

What do GPNs need to know about GDPR?

- Supporting patients on home ventilation
- Educating men about ADT
- Pilonidal sinus disease
- National care bundle for children with asthma
- Routine and at-risk immunisation programme
- Physical activity for those with COPD
- Mediterranean diet: what's all the hype?
- Mouth breathing versus nasal breathing

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It's good to share: working in partnership with patients



I had a eureka moment reading the 'Practice matters' piece, 'What do GPNs need to know about GDPR' and a sensation of various burdens lifting off my shoulders. Now I had found a reason to have a different approach to writing up my consultations and this would be better for patients. I'll tell you why.

First, I can forgive myself for all the medical language I've never quite managed to remember or grasp the correct spelling of and free my spirit to write in plain English because if the patient ever wants to read it, they won't need someone to translate! There is a role for some of the terminology in providing accuracy and a recognisable diagnosis, but what a relief to be able to shift focus and write in a way that's more readily accessible to everyone, including myself.

Second, it's good to be more open with what is being recorded and shared. I have to write up information during the consultation before I forget — I do sometimes note stuff down separately but as I draw towards a summary and plan, I like to share that with the patient. This is also good from a GDPR perspective. An agreed plan written in the notes is a positive thing. It might include an impression of the issue and what each of us plans to do and how and when we plan to follow up.

I also do my referrals within the appointment and often copy chunks of my clinical notes into them. It means that if extra data is needed, I have the patient there to obtain it. This week I found myself reading back through the notes checking accuracy with the patient and then pasting that into the referral. It was only later when I read the GDPR article that I realised this is a great approach. The patient knows and has had a chance to agree what is being shared about them and will also know what information the hospital clinician has been given when they get to their appointment.

It works for me, it's a more equal partnership approach, its accurate and its good for GDPR — multiple wins from a more open approach.

There are some great articles in this issue. I love reading it and always learn something new; there are the things you didn't even know you didn't know (for me it was home ventilation in COPD), the things that help you in your own life as well as your patients (in my case I enjoyed understanding more about the Mediterranean diet), and the more specialist areas in which you are keen to get more depth of understanding (in my case I'm working on women's health as an area of expertise and so the menopause and HRT article was very helpful).

I hope you enjoy our journal and please get in touch with any ideas you may have for future content. We welcome suggestions for contributions and topics that you wish to see covered.

Jaqui Walker, editor-in-chief



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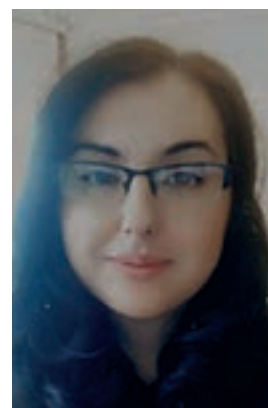
My passion for education has given me such an amazing general practice nursing career. To be invited to become a member of the editorial team for the *Journal of General Practice Nursing* provides the opportunity to contribute to a journal with high standards and vision. This comes at a particularly challenging time for all staff working in primary care; embracing new ways of working in response to the Covid-19 pandemic. Education is what drives good clinical practice; the characteristic adaptability and resilience demonstrated by staff is founded on sound principles. It is a privilege to be part of the editorial board, contributing to the strategic commitment of enabling access to educational material, which is contemporary, relevant and valued.

Julie Lennon



I am thrilled to be part of the editorial board. To contribute to the content and review work by inspiring authors is an exciting opportunity. Most of my nursing career has been within primary care. I have worked with many GPN colleagues to assist in providing education, training and service improvement projects within the field of wound care. At present, the challenges that GPNs face are immense and this journal is a fantastic arena to offer support, education and share experiences and best practice.

Kirsten Mahoney



I am delighted to have been invited to represent the *Journal of General Practice Nursing* editorial board. It is a privilege to review and contribute to

the work of our incredible colleagues and authors. As a primary care pharmacist, I work closely and collaboratively with experienced general practice nurses (GPNs) and understand and appreciate the dedication, compassion and diverse skill mix GPNs bring to the multidisciplinary team. In these uncertain times, when the challenges and pressures faced in primary care and the health service as a whole are unprecedented, it has never been more imperative for us to keep up to date with current best practice and to be proactive in developing interprofessional relationships to support the delivery of high-quality patient care. I feel the journal is an excellent resource to promote evidence-based, person-centred care across the multidisciplinary team, and I look forward to supporting the up and coming content.

Caroline McIntyre



I am thrilled to join the editorial board. I am passionate about improving quality of care across primary care. I enjoy acting as a change agent in general practice to improve patients' experiences and always strive to ensure that high quality, person-centred care is achieved. I am excited to be able to share ideas and discuss topics imperative to our role with like-minded healthcare professionals.

Cheryl Crawford

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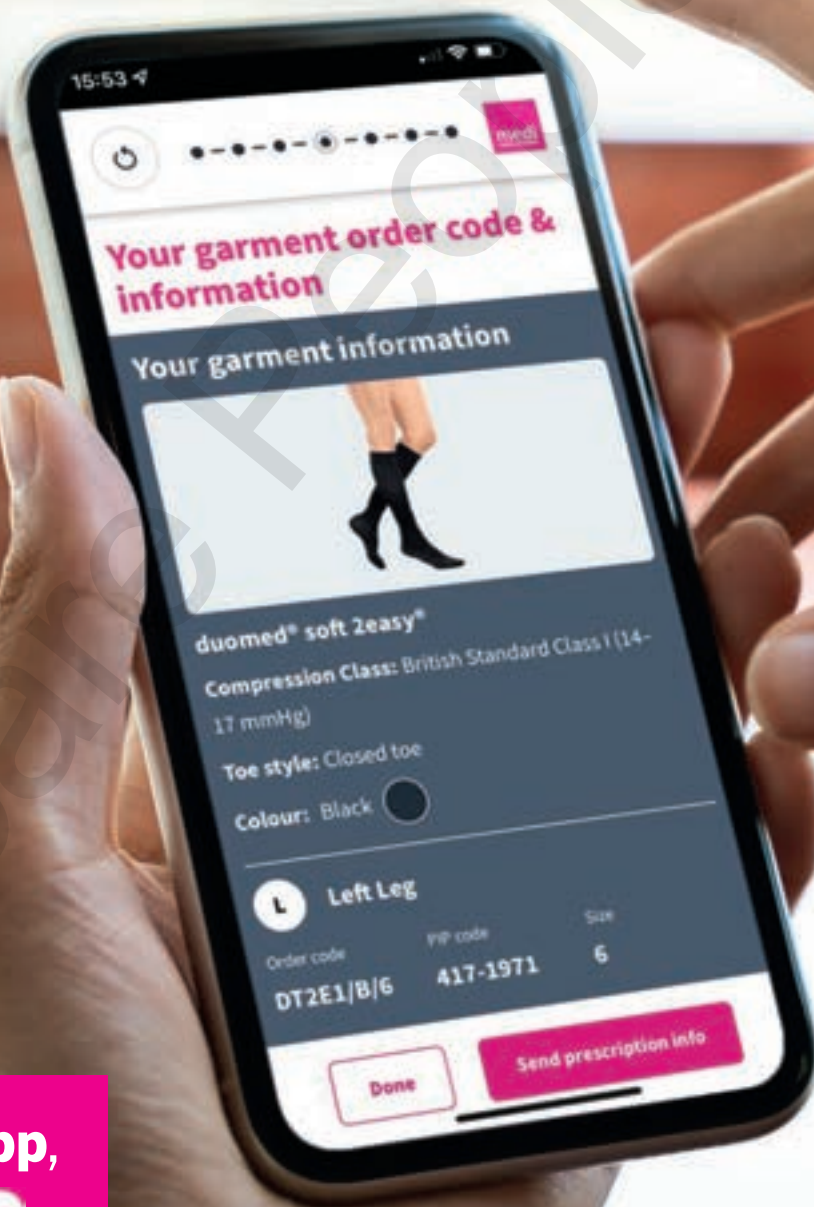
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■ ■ ■ In each issue we investigate a topic affecting you and your practice. Here, we ask...

What do GPNs need to know about GDPR?

As a general practice nurse (GPN), how much information should you know about a patient? You might say it's important to know the condition they have and their medical history. It might be reasonable to enquire if they are on any medication, or even ask for some details about their lifestyle, such as their smoking habits or alcohol consumption, or how many sugars they take in their tea.

In the day-to-day work of a busy practice, you may also need to share some of this information. Some of this sharing may be routine. You may need to pass a patient's notes to a different practice, or provide some information to a physiotherapist. In more dramatic cases, you may feel under pressure to provide the police with information if a patient is suspected of committing a crime, or to report a child's injuries to social services.

All of these considerations can come under the abbreviated heading of GDPR — or General Data Protection Regulation, to use its full title. However, while many jargon-friendly abbreviations are an attempt to make a boring subject sound more interesting (CQUINS anyone?), understanding GDPR might actually save you from straying into illegality.

WHAT IS GDPR?

Like any other healthcare services, general practices have to process a huge amount of personal information about patients. This not only includes demographic information such as a patient's name, date of birth and address, but also details about their health and any treatments, such as that contained in their medical history and nursing notes.

Since 2018, GPNs like all healthcare staff have to comply with GDPR. The



The principles of GDPR are important for any healthcare professional. However, as GPNs, we review patients autonomously and are privy to many different types of information and data. This requires GPNs to practically understand the principles related to their individual practice and ensure that the patient is placed at the centre of decision-making for sharing of information as required. We are all aware of the need for confidentiality as per our code, and also when this may need to be broken for patient welfare in some cases. As a deputy safeguarding lead for my organisation, I am fully aware of the implications of patient consent and data sharing in partnership with patients' wishes. I particularly feel the 'common-sense' approach will be a useful tool for GPNs to quickly evaluate the principles of data protection, as navigation of this topic can at times prove difficult in the challenges of real-life daily practice. This article goes further to examine how GDPR is part of every GPN's daily role, and that adherence to its principles will ensure accurate care planning with correct sharing of information at each stage of the patient journey.

Callum Metcalf-O'Shea

Advanced nurse practitioner (diabetes specialist), Thorpewood Medical Group

regulations require you to keep an individual's personal, medical and financial information secure. You have to justify the disclosure of any patient information, inform the patient and gain their consent, which can be a particular challenge when dealing with vulnerable people who may not be able to give consent for this information to be shared ('The impact of GDPR on the healthcare sector' — www.skillsplatform.org).

There are some common examples of the kind of work that GPNs are regularly involved in that could require you to apply the principles of GDPR. For example, you might need to share information from a patient's medical records with other healthcare staff. This might be when you refer a patient to a hospital specialist, or send details of a

prescription to a pharmacy. Similarly, you might need to notify colleagues in A&E or the ambulance service about a patient's medical condition.

It is also important to understand that some aspects of a patient's personal data are considered more sensitive than others, or what the GDPR legislation terms 'special categories', including the following:

- Racial or ethnic origin
- Political opinions
- Religious or philosophical beliefs
- Trade union membership
- Genetic, biometric and health data
- Sexual orientation
- Criminal convictions.

GPNs need to treat this type of data with greater care because

collecting and using it is more likely to involve discrimination.

It is also important to remember that a patient has the right to object to any information being shared about their care. They also have the right to have any mistakes or errors in their notes corrected ('GDPR privacy notices for GP practices' — www.bma.org.uk).

SCREENING

Another factor in GDPR that GPNs should be aware of is national screening programmes. The NHS runs national screening programmes so that certain diseases such as bowel, breast and cervical cancer and aortic aneurysms can be detected at an early stage. Under GDPR data, patients have an extended range of rights, such as the 'right to be forgotten', which means that they can apply to have their information deleted ('Data protection, GDPR and screening' — phescreening.blog.gov.uk).

GPNs should be aware that practices are permitted to share patients' contact information with Public Health England, for example, so that they can be invited onto screening programmes, but are also required by law to provide the patient with information about how they handle this information.

All of this information should be clearly set out in any practice's data protection policy.

A MATTER OF PRINCIPLE

The Royal College of Nursing has rather helpfully provided a set of principles for nurses to consider when processing patients' information. These principles state that any information must be ('Data protection monitoring at work' — www.rcn.org.uk):

- Used fairly, lawfully and transparently
- Used for specified, explicit purposes
- Used in a way that is adequate, relevant and limited to only what is necessary
- Accurate and, where necessary, kept up to date for no longer than is necessary
- Handled in a way that ensures appropriate security, including protection against unlawful or



As registered nurses, we have always been very aware of a patient's right to privacy and confidentiality through our 'Code of Conduct'. Within general practice, the purpose of GDPR is to improve the public's trust in how personal data is handled. There are, however, some incidents which may cause difficulty or conflict within a GPN's daily role and you may feel compromised withholding this information. For example, a relative/friend may request information about a patient if they are worried or concerned, especially if there are capacity or specific health issues. The solution is to discuss with patients and relatives the possibility of having a lasting power of attorney for health, or written permission by the patient that is stored within the patient's record for a relative/friend to have access to or act on their behalf regarding their health care.

Another area which may be affected by GDPR and is not always obvious is obtaining data for any research project, which may include reviewing patient data retrospectively. Often in medical and nursing research, using patient data is important. So, if you engage in research within your practice, ensure that the correct ethics and permissions are in place.

In the field of wound healing (my arena), it is common to take wound photographs which are a great way of monitoring wound progress. The storage and use of images also comes under GDPR, especially if there is patient information stored with them. Consider where you are storing these images, i.e. if they are on a memory stick/card using encryption may be necessary. If you are using the images for writing up a case study, publishing or teaching, you will need the patient's written permission to use them.

Most GDPR principles are commonsense and as long as we adhere to our NMC 'Code of Conduct' and GDPR legislation we will be able to safeguard our patient data.

Kirsty Mahoney

Senior tissue viability nurse specialist, operational programme lead, Welsh Wound Innovation Centre (WWIC); honorary lecturer, Cardiff University

unauthorised processing, access, loss, destruction or damage.

ARE YOU PROTECTED?

GDPR has caused some anxiety among healthcare staff about what information can and can't be shared, and whether they might get into trouble for accidentally sharing a patient's details.

The simple answer is, you probably won't. Any healthcare service such as a GP practice should by now have procedures in place for protecting patients' information, which deal with the high-level information-governance procedures. All practices should also have easily available posters and leaflets for patients, outlining their data rights.

On a day-to-day level, there are some simple measures that you can take to make sure you are protecting your patients' data. Writing in the journal, *Nursing Management*, Daniel Allen states that these include simple actions such as 'not sharing passwords, not leaving identifiable patient information on computer screens and logging out after using a computer' ('Data protection in the NHS: what new regulation means for you' — journals.rcni.com).

It is also crucial that you appreciate a patient's right to access their records, which might mean for example, using less medical jargon to ensure that patients can better understand the information. Any patient information must be written in plain language and

should be concise and easily understood. Simple access to clear information is important to ensure that patients can make informed decisions about their care (Applying the Data Protection Act 2018 and General Data Protection Regulation principles in healthcare settings — journals.rcni.com).

You should also become used to considering a patient's information as something that belongs to them, and not the practice or you or your colleagues. This means that at each point of information-sharing, such as a referral email, you need to consider whether the information is necessary, and whether appropriate consent has been sought from the patient.

DUTY OF CONFIDENTIALITY

If you are nervous about mistakenly sharing a patient's details, it is important to remember that while GDPR has increased the focus on the processing of patient information, nurses already have a professional duty to ensure confidentiality, which is enshrined in the Nursing and Midwifery Council Code.

The Code principle 'Respect people's right to privacy and confidentiality' states that: 'As a nurse, midwife or nursing associate, you owe a duty of confidentiality to all those who are receiving care. This includes making sure that they are informed about their care and that information about them is shared appropriately' ('The Code Professional standards of practice and behaviour for nurses, midwives and nursing associates' — www.nmc.org.uk).

If you are nervous about GDPR, think of it as an extension of the duty of confidentiality that you already owe to patients in your everyday work as a nurse.

TOO SCARED TO SHARE

It is also important that GPNs are not intimidated by fear of GDPR into not sharing relevant information when they should, for example, if they fear that a patient is in danger or may endanger others. Similarly, you may feel that you should share information with the police, or warn a colleague about a patient's potentially dangerous



The impending changes to patient access to their medical records from 1st November has been a source of anxiety among some healthcare professionals. Patient records are, and will still be, a medical-legal document and as such healthcare professionals need to continue to use terminology that accurately reflects the consultation and, for example, gives specific description of the matter being discussed. It has been the case for some time that acronyms and abbreviations should only be used if they are commonly understood by other professionals, for

example 'prn' for as needed, and 'msk' for musculoskeletal. However, now that patients will be able to access their notes, healthcare professionals will need to give consideration as to whether the records are also understandable so as not to cause undue worry or misunderstanding. This could potentially cause some frustration in already short appointment times where it may be onerous to spend time considering whether notes have been recorded in a way that patients can understand. As stated, patient notes are a legal document and therefore language should not be 'dumbed down'.

There is also the potential for anxiety to be caused with patients who access test results without having the medical knowledge to understand the implications of these. One professional, for example, may code a result as 'satisfactory' whereas another may code as 'normal'. This slight discrepancy may lead patients to question whether the 'satisfactory' result is as good as the 'normal' one, when it could just simply be a difference in terminology. This could potentially lead to increased contacts with the surgery to clarify information. Some standardisation of terminology used would therefore be helpful.

A further consideration is the ability of healthcare professionals to be able to candidly share concerns with each other without necessarily wanting to alarm the patient or increase risk of problems. An example of this would be safeguarding where a professional may not have direct evidence of abuse but may wish to record concerns, such as a negative interaction between a parent and child, or a woman who presents as scared of a partner.

It is important that all staff dealing with these changes in GDPR regulations have adequate training to fully understand the implications of balancing patient rights with legalities of the document, but time has all but run out already and there is still plenty of work to be done.

Jude Harford

General practice nurse, Adam Practice, Poole, Dorset

behaviour, but are wary of falling foul of GDPR rules.

Remember, GDPR is not intended to prevent you from sharing information where appropriate, but to ensure that any sharing is undertaken in a secure way. Take the example of sharing information about a patient with the police. There are

actually some cases when you must share information:

- Prevention of terrorism — you must inform the police if you have information (including personal or confidential patient information) that may prevent an act of terrorism
- Traffic accidents — you must tell the police when asked of any

information that might identify a driver who is alleged to have committed an offence

- Female genital mutilation (FGM) — you must report when any girl under the age of 18 has been subject to genital mutilation.

As with other elements of GDPR, it is important to take a common-sense approach to disclosing information. The rules are not there to intimidate, rather to guide. Generally, a disclosure can be made to the police in the public interest to prevent or detect a serious crime or to prevent serious harm to another person ('Sharing information with the police' — transform.england.nhs.uk).

A COMMON-SENSE APPROACH

The government has supplied some common-sense principles to help ensure that you do not fall foul of GDPR legislation ('Sharing information — advice for practitioners providing

safeguarding services to children, young people, parents and carers' — assets.publishing.service.gov.uk):

- Be open and honest with the patient and their family about why, what, how and with whom any information may be shared, and seek their agreement, unless it is unsafe or inappropriate to do so
- Seek advice from colleagues or your practice's GDPR lead if you are in any doubt about sharing the information concerned (without disclosing the identity of the individual where possible)
- Share information with the patient's consent, and where possible, respect the wishes of those who do not wish to have their information shared. Remember that where you do not have consent, the patient may not expect their information to be shared
- Consider safety and well-being — base any information-sharing decisions on the safety and well-being of the individual

- Ensure that any information you share about a patient is necessary for the purpose for which you are sharing it; that it is shared only with those individuals who need it; that it is accurate and up to date; that it is shared in a timely fashion, and that it is shared securely
- Keep a record of your decision to share a patient's information and the reasons for it. If you decide to share, then record what you have shared, with whom, and for what purpose.

For GPNs or any other healthcare staff, GDPR rules should not be a source of anxiety. Taking a common-sense approach to sharing information, and placing the patient at the centre of any decision about whether to share their details should ensure that you avoid falling foul of the law. If in doubt, just remember that it's good to share, but when it comes to patient's data, make sure you ask first. **GPN**



The information technology storm into health care has created a friction between the long held duty of confidentiality and the vast potential for collaborative sharing and storage of data. It is understandable that GPNs, as with other healthcare professionals, will feel cautious with regard to GDPR. It's therefore both useful and valuable to align their approach with the Caldicott Principles of Information Governance, with which we are all already familiar, namely: justify the purpose(s) for using confidential information; use confidential information only when it is necessary; use the minimum necessary confidential information; access to confidential information should be strictly on a need-to-know basis; everyone with access to confidential information should be aware of their

responsibilities; comply with the law; the duty to share information for individual care is as important as the duty to protect patient confidentiality; inform patients and service users about how their confidential information is used (The Caldicott Principles of Information Governance, December 2020 — available online: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/942217/Eight_Caldicott_Principles_08.12.20.pdf).

Informed patient consent is an imperative. Everyone is different and we can never assume that just because other people have had no problems with their information being shared (and maybe you personally would also not perceive this as a problem), the person this immediately relates to may well feel otherwise. We need to uphold individuality and respect diversity.

Things do go wrong sometimes and when there has been an identified breach of confidentiality, an important part of the reparation process is to inform the person concerned that this has happened and what steps have been taken to deal with the situation (www.themdu.com/guidance-and-advice/latest-updates-and-advice/how-to-handle-a-data-breach).

By ensuring they are familiar with GDPR legislation, understanding how this aligns with the Caldicott Principles and the relevant policy and procedures at their place of work, GPNs should feel confident in handling patient data appropriately.

Rhian Last

RN, Primary care preceptorship lead, Leeds Community Healthcare Trust; board member, RCGP Yorkshire Faculty; board member, Self Care Forum

Providing access to care and improving the experience of patients on HMV

Supporting patients on home ventilation



Home mechanical ventilation (HMV) is a treatment, often referred to as non-invasive ventilation (NIV), which provides breathing support for patients with respiratory insufficiency outside of the traditional hospital setting. This type of treatment was first used to treat those affected during the Polio pandemic in the mid-20th century, and has been used in the community setting since the 1980s. It is now a recognised treatment for respiratory management of people with neuromuscular diseases, such as muscular dystrophy and motor neurone disease, those with obesity-related respiratory failure, and people affected by chest wall deformity, such as kyphoscoliosis. More recently, it has been shown to be beneficial in patients with chronic obstructive pulmonary disease (COPD) and, significantly, it can have an impact on improved quality of life and relief from symptoms, helping to reduce COPD exacerbations and hospital admissions (Murphy et al, 2018).

There have been some large studies exploring the use of HMV

in COPD patients in recent years, including a UK-based trial called the HOT-HMV trial (Murphy et al, 2018). This study included patients with a recent severe COPD exacerbation who required treatment with non-invasive ventilation during an acute admission to hospital. Patients were reviewed in a specialist service two to four weeks after initial hospital treatment to see if they continued to have high levels of carbon dioxide (CO₂) in the blood, which suggested an indication for HMV.

This study showed some important results for patients. Significantly, those patients who received the HMV treatment remained out of hospital for an average of 90 days longer than those patients in the study that did not receive HMV. They were also approximately 50% less likely to be readmitted to hospital in the following year.

To begin with my husband absolutely hated the ventilation at home. But after a few weeks... I thought this is amazing! Once we started the ventilation, I don't think he had any hospital admissions. [Whereas] prior to the machine, he was probably

Alison Armstrong, nurse consultant, North-East Assisted Ventilation Services, Newcastle-upon-Tyne Hospitals NHS Foundation Trust; host of the Specialists in Long-term Ventilation at Home (SiLVaH) group; chair, Home Mechanical Ventilation Partnership (HMViP)

in hospital every few weeks. If offered [HMV], my advice would be to grab it with both hands... it meant that Ronnie and I were able to enjoy our few last years together.

Julie Ward, carer whose husband, Ronnie, took part in the HOT-HMV study

So, where does the Home Mechanical Ventilation in Partnership (HMViP) fit and what can it offer community and general practice nurses? The initial focus of the HMViP collaboration was to raise awareness of the pathway to HMV treatment, so that this is fully understood by both patients and clinical teams. Therefore, an important aim of the HMViP group is to provide guidance and educational support for patients themselves and those caring for them, as well as clinicians who might not be familiar with the treatment.

The HMViP group is made up of clinicians (consultants, nurses, physiotherapists, and physiologists), as well as patients and carers. Its objective is to improve equitable access to treatment and to set a better care agenda for patients with an underlying condition that may require assessment for HMV, specifically working towards improvement in HMV services.

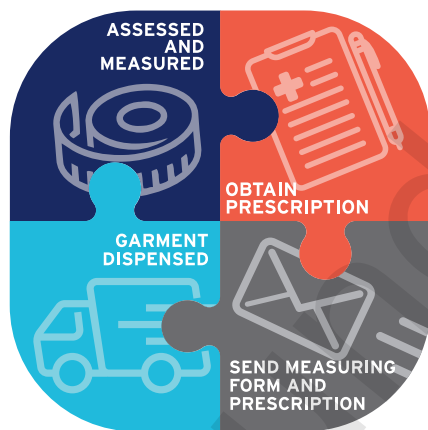
A key element in providing support to patients and carers was to improve education, and as part of this a website was developed. This website, HMViP, was launched in May of this year and dedicated to the memory of Ronnie Ward, one of the patients who took part in the HOT-HMV trial and the husband of Julie, who is a key member of the group.

So, what does the website offer to patients and those who





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care for them? While the website is continually evolving, it aims to provide information, reassurance and to share lived experiences. It includes an insight of what to expect from treatment and practical guidance on how to manage HMV. For example:

- Patient and carer stories
- Clinicians' views on their experience of supporting patients who use HMV
- Guidance around troubleshooting
- Top tips for carers
- Travelling with HMV
- Useful links and resources
- Clinicians' section.

The benefits of using HMV are that patients generally feel rejuvenated; they often tell us that they didn't realise quite how unwell they had become...

I can think of one patient who said that she had more 'va va voom', and patients report having more energy to be able to achieve what they want to do in the day; whether that goes back to work, achieve hobbies, or just their activities of daily life.

Katy Buchan, senior respiratory physiotherapist, Bristol

Not everyone can tolerate HMV, so if this is the case it's important that patients recognise that they haven't failed. If they've tried it and it's not for them, healthcare professionals will understand and talk through their options.

Jon Palmer, consultant respiratory nurse, Plymouth

The website has been developed to be inclusive, accessible, and easy to navigate. It offers a mixture of written information and videos with real patient stories and accounts. The videos are subtitled for those with a hearing impairment and provide an alternative means of acquiring information for people who struggle with reading or are visually impaired.

I have my independence back. I'm able to get out and walk, meet friends, cook for myself and clean the house, tasks which I struggled with before HMV. I feel better today than I did when I was 50!

Patricia Herring, 71



The machine has been a god-send. My breathing has got a lot better and although I still get tired, the machine really helps. Before using HMV, my family used to worry all the time but now they are less anxious.

Andrew Fisher, 63

It's opened up my life again and changed it for the better. I'm able to do more around the house and even get out to my greenhouse when the weather warms up.

Thomas Arataki, 82

It is important that you follow the advice and wear the mask. It takes some getting used to but persevere and don't be embarrassed about using it. It has saved my life.

Rosemarie Elms, 76

To improve accessibility, a digital leaflet can be downloaded from the website, which illustrates some of the ways in which the website can be used (<https://hmvip.co.uk/wp-content/uploads/2022/06/HMViP-Digital-Mailer.pdf>).

The site will be regularly updated with new developments and patient stories, and the content is to be regularly evaluated to ensure that it remains current. HMViP is now working on the next phase of work which will include transition to adult services, support for patients

with neuromuscular conditions and obstructive sleep apnoea/obesity. In the future, aspects such as end-of-life care, as well as other patient groups, will be looked at.

HMViP is always looking for feedback, so any thoughts or input would be welcome — contact details are on the website. **GPN**

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More information...

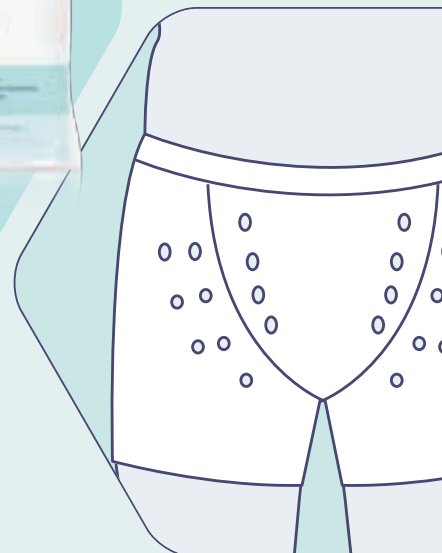
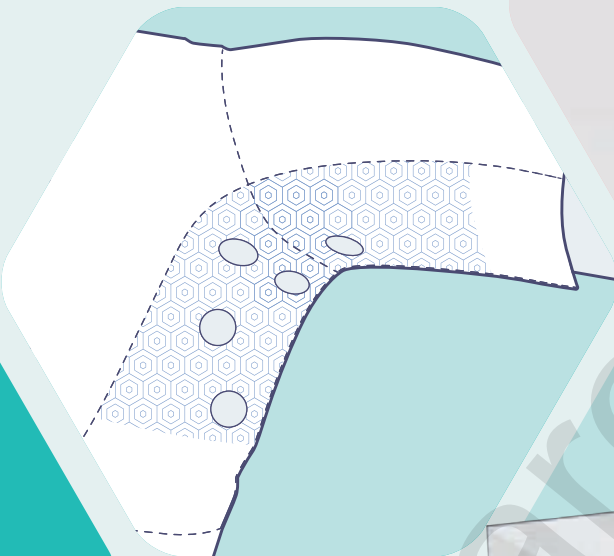
The goal for the HMViP is to provide access to care for all and to improve the patient experience. The website is the first online platform to provide support for patients, carers and their families, as well as for clinicians involved in the delivery of HMV, and we believe that the resource will be beneficial in supporting the care of patients.

To view the website, go to: <https://hmvip.co.uk/>



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■ ■ ■ Lack of knowledge about ADT can impact on patient quality of life

Let's educate men about the seen and unseen side-effects of ADT

Prostate cancer is the most common cancer in men. Across the UK over 47,500 men are diagnosed each year with a 10-year survivorship of approximately 80% (Prostate Cancer UK, 2022). It is estimated that more than 400,000 men in the UK are living with and beyond prostate cancer (Prostate Cancer UK, 2022). Many of these men are receiving androgen deprivation therapy (ADT) for non-localised prostate cancer. Side-effects of hormone therapy treatment may significantly impact quality of life (Gg et al, 2012; Meng et al, 2022). At Prostate Cancer UK, we know that patients' knowledge of hormone therapy and management strategies is poor and that healthcare professionals play a significant role in supporting and educating men in managing these side-effects.

The purpose of ADT is to reduce the levels of androgens; the hormone responsible for stimulating prostate cancer cell growth. However, blocking the production of testosterone is associated with a plethora of side-effects and metabolic changes, for example, cardiovascular disease, non-insulin dependent diabetes

and osteoporosis (Wibowo et al, 2019). These are often referred to as 'the unseen side-effects of hormone therapy'. Thus, close monitoring of patients is pertinent in managing metabolic changes. Hormone therapy is also associated with physical and psychological changes, which include obesity, sexual dysfunction, hot flushes, and cognitive symptoms (Wibowo et al, 2019; Shim et al, 2022).

MANAGING METABOLIC CHANGES — THE UNSEEN

Regularly monitoring a man's weight and any metabolic changes can help to reduce their risk. Literature observes that frequent exercise and a good, heart-healthy diet are all good strategies (Segal et al, 2017; Reale et al, 2021). ADT reduces muscle mass and increases body fat; particularly around the waist within the first year of starting this drug. It is important to monitor cholesterol and blood sugar levels, including pre-assessment weight, repeating at six and 12 months. In addition, starting a regular cardio and gentle resistant training programme is beneficial in controlling weight and reducing the risk of metabolic changes. Comparison studies have shown that men who follow a regular exercise programme while on ADT fared better in comparison to men who did not (Ussing et al, 2022). Furthermore, they experienced fewer physical side-effects with better psychological wellbeing. Bone mineral density loss of approximately 5–10% also occurs in the first year of ADT (Brown et al, 2020). Resistant training helps to maintain good bone health and reduces the risk of osteoporosis. Similarly, calcium and vitamin D also help.

Lisa O'Sullivan, specialist nurse, Prostate Cancer UK



HOT FLUSHES

Approximately 80% of men experience hot flushes (Elkins et al, 2014). The cause is a decline in oestradiol, which is made directly from testosterone. The intensity of hot flushes can vary and be a potential source of distress for men. There are pharmacological and non-pharmacological approaches in managing this. The National Institute for Health and Care Excellence (NICE, 2019) recommends medroxyprogesterone as first-line treatment to alleviate and reduce symptoms. Other medicines are cyproterone, gabapentin and venlafaxine. Incorporating lifestyle changes, such as exercise, reducing spicy foods, alcohol intake and smoking will help (Edmunds et al, 2020). Furthermore, regularly practising breath work, such as abdominal breathing, is thought to help with reducing hot flushes and a good relaxation technique for men (Wassersug et al, 2021).

PSYCHOLOGICAL AND COGNITIVE WELLBEING

Literature has postulated a link between psychological and cognitive function. ADT, mainly LHRH agonists (luteinising hormone-releasing hormone), cross the brain barrier. Numerous neural centres in the brain have androgen and oestradiol receptors and are involved in learning and memory. Thus, ADT may impair cognitive processes (Mitsiades et al, 2008; Wu et al, 2013). However, the available research uses



a small population sample size which limits statistical power. Moreover, side-effects of ADT, such as fatigue, insomnia and hot flushes, may be a cause of mood and cognitive issues alone. Nonetheless, anecdotal evidence highlights that low mood memory and cognitive issues are a real worry for men. So much so, that some men consider stopping treatment altogether.

Maintaining an active lifestyle is pertinent in managing low mood. Using problem-solving solutions such as a calendar, written reminders and routine planning are helpful strategies. Consider self-assessment screening for reported low mood or depression. Acknowledgement of how one is feeling and, if appropriate, exploring counselling options or support groups is also helpful. Prostate Cancer UK has an excellent wellbeing hub full of support and information for men who are struggling with side-effects of prostate cancer (<https://prostatecanceruk.org/prostate-information/wellbeing-hub>).

Lacking knowledge of ADT, its side-effects and management strategies may contribute to a significant decrease in a man's quality of life and impact compliance to treatment. Thus, it is vital that healthcare professionals assess patients' knowledge and understanding of ADT. Asking questions, taking a person-centred approach and being aware of the seen and unseen side-effects of ADT is paramount. In the author's opinion, healthcare professionals are in a prime position to monitor and educate men on the side-effects of ADT and discuss strategies to help manage them, which in turn, can improve their quality of life. **GPN**

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Useful links...

Resources for health professionals — risk campaign: <https://prostatecanceruk.org/for-health-professionals/resources/risk-campaign>
Education programme for men on or starting hormone therapy for prostate cancer — Life on ADT: www.lifeonadt.com/
How hormone therapy affects you: <https://prostatecanceruk.org/prostate-information/living-with-prostate-cancer/how-hormone-therapy-affects-you>
Sexual support service: <https://prostatecanceruk.org/prostate-information>
Diet and physical activity: <https://prostatecanceruk.org/prostate-information/living-with-prostate-cancer/your-diet-and-physical-activity>
Stamina — lifestyle change in prostate cancer: www.stamina.org.uk/projects
Penny Brohn UK living well with cancer: www.pennybrohn.org.uk/

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Galvanising the NHS to adopt latest technology in CRP testing

Why point of care CRP testing should be standard practice

A correct diagnosis means a healthier patient, fewer repeat appointments and reduced antibiotic prescribing. As an advanced nurse practitioner, the author found that whether she prescribed antibiotics or not, too many patients were coming back a week later with ongoing symptoms of respiratory tract infections (RTIs). The fall in repeat appointments during a pilot project for C-reactive protein (CRP) testing which the author observed showed that point of care technology is key to an accurate diagnosis.

CRP testing is there to support judgement and augment, rather than replace, clinical examination and guidelines. While many decisions are subjective, CRP tests are an objective tool to better determine if a patient will benefit from antibiotics.

While most RTIs are self-limiting, these conditions account for at least half of GPs' antibiotic prescribing (Colliers et al, 2019). That leaves a significant proportion

“CRP testing is there to support judgement and augment, rather than replace, clinical examination and guidelines. While many decisions are subjective, CRP tests are an objective tool to better determine if a patient will benefit from antibiotics.

of patients being prescribed antibiotics which are not only ineffective, but have a number of side-effects and counteractions with other medicines (Llor and Bjerrum, 2014).

By delivering results within four minutes of taking a fingerprick blood sample, LumiraDx's point of care CRP test gives a clinician an accurate, real-time measurement along with patient reassurance, all in the space of the initial appointment. Being able to show a patient the precise CRP reading moves the conversation on from 'it could be viral or bacterial' to 'you don't need antibiotics and this shows why'.

Point of care CRP testing has been piloted in many areas in the UK. It is now time to move away from the current postcode lottery of provision to make it standard practice in the NHS. CRP technology should be commissioned to help those

struggling practices make more judicious use of antibiotics while reducing demands on emergency care. Such an intervention will, in the author's clinical opinion, help practices raise standards more effectively than if they were simply stigmatised for underperforming.

The author is proud to have contributed to the recently published Primary Care Respiratory Society guidance (www.pcrs-uk.org/crp-point-care-testing), which is based on Professor Chris Butler's article in the *New England Journal of Medicine* and the Cochrane Review (Butler et al, 2019; Dinnes et al, 2022), to help NHS primary care teams implement point of care CRP testing. The guidance is informed by implementation studies in the Netherlands (Schuijt et al, 2018), where point of care CRP testing is standard practice and fewer antibiotics are prescribed for RTIs than any other European country (Cooke et al, 2020).

Over-prescription of antibiotics is a primary driver of antimicrobial resistance (AMR) and should be avoided to prevent a global health crisis that could be far worse than the Covid-19 pandemic (Heyburn and Ford, 2022). Indeed, it has been estimated that AMR could cause 10 million deaths per year by 2050 — more deaths than cancer (O'Neill, 2014). Five years ago, Public Health England (PHE) was leading the world in its efforts to educate people about antibiotic stewardship. The momentum that has been lost over the course of the pandemic should be picked up.

GPs and prescribing nurses need not only be seen as part of the army of healthcare professionals who can be responsible for more careful

Liz Cross, advanced nurse practitioner and non-medical prescriber; nurse representative, the NICE Indicator Advisory Committee; Queen's Nurse



antibiotic prescribing. High street pharmacists continue to expand the services they offer beyond dispensing to minor illness, blood pressure monitoring, vaccinations and health screening. They are ideally placed within local communities to support GPs in offering CRP point of care technology. The portable, handheld technology can also be brought to patients' homes for community testing and used in emergency care, giving immediate test results and updating patient records automatically.

Point of care CRP testing can improve patient outcomes, cut repeat appointments and reduce inappropriate antibiotic prescriptions. In the long term, it will play a vital role in global efforts to prevent a crisis of AMR. **GPN**

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Using social media to enhance nursing practice and patient safety

Professional networking is a valuable tool to build advantageous professional support systems of people who will advise, encourage and enhance healthcare practice (Donelan, 2014). Networking benefits include increased engagement and insight into healthcare policy and subsequent changes and trends in the professions, along with better opportunities for career advancement (Meiring, 2018). As a result of developments in communication technology and influential organisations, such as the World Health Organization (WHO) and the Queen's Nursing Institute (QNI), demonstrating a strong presence on social media, use of online social networking sites is gaining increasing momentum among healthcare professionals, including the nursing community (Barry and Hardiker, 2012). Ferguson (2013) shows that social media popularity in networking falls under four main themes: connection, confidence building, information sharing and enhancing practice. However, social networking sites such as Twitter and Facebook demonstrate minimal regulation, which has sparked debate regarding their compatibility within a profession which values privacy, confidentiality and face-to-face relationship building (Nursing and Midwifery Council [NMC], 2018).

In contrast, Sandlin and Hinmon (2016) suggest that by using social networking sites ethically to develop professional networks, clinical practice and patient safety can be improved.

Strong professional networks take time and effort to build and require nurses to participate in professional societies, events and meetings to make themselves visible and recognisable (Meiring, 2018). Before the availability of online connectivity and social networking, some nursing groups, such as hospital staff nurses and community nursing teams, may have become marginalised because of their roles and locations being incompatible with face-to-face networking events (Donelan, 2014). This isolation could result in service users of these groups receiving differing levels of care than those who are able to benefit from the connections and information gained from these engagement and professional networking events (Ferguson, 2013). Meiring (2018) highlights that the value of networking is not recognised or promoted enough among nurses and due to lack of confidence, nurses often find opportunities for networking particularly difficult. However, De Klerk and Verreynne (2017) suggest that increased exposure to social interactions can support development

of confidence and, in turn, enhance visibility. Kahnum et al (2016) also explain that online social networking sites can reduce networking barriers by increasing access to information, creating an inclusive environment, and allowing those who may previously have been passive observers to gain confidence to actively participate in discussions and debates.

A descriptive study by Power (2015) highlights the benefit of Twitter specifically for its role in developing professional digital networks. This is supported by a similar study conducted by Tower et al (2014), which indicates an overwhelming majority (89.8%) of nursing students included reporting professional social media participation increased their knowledge and understanding of subject content. Additionally, 92% of these nursing students felt that social networking sites demonstrated an inclusive and respectful environment, indicating that online social networking sites can provide an innovative learning platform which allows nurses to explore different opinions and enhance personal autonomy in learning (Tower et al, 2014).

Furthermore, use of social networking sites to ask questions and voice opinions without fear of judgement can provide nurses with transferrable skills which can be used in clinical practice, such as teamwork, advanced communication and workforce development (Barry and Hardiker, 2012). However, due to minimal regulation of social networking sites, there is an increased risk of dissemination of



Hayley Thrumble (left), district nurse, First Community Health and Care, Horley; Dr Neesha Oozageer Gunowa (right), senior lecturer and community pathway lead, University of Surrey

misinformation (Donelan, 2014). Additionally, social networking sites have been criticised for their inability to support communication of complex ideas due to the lack of immediate feedback required to do this (Green et al, 2014). Lack of feedback can lead to superficial learning which lacks the in-depth analysis and critical thinking required for innovative practice (Green et al, 2014).

To avoid dissemination of misinformation and reduce risks to patient safety, nurses must utilise critical analysis skills and examine the reliability and validity of literature prior to dissemination via social media platforms (Power, 2015). If used efficiently, social networking sites could encourage nurses and other healthcare professionals to collaborate, reflect and share knowledge, which could lead to increased self-efficacy and success (Barry and Hardiker, 2012).

In contrast, using social media professionally can be an intimidating prospect, due to fears regarding professionalism which have been instilled from undergraduate education (NMC, 2018). Historically, healthcare professionals have been able to apply distinct personal and professional boundaries, as traditional networking events typically occur in professional capacities (Sandlin and Hinmon, 2016). However, social networking sites complicate this with non-restrictive access, meaning participation in networking events can be accessed from the comfort of an individual's home (Tower et al, 2014). Additionally, concerns regarding security, privacy and inappropriate content have been identified, presenting potential for violation of the NMC *Code of Conduct* (NMC, 2018) if personal and professional social media accounts are combined (De Klerk and Verreynne, 2017). Social networking sites provide an illusion of privacy, consequently, many violations include pictures or posts which include patient information — a breach of Information Governance and patient confidentiality (Data Protection Act, 2018). As a result of this, many healthcare organisations place social networking site bans on nurses and restrict access to them on work technology (Green et al, 2014).

However, Power (2015) states that Twitter can be used in accordance with the NMC *Code of Conduct* (2018) with appropriate privacy settings and the separation of personal and professional social media accounts. Additionally, in 2016, the NHS published a briefing which recognised the impracticality of social networking site bans, arguing that nurses are entrusted with patient lives and therefore should be trusted to use social media appropriately (Sandlin and Hinmon, 2016). Organisational addressment of these issues surrounding legal, ethical and regulatory risks are evident through implementation of ongoing training and organisational policies which evolve in line with technological advances (Barry and Hardiker, 2012). Through this, nurses can be empowered to share clinical experiences, information and opinions publicly, while maintaining professionalism and preventing repercussions on professional reputations (Fraser, 2011).

In conclusion, the safe and professional use of social networking sites provides a comfortable and familiar environment to reduce the anxieties nurses often face surrounding professional networking (Cisco, 2018). Online networking can empower nurses to demonstrate a more direct approach to networking, enhancing engagement in continual professional development and improving clinical practice (Slank, 2019). This, in turn, allows effective advocacy for patients and increased patient safety (Kahnum et al, 2016). However, there is still little research in the use of social media to confirm its superiority over face-to-face networking, an area that needs to be improved. **GPN**

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Reflecting and recovering through a structured process of restorative clinical supervision

Team reflection, reset and restoration

Here, Carole Young, professional nurse advocate, independent tissue viability nurse consultant and associate lecturer, Anglia Ruskin University, reflects on the impact of the pandemic on specialist nurses in the last two years and considers what is needed next in terms of support and recovery of self and service. The role of compassionate leadership and professional nurse advocacy (PNA) will be discussed to share an understanding of how restorative clinical supervision (RCS) can be used to support emotional recovery and plan for future development. Models including A-EQUIP and the GROW coaching model used by PNAs to guide RCS will be explained as tools which can support personal reflection and recovery through personal actions for quality improvement.

Nurses and other healthcare professionals (HCPs) spend a large proportion of their roles acting as patient advocates, giving compassionate care, and ensuring best practice to promote recovery and healing. But, how often do we show the same level of advocacy and compassion to ourselves and colleagues?

The last two years has had a significant impact on individuals, teams, and organisations within health care (Butterworth, 2022). As the world begins to 'live with Covid', there is a desire to 'return to normal'. For HCPs, this is easier said than done. Many nurses report feeling physically exhausted and emotionally drained, living in fear of the next wave, not knowing if this will ever really end (Ford, 2021). Many specialist nurse teams have undergone huge changes, whether it be redeployment, reduction of their normal services, or even halting of their service completely, and this has resulted in significant distress and uncertainty among those impacted (Ballantyne and Achour, 2022).

For HCPs to achieve a goal of 'returning to normal', the author has identified that several steps of recovery and restoration need to be followed:

- Time to reflect is needed, in a psychological safe space that is neutral and non-judgemental
- A need to acknowledge what has happened and how things have changed, acknowledge feelings of selves and those of others, recognise the highs and lows of experiences

- A need to recognise that things were not perfect pre-pandemic, particularly in specialist nurse services — often these are isolated or small teams with poor resources and sometimes with non-nursing management or sitting under corporate teams
- A need to recharge, regain energy, motivation, and inspiration to re-find a drive
- A need to make goals and plan our reset, re-start and develop personal quality improvement action plans.

REFLECTIONS

The first step to reset and restoration will naturally include a period of reflection. To look forward, we must at first look back and acknowledge what has happened. Reflection allows us to unpack and notice the emotional impact of our work, analyse events, learn, and develop action plans for future occurrences (Cook, 2022).

Informal conversations between the author and other tissue viability colleagues and specialist teams in the local trust and further afield over 2020–2022 identified recurring themes, some positive and many negative impacts of the pandemic. Challenges that were highlighted were also seen by Ballantyne and Achour (2022) in their interviews with staff to capture experiences following redeployment during the pandemic. Many resonated personally with the author and when shared at a recent conference (Young, 2022) identified a realisation that no one person was alone in how they felt or what they had experienced.



Carole Young, professional nurse advocate, independent tissue viability nurse consultant and associate lecturer, Anglia Ruskin University

Many of the lows expressed derived from experiences of redeployment; specialist nurses in acute settings were moved to critical care areas and those in the community found themselves working in district nurse teams. These moves were frequently reported to areas not seen since the practitioners had been student nurses, and there was a real fear of causing harm by following an outdated practice or feeling pressured to work outside their normal scope of practice. Moves were often at short notice, leaving no time to re-organise normal specialist workloads or inform patients of changes to the service.

Some specialist nurses found they were met with resentment on arrival at their redeployment destination, receiving comments such as 'why are you here? If you can't do xxx task, then there's no point in you being here'.

In some areas, there was an expectation to maintain some level

of normal specialist service alongside redeployment, resulting in many working over hours and the feeling of working two full-time jobs. Specialist services were still needed, in some cases more than normal, as numbers of critically sick and high-risk patients were admitted to hospital and primary care services battled to keep patients with long-term conditions out of hospital.

Some services were stopped completely and specialist nurses feared for their continued employment post pandemic — ‘would managers think their service was not needed anymore if it’s been closed for a period’. Some noted their service base had been redeployed for other uses, clinic rooms became triage rooms for emergency departments, offices became personal protective equipment (PPE) distribution hubs — ‘will there even be an office for us after this?’ was a common question.

One hundred percent of staff who spoke with the author reported feelings of exhaustion and frustration. There was a feeling that no one really recognised the uniqueness of specialist nurses and teams and what specific support they needed. Many reported to the author that there had been no time or offer of debriefs or reflection sessions, like those in critical care and emergency roles were receiving.

As with many areas, there were specialist nurses who found themselves shielded and had to come to terms with their own vulnerability. These staff reported feelings of being disconnected, a loss of sense of team and their place in it; they missed the companionship of being in a workplace. While some received excellent remote support from managers, there was a sense of a loss of leadership in teams, such as if the team lead was shielding leaving the team without direction and struggling with resilience.

While there were many lows and challenges, the change of working ways also brought some positive experiences, e.g. specialist nurses used the opportunity of redeployment to refresh generalist skills and practice. Being redeployed

also meant an opportunity to raise the profile and visibility of a specialist field within areas where there may have previously been little interaction.

Many found innovative ways to teach staff and assess patients remotely, meetings suddenly became virtual often with surprising effective outcomes not seen during long drawn-out face-to-face meetings. For those who were shielded, some expressed that they used the opportunity to take a breath, reset and review their service from a different perspective.

RESTORATION AND RECOVERY

Compassionate leadership

This has never been more high profile than in the last couple of years — the pandemic has heightened the awareness in health care of the need for a focus on staff wellbeing (Bosanquet, 2022). Healthcare staff were already heading towards or in burnout and stress states before Covid hit (Fischer, 2017; Butterworth, 2022). In the midst of the pandemic, ‘survival mode’ kicked in. HCPs got on and did what was needed to be done to save lives, as the pressure eased and the adrenalin reduced, the exhaustion and emotions kicked in. There have been reports of staff leaving the NHS and healthcare roles, citing they are just too tired or have had enough, and have no more energy to keep going. The NHS Confederation reported in 2021 that there was a real risk that thousands of staff would leave the NHS unless they were given time to recover following the pandemic, highlighting that if staff core needs are not taken care of, patients would not receive best care.

West et al (2020) suggest that staff have three core needs to be content and fulfilled at work:

- Autonomy in that they need to have control of their work life and be able to act within their values. Staff need to feel they have fairness and justice with authority, empowerment, and influence in their workplace
- Belonging within a team, to feel connected and cared for

by colleagues — to feel valued and supported within a positive culture and leadership

- Contribution in their work is effective, managed and recognised. They need to feel they can learn and develop in their role.

Embedding these core needs into everyday working in an organisation or service requires compassionate, inclusive leadership and effective team working. Stacey et al (2018) explain that a compassion-focused approach:

- Increases resilience
- Reduces anxiety
- Enables staff to feel more able to cope in stressful situations.

Additionally, compassionate leadership enables staff to feel valued, respected and cared for so they can reach their full potential and do their best work (Bailey and West, 2022). It promotes trust, understanding and mutual support, resulting in more engaged and motivated staff with high levels of wellbeing (West, 2021).

West (2021) states that compassionate leadership is made up of four main principles:

- Attending — being present, as a leader give 100% attention to the person/team at the time they need it. Put aside any distractions and protect the time being given, listen with fascination, i.e. be truly interested in what the other person is expressing
- Understanding — showing that you understand the other person’s situation through active listening, using open questioning to guide them through an exploration of their situation and different perspectives
- Empathising — mirroring the other person’s feelings through mirroring, being aware of continually changing conditions in yourself and others, be genuine in your expressions of concern without becoming too overwhelmed to help
- Helping — giving practical advice and support to enable a person to take action to change or develop, removing obstacles such as workloads and barriers.

Compassionate leadership is essential for the recovery of healthcare services and the retention of staff going forward (NHS Confederation, 2021). Compassionate leaders are proactive in implementing the strategies required for restoration and recovery, they have the vision to support personal growth through clinical supervision, reflection, education and quality improvement. This is supported by Cook (2022), who identifies that effective clinical supervision needs to be valued at all levels of the organisation and supported with adequate resources to allow nurses to access time for reflection.

PROFESSIONAL NURSE ADVOCATE (PNA)

The author believes that professional nursing leadership and clinical supervision are essential to enable nurses to protect their own wellbeing and continually improve care for their patients. However, as Butterworth (2022) points out, clinical supervisors need to be appropriately trained and prepared to take on the role. The professional nurse advocate (PNA) scheme was launched by Ruth May (chief nursing officer [CNO], NHS England) in 2021 to equip the nursing workforce for clinical supervision and recovery; it builds on an existing scheme for professional midwife advocates (PMAs) which has been in place since 2017 (Dunkley-Bent, 2017). The aim is for one in 20 registered nurses to be trained as PNAs by 2025 (NHS England and NHS Improvement, 2021), giving every registered nurse in England access to clinical supervision. The PNA scheme aims to have a positive impact on staff wellbeing, retention, professional resilience and patient outcomes.

Any registered nurse or midwife can train as a PNA/PMA. PNAs are trained to use the A-EQUIP model to support colleagues through restorative clinical supervision, supporting development through education and quality improvement.

A-EQUIP MODEL

The A-EQUIP (Advocating and

Educating for Quality Improvement) model includes restorative, formative and normative approaches to support staff wellbeing and development. It was originally developed to support clinical midwifery supervision (NHS England and NHS Improvement, 2021).

The restorative element enables advocacy for staff and patients, providing clinical supervision and allowing supervisees time for reflection and understanding of emotional aspects of their experiences (Chapman, 2017), which reduces burnout, stress and absence, and improves job satisfaction.

The formative part promotes education and development of nurses to enable them to undertake a quality improvement personal action plan. This supports a continuous improvement process to build personal and professional clinical leadership which, in turn, enhances care for patients.

Finally, the normative element monitors and evaluates the outcome of the restorative and formative elements through review, appraisal, and revalidation (Chapman, 2017).

RESTORATIVE CLINICAL SUPERVISION (RCS)

PNAs are expert reflective practitioners who are self-aware, open minded and use the principles of compassionate leadership to support HCPs to reflect, reset and recover through restorative clinical supervision (RCS) sessions.

Clinical supervision has been used in health care for a number of years, more so in mental health than general nursing (Butterworth, 2022). Bosanquet (2022) informs that there is much confusion about what clinical supervision is and is not. It is important to understand that clinical supervision is not manager led or an HR process. It is not about performance management or a checking up or finding fault process.

RCS sessions should provide a psychologically safe place where the emotional needs of staff can be

addressed confidentially without the fear of repercussions. The session should provide thinking space, promote reflection, enable personal and professional development, and encourage innovative thinking. Staff should feel more confident and less isolated because of attending RCS sessions. RCS improves communication and understanding between individuals, teams and organisations, supports staff wellbeing (Cook, 2022), develops clinical competence and knowledge, and improves patient care (Stacey et al, 2018).

The PNA may utilise reflective models such as Gibbs reflective cycle (Bulman and Schutz, 2004), or coaching models such as GROW (Whitmore, 2017) or OARS (Miller and Rollnick, 2013), and sessions may be offered on an individual or team basis. Butterworth (2022) suggests that individual sessions should ideally be offered with an 'expert professional from a nurse specific field or speciality'. This has been experienced in the author's own practice, where there is an understanding and empathy between tissue viability nurses in similar situations. Equally, group supervision sessions can bring together lone workers into a collective of those with similar roles to enable peer support and learning (Chapman, 2017; Fowler and Dooher, 2010 in Butterworth, 2022).

Many nurses are familiar with Gibbs. This reflective cycle links with the nursing process and has formed the backbone of nursing reflective practice for many years. It is based on six distinct stages that work through a particular event: description of what happened, feelings and thoughts, evaluation and analysis of the event, conclusion and action planning (Bulman and Schutz, 2004). Gibbs works well for reflecting on a singular or specific experience or event, but is less helpful when reflecting on a period of time.

GROW is a coaching model that encourages the supervisee to reflect back and look forward by considering their own questions and answers (Whitmore, 2017). It also allows the

PNA to keep the session on track and guide in a semi-structured way to achieve a personal action plan. GROW is a useful tool that frames the steps of reset and recovery:

- G Goal, what do we want to achieve (our new normal)?
- R Reality, where are we now, where have we been?
- O Opportunities and obstacles, what is stopping us achieving our goal, what can help us?
- W Way forward, what do we need to do now to move on?

While the GROW model focuses on the supervisee, the OARS model can fit within the GROW elements as it focuses on the role and actions of the PNA or supervisor in prompting:

- O Open questioning
- A Active listening
- R Reflecting or re-affirming and summarising the conversation or session (Miller and Rollnick, 2013).

Thus, mirroring the principles of compassionate leadership.

CONCLUSION

In summary, this paper has reflected on the impact of the last two years on specialist nurses individually and has considered the effect on team services and organisations. To reset and restore specialist services, individuals need to be enabled to reflect and recover through a structured process of restorative clinical supervision. This must be supported through all levels of organisations with compassionate leadership and the introduction of PNAs. Professional nurse advocates offer the opportunity for individuals to work through the concept of the A-EQUIP model utilising advocacy for education and development of action plans for quality improvement, both personally and professionally. **GPN**

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Reflective points

- What next for your personal actions for quality improvement?
- Take time out for reflection, it is OK to have a range of emotions and you are not alone in the experiences you have had over the last two years
- Acknowledge your own reality and where you are now — personally and professionally
- Consider what opportunities there are waiting for you and what obstacles are preventing you from fulfilling your personal action plan for quality improvement
- Find out if you have access to a local PNA in your workplace
- Ask for a restorative clinical supervision session
- If you are not sure who to contact locally, find your regional PNA network contact or your speciality contact to put you in touch with someone who can support you
- If you would like to train as a PNA, go to: www.england.nhs.uk/nursingmidwifery/delivering-the-nhs-1tp/professional-nurse-advocate/
- If you are an experienced specialist nurse, reach out to those less experienced and offer support
- If you are new to your specialist role, reach out to those with more experience and ask for support.

Treating and assessing a patient with pilonidal sinus disease

Pilonidal sinus disease (PSD) is a debilitating inflammatory disorder of the skin that is more common in young males. The cause of PSD is not fully understood but contributed to loose hair and debris driven deep into the skin within the natal cleft leading to prolonged inflammation and formation of 'pits' which fill with hair and debris. Symptoms range from mild discomfort to severe sinus development, which may result in pain, infection and multiple surgical procedures and has a significant impact on an individual's quality of life. It is important that general practice nurses (GPNs) have an understanding of the different treatment options that are appropriate and when to refer for surgical intervention. This article discusses the challenges associated with PSD management, how to assess PSD wounds and highlights local and surgical treatment options available.

KEY WORDS:

- Pilonidal sinus
- Cause
- Assessment
- Infection
- Management

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Pilonidal sinus disease (PSD) is an inflammatory disorder of the skin (National Institute for Health and Care Excellence [NICE], 2019), which most commonly occurs in young male adults (Harris et al, 2016). A pilonidal sinus usually develops in the midline of the natal cleft (NICE, 2019), although less commonly may occur on the scalp, groin and axilla (Choy and Srinath 2019). Around 50% of individuals that develop and are treated for an acute pilonidal abscess will experience a recurrence or develop a chronic discharging sinus (NICE, 2019). Patients that develop PSD may suffer from symptoms for up to five years (Harris et al, 2016).

An individual with PSD may experience many undesirable

associated symptoms and consequences of the condition, such as:

- Pain
 - Multiple episodes of infection
 - Multiple surgical procedures
 - Presence of a chronic wound
 - Episodes of being unable to work
 - Embarrassment
 - Poor self-esteem
 - Issues with personal relationships
- (NICE, 2019).

The impact of living with PSD cannot be underestimated and may affect significantly an individual's quality of life (McCallum, 2018; Choy and Srinath, 2019). It is therefore essential that general practice nurses (GPNs) are able

to assess and identify potential barriers to healing and recognise when surgical referral is necessary to prevent possible long-term complications, such as infection.

As with any wound, a structured systematic approach to assessment is required to:

- Identify potential barriers to healing
 - Assist in clinical decision-making
 - Guide the selection of appropriate treatment and management
- (Mahoney, 2020).

A simple comprehensive assessment tool that has been proposed for wound assessment utilises the acronym CASE —

cause, assess, select, evaluate (Scott-Thomas et al, 2017). For the purpose of this article, this structure will be followed.

CAUSES OF PSD

The term 'pilonidal' originates from the latin 'pilus' (hair), and nidus (nests) or 'nest of hairs' (NICE, 2019). The exact process involved in the development of PSD is not fully understood (Choy and Srinath, 2019; Johnson et al, 2019). It has, however, been proposed that loose hair within the natal cleft is driven deep into the surrounding tissue of the skin by pressure or by the rolling action of the buttocks (Harris et al, 2016; Johnson et al, 2019). The hair acts as a foreign body which facilitates an inflammatory response and the development of 'pits', which fill with debris such as dead skin and hair (Choy and Srinath, 2019).

This continual inflammation and debris collection within the pits and the moist environment within the natal cleft may subsequently lead to infection and abscess formation (Choy and Srinath, 2019). Over time, the area may become larger and develop into a sinus that can have several areas which may discharge pus or blood (Figure 1; NICE, 2019).

There is no diagnostic test for PSD, so diagnosis is usually made from patient history and clinical presentation (Harris et al, 2016). NICE (2019) suggested a simple classification for PSD (Table 1) to help with diagnosis and assist in guiding healthcare professionals to the most appropriate management.

ASSESS

History

A full history of the patient's

general health and wellbeing should be obtained (Mahoney, 2020). This will include comorbidities, medication, lifestyle factors and mental wellbeing (Wounds UK, 2018).

It is important to consider general health factors which may affect the patient's ability to heal, such as:

- Diabetes
 - Inflammatory disease, e.g. Crohn's, rheumatoid arthritis
 - Anaemia
 - Medication, e.g. immuno-suppressants, steroids
 - Depression and mental health issues
 - Obesity
 - Poor nutrition
 - Smoking
- (adapted from Scott-Thomas et al, 2017; Wound UK, 2018).

There are several risk factors associated with the development of PSD (Table 2), which should be considered within the assessment process and may assist in confirming wound aetiology (Harris et al, 2016).

Following general health assessment, a wound history should be obtained. This should include any previous history of PSD, when the wound occurred, and any previous treatment. This may also be an opportunity to understand the impact that the wound is having on the patient's quality of life and their expectations (Coleman et al 2017). As PSD usually affects healthy young adults, there may be a significant impact on an individual's lifestyle and participation in activities which may cause further trauma or friction to the area (Harris et al, 2016).

Practice point

Possible differential diagnosis:

- Fistula
- Crohn's disease
- Perianal abscess
- Hidradenitis suppurativa (HS)
- Pressure ulcer
- Moisture lesion
- Infectious disease, e.g. tuberculosis, syphilis.

(NICE, 2019)



FIGURE 1. PSD in a patient with coarse hair and deep natal cleft.



FIGURE 2. PSD with discharging tracts and pits.

Wound assessment

Examination should include the midline natal cleft above the anus. Typical presentation observed will be the presence of midline pits in the natal cleft region (NICE, 2019). There

Table 1: Classification of PSD (NICE, 2019)

Type	Characteristics
Asymptomatic pilonidal sinus	■ Non tender pits or lumps in natal cleft, protruding hair may be observed
Acute pilonidal sinus	■ Painful tender lumps which may have a purulent discharge; cellulitis and fever may also be present
Discharging pilonidal sinus	■ Pain, abscess formation discharging pus and blood. This may be following chronic disease or recurrence following surgery

Table 2: Risk factors for developing PSD
(adapted from Harris et al, 2016; McCallum, 2018)

▪ Family history
▪ Smoking
▪ Extensive coarse hair
▪ Poor hygiene
▪ Deep naval cleft
▪ Prolonged sitting
▪ Repetitive trauma to the sacrococcygeal region
▪ Male (two to four times more common in males than females)
▪ Age (more common from 15–40 years)

may also be multiple connecting sinus tracts present (Figure 2; Harris et al, 2016).

Wounds caused by PSD are often associated with complications such as inflammation, infection, high exudate volume, moisture-associated skin damage (MASD) and pain, which should be observed and documented as part of holistic assessment (Brown, 2017). The presence or absence of these clinical signs and symptoms will also assist in guiding decision-making around treatment options for the patient (Brown, 2017).

As with any wound assessment, baseline data should include size and depth of the wound (Scott-Thomas et al, 2017). Local wound factors can be assessed using the TIMES framework (tissue, infection/inflammation, moisture balance, edge of wound, surrounding skin) (Wounds UK, 2016).

The following local wound factors associated with PSD can be identified using the TIMES framework.

Practice point

Wound swabs should not be undertaken routinely for PSD wounds (IWII, 2022). They are only required for wounds that have failed to respond to antimicrobial intervention and are deteriorating, or where spreading or systemic infection are suspected.

Tissue within the wound

PSD wounds do not commonly have slough or necrosis (Harris et al, 2016). However, if present, this should be recorded (Brown, 2017). Overgranulation, friable tissue that bleeds easily and superficial bridging (Figure 3) are frequently associated with PSD wounds (Harris et al, 2016), and usually indicate infection or inflammation (International Wound Infection Institute [IWII], 2022). Hair may also be visible within the wound bed.

Infection and inflammation

Infection and inflammation are common in PSD wounds (Harris et al, 2016). The position of the wound in the natal cleft can produce an environment that facilitates bacterial growth (i.e. high volume of moisture, perspiration and possible faecal contamination) (Harris et al, 2016). PSD wounds are often polymicrobial (Harris et al, 2016). Acute PSD wounds tend to be colonised with a mixture of aerobic and gram negative bacteria; conversely, chronic PSD wounds are mainly anaerobic and gram positive bacteria (Ardelt et al, 2016). This is an important consideration if antibiotics are required. PSD wounds may be locally infected, which can be identified by observing two or more clinical signs and symptoms, such as type of tissue present (as described above), increasing purulent exudate, pain, malodour, erythema or wound deterioration (Figure 4; IWII, 2022). These wounds can be managed with topical antimicrobial dressings (IWII, 2022). Systemic antibiotics will be required for PSD wounds displaying signs of spreading infection (symptoms of local infection plus spreading erythema), or systemic infection, which may be life-threatening and the patient will be generally unwell (malaise, pyrexia and sepsis) (IWII, 2022).

Moisture balance

PSD wounds may have a high volume of exudate which may be purulent, blood stained or malodorous and could indicate



FIGURE 3.
PSD with superficial bridging of wound tissue.



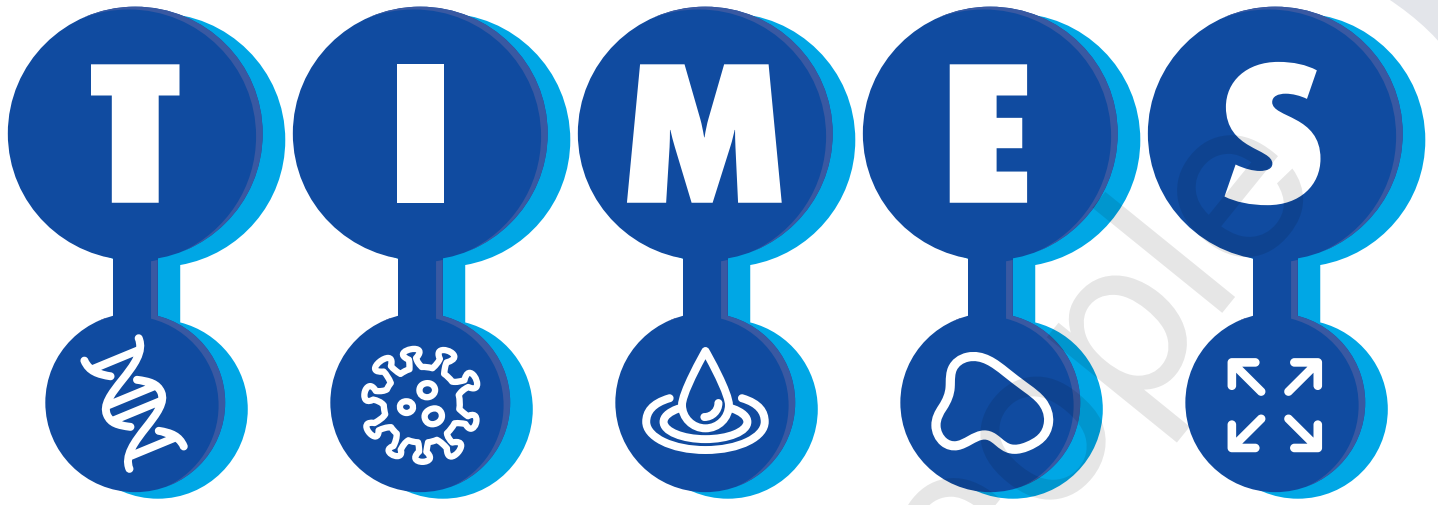
FIGURE 4.
PSD with purulent exudate.



FIGURE 5.
Discharging sinus with superficial bridging to wound bed and MASD to surrounding skin.

the presence of infection (Harris et al, 2016). Amount and type of exudate (serous, sanguinous, serosanguinous and seropurulent) and frequency of dressing changes should be documented as part of the assessment process (Scott-Thomas, 2017).

SIMPLER



TISSUE

INFECTION

MOISTURE

EDGE OF WOUND

SURROUNDING SKIN



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Edge of wound

The edge of the wound should be observed for undermining, rolled edges or overgranulation (Wounds UK, 2016).

Surrounding skin

A high volume of exudate in PSD can lead to MASD (Figure 5). The proteolytic enzymes in exudate may be the cause. Inflammation and erythema to the surrounding skin can also occur, along with maceration which is associated with hyper hydration (World Union of Wound Healing Societies [WUWHS], 2019).

Pain assessment

Pain is often associated with PSD and can have a negative impact on patient quality of life (Harris et al, 2016). The type of pain experienced should be noted. Individuals may experience nociceptive pain (gnawing, aching, tender or throbbing) or neuropathic (burning, stinging or stabbing), or a combination of both (Harris et al, 2016). The type of pain will influence prescribing of the most appropriate analgesia using the World Health Organization (WHO) pain ladder (2022). Pain assessment scales, such the visual analogue scale (VAS), can be easily used in clinical practice and help to identify an increase or decrease in pain levels (Scott-Thomas et al, 2017).

Baseline data obtained from holistic wound assessment will

guide decision-making and ensure that the most appropriate evidence-based intervention is implemented (Mahoney, 2020).

Patients who self-care will need an understanding of how to undertake the dressing change safely, as well as when and how to get hold of a healthcare professional...

SELECT

Any intervention should ensure that patients are well informed about their condition and understand treatment options, as this assists in empowering patients to be involved in decision-making and may improve concordance with interventions (WUWHS, 2020). Due to the position of the wound, dressing change frequency, possible faecal contamination, and exudate management many patients choose to self-manage their wounds where possible (Harris et al, 2016). Self-care may also help an individual to avoid taking time off work for appointments to have dressing changes (Brown, 2017). Patients who self-care will need an understanding of how to undertake the dressing change safely, as well as when and how to get hold of a healthcare professional, for example, if the wound develops signs of infection.

Any patient who is undertaking self-care should also be reassessed by a clinician on a regular basis to check the wound's progress (Brown, 2017).

Local wound management

Management of the wound environment will be established following information gained from the wound assessment and products available on local formulary (Scott-Thomas et al, 2017; Mahoney, 2020). Goals that may need to be addressed in PSD wounds are exudate, infection and protection of the periwound skin.



Practice point

Anecdotally, using a gauze swab rolled into a cigarette shape and placed between the natal cleft as a secondary dressing is helpful to reduce friction and moisture.

Exudate management

Due to the importance of hygiene within the perianal area, dressings will require more frequent changes (Harris et al, 2016). Choice of dressing will therefore be according to ease of application and frequency of dressing change (Harris et al, 2016). Dressings selected should have the ability to manage a high volume of exudate and wick exudate away from the wound and surrounding skin (Brown, 2017). Dressings such as alginates and hydrofibres are available as ribbon dressings, which can be lightly packed into a wound cavity (Brown, 2017). If more than one dressing is packed into the wound, the number of dressings used should be recorded to ensure that no dressing is retained within the cavity.

Infection management

At assessment, GPNs should establish if the wound is locally infected, has spreading infection or sepsis to guide the most appropriate antimicrobial treatment (Harris et al, 2016).

Locally infected wounds do not routinely require antibiotics (IWII, 2022), but can be managed with topical antimicrobial agents. Topical antimicrobials commonly used in the management of PSD include silver, iodine, polyhexamethylene biguanide (PHMB), and honey (Harris et al, 2016). The choice of topical antimicrobial agent will depend on exudate volume and formulary availability. Any topical antimicrobial should be reviewed at two-week intervals and stopped should the infection resolve (IWII, 2022).

Spreading infection or non-responding locally infected wounds



Practice point

General advice to patients with PSD should include:

- Good general hygiene of the perianal area
- Avoid sitting for long periods
- Smoking cessation advice
- Addressing obesity issues and dietary advice
- Avoiding activities that may cause friction or shear to the area.

(Harris et al, 2016)

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Table 3: General principles of PSD management (adapted from Harris, 2018; NICE, 2019)

Classification of PSD	Recommended guidance
Asymptomatic approach	<ul style="list-style-type: none"> ▪ Watch and observe for signs of deterioration ▪ Ensure that patients have information and understand when to contact a healthcare professional if signs worsen ▪ Advise patient on the importance of frequent bathing or showering to keep the buttocks area clean
Acute pilonidal sinus	<ul style="list-style-type: none"> ▪ Local incision and drainage of abscess ▪ Assess and manage pain with appropriate analgesia as per prescribing protocol ▪ Advise patients on regular perianal hygiene with frequent showers or bathing ▪ Hair removal — there is some controversy over the best hair removal technique, however, laser hair removal has been associated with lower recurrence rates than shaving or depilation (Harris et al, 2018) ▪ Embedded hair and debris should be removed at each dressing change ▪ Manage infection if present: <ul style="list-style-type: none"> • Antimicrobial dressings for local infection • Antibiotics may be required if spreading or systemic infection is present
Discharging pilonidal sinus or recurrence	<ul style="list-style-type: none"> ▪ Referral to colorectal/general surgeon for surgical intervention ▪ Assess and manage pain with appropriate analgesia as per prescribing protocol ▪ Advise patients on regular perianal hygiene with frequent showers or bathing ▪ Hair removal (as above) ▪ Embedded hair and debris should be removed at each dressing change ▪ Manage infection if present: <ul style="list-style-type: none"> • Antimicrobial dressings for local infection • Antibiotics may be required if spreading or systemic infection is present

may require treatment with antibiotics. Antibiotics should be broad spectrum and cover both gram positive and negative bacteria (Harris et al, 2016). Treatment for anaerobic bacteria may also need to be considered, e.g. metronidazole. There has been some success using oral antibiotics with anti-inflammatory properties such as tetracyclines, e.g. doxycycline (Harris et al, 2016). Prescribing of antibiotics should be according to local protocol and guidelines. If patients are not responding to antibiotic therapy, discussion with a local microbiologist may be helpful (Harris et al, 2016).

Periwound skin management

Excessive exudate can lead to maceration and periwound skin damage. Frequent dressing changes and use of an appropriate absorbent dressing that wicks exudate away from the skin can assist in preventing skin damage. Barrier

As with any wound, assessment of its progress and the effectiveness of interventions should be undertaken and documented formally every two to four weeks, or if there is a deterioration in the wound.

films containing acrylate terpolymer can be used, as they essentially waterproof the skin and protect it from harmful components of wound exudate (Fletcher et al, 2020).

Surgical intervention

The success of surgical interventions depends on the surgical technique that is performed (NICE, 2019). Around 15–40% of pilonidal abscess that are treated with a simple excision and drainage will reoccur (NICE, 2019).

Less invasive techniques may be considered for PSD management, however the long-term recurrence of PSD using these methods has not been fully evaluated (Harris et al, 2018). Such methods include:

- Pit picking — curettage of pilonidal space
- Phenolisation of pit tracts — phenol is injected into pits which destroys epithelium and debris
- Endoscopic pilonidal sinus treatment (EPSIT) — sinus tracks, pits, debris and hair are visualised via endoscope, cauterised and destroyed under local anaesthetic (Grabowski et al, 2019).

For the treatment of recurrent or persistent disease, there is evidence to support the use of surgical techniques incorporating off midline closure, e.g. Limberg flap, Bascom cleft lift procedure, Karydakis flap, which have a higher success rate compared to a midline closure (Grabowski et al, 2019). These types of procedures are more invasive and recovery time may be longer, with the risk of complications such as infection (Harris et al, 2018). Early referral to a surgeon with specialist interest in PSD should be considered to achieve the best outcome for the patient (Harris et al, 2018).

EVALUATE

As with any wound, assessment of its progress and the effectiveness of interventions should be undertaken and documented formally every two to four weeks, or if there is deterioration in the wound (Wounds UK, 2018). For wounds that continue to deteriorate, the assessment process will assist in identifying any further barriers to healing that may be present, e.g. infection. It is important for GPNs to recognise when the wound may need referring to another healthcare profession. This may be the local tissue viability nurse (TVN) service or for further surgical opinion.

CONCLUSION

PSD usually affects young healthy

adults. Patients who develop the disease often experience a negative impact on their quality of life. Managing PSD can be challenging and referral for surgical intervention by a suitably trained surgeon is often the only way to prevent recurrence.

GPNs can help in effective management by supporting patients who wish to self-care, ensuring that patients have knowledge and understanding to manage their condition, recognising and addressing complications early, such as infection, and instigating an appropriate local wound management regimen. **GPN**

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Key points

- Pilonidal sinus disease (PSD) is a debilitating condition that is more common in young men.
- Around 50% of individuals that develop and are treated for an acute pilonidal abscess will experience a recurrence or develop a chronic discharging sinus.
- Patients may experience many undesirable symptoms.
- There is no diagnostic test for PSD, so diagnosis is usually made from patient history and clinical presentation.
- Wounds caused by PSD are often associated with complications.
- Any intervention should ensure that patients are well informed about their condition and understand treatment options.
- At assessment, GPNs should establish if the wound is locally infected, has spreading infection or sepsis to guide the most appropriate antimicrobial treatment.
- Managing PSD can be challenging and referral for surgical intervention is often the only way to prevent recurrence.

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Revalidation Alert

Having read this article, reflect on:

- Your knowledge of pilonidal sinus disease
- Its impact on patient quality of life
- The approach you take to wound assessment
- Dressings available on your formulary to treat pilonidal sinus wounds.

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Menopause management and HRT prescribing: the current situation

Conversations about menopause are finally happening. It is no longer the hushed whispers between women of a certain age, it is being talked about openly, honestly and at a national level. Healthcare professionals, education providers, employers and policy makers have woken up to the fact that adequate menopause health care for women has been sadly lacking for many years. Primary care remains the first port of call for most women and although there is still work to do, the UK is now well on the way to destigmatising menopause and improving care and treatment for women transitioning through the menopause. Having recently celebrated World Menopause Day on 18th October 2022, this paper examines the current situation and how primary care nurses and general practice teams are ideally placed to improve the identification and management of women transitioning through the menopause.

KEY WORDS:

- Menopause
- Hormone replacement therapy
- Patient choice
- Service provision and support

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BACKGROUND

Fertility and mortality rates have been steadily declining while population ageing is now a global phenomenon (Office for National Statistics [ONS], 2022). In 2015, there were around 901 million people aged 60 years and over worldwide, representing 12.3% of the global population. By 2030, this will have increased to 1.4 billion or 16.4%, and by 2050, it will have increased to 2.1 billion or 21.3% of the global population (ONS, 2022). Considering that the average age of menopause here in the UK is 51 years (Hillard et al, 2017), and with life expectancy for females in the UK currently standing at 82.9 years and projected to increase steadily (ONS, 2022), the menopause should now be viewed as a midlife event and, as such, a long-term condition.

Women make up around 50% of the UK workforce and it is estimated that there are more than four million women aged 50 and above in employment in the UK

(British Menopause Society [BMS], 2021a). In recent years, the number of women working aged 55 and over has increased by approximately 30% and this is likely to continue to rise. In 2016, the BMS completed a national survey where 45% of respondents indicated that they felt their menopause symptoms had a negative impact on their work. Just under half reported having to take time off sick due to menopause symptoms, but would not state the reason for their absence to their employers. There have been urgent calls not only for employers to raise menopause awareness, but also for policies to be put in place to manage the menopause better within the workplace (BMS, 2021a).

DEFINITIONS

The menopause happens to every woman and refers to a biological stage when periods stop and ovarian reproductive function ends (Hillard et al, 2017). Although the actual diagnosis of a natural menopause is made

retrospectively twelve months after the woman's final period, it is a term often used to describe the transition period, or perimenopause, where symptoms, duration and individual experiences can vary greatly (BMS, 2017). While often seen as a 'natural' process, this is not always the case with some women being plunged into an immediate and sometimes intensely symptomatic menopause due to necessary surgical or medical treatment (Hillard et al, 2017).

Women can experience a wide range of symptoms and these can overlap with other conditions, making it difficult both for patients to understand and clinicians to assess (Hollaway, 2022). While most attribute night sweats and hot flushes to the menopause, many do not associate other troublesome symptoms such as tiredness, low mood, palpitations, anxiety, poor memory and concentration (often termed brain fog) and low libido and genitourinary problems to the menopause (BMS, 2021b).

Although not all women will experience menopausal symptoms, over 75% of women will, with over 25% of these women experiencing severe symptoms (BMS, 2021b). The onset, duration and severity of symptoms can vary hugely between individual women, and symptoms can be short lived, or last many years with an overall average estimate of 7.4 years (Avis et al, 2015), with one in three women reporting longer term symptoms (BMS, 2021b).

As stated, menopause is a retrospective clinical diagnosis and no blood tests are required over the age of 45 years (National Institute for Health and Care Excellence [NICE], 2019). It normally occurs between the ages of 45–55, with the average age in the UK being 51 years, although certain ethnic groups of menopausal mean age may differ (NICE, 2019).

The average age of perimenopause in the UK is 45 and symptoms can last for a decade or longer. It is the term used to describe women who are experiencing menopausal symptoms but are still having periods, which are often irregular or have altered from normal.

Premature menopause is a complete loss of ovarian activity where a definitive menopausal diagnosis is made under the age of 40 years (Hillard et al, 2017). Although uncommon, this can include women in their 30s or even younger.

Premature ovarian insufficiency (POI, previously known as premature ovarian failure) is characterised by a transient or permanent loss of ovarian function before the age of 40 years (Hillard et al, 2017). These patients do not always stop menstruating and therefore pregnancy is possible.

Younger patients, or those with surgical or medical-induced menopause, are at particular risk of longer term health issues, such as increased risks of fracture, cardiovascular disease (CVD), and decreased life expectancy. It

is therefore essential that these patients have early intervention and ongoing menopause management (NICE, 2019).

DETERMINANTS OF MENOPAUSE

The timing of menopause can be influenced by a range of both environmental and genetic factors (Hillard et al, 2017). Early menopause has been linked to low birth weight, early puberty and childlessness (Hillard et al, 2017). Nulliparity on its own can double the risk of an earlier menopause (Mishra et al, 2017). Other factors associated with an early menopause are:

- Smoking
- Living at higher altitudes
- Having chromosomal abnormalities
- Socially deprived groups (Hillard et al, 2017).

Conversely, a later menopause is more common in those who were breastfed and has also been associated with increased parity (Hillard et al, 2017).

ASSESSMENT

Those women with earlier presentations are at increased risk of morbidity and mortality, including higher risk of cardiovascular disease, osteoporosis and cognitive decline (Hillard et al, 2017). Full holistic assessment should be undertaken, including the woman's clinical and family history. NICE recommends serum follicle-stimulating hormone (FSH) testing in those under the age of 40 (not taking combined hormonal contraception) with a suspected diagnosis of POI (NICE, 2019). An FSH level is also recommended for those aged between 40–45 years with menopausal symptoms, including a change in menstrual cycle. Elevated FSH levels (more than 30 IU/L) on two blood samples taken 4–6 weeks apart can confirm the diagnosis (NICE, 2019). However, in clinical practice, a suppressed or normal level does not exclude perimenopause or menopause.

MANAGEMENT OPTIONS

Diet and lifestyle advice is the same for menopause as it is for other chronic conditions, including the primary prevention of cardiovascular disease (NICE, 2020). This includes prioritising smoking cessation, healthy eating, weight loss, alcohol reduction and increasing activity levels. Lifestyle modification is relevant for menopausal women, particularly if they are overweight or obese. This is because a raised body mass index (BMI) can directly impact on the severity and length of troublesome symptoms and on general health and wellbeing (BMS, 2021b).

Alternative, non-hormonal remedies and treatments are available for those women who choose not to have, or who are unable to receive hormone replacement therapy (HRT). These include non-hormonal vaginal lubricants and moisturisers for genitourinary symptoms, selective serotonin reuptake inhibitors (SSRIs), clonidine and gabapentin for vasomotor symptoms, cognitive behavioural therapy (CBT) for anxiety and mood disorders, and a host of different herbal remedies, aromatherapy and acupuncture (NICE, 2019; Henderson 2020). However, many herbal remedies alongside bio-identical hormones are not regulated by a medicine authority and therefore safety and quality cannot be assured (Women's Health Concern, 2020).

HORMONE REPLACEMENT THERAPY (HRT)

Hormone replacement therapy (HRT) continues to be the most clinically cost-effective treatment for management of the menopause, relieving symptoms in the majority of cases (Hillard et al, 2017; Bluming and Tavis, 2018). It is the best treatment for vasomotor symptoms (VMS) and vaginal, bladder and vulval problems caused by a lack of oestrogen (now termed genitourinary syndrome of the menopause or GSM) (Bluming and Tavis, 2018).

HRT can be life changing for many women and yet it is still

not widely used, with reports that only 14% or less of menopausal women are taking HRT in some parts of the UK (Cumming et al, 2015; Newson, 2016). Survey data have shown that up to 80% of postmenopausal women report troublesome vulvovaginal symptoms (GSM), including vaginal dryness, dyspareunia, vaginal irritation, itching sensation, vaginal tenderness, and vaginal bleeding or spotting during intercourse (Nappi et al, 2016). Despite this, studies have revealed only around one in four women seek help for GSM symptoms and only 7% receive treatment (Newson et al, 2021).

There are many reasons postulated for this, including misinformation and scaremongering regarding risks, such as increased risk of breast cancer associated with HRT that followed the publication of the Women's Health Initiative report in 2002 (Rossouw et al, 2002). Studies have since reanalysed the findings and it is now understood that in the vast majority of cases, the benefits of HRT outweigh the potential risks (Manson and Kaunitz, 2016; BMS, 2017; Hillard et al, 2017; NICE, 2019).

However, anxiety and confusion still exist in both menopausal women and their healthcare providers, leading both to clinician reluctance to prescribe and women to present, which results in significant negative ongoing consequences for women's health and quality of life (Cagnacci and Venier, 2019). Indeed, 70% of healthcare professionals admit that they never, or rarely ask about problems like vaginal dryness (Nappi and Kokot-Kierepa, 2012). There are also long-held beliefs and attitudes among women (including healthcare professionals) that GSM symptoms are a natural and unavoidable part of the ageing process (Sturdee and Pana, 2010).

HRT is available in oral and transdermal preparations, with over 40 oestrogen-based products available globally (Hillard et al, 2017). The ideal time to start treatment is within 10 years of the menopause or before the age of 60 years, commonly known as the 'window

of opportunity', and no arbitrary limits should be placed on duration of use (Hillard et al, 2017; NICE, 2019; Hamoda et al, 2020). Although current international guidance does not support the use of HRT for primary or secondary prevention of disease, such as cardiovascular disease, without a 'clear indication', some would argue that this is justified as studies have demonstrated a 50% reduction in morbidity and mortality of coronary heart disease if started within this time period (Baber et al, 2015; Hamoda et al, 2020). In addition, and particularly relevant to younger menopausal women, HRT has also been shown to reduce future risk of osteoporosis, type 2 diabetes, osteoarthritis and dementia (Boardman et al, 2015; Manson et al, 2016; Bluming and Tavris, 2018).

The HRT regimen is prescribed depending on clinical assessment and the woman's preferences (NICE, 2019). Body identical transdermal oestrogen alone for hysterectomised women or in combination with micronised progesterone, or a Mirena coil for women with intact uteruses to protect against endometrial hyperplasia and endometrial cancer, are the safest regimens, particularly in those at higher risk of complications (Newson, 2018; Vinogradova et al, 2019). Increased venous thromboembolism (VTE) risks are associated with oral oestrogen due to first pass metabolism which affects the coagulation cascade (Flores et al, 2021). The oral route also has less reliable absorption and can increase sex binding globulin (SHBG), so reduces free androgen index (FAI), which can further impact libido (Newson, 2018). Micronised or body identical progesterone is also associated with a lower risk of breast cancer, thromboembolic events (VTE) and cardiovascular disease (CVD) compared with other synthetic progestogens (Stute et al, 2018).

Transdermal oestrogen alone has no associated clot risk and a lower risk of breast cancer, whereas combined HRT (oestrogen plus a progestogen) is associated with a small increased risk of breast cancer (Flores et al, 2021). It appears to be associated with duration of use and

type of progestogen used. However, the risks of developing breast cancer are still lower for those women on combined HRT than in women who are obese or who have a high daily consumption of alcohol (Hamoda and Moger, 2022). There is a useful aid for clinicians to use with patients when communicating risks of breast cancer (see 'useful resources').

Along with oestrogen and progesterone, testosterone is the third and most abundant biological hormone in women (Laing et al, 2022). Levels decline with age and symptoms of testosterone deficiency can include lack of sexual desire, fatigue, cognitive decline, osteoporosis, sarcopenia, and an overall reduced quality of life (Panay, 2019).

Although studies are limited, testosterone replacement has demonstrated improvements in sexual desire, responsiveness and pleasure among placebo-controlled randomised trials in women diagnosed with hypoactive sexual desire disorder (HSDD) (Davis et al, 2019). Testosterone may also have beneficial effects on urinary tract function, as a survey found that women with low circulating serum testosterone were much more likely to have urinary incontinence (Kim and Kreydin, 2018).

Available safety data show a good safety profile with no increased risk of breast cancer, VTE or CVD using transdermal testosterone at physiological doses (Davis et al, 2019; Laing et al, 2022). Although testosterone remains unlicensed in the UK, it can be prescribed 'off-licence' in fractionated doses of male transdermal formulations and serum monitoring is recommended (Hillard et al, 2017; NICE, 2019). For further information on HRT prescribing and supply updates, see links in 'useful resources'.

CONTRACEPTION

In general terms, a woman transitioning through the menopause should be advised that HRT is not a contraceptive and that she can still potentially conceive (Hillard et al,

Identifying patients

- Displaying 'Think Menopause' posters in reception listing age range and symptoms to alert appointment makers to signpost ladies to the most appropriate clinician
- Relevant practice-based patient searches, e.g. age range 45–55 years, diagnostic codes, e.g. recurrent urinary tract infection (UTI), anxiety, depression, palpitations in the past 12 months
- Non-responders for cervical smears aged over 45 years.

2017). Perimenopausal and those with POI can spontaneously ovulate at any given time, putting them at risk of pregnancy and so should be advised appropriately regarding contraception (NICE, 2019).

Advice should alert women that they can remain fertile and should continue with contraception for two years after their last menstrual period if younger than 50 years of age, and for one year if over 50 (NICE, 2019). Holistic assessment should be completed and contraception advice tailored to the needs of the individual following national guidance (Faculty of Sexual and Reproductive Healthcare [FSRH], 2019; NICE, 2021). However, women can be advised to stop all forms of contraception at the age of 55 years (Hillard et al, 2017; NICE, 2019).

PATIENT CHOICE

Shared decision-making is a key component to good menopausal management and the 'Montgomery' ruling (replacing the 'Bolam test' for informed consent) should underpin this (General Medical Council [GMC], 2020). Patients should be given information to be able to weigh up the risks and benefits of different options in a way that they can understand. If the clinician is satisfied that the patient is competent to do this, they should respect their choice about treatment and a care plan, even if that goes against what

may have been recommended (GMC, 2020). The BMS and NICE endorse that women's choices are listened to and that a personalised approach is employed, based on patient preferences after carefully weighing up the risks and benefits regarding starting or changing HRT regimens or advising when to stop (NICE 2019; BMS, 2022a). Communication of risk is a key component of HRT initiation and management and there are useful aids to help clinicians (see 'useful resources').

SERVICE PROVISION AND SUPPORT

The Department for Health and Social Care (DHSC) commissioned a survey to inform the first-ever government-led Women's Health Strategy for England in 2021. This report of nearly 100,000 people in England found that only one in 10 respondents had enough information on the menopause, that the majority turned to family and friends or internet searches for health information and support, with the vast majority feeling that they had little information to guide them (DHSC, 2021).

This is further compounded by a lack of specialist menopausal NHS provision both nationally and locally. Often, the first contact for women to access advice and treatment is their GP or general practice nurse (GPN). However, the expertise of both identifying and managing women with menopausal symptoms can be variable between clinicians and practices. Historically, menopause training has not been part of either medical or nursing curriculums. This lack of medical understanding was highlighted in a British Medical Association (BMA) survey, in which it was reported that a third of female GPs were considering reducing their working hours or retiring due to their untreated menopausal symptoms (BMA, 2020).

These failings in both expertise and local service provision mean that women who are suffering with menopausal symptoms can be misdiagnosed, not treated appropriately, or worse still, not treated at all, leading to unnecessary

isolation and suffering (sometimes for many years). For those with the ability to pay, it can sometimes mean long journeys and expensive consultations and ongoing private prescriptions. This is compounded if the patient's own GP or prescribing nurse or pharmacist refuses to start or continue HRT within the NHS, particularly in uncomplicated cases. Access to basic standardised menopausal healthcare advice and treatment should be available on the NHS for all. If not, this represents a clear breach of the core principles of the general practice forward view and the BMS standards and vision (NHS England, 2016; BMS, 2017; BMS, 2022a).

Key recommendations and standards specifically aimed at reducing inequalities and providing equal access to quality menopause management have been released (BMS et al, 2022a). Educational organisations, including the Menopause Charity, have also stepped up by providing free menopause foundation training to clinicians around the world (see links in 'useful resources'). Local support groups have also popped up throughout the UK made up of both lay members and professionals, who often have both personal and professional experience and awareness of the general lack of adequate information, care and treatment for women.

Service provision and support has been further affected by recent national supply issues of HRT, with the government having to finally listen to the growing body of discontent by appointing

Practice points

- All women should be asked relevant questions during consultations because if the right questions are asked, in the right clinical setting, women are far more likely to be open about their symptoms
- Signpost or initiate treatment and review patients as per recommended guidelines — always working within your own scope of professional practice.

Madelaine McTernan, head of the Vaccine Taskforce, to lead a new HRT taskforce, with the promise of discounted annual prescription fees for HRT prescriptions in the coming year (BMS, 2021a).

CONCLUSION

It is now well accepted that good quality standardised menopause care has been lacking for many years. The recently formed All-Party Parliamentary Group on Menopause (APPG), chaired by leading parliamentary campaigner Carolyn Harris MP, described the situation as 'completely inadequate'. Citing particular concerns around equity of access to standardised menopause care, the group has made 13 recommendations for policy makers, the NHS and other relevant parties to introduce much needed changes in order to finally dispel the long-held taboo around 'the change' (APPG, Menopause, 2022).

Revalidation Alert

Having read this article, reflect on:

- Your workplace menopause policy — is it accessible and are colleagues aware? Are colleagues well supported?
- Your practice — are there ways that you can improve the identification and management of patients transitioning through the menopause?
- Your own and practice team's learning needs. Access training available and create your own practice resource folder for all the latest evidence-based information — store centrally for all to access.

Then, upload the article to the free GPN revalidation e-portfolio as evidence of your continued learning: www.gpnnursing.com/revalidation

Following increased media coverage, including high profile celebrities sharing their own personal stories, rising numbers of better-informed women are presenting to get help and support with their menopausal symptoms. One of the major HRT manufacturers in the UK (Besins Healthcare) reports that shortages in products are directly due to the 'extraordinary demand', with prescriptions for oestrogen having doubled in the same period of January to April last year (BMS, 2022b). The rise in patient contacts is only going to increase within general practice as more clinical research and evidence-based information spreads further. The updated NICE Menopause guideline, now expected to be published in August 2023, is keenly awaited.

Finally, although menopause management is still not included as a clinical domain within the Quality and Outcomes Framework (QoF), delivering good quality standardised care should be seen as a priority, with or without attached financial incentives. Ideally, there should be appropriately skilled clinicians in every practice with whom women can consult. General practice teams should now see this as a key priority, with GPNs being ideally placed to better manage these women and lead with high quality menopause care. **GPN**

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Useful resources

Current updates including latest news on HRT supply shortages and availability (latest update 26 September 2022 and correct going to press):

- <https://thebms.org.uk/news/>
- <https://thebms.org.uk/news/british-menopause-society-update-on-hrt-supply/>
- <https://thebms.org.uk/wp-content/uploads/2022/03/15-BMS-TfC-HRT-preparations-and-equivalent-alternatives-01D.pdf>
- <https://thebms.org.uk/wp-content/uploads/2022/05/03-BMS-TfC-HRT-Practical-Prescribing-02A-MAY2022.pdf>
- <https://thebms.org.uk/news/british-menopause-society-update-on-hrt-supply/>
- <https://www.gov.uk/government/news/easier-access-to-locally-applied-hrt-to-treat-postmenopausal-vaginal-symptoms-in-landmark-mhra-reclassification>

Latest strategies and standards:

- <https://thebms.org.uk/wp-content/uploads/2022/06/Menopause-practice-standards-14.6.2022.pdf>
- www.gov.uk/government/publications/our-vision-for-the-womens-health-strategy-for-england/our-vision-for-the-womens-health-strategy-for-england

Tools for clinicians and patient information and support:

- www.womens-health-concern.org/help-and-advice/factsheets/
- <https://thebms.org.uk/wp-content/uploads/2016/04/WHC-UnderstandingRisksofBreastCancer-MARCH2017.pdf>
- <https://thebms.org.uk/publications/tools-for-clinicians/>
- <https://www.themenopausecharity.org/menopause/>
- www.balance-menopause.com
- <https://thebms.org.uk/wp-content/uploads/2022/01/HRT-Equivalent-preparations-7th-January-22.pdf>
- www.womens-health-concern.org/
- <https://pcwhf.co.uk/>

Prescribing information:

- <https://pcwhf.co.uk/wp-content/uploads/2021/12/Prescribing-HRT.pdf>
- <https://balance-menopause.com/uploads/2021/10/Easy-HRT-prescribing-guide-NHMS.pdf>
- <https://cks.nice.org.uk/topics/menopause/prescribing-information/hormone-replacement-therapy-hrt/>
- <https://wellspring.health/hrt/benefits.html>
- <https://wellspring.health/hrt/risks.html>

Training for clinicians:

- www.fourteenfish.com/menopause/subscribe (offers a free training course)
- <https://pcwhf.co.uk/>
- <https://thebms.org.uk/education/overview/>

Workplace support:

- <https://info.peppyhealth.com/menopause-support-toolkit>
- www.nhsemployers.org/articles/menopause-and-workplace
- The British Occupational Health Research Foundation (2010) *Work and the Menopause: A Guide for Managers*: www.bohrf.org.uk/downloads/Work_and_the_Menopause-A_Guide_for_Managers.pdf
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Nursing support, education and information:

- www.nmc.org.uk/globalassets/sitedocuments/nmc-publications/nmc-code.pdf
- www.rcn.org.uk/clinical-topics/womens-health/menopause
- www.themenopausecourse.com/

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Key points

- The menopause happens to every woman and refers to a biological stage when periods stop and ovarian reproductive function ends.
- Women can experience a wide range of symptoms and these can overlap with other conditions.
- Hormone replacement therapy (HRT) continues to be the most clinically and cost-effective treatment for management of the menopause.
- GPNs are ideally placed to better manage women and lead with high quality menopause care.

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Further information

- Daisy Network: www.daisynetwork.org
- Faculty of Sexual and Reproductive Healthcare: www.fsrh.org
- Manage my Menopause: www.managemymenopause.co.uk
- Menopause Matters: www.menopausematters.co.uk
- Royal College of Obstetricians and Gynaecologists: www.rcog.org.uk
- Menopause Exchange: www.menopause-exchange.co.uk
- Women's Health Concern: www.womens-health-concern.org

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National care bundle for children with asthma: what does it mean?

This article introduces the NHS England national care bundle for children with asthma, the main themes, and what is expected of clinicians in primary care. This is the first phase of a national plan to improve asthma care, with a focus on integration of systems and effective communication. It follows several high-profile reports, national and global guidelines, with the aim of training clinicians to consistent standards, keeping children and young people with asthma well, improving diagnosis, patient pathways and encouraging self-management. It explores the main themes of the asthma care bundle, and what it means for clinicians across the spheres from primary through to tertiary specialist care.

KEY WORDS:

- Care bundle
- Asthma
- Diagnosis
- Exacerbations

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It is widely known that the UK has been recognised as having poor asthma outcomes, with past evidence highlighting us as worst in Europe, and even then, significantly worse than the next contender (Wolfe et al, 2013). With a pandemic and the cost of living crisis, it seems likely that both will adversely affect outcomes for children and young people, when considering the adverse impact of inequalities and deprivation in the UK. It is evidenced that both physical and emotional wellbeing are impacted by socio-economic status (NHS England, 2021a; 2021b), and what is often considered a postcode lottery, in the sense that services are so inconsistent in terms of asthma care.

When prominent asthma deaths are considered, especially those in the mainstream media, it is frighteningly easy to see themes around:

- Failure to communicate
- Poor integration of systems even in the same geographical patch
- A misunderstanding of asthma as a long-term condition.



When deaths are considered preventable, inquests have found these to be common themes, along with poor adherence to prescribed medication, poor understanding, perceptions of asthma that are not in keeping with the individual's status clinically, or simply, an apparent lack of risk perception (HM Judiciary, 2019; NHS England, 2019). The National Review of Asthma Deaths (NRAD) (Royal College of Physicians [RCP], 2014) raised similar themes, and highlighted failings in provision of asthma plans, safe discharge processes, and poor adherence and device technique.

In the author's clinical opinion, clinicians working directly with children, young people and carers have a clinical responsibility to ensure that they leave clinical areas with a good understanding of their own health, the risk it may present, and how to keep themselves well.

The national bundle of care for

children and young people with asthma was introduced in September 2021, with a view to improving asthma care across England through clearly defined themes, or 'pillars' of asthma care, namely:

- Organisation of care
- Environmental impacts
- Early and accurate diagnosis
- Effective preventative medicine
- Management of exacerbations
- Severe asthma
- Data and digital
- Capabilities and training needs (NHS England, 2021).

The bundle includes a prescriptive integrated care systems (ICS) deliverables grid and a resource pack, including decision aids, patient pathway aids and template documents.

ORGANISATION OF CARE

All organisations will require a named lead for children's asthma, with expertise and responsibility for

dissemination and implementation of asthma standards. National funding will be provided to support this, and on an ICS and patch level there should also be a specific network for children's asthma, with leads named for each locality and practice. The network should be integrated to span health, social care, education and community services. It should also integrate effectively with adult services (although in primary care this may not be a stressor as by default the children and young people would remain under the practice's care so long as they are registered). Safeguarding should be consistently integrated with these groups, with a focus on good communication of concerns and work undertaken. Raising concerns may highlight areas of heightened need, and perhaps requiring enhanced support from the governing bodies to ensure effective and consistent care is achieved for the children and young people.

Referral pathways remain critical, with suggested pathways and templates available in the resource pack. The responsibility for these would mainly lie with specialist centres or secondary care in terms of referral thresholds, but each practice and ICS would benefit from shared training and learning, in terms of identification of children and young people with asthma and those requiring escalation. From serious case reviews and preventable death data and casefinding, it is known that effective pathways are key when it comes to asthma and mortality (RCP, 2014; British Thoracic Society/Scottish Intercollegiate Guidelines Network [BTS/SIGN], 2019). When thresholds are met and not escalated, or risk is not noted, the children and young people are more likely to face a life-threatening or even fatal attack.

ENVIRONMENTAL IMPACTS

This is a newer aspect of asthma care that has been at the forefront of pertinent media outlets recently, with many young people increasingly concerned about their carbon footprint (BBC Future, 2022).

Air pollution remains a worry, with high-profile cases such as

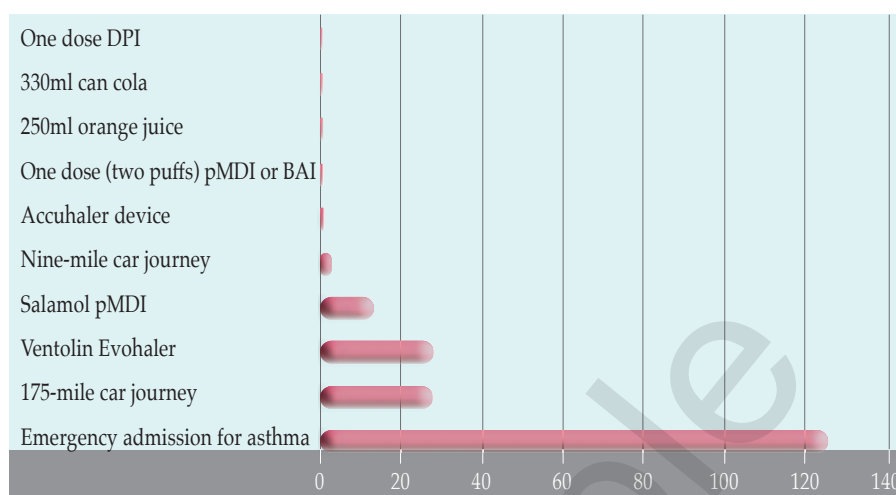


FIGURE 1.

Relative carbon footprints (Greener Practice 2021; PrescQIPP 2021)*

** citing 2014 report of the UNEP medical technical options committee, 2017 National Travel Survey, Greenhouse gas reporting conversion factors 2018.*

DPI = dry powdered inhaler; pMDI = pressurised metered-dose inhaler; BAI = breath actuated inhaler

“ From serious case reviews and preventable death data and casefinding, it is known that effective pathways are key when it comes to asthma and mortality.

Ella Kissi-Debrah documenting air pollution formally for the first time (Carrington, 2020). Clinicians working with children and young people with asthma should be aware of the impact of air pollution (outside and inside) on asthma, and common strategies to avoid these triggers. Information given should be understandable and accessible to children and families, as a relatively new factor in asthma care and health in general. This is a significant factor when education and training is considered, which will be discussed later. Staff will need to be trained in issues surrounding air pollution, and this will need to be evidenced and audited, as per the document, as well as patient surveys encompassing the individual's confidence in managing air pollution as a trigger.

Indoor air pollution and poor housing is a notoriously difficult issue in the community, and primary care often faces the brunt

of families' frustrations. ICS should work together to lobby councils and housing, with a view to placing children with severe asthma in alternative housing, and in rehousing children and young people and their families when housing is considered critically detrimental to their health (such as those with mould allergy and damp/mouldy home environments).

Smoking cessation is included in the indoor air pollution consideration, with template letters drafted for parents to encourage them to quit smoking. ICS have a responsibility to provide adequate services for smoking cessation, and to ensure that care providers have access to them for their patients or families. Success measures in this field include staff training levels for those caring for children and young people.

Asthma-friendly schools sit within this section, with a view to all schools being influenced to work towards asthma-friendly status. Joint policies should be introduced between health and education within each ICS or patch, and ICS should support training of staff in education, including in absence management and auditing. Asthma leads should be documented in all organisations, and absenteeism should reduce (as a measure of success) as systems become more established and integrate.

YES	Does the child have interval symptoms when they do not have viral infections?	NO
YES	Are the exacerbations severe and/or frequent?	NO
YES	Are any of the following markers present? <ul style="list-style-type: none"> • Atopy (personal or first-degree relative) • Eosinophilic inflammation (serum, FeNO, BAL) • Sensitisation (IgE/RAST/skin prick test) 	NO

← More like pre-school asthma | Less like asthma, more like pre-school episodic wheeze →

FIGURE 2. Pre-school wheeze consensus guideline decision aid. Adapted from the national care bundle for children with asthma.

EARLY AND ACCURATE DIAGNOSIS

It is expected, as per the national bundle, that each ICS works to develop diagnostic hubs for primary care that are supported by secondary care. With testing being technique and effort dependent, and heavy reliance on history, it can be difficult to diagnose asthma in younger, pre-school children, leading to notorious resistance to trial preventer therapy (Menckeberg, 2008). It is important that lung function devices are age-appropriate and at a basic level to be used with children and young people. Clinicians need to be competent and confident in making a diagnosis and should have tests at their disposal, which can be carried out by appropriately trained and competent individuals. When diagnosis is unclear, or tests unhelpful, pathways to secondary care should be clear and well-defined in terms of threshold and criteria. There are enablers planned in phase two of the national bundle, with success measured by audit of diagnostic figures and hubs adhering to national standards.

Diagnosis must be evidence-based on clinical findings from a comprehensive history, with children over six expected to try objective tests for inflammatory markers or airway obstruction and variability. Clinicians will therefore need the appropriate tools, such as electronic templates and teaching resources, and access to the diagnostic hubs, with suitable capacity for the population and

appropriately trained clinicians to run and interpret tests.

Finally, diagnoses must be coded (working diagnosis codes, e.g. ‘suspected’ or ‘probable’ can be used temporarily until further evidence is available to support a concrete diagnosis). The document advises that children under six are coded as having ‘asthma’ or ‘episodic wheeze’, as per the decision aid which is included in the resource pack (Figure 2).

EFFECTIVE PREVENTATIVE MEDICINE

Clinicians working in primary care will need to work with the *British National Formulary for Children* [BNFC] to ensure that their packages of care are age appropriate and to identify appropriate devices for the individual. All patients should receive a personalised asthma action plan [PAAP] and understand what it is and how to use it. This document should be shared with colleagues caring for children and young people, including schools and early years providers. Knowing why, when, and how to seek help in a moderate and severe situation is vital, and is part of understanding the PAAP.

Annual reviews should be just that — an effective review of the individual’s condition, ensuring tailored education and device optimisation. Gauging asthma control is important here as an opportunity to titrate dosage up or down, as per the stepwise approach,

with adherence and device technique in mind. Templates are available to aid the annual review, as there are so many facets to consider in what might be a brief appointment slot. If possible, checking prescription uptake can be a useful task before the consultation to help steer conversation around the individual’s perception of their asthma, possible triggers, and adherence to therapy.

Coding effectively throughout will also help identify ways to aid asthma control or trigger reduction, such as offering asthma review before hayfever season (grass or tree) so that pharma- and non-pharmacological strategies can be explored.

It is expected that patient/family feedback is gathered to audit and inform service provision.

MANAGEMENT OF EXACERBATIONS

This simply states that all providers, regardless of sphere, should adhere to minimum standards of acute care. These are well-established national guidelines which rely on clinicians assessing and acting on their findings in a timely manner. Individuals presenting acutely should have a timely and effective assessment of their symptoms and severity and, if over five years, receive systemic steroids within an hour and be reviewed by an appropriately trained clinician before discharge, regardless of location or clinical area.

Minimum standards for safe discharge remain as per the national guidelines (BTS/SIGN, 2019 and National Institute for Health and Care Excellence [NICE], 2020) — including provision of a PAAP, education and advice around recovery, optimisation of inhaler technique and review by a clinician. The post-attack review should occur within 48 hours of discharge.

Furthermore, this section also encompasses the role of ICS leads in overseeing the landscape of asthma in their wider patch, and in supporting providers to understand risk profiles and identify at-risk communities within their

geographical patch. As clinicians in primary care, and the first port of call for most, it is vital that general practice nurses (GPNs) note any trends or vulnerabilities identified in individuals or communities under their care. In this way, learning and ideas may be shared, and these vulnerable populations protected and supported.

SEVERE ASTHMA

While it might not be at the forefront of consideration in primary care, the severe asthma networks must be integrated into and work effectively with every area of care around the child. While a child or young person may be deemed severe and undertaking intensive treatments relative to their condition, the general practitioner remains the primary clinician for that child as an individual. The severe asthma services are, of course, highly specialist, but must work in partnership with all teams around the child. It is known from multiple inquests that when teams across spheres of health and social care do not communicate effectively or integrate appropriately, the risk of preventable death increases (RCP, 2014; HM Judiciary, 2019). When considering that this group of children already have high-risk profiles by default, having either faced life-threatening exacerbation, intensive care or high symptom burden despite high-potency steroids, it becomes vital that all parties communicate effectively.

This section highlights that while it is not expected that all clinicians at every point in the system may manage severe asthma, they should know how to signpost and refer on to the severe asthma service. There are clear specifications for the resources and deliverables expected of a severe asthma service for each patch, and it is evident that these will also be compared against the national specification. All children and young people should have access to a service that meets these requirements, and the resource pack includes sample pathways and referral criteria to aid decision-making and strengthen referral.

Also of note to clinicians across primary, secondary and tertiary care is access to specialist registers, such as the severe asthma registry, which is linked to the aforementioned dashboard for the patch and nationally.

“ ... while it is not expected that all clinicians at every point in the system may manage severe asthma, they should know how to signpost and refer on to the severe asthma service.

DATA AND DIGITAL

This section largely focuses on benchmarking of services, using dashboards to track progress as smaller networks with peers, organisations or practice/clinicians. The first phase of this is planned to focus on acute asthma, using secondary care to track and map urgent and emergency calls, 111 activity and, of course, acute admission to hospital. The idea is to facilitate shared learning and highlight areas of good practice, and areas which may require work. There is a particular focus on equity of provision for hard-to-reach populations, individuals with protected characteristics, and especially in areas with high deprivation indexes. Proposals include a nationally held dataset and dashboard to gauge if, and how, these are being met. Measures of success in this area include a decrease in the numbers of acute asthma exacerbations, repeat attacks (and therefore repeat admissions) and, perhaps most prominently, preventable asthma death.

By benchmarking against patch peers, clinicians and practices can share ideas, learn from and support one another where populations are shared and understood by the patch clinicians. ICS colleagues may find that they are more likely to share difficulties or frustrations,

or even novel ways to tackle these, with their patch colleagues who understand just as well the shared population, especially in deprived areas where issues can be complex and multifactorial.

CAPABILITIES AND TRAINING NEEDS

With the NHS stretched financially as the pandemic continues in business-as-usual mode, it is more difficult than ever to obtain funding for training. Historically, it has been anecdotally raised again and again, that the level of training required in primary care is subjective and based on perceived need rather than clear, concise requirements based on position and role in the wider team around the child.

The national bundle clarifies this using a tier system — which may be helpful in supporting applications for funding and/or placement on training courses for nurses in primary care. It is now something that needs to happen to help ensure consistency of care for children and young people with asthma. Resource six, in particular, highlights the various tiers of asthma capabilities from novices in tier one who may ‘signpost’ and consider the impact of asthma, to tier five, which encompasses those working as specialists with severe and difficult asthma (i.e. tertiary consultant paediatricians, nurse consultants and other specialist members of the multidisciplinary severe asthma team). In the author’s experience, clinicians in primary care would be expected to be working to tier three if diagnosing and prescribing for asthma, or tier two if supporting prescribed care or dealing with standard asthma reviews and acute exacerbations.

Once an individual is considered capable in their tier, they may mentor others up to and including their tier, and may work to a higher tier if appropriately supervised by a further mentor of their own. As the tiers progress, the training requirements also progress, with the higher tiers (three and certainly four to five) requiring in-depth face-to-face training, and for the latter two, a number of years’ specialist training.

The bundle document is clear that spirometry is an externally certified qualification which must be achieved through another programme (namely the Association of Respiratory Technologists and Physiologists) (NHS England, 2021a).

There are a number of accredited courses for the outlined tiers, some of which also have accreditation from other high profile organisations such as the Royal College of Paediatrics and Child Health, the Association of Respiratory Nurse Specialists, and the National Paediatric Respiratory and Allergy Nurses Group (NPRANG).

CONCLUSION

This article has introduced the asthma care bundle, what it means for primary care and how it might be measured.

Pilot schemes are running for each area in England, with senior asthma specialists recruited specifically to implement these in their patch, with access to risk stratification data

as a way to identify risk and aid intervention. In the next issue of the *Journal of General Practice Nursing*, ways to implement the bundle and how to meet its requirements will be explored. **GPN**

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Key points

- It is widely known that the UK has been recognised as having poor asthma outcomes, with past evidence highlighting us as worst in Europe.
- The national bundle of care for children and young people with asthma was introduced in September 2021, with a view to improving asthma care across England through clearly defined themes.
- Clinicians working with children and young people with asthma should be aware of the impact of air pollution (outside and inside) on asthma, and common strategies to avoid these triggers.
- All patients should receive a personalised asthma action plan [PAAAP] and understand what it is and how to use it.
- Annual reviews should be just that — an effective review of the individual's condition, ensuring tailored education and device optimisation.
- While it might not be at the forefront of consideration in primary care, the severe asthma networks must be integrated into, and work effectively with every area of care around the child.

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Revalidation Alert

Having read this article, reflect on:

- The main themes of the national bundle of care for children and young people with asthma
- Your understanding of the impact of air pollution on children and young people with asthma
- Your competence and confidence in diagnosing asthma
- Changes you might instigate as a result of the new care bundle.

Then, upload the article to the free GPN revalidation e-portfolio as evidence of your continued learning: www.gpnnursing.com/revalidation

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Review of the routine and at-risk immunisation programme

Vaccination and immunisation are slightly different things. Vaccination is the giving of a dose of antigen, for example, intranasally (the children’s ‘flu vaccine) or an intramuscular injection (the baby six-in-one vaccine). Immunisation refers to the process of receiving the vaccine and then becoming immune to the disease following this. Immunity can be developed after having the disease itself, but there is the risk of post-disease sequelae such as Ramsey-Hunt syndrome after ophthalmic shingles or severe epiglottitis with haemophilus influenzae type b (Hib). To avoid the chances of these often life-threatening events, immunisation is recommended. In developed countries where vaccination programmes are well organised, developed and far reaching, some of the diseases may not have been seen for several years and, as such, many people do not realise their severity. For this reason, vaccinators, such as general practice nurses (GPNs), need to be aware of why we are still vaccinating and the importance of developing immunity against such diseases so that they do not return (Gov.uk, 2022a).

KEY WORDS:

- Changes
- Competency
- Medico-legal frameworks
- Consent
- Documentation

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There is a robust childhood and adult routine vaccination programme within the UK but, as there are a few variations across the United Kingdom, for the purpose of this article the vaccine schedule in England will be discussed.

Vaccinators, such as general practice nurses (GPNs) and other types of vaccinators in different provider services, should speak confidently with patients about vaccinations and make sure that their practice is safe and effective. For this to happen, it is important to be up to date, competent, indemnified and medico legally aware. *The Green Book*, a template for vaccinations, offers advice on the guidelines for immunisation training (Gov.UK, 2022a).

For vaccination programmes to be robust, there needs to be proactive and reactive changes to the schedule (NHS, 2022). Thus, this article reviews some of the current quandaries and

advice on recent changes to schedules for children and adults.

HUMAN PAPILLOMA (HPV) VACCINATION

There is growing evidence that the incidence of human papilloma virus (HPV) has dropped substantially since the launch of the schools programme in 2012 (Vaccine Knowledge Project, 2022).

In 2018, just 10 years after the introduction of the programme, the prevalence of HPV types 16/18 in 16–18-year-old women in England who were offered vaccination at the age of 12 to 13 years reduced substantially to less than 2% (compared to being over 15% before the vaccination programme in 2008) (Vaccine Knowledge Project, 2022). A 2018 Scottish study also showed that the vaccine reduced pre-cancerous cervical disease in 20-year-old females by up to 71% (Vaccine Knowledge Project, 2022).

In England, diagnoses of genital warts have declined by 91% and 81% between 2015 and 2019 in 15–17-year-old girls and boys,

Practice point

Immunisers need to speak confidently and give evidence-based information about immunisation. To clarify the purpose of immunisation, the statements below may be helpful. Immunisations should:

- Provide the same immunity which usually follows natural infection but without causing the disease or its side-effects
- Generate long lasting immunity
- Interrupt the spread of infection
- After clean water, vaccination is the most effective medical intervention we have

(World Health Organization [WHO], 2017).

Photograph: Christos Georgiou/Shutterstock



respectively (the latter demonstrating herd protection) (Gov.UK, 2022b).

From September 2019, the adolescent HPV vaccination programme became universal, with 12–13-year-old males becoming eligible alongside females.

There is also a HPV vaccination programme for gay and bisexual men and other men who have sex with men (MSM) up to 45 years of age, who attend sexual health or human immunodeficiency virus (HIV) clinics.

The routine adolescent HPV vaccination programme, offered to 12–13 year olds in school, has been following a two-dose schedule since September 2014. In May 2020, the Joint Committee on Vaccination and Immunisation (JCVI), which regularly reviews all vaccination programmes, advised that the two-dose schedule could be extended to adults, as the evidence showed that two doses offer good protection in older individuals. The two doses should be given at least six months apart to allow for immunity to develop.

In the near future, it is likely that the adolescent programme will entail just one dose for those eligible (in the adolescent programme), although the two and three dose schedules will remain for the present (until JCVI notification), with eligible groups being vaccinated as mentioned (Gov. UK, 2022c).

The JCVI also advised that the three-dose schedule should continue to be offered to eligible individuals living with HIV or known to be immunocompromised at the time of vaccination. The vaccine supplied for the programme will change from Gardasil® to Gardasil® 9 (manufactured by Merck Sharp & Dohme Limited [MSD]) during the 2021 to 2022 academic year. The UK Health Security Agency (UKHSA) will continue to supply vaccine for the HPV programme in the usual way and will issue the remaining central supplies of Gardasil before the switch to Gardasil 9. This change will affect both arms of the HPV programme (adolescents aged 12–13 years and those who remain eligible until their

25th birthday, and MSM up to 45 years of age) (Public Health England [PHE], 2022b).

For the school-based programme in particular, there will need to be good communication with parents and eligible adolescents and robust arrangements in place to ensure that the consent process is adequate for this transition period during the 2021 to 2022 academic year. This is

“ ... more recently, there has been the need for a polio booster campaign to be launched as a result of genetically-related polio virus which was found in London sewage samples taken between February and June 2022.

to ensure that parents know who is receiving which vaccine and that current stocks need to be used before changing to the new vaccine.

The newer 9-valent vaccine, Gardasil 9, received licensing approval from the European Medicines Agency (EMA) for a two-dose schedule in adolescent girls in April 2016 and is licensed for individuals aged nine up to, and including, 14 years of age (Summary of Product Characteristics [SPC], Gardasil 9).

Gardasil 9 can be used for all those eligible: adolescents aged 12–13 years and those who remain eligible until they turn 25 years of age, and MSM up to 45 years (PHE, 2022b).

HPV jab cuts cervical cancer cases by almost 90% but one in 10 girls still haven't had it.

(Gov.UK, 2022d)

POLIO BOOSTER CAMPAIGN

Polio continues to be troublesome around the world with cases of wild polio virus erupting in Nigeria and the disease causing concern in war torn countries where resources, supplies and vaccination are in turmoil (Dattani et al, 2022).

The last case of polio contracted in the UK was in 1984, with the UK declared polio-free in 2003. However more recently, there has been the need for a polio booster campaign to be launched as a result of genetically-related polio virus which was found in London sewage samples taken between February and June 2022. The virus has continued to evolve and is now classified as a 'vaccine-derived' poliovirus type 2 (VDPV2), which on rare occasions can cause serious illness, such as paralysis in people who are not fully vaccinated. This suggests that it is likely that there has been some spread between closely linked individuals in North and East London, and that they are now shedding the type 2 poliovirus strain in their faeces.

The virus has only been detected in sewage samples and no associated cases of paralysis. However, investigations will aim to establish if any community transmission is occurring, with work continuing in this area.

Vaccine-derived poliovirus is rare and the risk to the public overall is extremely low. It is important that anyone who is not up to date with their polio vaccinations is caught up (Gov.UK, 2022e).

A poster for the inactivated polio vaccine (IPV) booster campaign (Figure 1) is part of the resource pack for immunisers, which can be found at: www.gov.uk/government/publications/inactivated-polio-vaccine-ipv-booster-information-for-healthcare-practitioners. This pack contains guidance on the low risk associated with these findings (i.e. the virus being found in sewage samples earlier this year), as well as the rationale for the catch-up programme. This is to make sure that all vulnerable groups have had sufficient polio

Useful resources

Useful resources include the routine immunisation schedule and vaccination of those with unknown or incomplete immunisation status (Public Health England [PHE], 2022a; 2022b).



FIGURE 1. Poster for polio booster campaign (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1097368/UKHSA_12370_IPV_booster_algorithm_poster.pdf). ©Crown copyright 2022. UK Health Security Agency gateway number: 2022330. Product code: IPV1EN.

vaccinations to ensure that they are protected, which may mean a booster and hence the programme.

It is important for vaccinators to familiarise themselves with the algorithm and seek advice if unsure, particularly if visits for immunisations are due. Be aware of the need for using patient specific directions (PSD) if not using the usual schedule.

CHANGE TO THE CURRENT PROGRAMME OF HIB/MEN C

At present, haemophilus influenzae type b (Hib) and meningitis C (Hib/MenC) containing vaccines are given at eight, 12, and 16 weeks, with a booster for this element at one year of age.

The JCVI has been notified of the discontinuation of Menitorix® (Hib/MenC). This means a change is necessary to the routine infant schedule, as this vaccine is currently given at 12 months.

After careful consideration of the options, the JCVI (2022) advises that:

- An additional dose of Hib-containing multivalent vaccine should be offered at 12 or 18 months of age — giving this at 18 months would require the creation of a new immunisation visit

- So additionally, the second dose of measles, mumps and rubella (MMR) vaccine should be brought forward from three years four months to 18 months of age, which the JCVI considers is likely to improve coverage
- Including a dose of MenC-containing vaccine (such as MenACWY) in the infant schedule is not recommended as cases of meningitis are at an all time low — efforts to sustain and improve coverage of MenACWY in adolescents are important to maintain herd immunity, as per the schedule (JCVI statement, 2022). In a nutshell, this means that instead of giving the second MMR with the pre-school booster, there will be a new vaccination visit offered at around 18 months of age at which the second MMR and a dose of hexavalent (which includes Hib) will be given (JCVI, 2022).

SEVERE COMBINED IMMUNODEFICIENCY (SCID) IN BABIES

The test for this presentation has been added to postnatal testing in some areas of England. As such, the bacille Calmette-Guérin (BCG) programme has altered slightly to avoid giving a live vaccine (such as BCG, which has been previously offered close to birth). As a result,

there is new guidance on using live vaccines in children who may present with this problem (Great Ormond Street Hospital for Children, 2022).

The BCG vaccine has been offered to babies that fall into one of the risk categories for tuberculosis (TB Alert, 2022) soon after birth, often while the baby is still in hospital (PHE, 2022a). The evaluation of the addition of screening for severe combined immunodeficiency (SCID) to the routine newborn screening test at five days of age has made it necessary to move the BCG vaccination to when a SCID screening outcome will be available, which may be from around days 14 to 17 after birth. This is to ensure that babies with SCID are not given the live attenuated BCG vaccine, which is contraindicated in these babies.

The SCID screening evaluation is taking place in six areas across England and it is likely that it will cover about 60% of newborn babies (Manchester, Birmingham, Sheffield, Newcastle, London Great Ormond Street Hospital and London Southeast Thames). It has been necessary to change the BCG programme nationally to ensure consistency and safety for all babies across the country and to guarantee data collection for the programme.

➤ **Practice point**

Registered practitioners, such as nurses, pharmacists and paramedics, can use patient group directions (downloaded from the gov.uk website and locally ratified) as their medico legal framework for supplying and administering prescription-only medicines. Unregistered practitioners, such as healthcare assistants (HCAs) and healthcare support workers (HCSWs), need to use a patient specific direction. Non-clinical vaccinators and pharmacy technicians need to use a written instruction or protocol. For further guidance, visit: www.gov.uk/government/collections/immunisation-patient-group-directions-pgd.

From 1 September 2021 eligible babies born on or after this date should have been offered the BCG vaccine by 28 days or soon after. If it had been possible to arrange BCG vaccination earlier than this, as long as the appropriate SCID screen outcome was available, this should have been done. So far, there has been no data to evaluate this change, but research is ongoing.

Providers and therefore immunisers are required to check the record for a negative SCID outcome, or confirmation that the child was not offered SCID screening, before administering the BCG vaccine. BCG immunisation appointment letters should include instructions for parents or guardians to bring the infant's Red Book and the letter with the outcome of newborn blood spot screening.

Vaccination may be administered earlier than 28 days provided that a SCID screen outcome is available. Generally, these BCG vaccines are offered in community clinics and not in general practice, but it is important that the legal guardians (and those with parental responsibility) understand the changes and that immunisers can explain these competently.

SCID AND ROTAVIRUS

The changes around the SCID screening programme also apply to rotavirus vaccine. Rotavirus vaccine is usually given at eight and 12 weeks to protect against some forms of diarrhoea and vomiting (PHE, 2022a). After checking practice records, viewing the Red Book and talking to parents or legal guardians, in the absence of an abnormal SCID screening result or if no result can be found, rotavirus vaccine should be administered at eight and 12 weeks of age, as usual. The timing is the same if and when BCG vaccine was given, as there is no need for a live vaccine interval.

This guidance applies to babies born on or after 1 September 2021, who attend for their routine eight-week immunisation appointment from 27 October 2021.

Rotavirus (Rotarix®) vaccine is a live oral vaccine routinely given at

Table 1: Live vaccine intervals (UKHSA, 2020)

Vaccine combination	Recommendations
Yellow fever and MMR	A four-week minimum interval period should be observed between the administration of these two vaccines. Yellow fever and MMR should not be administered on the same day
Varicella (and zoster) vaccine and MMR	If these vaccines are not administered on the same day, a four-week minimum interval should be observed between vaccines
Tuberculin skin testing (Mantoux) and MMR	MMR vaccination and tuberculin skin testing can be performed on the same day. However, if a tuberculin skin test has already been initiated, MMR should be delayed until the skin test has been read unless protection against measles is required urgently. If a child has had a recent MMR and requires a tuberculin test, a four-week interval should be observed
All currently used live vaccines (BCG, rotavirus, live attenuated influenza vaccine [LAIV], oral typhoid vaccine, yellow fever, varicella, zoster and MMR)	Apart from those combinations listed above, these vaccines can be administered at any time before or after each other. This includes tuberculin (Mantoux) skin testing

eight and 12 weeks of age as part of the infant immunisation schedule. All live vaccines, including Rotarix, are contraindicated in babies who receive a SCID diagnosis.

In the areas participating in the SCID evaluation, SCID screening will form part of the routine newborn screening test at five days, with most results expected within 10 to 12 days. All babies should have a result available by 28 days, including those in non screening areas where they will be assigned a 'SCID screening not offered' result.

Childhood Information Systems (CHISs) will receive SCID screening outcomes (as part of newborn blood spot results), and will inform practices when available and ahead of the eight-week immunisation appointment.

Practices should update their protocols to ensure that where SCID results (including SCID screening not offered) have been received by the practice, they are available in the patient record for the GPN at the eight-week immunisation appointment. Thus, there needs to be communication between those who book these appointments and those who give vaccines (Gov.UK 2022f; Gov.UK, 2022g).

LIVE VACCINE INTERVALS

Measles, mumps, and rubella (MMR), yellow fever and tuberculin testing

are implicated when it comes to live vaccine intervals. *Table 1* demonstrates this and care should be taken to follow the guidelines (UK Health and Safety Agency [UKHSA], 2020). It is easy to misunderstand the need for careful consideration of live vaccine intervals as these can be confusing, so if in doubt, guidance should be sought from a trusted up-to-date source, or the UKHSA (UKHSA, 2020).

Occasionally, there may be a need to give two live vaccines on the same day. However, again, healthcare professionals should seek advice from a trusted source and consider the need to use a PSD rather than the standard patient group direction (PGD). It is important to carefully document the rationale and need for further vaccines and timings if this is the case.

SHINGLES VACCINES

The availability of both live and inactivated vaccines against shingles should be discussed for those in the eligible risk groups aged 70–79 years (Gov.UK 2022h). Shingles can cause severe illness in those aged over 70, including post-herpetic neuralgia, neuropathy and hospitalisation (Gov. UK, 2022h).

Encouraging vaccination of this older age group with either the live vaccine (Zostavax®) (care should be taken with relative and absolute contraindications), or the inactivated vaccine (Shingrix®) will help to

reduce the incidence of this vaccine preventable disease.

The newer inactivated vaccine enables those with absolute or relative contraindications (immunocompromised through disease or treatment) to be immunised. For a better understanding of what constitutes being immunocompromised, look at the Zostavax PGD for guidance (Gov. UK, 2022i). This is important as there are now many more patients using biologics and immunomodulators (Immunity Modulators, 2022).

Uptake is low (Gov.UK, 2022j) and there needs to be some education for those in the eligible groups to advise them of this free vaccine and the often serious side-effects of shingles, such as post-herpetic neuralgia and serious illness in the elderly (Gov.UK, 2022h).

COVID BOOSTERS AND OTHER VACCINES

The most recent vaccine update (Gov. UK, 2022k) gives excellent guidance on the mixing of vaccines at this time of year. Immunisers are recommended to check and follow the most up-to-date guidance on vaccinations. Covid boosters and 'flu vaccines can be given on the same day (also Pneumovax® 23), but it is advised that a one-week interval is observed with the Zostavax vaccine (Gov.UK, 2022h).

There is little data on the need to delay Zostavax and the lack of data also applies to the inactivated Shingles vaccine, Shingrix. If, however, the patient finds it hard to come for



Practice points

- Keep up to date with changes — visit Vaccine Update
- Work within competencies
- Seek advice before vaccinating if unsure
- Stay up to date with basic life support and anaphylaxis and other occupation health requirements
- Know the resources available.

Mrs Smith (who is the legal guardian and mother of her child) brings Sam, aged three years and two months, for his polio booster, as asked in the letter she carries.

Sam is due his pre-school booster (PSB) in two months' time at the normal age of three years four months. As there is a short

interval between now and the time of the PSB, it is advised to give the PSB early, although a PSD needs to be used as this falls outside the PGD. So, both the MMR and the PSB (currently dTaP/IPV) should be given. There is no need for a further visit at the time of the PSB. In this scenario, the healthcare professional needs to document carefully, advise the mother, and answer any questions at the time before vaccinating.

Patient scenario

vaccines and may be lost to follow-up, it is advised (Gov.UK, 2022d) that all of the vaccines are given (observe one inch spacing between vaccines if using the same limb), document sites correctly and carefully, and give extra guidance on which side-effects to be worried about, such as a sore arm, aching joints and fever and, if the reaction is prolonged or severe, to seek advice from the GP or 111 if out of hours.

CARE OF VACCINES

Vaccine efficacy is calculated on the correct storage of vaccines as well as the correct administration. It is essential that routine monitoring and recording take place (Armstrong, 2021). The use of a data logger in the vaccine fridge is considered best practice (Armstrong, 2021). Comparison of the external temperature monitor and the datalogger needs to be documented and if the fridge temperature falls outside the recommended 2–8°C interval, the fridge needs to be quarantined before vaccines are used. For further advice and guidance go to: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/300304/Protocol_for_ordering_storing_and_handling_vaccines_March_2014.pdf

Armstrong (2021) provides a more detailed look at vaccine storage.

CONSENT AND CAPACITY TO GIVE CONSENT

Understanding the need for a robust approach to gaining consent is part

of competent immunisation (Gov. UK). For children and babies and generally for those under the age of 18, the consent of the legal guardian is needed — alternatively, the consent of those with parental responsibility. The person who has parental responsibility can be variable, as the typical nuclear family is less common. If in doubt, check with a colleague or make a telephone call to confirm that those with parental responsibility give consent for the vaccination.

For some adolescents, Fraser guidelines can be used to ascertain Gillick competency (Cornock, 2007). For those who lack capacity, consider those who have been granted lasting power of attorney (LPA) for health and welfare (Gov.UK, 2022l), but be aware that even with LPA, refusal of the vaccination by the patient at the time of contact means the vaccine cannot be given (even without capacity). Common misconceptions include the misunderstanding that the next of kin can give consent, or that a key worker or carer that accompanies a patient with dementia or other learning disability can give consent. Remember to be aware of the differences and seek further advice from senior colleagues if unsure.

CONCLUSION

There is a very pro-active, robust and reactive vaccination programme in the UK. As such, changes can be made quite quickly so it is important for GPNs to be aware of and involved with the cascade of information provided. It is vital to seek advice if unsure of

anything, either with more senior colleagues, local health protection units, or immunisation advisers. **GPN**

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Key points

- For vaccination programmes to be robust, there needs to be proactive and reactive changes to the schedule.
- Vaccinators need to be aware of why we are still vaccinating and the importance of developing immunity against diseases so that they do not return.
- Understanding the need for a robust approach to gaining consent is part of competent immunisation.
- Vaccine efficacy is calculated on the correct storage of vaccines as well as the correct administration.
- It is vital to seek advice if unsure of anything, either with more senior colleagues, local health protection units, or immunisation advisers.

Benefits of physical activity for those with COPD

This article focuses on the benefits of physical activity for people with a common long-term condition, chronic obstructive pulmonary disease (COPD). It highlights the evidence and explains the importance of both increasing physical activity and reducing sedentary time for health. The availability of brief interventions for physical activity in primary care vary widely and therefore this article offers some suggestions about how to close that gap and broach the subject in practice. It introduces some free new resources for people with COPD to support them to become more physically active.

KEY WORDS:

- COPD
- Physical activity
- Breathing techniques
- Supported self-management

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and incidence of tobacco smoking, exposure to high levels of air pollution, poorer housing conditions and exposure to occupational hazards. Therefore, incidence and mortality rates from COPD are higher in disadvantaged groups and areas of social deprivation, and the gap is widening compared to other areas (Jackson, 2018; British Lung Foundation [BLF], 2022).

Physical activity is increasingly understood to be an effective treatment for chronic conditions, improving a range of physical parameters, reducing stress, depression and anxiety, and increasing quality of life (American College of Sports Medicine et al, 2021). Increasing physical activity in people with COPD is associated with improved health outcomes, including reductions in hospital admissions and respiratory mortality (Byrom and Rowe, 2016).

Physical activity benefits people with COPD's tolerance of exercise and their symptoms of breathlessness and fatigue. While it can often feel counterintuitive to be active when feeling breathless, inactivity contributes to a worsening of a person's physical condition and to even more breathlessness (Bailey, 2004). This leads to a downward spiral of inactivity, deconditioning, and more breathlessness (Vorrink et al, 2011; Figure 1).

This state of being deconditioned and breathless

Chronic obstructive pulmonary disease (COPD) is a common, progressive long-term respiratory condition. It comprises two main diagnoses:

- Emphysema, where the air sacs in people's lungs are damaged
- Chronic bronchitis, where air tubes have long-term inflammation (NHS, 2022a).

Common symptoms include breathlessness that can be completely disabling, build-up of phlegm, and coughing and fatigue (Ebadi et al, 2021; NHS, 2022a). The causes of COPD in the UK are mainly tobacco smoking, but also long-term exposure to other smoke, dust, and air pollution or, more rarely, a genetic problem (NHS, 2022a).

Physical activity is increasingly understood to be an effective treatment for chronic conditions, improving a range of physical parameters, reducing stress, depression and anxiety, and increasing quality of life.

The total annual cost of COPD to the UK National Health Service is estimated to be over £1.3 billion, including treatment in the community and hospitalisations (NHS England, 2022). COPD is typically a disease of deprivation; the most deprived communities have a higher prevalence

leads to many people with COPD being sedentary for more time than people without COPD (Pitta et al, 2005); up to as much as 80% of their waking hours (Orme et al, 2018). This has been independently associated with premature mortality (Orme et al, 2018).

Therefore it is extremely important that healthcare practitioners, such as general practice nurses (GPNs), support people with COPD to move more.

Evidence suggests that the amount of sedentary time matters, even if people are doing bouts of physical activity (Byrom and Rowe, 2016).

Brief interventions for physical activity in primary care vary widely, with a range of barriers including clinician and patient motivation, opportunities, including lack of effective tools for patients and time, although most clinicians do think that it is part of their role (Hall et al, 2022). This article addresses how to

help people with COPD become less sedentary and more active. It is not focused on pulmonary rehabilitation (PR), a high value intervention that includes a tailored exercise programme as well as education, because there are other resources available (look out for local services or see: www.ipcrg.org/PR). Instead, the article focuses on how to help everyone with COPD move more, whether they are waiting for PR, have completed PR, have never been offered or have refused it. It highlights two resources:

- International Primary Care Respiratory Group's (IPCRCG) *COPD Magazine: Breathe well Move More, Live Better* (www.ipcrg.org/copdmagazine)
- *Being Active when you have COPD* (www.exerciseismedicine.org/wp-content/uploads/2021/04/EIM_Rx-for-Health_COPD.pdf).

HOW TO HELP PEOPLE WITH COPD MOVE MORE

General practice nurses (GPNs) may already be familiar with



FIGURE 1. Downward deconditioning spiral and upward spiral with increased physical activity.

'making every contact count' (MECC) brief interventions for helping people with behavioural change (National Institute for Health and Care Excellence [NICE], 2022), such as help to quit smoking. The same MECC approach can work for COPD and physical activity. For example:

- **ASK** about breathlessness: 'How has breathlessness changed your life?' 'What troubles you most about being breathless?' Use a breathlessness scale, e.g. the Medical Research Council (MRC) breathlessness scale
- **ADVISE** that being active is good for everyone, but is particularly important for people with COPD, as it helps to breathe better, feel less tired, so that people can do more and stay independent. Being active also helps to keep muscles strong, which in turn helps breathing, balance and completing daily tasks. Exercise does not need to be too strenuous, such as lifting weights, as everyday activities, like hanging up the laundry or walking the dog, can build muscle and improve breathing. Even breaking up prolonged sitting with a few minutes of gentle movement to make a cup of tea or to change channels on the TV improves overall activity levels. With increased age, muscles and bones can lose strength. To prevent this, try to sit less and do more on your feet.

Box 1

Definitions

- Physical activity (PA) is defined as any bodily movement produced by skeletal muscles that results in energy expenditure (Jayamaha et al, 2022)
- Sedentary behaviour (SB) is any waking behaviour characterised by an energy expenditure ≤ 1.5 metabolic equivalents, while in a sitting, reclining or lying posture — comprises majority of people's waking day (Tremblay et al, 2017)
- Light physical activity — activities that do not cause a person to break into a sweat or become short of breath. Examples may include standing, e.g. preparing food, talking on the phone, doing arts and crafts, hanging out the washing, or walking casually around the home
- Moderate physical activity — activities which involve a person working hard enough to raise their heart rate, break into a sweat and cause heavier breathing. Examples may include going for a walk, gardening, casual cycling or social dancing
- Borg breathlessness scale (sometimes called the 'talk test'). This scale asks the individual to rate their difficulty of breathing at a given time on a scale of 0–10 (where 0 is when breathing is not causing any difficulty and 10 is when breathing is at its most difficult)

For example, even though you may notice a slight rise in your heart rate and breathing, you should be able to carry on a conversation while walking at a moderate pace. As you walk faster, you will begin to breathe faster and have difficulty talking. At that point, you've achieved moderate intensity or 'somewhat hard'. Vigorous exercise causes a large rise in heart rate and breathing. At this intensity, it would become difficult to talk. Most people would rate this as 'hard to very hard'.

Experts now say that any physical activity counts towards better health — even just a few minutes (www.exercisemedicine.org/wp-content/uploads/2021/04/EIM_Rx-for-Health_COPD.pdf)

- **ACT** (options) — have a look at what people with COPD have found helpful to be more active (www.ipcr.org/copdmagazine). Offer suggestions of local services, e.g. walking sports, dance groups, singing groups. Consider referring patient to pulmonary rehabilitation, making a note to ask again at the next review.

For more information, see: www.ipcr.org/PR for more information.

GOALS OF PHYSICAL ACTIVITY FOR PEOPLE WITH COPD

The goal is to build up to a recommended 150 minutes of moderate intensity activity per week and strength building two days a week, as this should leave people with COPD breathing better, doing more, and feeling good (Gloeckl et al, 2013; NHS, 2022b). Activity should include a gentle warm-up, including joint mobilisation, strength training, aerobic activity, balance and flexibility exercises.

LEARNING TO SELF-ASSESS LEVEL OF BREATHLESSNESS

An important recommendation for people with COPD is for them to learn to assess how breathless they are at any time, so that they can take action before they become exhausted (Figure 2). The Borg Scale, also known as the Scale of Breathlessness, is the preferred assessment tool (Gloeckl et al, 2013). It is important to encourage the person with COPD to try to keep themselves at level 3. At this level of breathlessness, they should still be able to speak a sentence such as ‘I had jam on toast for breakfast’, but at a slower pace than usual. Suggest that the person chooses their own sentence to have a test ready for this. At this level, they will build muscle and improve breathing without making themselves too uncomfortable.

PLANNING, PACING AND PRIORITISATION

For many people, COPD also stands for ‘can only plan daily’ (phrase courtesy of Chris Warburton, London), because people often do not know how they will feel until they wake up. Therefore, it is helpful to coach them to plan, pace and prioritise.

Planning

This requires making a plan of the activities needed to be done that day, including tasks like shopping, laundry and attending health appointments. However, remember also to suggest some enjoyable activities, such as a preferred physical activity and seeing friends.

Pacing

Pacing is used in many long-term conditions to budget personal energy to avoid becoming exhausted. It chunks up activities into smaller parts, that can be spread out over a day or week. When managing breathlessness, it is also important to plan both periods of activity and periods of rest to avoid becoming over-tired.

Prioritising

Prioritising should be personal — what is important for the individual. This can include thinking about when to ask others for help or modifying plans. However, to live well with COPD, it is important to prioritise some personal energy for physical activity. Structured activity, such as going for a walk or doing

gentle exercise in the home, helps people experience breathlessness in a controlled way (Bott et al, 2009). This increases fitness and makes it less daunting when they become breathless.

BREATHING WHEN OUT OF BREATH

The body breathes faster and more deeply when activity is increased, such as going upstairs or walking up a hill. This is a normal response to activity, but for people with COPD breathlessness can come on sooner and feel more severe. It can also make people feel stressed, which makes their breathing worse (Jolley and Moxham, 2009; O’Donnell et al, 2016). People with COPD often find it harder to exhale than inhale, therefore breathing techniques focus on a longer out- than in-breath.

To help recover breathing, suggest pursed lip breathing (see: www.youtube.com/watch?v=Q8GH7iKB7N4; Bott et al, 2009). It helps to encourage the person to breathe in for a count of two, then pucker or ‘purse’ the lips as you breathe out as if you are gently whistling for a count of four. This works because it keeps air tubes open, allowing the stale air out through the mouth.

When feeling stressed, patients could breathe in a rectangle, or try using a hand-held battery operated fan which cools the face; some people prefer to use a cool flannel



FIGURE 2. Scale of breathlessness. (Source: www.ipcr.org/copdmagazine. With permission from IPCRG. Creative Commons Licence.)



Remember...

Guidance on physical activity needs to be accompanied by guidance on how to breathe, particularly when out of breath.

on their face. Videos on this and other techniques can be found at: www.ipcr.org/copdmagazine.

MOTIVATING SOMEONE WITH COPD TO BE MORE ACTIVE

It is important to remember that all that is needed is a redistribution of about 30 minutes out of someone's day from being sedentary to being more active. GPNs can work with patients to understand their barriers and to look for something that might work for them. For example, the International Primary Care Group (IPCRG) (www.ipcr.org/copdmagazine) categorises some typical responses and suggests solutions, including inspiring photos and videos from around the world.

What often stops people and how you can respond

- *I don't think exercise is for me because I've got COPD.*
Any activity is better than none — gardening, carrying groceries, walking the dog, getting up to make a drink during TV adverts.
- *It's too hot/cold/wet/windy to exercise.*
Offer indoor activities.
- *I know I should, but I don't.*
Find something you enjoy doing.
- *I don't like doing things on my own/I don't like doing things in groups.*
Offer solo and group activities. Note that football, rugby, cricket and netball clubs in the UK are setting up walking groups so it is worth seeing if any of these might appeal if the person would prefer doing activity with others. If they would prefer activities other than sport, then dancing, choirs and harmonica groups are being set up and studied.
- *I want to be more active but I have chronic joint pain.*

Start off doing a little, then slowly increase activity. It helps to choose something that you enjoy. Like breathlessness, pain might not reduce but you will find you can do more of the activity. Read this document for more guidance: www.wsh.nhs.uk/CMS-Documents/Patient-leaflets/PainService/6290-1c-Chronic-pain-self-management-pacing-and-goal-setting.pdf

6 GPNs can work with patients to understand their barriers and to look for something that might work for them.

STAYING SAFE

One reason for the variation of support for physical activity in primary care can be lack of confidence of practitioners (Hall et al, 2022). Using the following statements may be reassuring:

Everyone has their limits. Stop if you have chest pain, joint pain or feeling dizzy, or if you are so breathless you can't speak in short sentences. If this happens, talk to us or to your respiratory physiotherapist.

Continue taking your regular medication to stay well. If you have emergency medication, like a short-acting reliever inhaler, keep it to hand in case you cannot regulate your breathlessness. Remember, any other emergency medicine

you might have like a glyceryl trinitrate (GTN) spray. If we have advised you to take your inhaler before you start, do this before your exercise. If you are exercising on your own, keep your phone nearby and tell somebody that you will call them when you have finished.

SUMMARY

There is substantial variation in the availability of brief interventions for physical activity in primary care. This is likely to mean that people with COPD, who are particularly at risk of poor outcomes if they are not active, are not getting the encouragement they need to breathe well, move more, and therefore live better. This article provides pointers for what GPNs can do and introduces free resources to share. **GPN**

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Box 2

Top tips for people with COPD

- Practise these techniques when you are resting to gain confidence, then use them when you are breathless but feel secure in your surroundings
- Gradually use them with increased breathlessness so that you can use them at any time to control your recovery
- Combine these breathing techniques with positions that help you recover your breath.

Remember, some breathlessness with activity is good for us, even with COPD. If you can talk in short sentences you are OK; if you have to breathe in between words, stop and have a rest.

Box 3

FITT PRINCIPLES

FITT principles underpin the design and implementation of safe, effective and enjoyable physical activity programmes. The point to take away is that if physical activity is medicine, it should be prescribed as specifically as a drug prescription. Here is a pulmonary rehabilitation (PR) example:

- **Frequency (dose)**, e.g. minimum of six weeks; aerobic exercise five days a week: two in a PR programme, three at home
- **Intensity (dose)**: use the initial test for endurance (minimum 60% Vo₂ max [peak oxygen uptake]) supported by a perceived exertion scale and repetitions for strength (e.g. 10 repetitions maximum, or 50–80% of one repetition maximum [1RM]), e.g. three x 10 repetitions, with a rest between sets
- **Time (duration)**: aim for 30 minutes of continuous aerobic exercise (this does not include warm up and cool down). If 30 minutes is not possible, aim to accumulate 30 minutes and try to reduce rests
- **Type (modality)**, e.g. aerobic: walking or cycling; strength: upper and lower limb exercises with weights (e.g. step-ups, sit to stand, biceps curls). Consider inclusion of flexibility, stretching and balance exercises, as people with COPD are at risk of fracture due to osteoporosis and falls.

(www.ipcr.org/PR)

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Key points

- Availability of brief interventions for physical activity in primary care vary widely.
- Chronic obstructive pulmonary disease (COPD) is a common, progressive long-term respiratory condition.
- Increasing physical activity in people with COPD is associated with improved health outcomes.
- An important recommendation for people with COPD is for them to learn to assess how breathless they are at any time, so that they will be able to take action before they become exhausted.
- GPNs can work with patients to understand their barriers and to look for something that might work for them.

Mediterranean diet: what's all the hype?

The Mediterranean Diet (MedDiet) is one that has been followed by certain populations from warmer climates for thousands of years. Many of these people seem to live in good health to an advanced age. Is this due to where they live and maybe a more laid-back lifestyle, or is their diet also responsible for this rude health? More recently, the popularity and publicity on the MedDiet seems to have grown exponentially. Will it end up being just another diet craze or is there something behind it so that we can be confident about advising patients to adapt their diet to being more Med like? This article explores what this diet actually is and whether there is any scientific proof for the claims made about it. From the research presented, it certainly seems that the MedDiet can offset many 'so-called' Western diseases. This paper also looks at which elements of the diet are likely to have this effect.

KEY WORDS:

- Mediterranean diet
- Polyphenols
- Inflammation
- Disease prevention

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The Mediterranean diet (MedDiet) is a generic term used to describe the dietary pattern of individuals living in the olive growing countries along the coast of the Mediterranean Sea, including Greece, Italy, southern France, Crete, Spain, and parts of the middle east. It has been considered to be a poor man's diet, developed over the centuries, as people laboured in order to create sustenance in less hospitable terrain (Tuttolomondo et al, 2019). People in Mediterranean regions have eaten this sort of diet for thousands of years because it is based on the foods they can grow or source locally. In the 1950s, increasing trade made the food from these regions available worldwide. As it is a style of eating based on plants and using healthy fats, it has been shown to

As it is a style of eating based on plants and using healthy fats, it has been shown to be one of the healthiest forms of diet with the ability to deter many, so-called, Western diseases.

be one of the healthiest forms of diet with the ability to deter many 'so-called' Western diseases (Rishor-Olney, 2012). These benefits will be explored in this paper.

The traditional MedDiet is typically made up of the following each day (taken from *Mediterranean Diet Pyramid: a lifestyle for today*):

- A variety of fruits and vegetables of different colours (more vegetables than fruit), a minimum of six portions
- Starchy food with each meal, such as bread, pasta, rice and couscous. Wholegrain is best. Potatoes are not often used
- Two helpings of dairy, preferably low fat
- White meat about twice a week, fish/seafood twice a week, red meat less than two times a week, and processed meat less than once a week
- Two to four servings of eggs a week
- At least two helpings of legumes a week
- Less than two servings of sweet food a week
- Olive oil is the oil of choice

- Herbs, spices, garlic and onion are used extensively for flavouring rather than salt
- Wine is drunk in moderation, particularly red.

BIOLOGICAL EFFECTS OF THE MEDITERRANEAN DIET

Although not fully elucidated, the MedDiet seems to have the following biological effects, which enables it to offer numerous health benefits, such as:

- Lowering lipid levels
- Protection from oxidative stress
- Reduction of inflammation and platelet aggregation
- Inhibition of nutrient sensitisation pathways through specific restriction of amino acids
- Production of intestinal metabolites that are mediated by the microbiota (increase in genome stability)
- Attenuation of the genetic predisposition to present with hypercholesterolemia, hypertriglyceridemia, augmented fasting glucose and stroke incidence
(Tuttolomondo et al, 2019).

WEIGHT MANAGEMENT

It was observed that people living in the south of Italy consumed a certain type of diet, now known as the MedDiet, and that these people were less obese and lived significantly longer (Corleo et al, 2020). Subsequent studies have further backed these observations. Indeed, there is now a body of literature suggesting that the MedDiet is effective in preventing obesity (Corleo et al, 2020). However, surveys have indicated that adherence to the MedDiet in Italy has decreased in the past 50 years. At the same time, the prevalence of obesity in the Italian population has significantly increased, especially in the south, reaching alarming proportions (Corleo et al, 2020; Finicelli et al, 2022).

National initiatives were thus promoted to recover the nutritional habits inspired by the MedDiet,

and recent data show a slight decrease in the prevalence of obesity over the last 15 years, particularly among children and adolescents (D’Innocenzo et al, 2019). Although obesity is still a matter of concern in Italy, the effectiveness of nutritional programmes based on the MedDiet suggests that preserving the traditional Mediterranean dietary habits may contribute to prevent obesity, with beneficial effects on health (Buscemi et al, 2020). Aspects of the MedDiet that help with weight include encouraging the consumption of a variety of nutrient-rich foods, rather than energy-dense sugary, fatty and processed ones (Healthline, 2019).

HEART HEALTH

Large cohort studies have shown that a high adherence to the MedDiet is associated with decreased markers of vascular inflammation (Dontas et al, 2007). This is not only due to the overall benefits of the diet, but also specifics such as consuming virgin olive oil, tree nuts and walnuts (Dontas et al, 2007).

A recent study showed that, in secondary prevention, the MedDiet was superior to a low-fat diet in preventing major cardiovascular events (Delgado-Lista et al, 2022). Similarly, the PREDIMED study showed that the incidence of major cardiovascular events was lower among those assigned to the MedDiet supplemented with extra virgin olive oil or nuts, compared to those assigned to a reduced-fat diet (Tuttolomondo et al, 2019).

In general terms, current studies indicate that the MedDiet has favourable effects in reducing blood pressure in both hypertensives and those with normal blood pressure (De Pergola and D’Alessandro, 2018). A further study showed that a strict MedDiet significantly decreased the likelihood of hypertension by 36% in people who were overweight and obese (Magriplis et al, 2020). The author of this article points out that carrying extra weight is known to be a risk factor for hypertension.

METABOLIC SYNDROME

Metabolic syndrome (MetS) is defined as the co-occurrence of metabolic risk factors, including insulin resistance, hyperinsulinemia, impaired glucose tolerance, type 2 diabetes mellitus, dyslipidaemia, and visceral obesity (NHS, 2019). Clinical and scientific studies pinpoint lifestyle modification as an effective strategy to reduce several features accountable for the risk of MetS onset (NHS, 2019). Among healthy dietary patterns, the MedDiet emerges in terms of beneficial properties associated with reducing MetS. It seems that the anti-inflammatory effect exerted by polyphenols in this diet (such as in olive oil, red wine, and nuts) is particularly accountable for the beneficial properties (Finicelli et al, 2019).

INFLAMMATION

Polyphenols are natural substances produced by plants to protect themselves from bugs. They help reduce inflammation when ingested; they also give plants their colours (Farzaei et al, 2019). Thus, the polyphenols in the MedDiet are believed to make it a low inflammatory diet. Low inflammatory foods in the MedDiet include:

- Fish
- Nuts
- Olive oil (virgin)
- A little red wine
- Wholegrains
- Tomatoes
- Fruit (especially berries) and vegetables, including beans
(Bussell, 2021a).

RHEUMATOID ARTHRITIS

Emerging data has suggested that following a Mediterranean dietary pattern may be of benefit for both inflammatory and osteoarthritis. Specifically, research has identified beneficial effects of the MedDiet in reducing pain and increasing physical function in people living with rheumatoid arthritis. This is thought to be due to the diets anti-inflammatory effect (Forsyth et al, 2017).

The updated National Institute for Health and Care Excellence (NICE) guideline suggested that people with rheumatoid arthritis 'could be encouraged' to follow this eating pattern (NICE, 2018).

CANCER PREVENTION

Consuming a MedDiet is considered to be a powerful and manageable method to fight cancer due to its protective effects, such as in reducing oxidative and inflammatory processes of cells and avoiding DNA damage and cell proliferation (Mentella et al, 2019).

Apart from providing protective compounds, adherence to the MedDiet pattern decreases exposure to potential carcinogens by omitting intake of detrimental food items, for example, extensive consumption of red and processed meat is associated with an increased risk of cancer, especially colorectal. These foods are a potential source of N-nitroso compounds, polycyclic aromatic hydrocarbons, and heterocyclic amines, which are known to be cancerogenic (National Cancer Institute, 2017). A recent meta-analysis suggested that the above mentioned chemicals are associated both with increased risks of colorectal and gastric cancers (Morze et al, 2020).

WOMEN'S HEALTH ISSUES

Women's health seems often neglected and/or over medicalised; yet women are often desperate to find an answer to distressing symptoms such as menopause, polycystic ovary syndrome (PCOS) and premenstrual syndrome (PMS) (Bussell, 2021b). It is now thought that many of these symptoms are due to inflammation, therefore the MedDiet should help (Bussell, 2021b).

NON-ALCOHOLIC FATTY LIVER DISEASE

Non-alcoholic fatty liver disease comprises a wide spectrum of hepatic disorders, from simple steatosis to hepatic necro-inflammation, leading to non-alcoholic steatohepatitis. As well as weight loss, treatments

that work include a plant-based diet rich in polyphenols, so a MedDiet approach has been shown to work well (WebMD, 2022).

A HEALTHY GUT MICROBIOTA

Polyphenols in the diet seem to boost the health effects of the

6 Apart from providing protective compounds, adherence to the MedDiet pattern decreases exposure to potential carcinogens by omitting intake of detrimental food items...

intestinal microbiota; boosting the population of healthy gut bacteria and keeping down the more harmful ones (Filosa et al, 2018). It is also known that the right sort of gut bacteria can protect against many illnesses as well as boost mental health through the gut/brain link (Anderson, 2017).

ATOPIC ILLNESSES

There is evidence for a strong and inverse association between the level of adherence to the MedDiet and the occurrence of asthma and allergic rhinitis symptoms (Antonogeorgos et al, 2022). Promoting the MedDiet could be an efficient lifestyle intervention that could help to reduce the burden of these atopic diseases in adolescents (Antonogeorgos et al, 2022). It is the author's opinion that here, as with many of the illnesses protected against by this diet, it is the diet's anti-inflammatory effect that is acting as the protective agent.

COGNITIVE DECLINE AND ALZHEIMER'S DISEASE (AD)

Anti-inflammatory dietary patterns, such as the MedDiet, may also be neuroprotective. Several components of such a diet, e.g. omega-3 fatty acids, antioxidants and polyphenols, can inhibit neuroinflammation associated with AD (McGrattan et al, 2019).

Anti-inflammatory diets may also attenuate neuroinflammation via indirect immune pathways from the gut microbiome and systemic circulation, as alluded to above (McGrattan et al, 2019). A recent study showed that following a healthy diet, especially at a younger age, may help to maintain a healthy brain (Song et al, 2022). Another recent study demonstrated that blood metabolites were associated with cognitive function and that certain dietary habits could potentially influence the levels of these metabolites and subsequently cognitive performance. The study suggested that the MedDiet, in particular, could lower metabolites associated with cognitive decline (Granot-Hershkovitz et al, 2022).

QUALITY OF SLEEP

Studies indicate that greater adherence to the MedDiet is associated with adequate sleep duration, with indicators of better sleep quality. This dietary pattern has a healthy profile of fat, proteins, carbohydrates, and abundant vitamins, mainly provided by the moderate-to-high intake of fruits, vegetables, nuts, olive oil, cereals, and fish. Mechanisms associated with these foods and nutrients and their possible combinations might explain the benefit of the MedDiet on sleep. On the other hand, a high consumption of red meat, saturated fat, and sugar-rich foods and beverages that are eaten only occasionally in the Mediterranean-style diet is associated with negative effects on sleep quality and quantity, and with insomnia symptoms (Scoditti et al, 2022).

LONGEVITY

The Seven Countries Study was key in bringing to light the health significance of the MedDiet and how it was associated with longer life due to the way it reduces life-threatening diseases (Menotti and Puddu, 2015). Since then, many prospective observational studies and trials in diverse populations have reinforced the beneficial effects associated with a higher adherence to the MedDiet in reference to the prevention/

management of age-associated non-communicable diseases (Dominguez et al, 2021).

Age-related non-communicable diseases which can be reduced by following the MedDiet and hence extend longevity, include:

- Cardiovascular disease
- Metabolic disorders
- Neurodegenerative disorders
- Cancers
- Depression
- Respiratory diseases
- Fragility fractures, i.e. osteoporosis

(Dominguez et al, 2021).

WHY IT HAS THE ADVANTAGE OVER OTHER DIETS

In the author's clinical opinion, as well as being healthy, the MedDiet is also tasty and simple to prepare.

It has more fat than traditional Western diets, giving the diet its taste (flavonoids in foods give the taste and are fat soluble). Fats in the diet also help the fat-soluble vitamins and phenolic substances, such as leptin, to be absorbed.

It is a sustainable diet (Berry, 2019) — in particular, the more traditional form of the diet. Indeed, the MedDiet pattern has been shown to have a better ecological footprint than current dietary habits in industrialised countries, particularly when compared to the Western dietary pattern. This is mainly due to the higher consumption of local and in-season plant-derived foods and lower consumption of animal products.

However, unfortunately, the current dietary pattern in many Mediterranean countries has shifted from the traditional diet. A return to the latter would be beneficial for human health and the natural environment, as the MedDiet is not only a model of cultural food choices, cooking methods, meal patterns and, more broadly, a lifestyle, but is also a sustainable framework that attenuates the environmental pressure of food production and consumption (Corleo et al, 2020; Serra-Majem

Tracy had been diagnosed with PCOS and her blood sugars were creeping up to the pre-diabetic range. She had been told that her symptoms would ease if she lost weight. She had tried all sorts of diets, such as the keto-diet, low fat, calorie counting, but none had worked. She liked her food and enjoyed preparing tasty meals for her family. She told her dietitian that she loved the food when she went on holiday to the Mediterranean and seemed to lose some weight; she thought this was due to the fact that she was exercising more. Her dietitian suggested she try living and eating more as if she was abroad, i.e. more vegetables, pulses, some nuts and fish and swapping all her oil to olive oil, less red meat, cheese and processed food, and a little more exercise.

Tracy's story

Her weight did start coming down slowly, but the good thing was that she enjoyed what she was eating and felt better in herself. Her blood pressure and low-density lipoprotein (LDL) cholesterol fell and she was told she was no-longer pre-diabetic.

... the MedDiet pattern has been shown to have a better ecological footprint than current dietary habits in industrialised countries...

et al, 2020; Dominguez, 2021; Delgado-Lista et al, 2022). A broader adherence to this dietary model would make a significant contribution to greater sustainability of the food system (from producer to consumer), with a myriad of benefits for human and planetary well-being (Serra-Majem et al, 2020)

CONCLUSION

Nutritional research has focused in recent decades more on food combination patterns than on individual foods/nutrients due to the possible synergistic/antagonistic effects of the components in a dietary model. Various dietary patterns have been associated with health benefits, but the largest body of evidence in the literature is attributable to the traditional dietary habits and lifestyle followed by populations from the Mediterranean region.

It seems that certain aspects and the overall effect of the MedDiet can offset many 'so-called' Western

diseases. The diet ranks highly for being easy to follow, delicious, sustainable and healthy. Many authorities and charities for health, such as those for cancer, arthritis and mental health, suggest that this diet is adopted as a 'cure' and prevention for several diseases. Those who come from countries that traditionally ate this food need to be encouraged to return back to some of the old ways (shunning fast food habits), and those who have not eaten this sort of diet, should be encouraged to try it. **GPN**

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Key points

- As the MedDiet is a style of eating based on plants and using healthy fats, it has been shown to be one of the healthiest forms of diet with the ability to deter many, 'so-called', Western diseases.
- This dietary pattern has a healthy profile of fat, proteins, carbohydrates, and abundant vitamins, mainly provided by the moderate-to-high intake of fruits, vegetables, nuts, olive oil, cereals, and fish.
- Large cohort studies have shown that a high adherence to the MedDiet is associated with decreased markers of vascular inflammation.
- Consuming a MedDiet is considered to be a powerful and manageable method to fight cancer.
- A broader adherence to this dietary model would make a significant contribution to greater sustainability of the food system (from producer to consumer), with a myriad of benefits for human and planetary well-being.

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Mouth breathing versus nasal breathing: any differences?

While most people breathe without thinking about it — it just happens automatically — there are considerations as to why it is better to breathe through your nose than your mouth. Here, Alexandra Murrell, nurse lecturer at Kingston University, explores some of the literature around some of the causes of mouth breathing and why general practice nurses (GPNs) should be alert to signs of mouth breathing in both adults and children.

KEY WORDS AND SENTENCES:

- Mouth breathing
- Nose breathing
- Children
- Adults
- Snoring

- *Should mouth breathing be a question for health visitors and general practice nurses (GPNs) in relation to assessment of sleep and breathing conditions?*
- *What does the evidence imply?*
- *Research suggests more use of Epworth assessment score should be considered for both children and adults.*

A recently published book, *Breathe the New Science of a Lost Art*, by James Nestor (2020) discusses breathing in the widest cultural context and makes a strong case against mouth breathing. The author took part in an experiment of blocking his nostrils and made a note of blood pressure and snoring. His health improved when he was able to breathe through his nose again, having spent 20 days with blocked nostrils.

Mouth breathing is not a question that is often posed by nurses. A library search through the health databases gives few results about the disadvantages of mouth breathing. Noses are responsible for smell, keeping air warm, moist and filtering

particles, the mouth is not able to perform these functions as effectively as the nose (Martel et al, 2020). Sinuses produce nitric oxide, which increases circulation and delivers oxygen into cells, and nasal breathing boosts this production — and this appears to be the advantage of nasal breathing (Törnberg et al, 2002).

Published academic research has been conducted outside the UK, in countries such as Japan, Brazil, and USA, and the evidence varies with some studies making a case that mouth breathing is closely linked to throat symptoms, rhinitis and lack of sleep, and that when the symptoms are managed, mouth breathing is likely to reduce (Bandyopadhyay and Slaven, 2021).

CHILDREN

Many of the studies about mouth breathing are based on children. The prevalence of mouth breathing varies in the study cited. Bandyopadhyay and Slaven (2021) studied children in the USA, citing that 55% aged three to nine breathe mainly through their mouth, particularly when they sleep, which is also mentioned in a detailed literature review from various countries (Abreu et al, 2008). Morais-Almeida et al (2019) cite 42% of children aged five to six years. These studies suggest treatments for nose and throat can alleviate mouth breathing and this is likely to be beneficial, such as in the management of rhinitis and allergies. While the removal of tonsils is not as common as it used to be, it is still a relatively common procedure for some children in the UK, who have repeated sore throats, sleep apnoea, and sleep disordered breathing (Sumilo et al, 2019).

A recent study published in the *British Journal of General Practice* found that there is limited benefit to children having a tonsillectomy, with the authors concluding that seven out of eight of the children who had surgery did not benefit (Sumilo et al, 2019). They state that current trials of tonsillectomy for obstructive sleep disordered breathing for children have not been evaluated to give clear guidelines for the indication of tonsillectomy in children with sleep apnoea, which is associated with mouth breathing. Hypertrophy of pharyngeal tonsils are a major cause of mouth breathing in children, so removing these should be beneficial if children are suffering from sleep disorders (Morais-Almeida et al, 2019). It is not clear how much mouth breathing is reduced by tonsillectomy.

In contrast, Bandyopadhyay and Slaven(2021) conducted a follow-up study in the USA of 273 children who had an adenotonsillectomy as part of the Childhood Adenotonsillectomy Trial (Marcus et al, 2013), and found that 73% of children who had reported mouth breathing and snoring benefitted from the surgery and had improved behaviour (Bandyopadhyay and Slaven, 2021). The authors argued that mouth breathing in children should be assessed and treatments considered, as it would appear that interventions are likely to benefit over two-thirds of children aged three to 10 years.

Morais-Almeida et al (2019) in their literature review of 20 studies make a strong case that children and teenagers do benefit from intervention to reduce mouth breathing. They argue that the lack of sleep due to rhinitis is detrimental

to children's development. Morais-Almeida et al (2019) cite that growth hormone is reduced in children who predominately mouth breathe, regardless of whether it is due to enlargement of the pharyngeal or palatine tonsils, or due to rhinitis. However, the evidence is limited as to whether growth is affected.

Another study in Japan did a survey in 13 nurseries of 468 children aged two to six years, asking about mouth breathing and childhood diseases (Yamaguchi et al, 2015). The authors found a strong link with mouth breathing and atopic dermatitis, which is another term for eczema. In Japan, the prevalence of atopic dermatitis is 11–13%, reducing in older children. In the study, the authors found a difference of 15% in that 22% of children who breathe predominately in their mouth had atopic dermatitis, in contrast to the 7% of nose breathers. This is statistically significant, but the authors do not give any reason why mouth breathing may increase atopic dermatitis.

The research by Yamaguchi et al (2015), Bandyopadhyay and Slaven (2021) and Morais-Almeida et al (2019) from Japan, USA and Brazil do suggest that mouth breathing is detrimental in some young children.

There is evidence that if a child's sleeping is being affected by snoring, there is good reason to refer a child to an ENT consultant and consider if treatment may improve the child's health (Marcus et al, 2013).

It is clear that mouth breathing is a result of anatomy, rather than a cause of adenoid enlargement. Mouth breathing takes place when nostrils are blocked, and stops in many cases when the nostrils open as the blockage lifts due to infection or allergy ceasing.

ADULTS

There are fewer studies on the effects of mouth breathing on adults. One small study on exercise, which was conducted on 10 fit people comparing breathing through the nose or the mouth and during

exercise, found that when the participants' noses were closed during exercise, the volume of air was reduced as it moved through alveoli in their lungs (Dallam et al, 2018). However, there was some suggestion that restricted nasal breathing did not cause any harm even though the movement of air was reduced. The authors theorised that individuals who breathe through their mouth may have better tolerance of carbon dioxide. This small study is reassuring for those who tend to breathe through their mouth when they exercise.

Another study by Sano et al (2018) surveyed adults attending dental clinics in Japan, to ask about mouth breathing, chewing, dry mouth, and found that asthma and mouth breathing was strongly connected in the 242 adults surveyed. There was no increase in dental caries in those who were mouth breathing. The authors argued that dentists should ask about mouth breathing and do further assessment of conditions, such as mandibular and maxillary protrusion. It could be argued that the study is biased, as it was done by dentists.

CONCLUSION

Mouth breathing in young children may indicate that a child is snoring. If this is affecting a child's sleep, it is clear that further assessment is needed. Bandyopadhyay and Slaven (2021) put forward a modified Epworth Sleeping Scale for children in cases of snoring. There is evidence that assessing children's sleep patterns and nasal problems is beneficial and mouth breathing is a common sign associated with these problems.

In adults, mouth breathing may not indicate that there are other problems, and is often a short-term activity once the cause is managed, such as rhinitis. Rhinitis is associated with asthma and better management of rhinitis does reduce incidence of asthma in adults and children (Scadding and Walker, 2012). The studies quoted do suggest more research on mouth breathing should take place. **GPN**

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