet dander. However, asthma can also be a symptom of food allergy. In modern life, people may spend up to 90% of their time indoors and exposed to their indoor allergic trigger, causing severe impacts on quality of life.

Common indoor allergens

House dust mites are found in every home and thrive in warm, moist environments. While they are microscopic and harmless to most people, house dust mite allergy is very common and is associated with conditions such as asthma, rhinitis and eczema.

They are found in mattresses and bedding, soft furnishings and carpets. House dust mite allergy is worse at night and first thing in the morning due to their presence in beds.

Mould spores are microscopic particles that can cause allergic symptoms when they become airborne and are inhaled or make contact with the skin. As they flourish in damp areas of the home, they are common in the bathroom, kitchen and utility room.

Pet allergy is caused by allergy to the protein in animal dander (shed skin particles) saliva or urine. Pet hair can also carry airborne allergens such as pollen, mould and house dust mite. With pets living indoors and sleeping on furniture, people with pet allergy may experience severe and constant symptoms.

Management and treatment

People can take steps to reduce the amount of house dust mite, mould and pet allergen (known as the 'allergen load') in the home to avoid exposure to these allergens.

There is also a variety of treatments and medications to help control indoor allergies. Allergy UK's Seal of ApprovalTM is a globally recognised endorsement scheme for products scientifically tested to benefit people living with allergies, including cleaning products, air purifiers, vacuum cleaners and more.

With the correct allergy management plan, allergic asthma and rhinitis can be managed effectively. It is important to seek medical advice for asthma symptoms, as these can be very dangerous and potentially life-threatening if left uncontrolled. ■

Sources: 1. https://www.allergyuk.org/assets/000/001/369/Stats_for_Website_original.pdf P1505209830

Read more at
healthawareness.co.uk

Air pollution: a public health emergency that urgently needs a public health response

Research, commissioned for Global Action Plan's Clean Air Public Insights Tracker, showed that 94% of the UK population think that reducing air pollution should be a priority for the country but only 16% know where to go for advice about air pollution it, despite the serious health effects polluted air can cause.

Air pollution can affect your health from your first breath to your last

The World Health Organization and the UK Government recognise that air pollution is the largest environmental health risk we face today. It causes heart and lung diseases, is linked to low birth weight and children's lung development and may even contribute to mental health issues. That is why Larissa Lockwood, the Head of Health and Air Quality at Global Action Plan, believes we need a public health response with more information for the public and health professionals.

She says: "You can see that with other health crises, such as smoking or obesity, the Department of Health and Social Care have led the campaign. But when it comes to the air that we breathe the Department of Health and Social Care (DHSC) offers very little despite the impact air pollution has on our health.

Now, Global Action Plan have begun working with NHS trusts to put together a three-pronged plan using the Clean Air Hospital Framework, which was developed with Great Ormond Street Hospital. This includes the health service acting as a role model by, for example, consolidating deliveries to site and making sure people can access services by public transport.

It also looks at the role of health professionals in providing advice about air pollution to vulnerable patients to help them reduce their exposure, work that Global Action Plan are taking further through a number of small demonstrator projects with respiratory and paediatric professionals. As Larissa explains: "Air pollution is a health problem. I will know it is being addressed as a health problem when my asthma nurse starts talking to me about air pollution. This can only happen when health professionals have the resources to give them the required levels of information and confidence to advise on the topic."

Knowledge gap for the public

Global Action Plan have found that there is a real knowledge gap when it comes to reducing both indoor and outdoor air pollution and have now launched the Clean Air Hub, with the technical information approved by DEFRA and Public Health England. The Hub offers accessible guidance on the sources of air pollution, the health impacts and simple ways to reduce it in the home and outdoors.

"There are steps we can all take to help our family avoid toxic air and cut down on the pollution we make," says Larissa. "And while taking fewer car journeys or switching to electric can help, there are things to be done inside the home too, such as cutting down on wood burning or re-thinking the paints and household cleaners we use."

“There is real knowledge gap when it comes to reducing both indoor and outdoor air pollution.”

Larissa believes that our air will only improve when it becomes socially unacceptable to abuse it. She says: "Right now, smoking is banned in public places, but it's fine to idle a car outside a health clinic or a school. We need to change this social norm. And we need to get the public onside in tackling air pollution through a public engagement campaign. The more people know about it, the more supportive they will be of clean air policies. And the more the public understands about the risks to health, the more likely they will be to act. Air pollution is preventable and relatively simple steps can solve this crisis."



INTERVIEW WITH:

LARISSA LOCKWOOD
Head of Health and Air Quality,
Global Action Plan

Air improves when London traffic is stopped

Research by Global Action Plan, using King's College London data, has shown that when cars were taken off the roads for the 2018 London Marathon, air quality dramatically improved by 89%. Larissa adds: "There are so many unnecessary journeys on our roads. Potentially, if we all worked from home one day a week, that could be a fifth of the rush hour traffic off the roads. Many organisations are already set up for staff to do this, so we just need to make it the norm."

While parts of government are committed to improving air quality, Larissa believes that the UK still needs to step up its commitment as a whole, in line with the World Health Services' recommendations. She says: "We've got some legislation going through but we need much stronger standards in terms of regulation. We need a public health campaign on air pollution and we need health professionals to be empowered to advise their patients. This is solvable, we just need to work together." ■

WRITTEN BY:
GINA CLARKE

Clean Air Hub



Indoors or outdoors, air quality is the health issue of our time

Poor air quality is the biggest public health issue of our time, exacerbating problems among vulnerable populations. Yet there are things we can all do to make indoor air cleaner.

The average person will breathe around 250 million litres of air in their lifetime – although most of us don't give a second thought to the quality of that air.

Yet we should, insists Mark Leftwich, Director of Personal Health for Philips UK&I and the Philips Foundation, because air pollution is a massive global health risk, one that's believed to cause seven million deaths a year every year, including at least 36,000 in the UK. Poor air quality can lead to reduced lung function and has been blamed for an increase in asthma and other respiratory illnesses. "It has lasting impacts on people's health, causing chronic conditions, cardiovascular problems and lung cancers," says Leftwich. "It's also associated with shortened life expectancy and, in high pollution areas, we're seeing links with dementia, blindness and lower birth weights in babies."

There's a temptation to think that this issue is already being dealt with, thanks to environmental bills and

emissions targets. But just because we don't see pollution, it doesn't mean it isn't there. "The volume of ultra-fine particle emissions – including dust, dirt, and gasses from factory and car emissions – has increased significantly," says Leftwich. "These particles can be breathed into your lungs and also soak into your bloodstream and travel to your vital organs. We believe this is accelerating the health challenges we have seen recently."

Poor air quality is a problem for indoor spaces too

Still, at least if we go indoors – where most of us spend 90% of our time – we'll be better protected, because the air will be cleaner. Right? Wrong, says Leftwich.

In fact, indoor air can be three to five times more polluted than outdoor air. That's because ultra-fine particles enter from the outside, mixed with pollutants from cooking, open fires and chemicals in cleaning products, among other sources. "Double-glazed windows

trap all of the toxic air inside," notes Leftwich.

"So, unless you're cleaning and purifying your house regularly, your home is at risk of having poorer health quality than the outdoor spaces that surround it."

Duty of care to our most vulnerable populations

Of course, it's not just our homes that are affected by poor quality indoor air. It also affects workspaces, hospitals and schools, and can have a negative impact on the health of vulnerable populations, particularly children, whose young lungs and bodies are still developing. While the government is setting targets and looking at policies that will help protect those most vulnerable to air pollution, Leftwich flags that it will take time to get these revised systems in place. "Change needs to happen now," he insists.

So, in October, the Philips Foundation, the charity Global Action Plan and the University of Manchester launched a Clean Air for Schools programme in 20 schools across the Greater Manchester area, reaching 6,000 children. "Children spend a huge amount of their week in classrooms," says Leftwich. "If the school is in a highly polluted area,

near a busy road, or using cleaning products which compromise air quality, children could be breathing poor quality air day in, day out, damaging their physical health and affecting their ability to learn."

Taking positive actions to make healthier communities

All of us – government, companies, parents, children, schools, hospitals and other public institutions – need to be better educated about air pollution, and the things we can do to protect our indoor spaces. These include better ventilation and use of natural cleaning products and purification devices.

"There are real things that vulnerable communities can do to make a positive impact on air quality in the short-term, while core issues are being addressed in the long-term," says Leftwich. "On the plus side, there's never been so much attention given to the issue of air quality. More and more people and organisations, including the NHS, are becoming vocal about it. And rightly so, because air pollution is the biggest public health issue of our time." ■

WRITTEN BY:
TONY GREENWAY

INTERVIEW WITH:



MARK LEFTWICH
Director of Personal Health,
Philips UK&I and the
Philips Foundation

Info box

As the UK government steers the country towards meeting the World Health Organisation's air quality guidelines of PM2.5, the role of technology to deliver against this standard will become as important as our behaviours to minimize emissions. Currently there are no industry standards for technologies like air purifiers, in the same way that there are for other domestic appliances like irons and vacuum cleaners. We believe this issue needs further attention. Purifiers sold in the UK should meet an agreed standard of filtering out the most dangerous particles and genuinely improve the health of the people who buy them.

Read more at:
philips.co.uk

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What you need to know to have the right inhaler for your needs

Every asthma patient must have access to the best treatment in the event of an asthma emergency. This means having the right inhaler for them – and that they know how to use it.

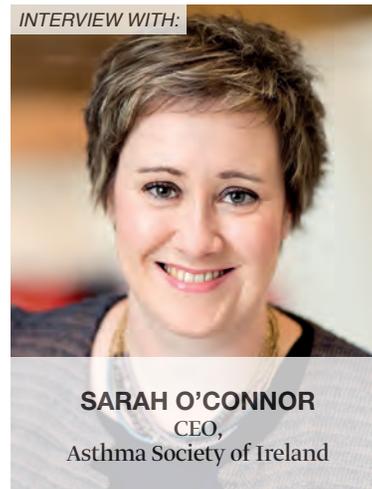
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There are typically three types of inhalers available for the estimated 5.4 million people in the UK living with asthma: pressurised metered dose inhalers (pMDI), soft mist inhalers (SMI) and dry powder inhalers (DPI).

Recently, research published in *BMJ Open* noted that metered dose inhalers release greenhouse gases and that patients should consider switching to DPIs, which do not release gases with global warming effects into the environment. What's more, a 2018 report by the House of Commons Environmental Audit Committee recommended that the "NHS should set a target that by 2022 at least 50% of prescribed inhalers are low GWP (global warming potential)."

But not so fast, warns Dr Omar Usmani, Consultant, Respiratory Medicine, Royal Brompton and Imperial - London, and Chair of the UK Inhaler Group (UKIG). Dry powder inhalers might be more environmentally friendly, but children, the elderly and anyone having a severe asthma attack would find it difficult to use them – and the consequences could be tragic.

Making patient duty of care a priority

"I have real concerns about this," he says. "A DPI relies on energy from the patient's lung muscles to suck in the powder from the device. That won't be possible if you're breathing so quickly and gasping for air." Indeed, the CRITICAL Inhaler mistakes and Asthma control (CRITIKAL) study, published in 2017, reported that 34% of current DPI users do not have sufficient inspiratory effort to

"Dry powder inhalers might be more environmentally friendly, but children, the elderly and anyone having a severe asthma attack would find it difficult to use them – and the consequences could be tragic."

actuate their DPI device. "Of course, I believe in protecting the planet," stresses Dr Usmani. "But change needs to be done in a proper way because I have a duty of care to my patients, too."

Dr Duncan Keeley, General Practitioner, Member of the UK Inhaler Group (UKIG) and Executive Committee Member of the Primary Care Respiratory Society, echoes this sentiment. "During an attack, it is

also often hard to use spray inhalers well on their own without a spacer (a tube that attaches to the inhaler to make it easier to use and deliver the medication more effectively)," he says.

"Therefore, in a recent article in *Lancet Respiratory Medicine*, Dr Keeley and Martyn Partridge, Professor of Respiratory Medicine, Imperial College London, suggested that anyone who has had or is at risk of having an asthma attack should be given an emergency treatment

pack. This would include a spacer, a 'reliever' pMDI, a steroid 'preventer' pMDI, and an advice sheet on how to use the devices in an attack and call for help.

The pack – kept for use in severe attacks only – could also be given to people who use dry powder inhalers for their regular preventer treatment. "Deaths from asthma are fortunately rare," says Dr Keeley. "But people can and do die of asthma

and it is obviously better for patients to know the best way of starting high dose inhaled treatment for a bad asthma attack – and to know that they should call for help if they are having one."

Know how to use reliever inhalers and spacers

Sarah O'Connor, CEO of the Asthma Society of Ireland, underlines that GPs must prescribe the most appropriate inhaler treatment for the individual, and that, in an emergency, all patients should have access to, and know how to use, their reliever pMDI and spacer. "People think they know how to use them," she says. "But Irish data indicates that 60% of patients are not using their inhaler properly. And they don't understand the powerful impact of their own inhaler and spacer working together, and the way this can help them exit an asthma attack."

O'Connor also cautions about making patients feel guilty about using their pMDIs in case switching to a different inhaler has serious ramifications for their health. "Patients who use inhalers mustn't be stigmatised," she says. "Otherwise they may be pushed into a change that might

not be right for them without the appropriate support."

Of course, it's not just patients who need better inhaler education. Healthcare professionals need it too, notes Jane Scullion, Clinical Lead and Respiratory Nurse Consultant, University Hospitals Leicester (UHL). "Nurses, doctors and pharmacists have to know how to use inhalers if they are to assess their patients' use properly," she says.

Ultimately, Scullion points out that pMDI inhalers have a small carbon footprint, so change should never be undertaken lightly. "If patients are stable on their treatment, I'd be concerned about switching them. We shouldn't change things for change's sake." ■

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