JOURNAL OF GENERAL PRACTICE NURSING

GPN

Promoting practice to improve patient health and quality of life

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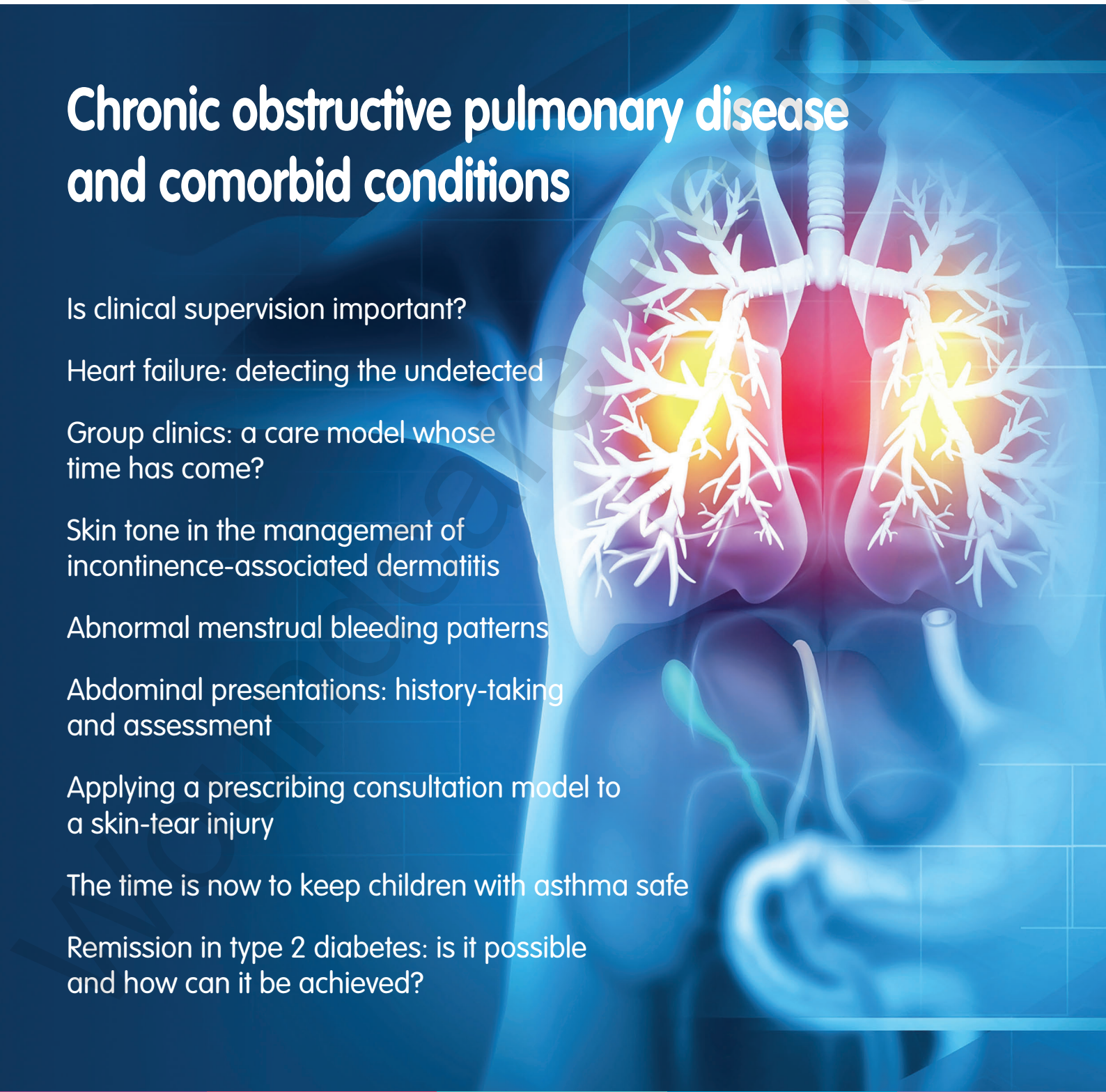

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Gaining a fresh perspective on everyday challenges

Stressors in life often seem to have a habit of coming all in one go. Before the summer holidays I felt tired out emotionally and physically and that I was being bombarded with a constant stream of issues at home and at work to problem solve and manage. No sooner was one issue sorted and another two swept in to take its place. I like to be busy and enjoy a challenge, but I felt over stimulated and exhausted. At the same time a rather negative voice had set up shop in my head, I was not making enough time to look after myself and was looking with envy at my university friend posting pictures of her sunny lunch dates now she has taken early retirement.

Post holiday and some study leave I am feeling a lot better. What made the difference? The holiday did give me a chance to get some perspective and look after myself, I also took time to look at time management strategies and consider how running faster is not the answer to a heavy workload, but the key factor was making time to talk and get support from others. I sought out and had supportive conversations with colleagues from different aspects of my role. From this I gained a much better understanding of who I am professionally, what I am trying to achieve and gain ideas for some fresh approaches for going about this. I know my portfolio career where I combine clinical practice, leadership, writing and education can and does work because each role informs the others and makes me better at what I do. Balance is vital and knowing how to seek help and restore that balance when it is lost is crucial. The formal and informal supervision I received was transformational to both my wellbeing and my different roles.

I'm not naïve enough to think the stresses have all gone away, I know I'm in post-holiday optimism mode, but I do genuinely feel much more positive and would recommend clinical supervision to you all. Look at our 'Practice matters' piece to get greater understanding as to what is involved and how to benefit.

Clinically, I found the COPD and comorbidities article written by Beverley Bostock ANP extremely valuable. It provides an excellent summary of symptoms, assessment and management helping to take some of the complications out of these increasingly complex consultations. I also found it helpful to read Kirsty Armstrong's practical article on abdominal assessment and examination and to think about proactive care for asthma in children and young people with the ideas highlighted in the article by Laura King.

There is a wealth of practical information in this issue. We advise and manage on such a breadth of healthcare needs and the journal for me is a great opportunity to update on a wide range of areas.

Jaqui Walker, editor-in-chief

JOURNAL OF GENERAL PRACTICE NURSING
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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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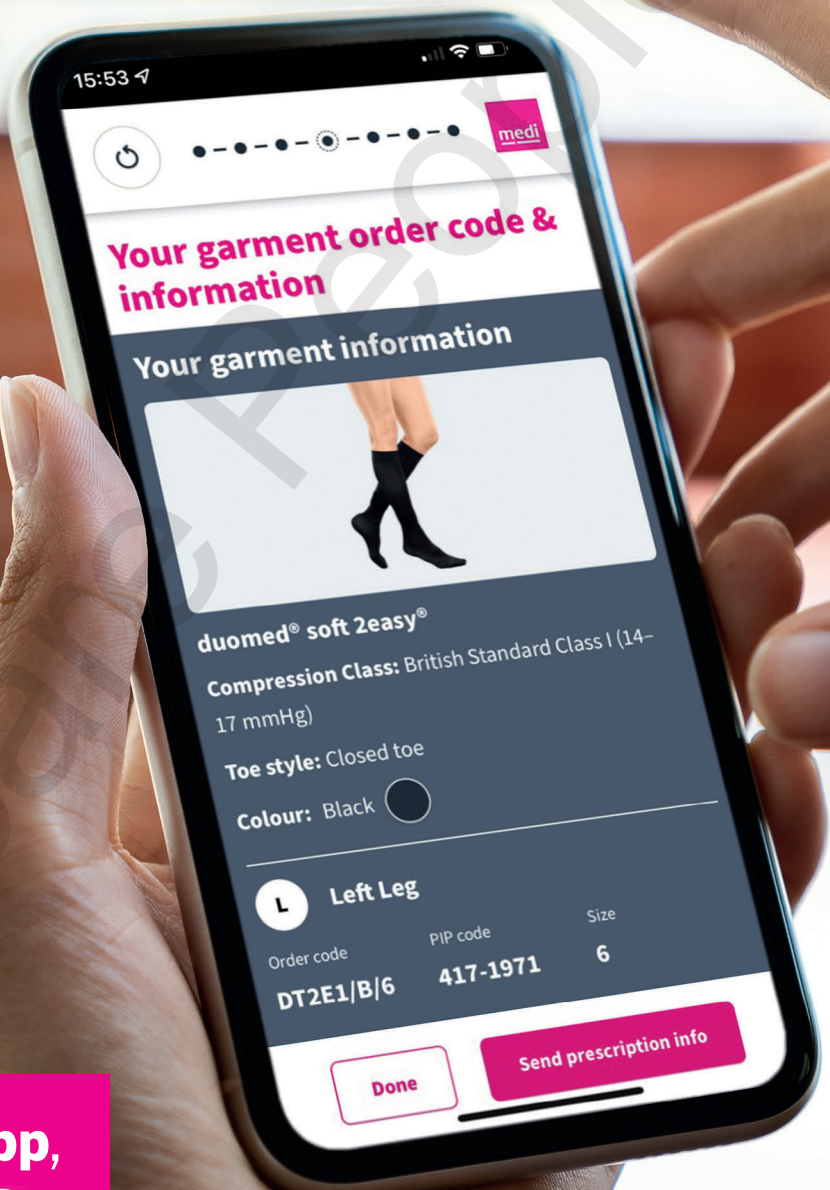

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In each issue we investigate a topic affecting you and your practice. Here, we ask...

Is clinical supervision important for general practice nurses?

Ever felt that you were working alone with no one to turn to? Or that your caseload was getting on top of you, and you just wanted to let off steam?

We've all been there at some point in our careers and while nursing is all about caring for others, it's sometimes easy to wonder who is caring for us.

Getting support from your colleagues is a crucial part of working as a nurse, where long hours and the demands of patient care can mean that managing stress is not always easy. In acute hospitals, the number and accessibility of colleagues on any shift means that support is never far away. But in general practice, many of you spend a significant portion of your working day alone and it's not always obvious who you should turn to after a distressing episode of care, or even if you've just had a rough day.

Supervision is designed to support nurses in their everyday work, promoting wellbeing and reducing burnout. But what does supervision look like, and how can you access it when working in general practice?

The ability for our general practice nurses (GPNs) to feel confident and supported in their career is vital for improving quality of care and delivering good patient outcomes. With the current pressures building on general practice, it is easy for nursing staff to neglect their professional needs and feel burnt out. Therefore, having regular clinical supervision will increase confidence and reduce burnout levels. However, realistically, this may not always take place due to time restraints, and so practices should be creative to ensure that this can happen. This article indicates clearly the requirements for GPNs to undertake clinical supervision and ensure it is an empowering process. This will allow nursing teams to feel a sense of community and understand the mutual support available among team members.

Callum Metcalf-O'Shea
Advanced nurse practitioner (diabetes specialist), Thorpewood Medical Group

WHAT IS SUPERVISION?

Supervision is one of the proficiency standards required by registered nurses. According to the Nursing and Midwifery Council (NMC), at the point of registration a nurse should be able to 'contribute to supervision and team reflection activities to promote improvements in practice and services' ('Future nurse: Standards of proficiency for registered nurses'— www.nmc.org.uk).

Moreover, each nurse should be able to demonstrate effective supervision, teaching and performance appraisal through the use of:

- Clear instructions and explanations when supervising, teaching or appraising others
- Clear instructions and checking understanding when delegating care responsibilities to others
- Unambiguous, constructive feedback about strengths and weaknesses and potential for improvement
- Encouragement for colleagues that helps them to reflect on their practice.

While this list may be comprehensive, it doesn't exactly scream out 'mutual support'. In fact, the NMC's explanation of supervision could be read as a little officious, if not outright intimidating.

The Royal College of Nursing (RCN) has a more realistic take on supervision, stating that there is little consensus on what the term truly means, or even 'how it should be implemented in nursing'. Reflecting what any busy general practice nurse (GPN) already knows, the RCN adds that supervision is often neglected by other more pressing priorities such as, well… looking after patients ('RCN position on clinical supervision'— www.rcn.org.uk).

Added to this is the impression that rather than being concerned solely with well-being, supervision is actually aligned to performance management, and as such can be viewed negatively by many nurses.

At best, however, supervision should aim to be much more than a way for nurses to maintain their professional status. Writing in the *Journal of Multidisciplinary Healthcare*, King et al (2020) note that clinical supervision should be regarded less as an educational tool, and more of an ongoing relationship between supervisor and supervisee, that enables the nurse to develop professional values, identity and competency ('The "ideal" clinical supervision environment in nursing and allied health'—- www.ncbi.nlm.nih.gov).

RESTORATIVE SUPERVISION

Recently, Covid-19 led to a renewed

interest in the purpose of supervision, with the pressures of working through a pandemic resulting in stress and burnout for GPNs who had to worry about personal protective equipment (PPE), infection transmission and vaccination, all while fulfilling their normal patient-facing roles.

As noted by the RCN, during stressful periods such as the pandemic, supervision should provide 'a source of psychological and emotional support for nurses… using a restorative style' ('RCN position on clinical supervision' — www.rcn.org.uk).

Restorative supervision aims to support nurses to build the resilience needed to cope with the everyday stresses of caring. Supervisors can do this by focusing on the nurse's experiences, and through discussion and reflection improve their wellbeing and motivation ('Supporting nursing, midwifery and allied health professional teams through restorative clinical supervision' — www.magonlinelibrary.com).

For GPNs, restorative supervision works best if the supervisor is also working in the same field. Furthermore, regular sessions are ideal, preferably weekly or fortnightly. Other positive characteristics of restorative supervision include ('The characteristics of effective clinical and peer supervision in the workplace' — www.hcpc-uk):

- Sessions based on mutual trust and respect
- Nurses being offered a choice of supervisor
- Where both supervisor and supervisee have a shared understanding of the purpose of the sessions and have an agreed 'contract'
- As well as regular sessions, the nurse is able to access ad-hoc supervision following particularly stressful clinical episodes.

WHO CARES FOR THE CARERS?

Towards the end of the third wave of Covid-19, NHS England introduced a new model of clinical supervision called the A-EQUIP (advocating and educating for quality improvement).

In Scotland there has been a shift in trying to improve access to supervision for nurses, particularly in general practice. Currently, all board registered advanced nurse practitioners (ANPs) have access to clinical supervision and are expected to use this as part of their continued professional development. NHS Education for Scotland (NES) also has an elearning support module accessible to staff for supervision and learning more about the process. In my practice, the ANP has completed supervision training and plans to roll this out with myself and a colleague in the near future to provide us with some support. At the moment, in particular, we are feeling the burnout as a team, particularly nursing staff. The complexity of patients is becoming more challenging in general practice and we are taking on more responsibility in chronic disease management than ever before. I am finding it harder to keep on top of time management with just the sheer volume of tasks, clinic lists and blood results to get through each day, as well as trying to keep up to date with best clinical guidelines and continue to provide high quality, evidenced-based, person-centred care to all patients.

It is proposed that supervision with the ANP will be more from a restorative supervision perspective, giving space to discuss challenges in practice with someone who is familiar with the workload and pressure we, as clinicians, are under. Emotional support in the workplace is something that is more important than ever — it seems that most colleagues, locally and nationwide, are struggling with pressures, so regular restorative supervision may help provide more support. As this article states, 'who cares for the carers?' feels more relevant than ever recently. But, research indicates that supervision improves coping strategies and reduces compassion fatigue. I feel restorative supervision will be beneficial not only from a wellbeing perspective for the nursing team, but also from an appraisal/revalidation perspective. It will encourage me to be more regular with reflections on my practice and help with goal setting for ongoing development before annual appraisal and revalidation.

Cheryl Crawford
Practice sister, Braehead Medical Practice, Renfrew

Influenced by the stress experienced by nurses during the pandemic, the A-EQUIP model aimed to employ restorative supervision to address 'the emotional needs of staff' by providing 'thinking space' for nurses to reduce burnout ('Professional nurse advocate A-EQUIP model' — www.england.nhs.uk).

A-EQUIP is delivered by the snappily titled professional nurse advocates (PNAs), described by NHS England as nurses who will support their colleagues 'through a continuous improvement process that builds personal and professional clinical leadership, improves the quality of care delivered and supports professional revalidation'.

Underneath the usual NHS jargon, there is a human element to the PNA role. Donna Brookes is a Queen's Nurse and also trained as a PNA. She sees the benefit of restorative clinical supervision, both for colleagues and for herself.

'During a one-to-one session, the issue I shared was the stress I was experiencing managing the dual role

of practice nurse and lecturer. I felt that I was not good enough at either job, so needed to prioritise one over the other' ('The role of professional nurse advocates in primary care' — qni.org.uk).

Through undergoing restorative supervision as part of the PNA course, Brookes writes that she was able to learn about techniques such as positive self-talk and self-compassion, and how restorative clinical supervision had enabled her to understand that 'to care for others, it is important to care for oneself'.

TAKING IT INTO THE PRACTICE

Of course, one-to-one supervision may not be ideal for all GPNs, many of whom work independently, and arranging supervision sessions while juggling a busy caseload can be challenging at best and impossible at worst.

Michelle Bridger is a community nurse in the East Sussex Healthcare NHS Trust who also completed the PNA course. She noticed that many of her colleagues were finding it challenging to manage stress during the Covid-19 pandemic and wanted to support them. She delivers restorative clinical supervision in one-to-one sessions or groups, listening to staff and helping them to learn from clinical experiences ('Restorative supervision: empowering our nurses to care for themselves too' — www.esht.nhs.uk).

While one-to-one restorative clinical supervision sessions might be the ideal, arranging them was not always possible in the community setting. Bridger was forced to try out some innovative ideas, such as running online supervision sessions and group supervision. She also attempted to make supervision sessions shorter and more manageable by using techniques such as the 'stress bucket', where staff write down any issues and place these in a bucket in the team HQ. At the end of the week, these issues are read through and reflected upon, enabling the team to resolve them as a collective ('Implementing the PNA role into practice — a community nurse perspective' — www.england.nhs.uk).

ITS NOT YOU, IT'S ME…

Of course, GPNs want to find a supervisor who they can rely on and supports them through any issues they're having with patients or colleagues. But what happens when supervision goes wrong?

Like any relationship, the understanding between the supervisor and supervisee can break down, and misunderstandings or miscommunications can mean that the sessions are no longer productive. In the worse-case scenario, the breakdown of a supervision relationship can even create a toxic atmosphere at work, which can also seep into relations with other team members.

It is important to remember that supervision is supposed to be supportive and compassionate and where this is no longer the case, it is perfectly acceptable to end the relationship — hopefully by mutual agreement — and move on to another supervisor ('Mentorship in the community' — www.jcn.co.uk).

FOR YOU, NOT ABOUT YOU

It's important for any GPN to remember that supervision is not primarily designed to be a form of monitoring or professional regulation. Good supervision should instead help you to achieve your goals and become a better nurse.

Any GPN concerned about entering into a relationship with a supervisor should remember that it should be confidential; that you as the supervisee 'own' the process, and sessions should focus on your issues; and you have a choice — a supervisor should never be chosen for you ('Enhancing the quality of clinical supervision in nursing practice' — journals.rcni.com).

If you still have any doubts about the importance of supervision, or any qualms about sharing your workplace anxieties or insecurities, remember that general practice nursing is not just about looking after your patients. You can also find a sense of community and mutual support among your colleagues and, after all, when it comes to clinical supervision, sharing really is caring. **GPN**

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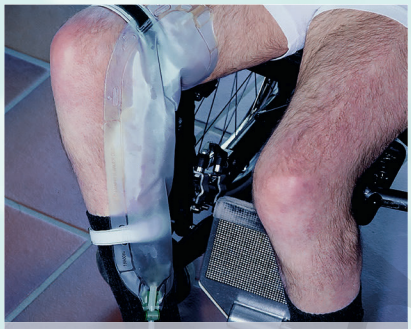

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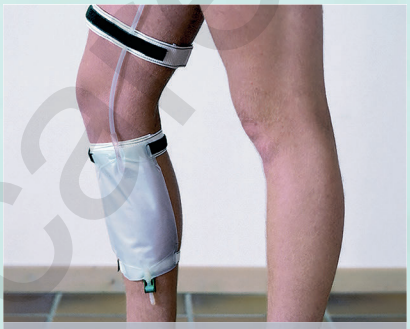

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Making speaking up business as usual

Role of GPNs in fostering a Speak Up culture in primary care

As general practice nurses (GPNs), you have a key role to play in patient safety. As a nurse myself, I know you will be well aware of the importance of being able to speak up, whether to raise a concern or with an idea for improvement. Indeed, raising concerns is a duty embedded in the NMC Code of Conduct.

WHY IS FREEDOM TO SPEAK UP IMPORTANT?

Freedom to Speak Up is about being able to speak up about anything which gets in the way of doing a great job. It is about fostering an environment where we can share ideas, seek advice, offer feedback, challenge decisions or speak up without fear of repercussions. The Freedom to Speak Up means we can ask questions where we might be uncertain and share positive practices that can be cascaded elsewhere in the organisation.

It is about fostering a psychologically safe workplace which provides a compassionate, inclusive, trusting environment, one where people feel empowered because they have the skills, confidence and mechanisms to support them to speak up. Encouraging Freedom to Speak Up means we will hear more, learn more, and act more to improve all aspects of patient care and the wellbeing of colleagues. So, there is a strong case for encouraging a Speak Up culture and helping it to flourish.

Jayne Chidgey-Clark, National Guardian for the NHS

“Effective Speak Up arrangements will reassure workers that their voice is important and will encourage them to bring matters which need addressing to the attention of those responsible for resolving.

Effective Speak Up arrangements will reassure workers that their voice is important and will encourage them to bring matters which need addressing to the attention of those responsible for resolving. As workers, we are happier and more productive if we believe and see that mutual trust exists and that our voice matters.

FREEDOM TO SPEAK UP IN GENERAL PRACTICE NURSING

Speaking up is about anything which gets in the way of good care. In your work, it can lead to improvements in the way that we deliver care to patients and work together in multidisciplinary teams.

Of the 25,000 cases which have been brought to Freedom to Speak Up guardians last year, 19% had an element of patient safety or quality, and 22% had an element of bullying and harassment. Thirty percent had an element of inappropriate behaviours and attitudes. This matters, because we know that incivility in the workplace has a negative impact on patient care.

There may be some specific aspects of your role which can feel like a barrier to speaking up. Your GP practice may be a small organisation, where there is the risk of potential conflicts of interest and loyalty. One of the barriers to speaking up can be the fear of retaliation and detriment. That fear can be exacerbated in smaller organisations, where those who speak up may be easily identified. You may feel this is a particular barrier as a GPN if you are the only person in that role within the practice.

The range of non-clinical workers in primary care also means that they may not have the same access as clinical colleagues to raise matters with a professional body or union. Temporary staff, locums and students are particularly vulnerable as they are often in practices for short periods of time and rely on their supervisor or manager for sign off. This can make speaking up problematic, and why it is important to offer alternative speaking up channels for these groups.

Just as it can take courage to speak up, it can also be a challenge to listen up and receive feedback in smaller organisations. Hearing about issues can feel personal and leaders may react defensively, rather than welcoming matters raised. Regular opportunities for discussion at team, clinical and multidisciplinary

National Guardian

Freedom to Speak Up

meetings help to break down the hierarchy and give everyone the permission to raise matters in a supportive way to improve patient safety and experience.

We have developed freely available e-learning programmes to support people to speak up and managers and leaders to listen up and follow up. You can access these through the e-learning for health portal: www.e-lfh.org.uk/programmes/freedom-to-speak-up/

ROLE OF FREEDOM TO SPEAK UP GUARDIANS

While there are many existing routes for workers to speak up, including through incident reporting mechanisms, human resources (HR), or via a line manager or educational supervisor, there may be occasions where none of these channels are suitable or trusted. Sometimes people may be fearful that they might be victimised for speaking up or because they have tried to raise matters before and been blocked or ignored.

Freedom to Speak Up guardians provide an alternative channel for workers, volunteers, students, trainees, contractors, partners and others and work proactively to support a positive speaking up culture.

There are over 1,000 Freedom to Speak Up guardians in England, in primary care providers, trusts, independent sectors, hospices and the national bodies. Over 100,000 cases have been brought to guardians since we started collecting data. The largest group speaking up to guardians are nurses and midwives.

The National Guardian's Office supports this network of guardians through training and guidance and supports the wider health system by facilitating opportunities for sharing and learning, disseminating good practice, and providing challenge to tackle barriers to speaking up.

Freedom to Speak Up guardians thank workers for speaking up, listen, offer support, act to preserve confidentiality where requested and, if possible, escalate to the right person so that actions can be taken. They also give feedback to the person who has spoken up.

It is important for these reasons that Freedom to Speak Up guardians work impartially. Within primary care, this may be achieved by appointing Freedom to Speak up guardians across GP federations or primary care networks (PCNs) so that they can work across a number of practices; alternatively, you may be able to sign up the services of your local NHS trust's Freedom to Speak Up guardian, or approach the Integrated Care Board (ICB) guardian.

Whoever the guardian is, it is important that all workers know who they can turn to if they need to speak up. As well as this being in the staff handbook, there needs to be a plan to communicate their presence to everyone in the practice.

You may already have access to a Freedom to Speak Up guardian. You can find them in the directory of guardians who have completed the training provided by the National Guardian's Office: https://nationalguardian.org.uk/speaking-up/find-my-ftsu-guardian/

If you have a guardian, but they are not on the directory, please ask them to get in touch at: enquiries@nationalguardianoffice.org.uk. We can link your guardian into regional and national networks of Freedom to Speak Up and give them training and support. If you do not have a Freedom to Speak Up guardian yet, please ask your practice manager about their plans for appointing. This might be across a PCN, through the ICB, or via the local medical committee. Ask them to contact the National Guardian's Office to find out more.

Making speaking up business as usual will enhance the working life of everyone, no matter what their role in healthcare, and vitally will improve the quality and safety of care provided for our patients. GPN

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Call for evidence to review legislative framework

DVLA launches call for evidence on drivers with medical conditions

Here, Dr Nick Jenkins, senior DVLA doctor, explains why they are hoping to gather evidence on topics such as legal obligations, medical licensing rules in other countries, growing prevalence of drivers with multiple medical conditions, as well as advancements involving in-vehicle technologies.

Last month, the Driver and Vehicle Licensing Agency (DVLA) launched a call for evidence on driver licensing for people with medical conditions. The aim is to gather evidence from experts across organisations to enable the DVLA to begin a review of the current legislative framework governing drivers with medical conditions. This is in response to an increase in the volume and complexity of driving licence applications or renewals where the applicant has one or more medical conditions.

HOW MEDICAL LICENSING DECISIONS ARE MADE

The DVLA is responsible for driver licensing in Great Britain and maintains accurate records of 50 million drivers, and while many factors contribute to the safety of these drivers, one of the key considerations is their health and fitness. Certain medical conditions, disabilities and treatments can affect an individual's ability to drive safely, which is why drivers are legally obliged to notify the DVLA of any medical condition that may affect their ability to drive.

Dr Nick Jenkins, senior DVLA doctor

The range of notifiable conditions is extensive, but some examples include diabetes, epilepsy, glaucoma, and certain heart conditions.

We carefully consider whether a driving licence holder or applicant meets the appropriate medical standards of fitness to drive and try to balance the needs of a driver to maintain mobility with road safety. The medical enquiries we deal with range from considering information that has been provided by a driver, to detailed investigations involving information provided by medical professionals, reports or examinations.

Information and advice around notifying the DVLA of a medical condition is published on GOV.UK along with an A to Z list of notifiable conditions. A guide to assist medical professionals when assessing a patient's fitness to drive is also published.

WHY WE'RE LAUNCHING A CALL FOR EVIDENCE

Over the past few years, the DVLA has seen a continued increase in both the volume and complexity of driving licence applications and renewals for people who have one or more medical conditions. Last year, 887,000 licensing decisions were made for drivers who told the DVLA about a medical condition, which is a significant increase year on year. This is why the DVLA believes that the time is right to review the existing legal framework and launch a call for evidence on driver licensing for people with medical conditions.

AIMS OF THE CALL FOR EVIDENCE

The call for evidence aims to tap into a wide range of experience, views, and research to help identify areas where changes may be able to improve outcomes for drivers and other road users. The DVLA is asking for medical professionals and experts from across organisations to provide information on a range of topics which will allow it to conduct an extensive and robust review of the current legal framework.

The call for evidence will also look at:

- How and why licensing decisions can be so complex for individuals with medical conditions
- The challenges that demographic and other changes pose to the current process
- How other countries deal with drivers with medical conditions and other situations where medical fitness is assessed
- The potential impact that technological advances may have on the future of driving and assessing medical fitness to drive.

HOW TO RESPOND

The call for evidence runs until Sunday 22 October 2023 and responses are accepted online, by email or in writing.

More information...

Full information about the call for evidence is available at: www.gov.uk/government/consultations/driver-licensing-for-people-with-medical-conditions-call-for-evidence

Could a harmless hobby be a future health crisis?

Survey reveals 5.1 million UK adults vaping every day

Vaping is often seen as a less-harmful alternative to smoking cigarettes, and while this may be true in some respects, it is not without its dangers. Understanding how this relatively new phenomenon of vaping could develop into a health concern and even an addiction was of real importance to the author's team at the UK Addiction Treatment (UKAT) Group, hence the launch of an addiction prevalence survey towards the end of 2022.

This survey, carried out in partnership with Opinium and undertaken in the peak of the cost of living crisis, asked 5,000 UK adults aged 18+ 'how often do you vape?' among other behavioural questions.

As a nationally representative survey, the results can be grossed up to reveal that 4.1 million adults surveyed answered that they vape 'multiple times a day', with a further one million answering that they vape 'once a day'. These results show that a staggering 5.1 million adults in the UK are vaping at least every day, and mostly multiple times a day.

Furthermore, nearly one in four adults surveyed (23%) answered that they had 'ever' vaped, equating to 12.4 million UK adults, revealing that they are classed as vapers.

Nuno Albuquerque, consultant head of treatment, UK Addiction Treatment Group

It was important for the UKAT Group to understand if the results of this survey were also reflected in calls for help to the group's free, confidential helpline. After speaking with the admissions team, it was discovered that more people than ever before have called in for help with their vaping addiction or dependency. In fact, more people have called so far in 2023 than the group has ever received in the whole of 2022, suggesting that the habit of vaping has now become established and even normalised, to the point where more and more people are beginning to understand how this casual behaviour can turn into a dependency.

Interestingly, the results of this survey lean towards countering the societal stigma that vaping is for the younger generation, as more respondents aged 60–79 say they vape every day compared to those respondents aged 18–24.

The age of those most often vaping is interesting, as it shows that it is not just the younger generation falling victim to vape marketing tactics of sweet-tasting flavours and brightly coloured vapes. Clearly, the promises of a 'safe' alternative to smoking can attract just about anyone of any age, but the UKAT Group believes that there is the potential of a widespread misunderstanding of the hidden health risks that come with vaping, at any age.

It goes without saying that vaping among the younger generations is on the rise, with a recent report by the Action on Smoking and Health (ASH) Smokefree survey revealing that in 2022, 16% of 11–17 year olds had tried vaping, compared to just 12% in 2021. This is vitally important research and lends itself to the results of this prevalence survey as it incorporates the under 18 demographic.

Understanding the gender split between those who responded to the survey as having 'ever' vaped was important to us at the UKAT Group. Our survey shows that it is mostly men who have responded as having 'ever' vaped, but interestingly, those who are vaping at least every day or multiple times a day are female — 2.6 million of the 5.1 million respondents vaping every day or multiple times a day are female. Analysing the results of the women who responded to the survey in more detail revealed that 15% of those who said they vape every day or multiple times a day are also currently expecting a child, a figure that raised real concern for the author and his team.

It is a widely accepted fact that parenting behaviours can be easily passed down to children, as children grow up and learn through copying those who are caring for them. The children of parents who are currently vaping every day will likely grow up watching their parents continue to vape every day, and the child will assume this is 'normal' and 'acceptable' behaviour, increasing the likelihood that they themselves will start to vape at some point in their life.

Ultimately, the group does believe that what is marketed and promoted by companies who produce vapes as a harmless hobby could actually be this country's future health crisis, as clinicians are not yet fully informed of the short- and long-term physical and mental health implications of vaping.

The UK Addiction Treatment Group provides 24/7 confidential help and support for vaping addiction.

Join the QNI for four days of discussion — sharing expertise and insights into community nursing

Register for the QNI community nursing conference 2023

The Queen's Nursing Institute (QNI) annual conference takes place online from 2–5 October and is the UK's leading event for community nursing. Thanks to its sponsors and donations, the conference is free for all registered and student nurses to attend. The theme of this year's conference is, 'In the Spotlight — Nurses Leading Care in People's Homes and Communities'.

2 OCTOBER: EVIDENCE-BASED PRACTICE

On the first day of the conference, there will be updates on evidence-based practice, and the chief nursing officers (CNOs) from all four UK countries have been invited to attend, Dame Ruth May (England), Maria McIlgorm (Northern Ireland), Professor Alex McMahon (Scotland) and Sue Tranker (Wales).

Following the CNOs, there will be a discussion on international collaboration in community nursing from a trio of nurses and academics: Professor Sally Kendall MBE, Professor Gina Higginbottom, and Professor Ros Bryar.

The day will end with a talk on growing community nursing research from Dr Ben Bowers, Professor Ruth Endacott, and Pretty Manyimo, who are all nurses and researchers.

Bethan Cornick, policy and communications intern, Queen's Nursing Institute (QNI)

3 OCTOBER: WORKFORCE DEVELOPMENT

The next day of the conference will focus on workforce development. The QNI's very own Professor Alison Leary MBE will be discussing where we are at with the current community workforce.

The Nursing and Midwifery Council's (NMC) executive director for professional practice, Sam Foster, will subsequently discuss advanced practice regulation.

The final speaker session of conference day two will be held by Professor Alison Machin, Chair of the Council of Deans of Health.

4 OCTOBER: POPULATION HEALTH AND SUSTAINABILITY

On the conference's penultimate day, there will be talks on population health and sustainability. Rob Webster CBE, chief executive of South West Yorkshire Partnership NHS Foundation Trust, will interview Fatima Khan Shah, associate director of long-term conditions and personalisation, on managing health inequalities.

Following an interactive round table discussion, Rachel Stancliffe, founder and director of the Centre for Sustainable Healthcare (CSH), and Siobhan Parslow-Williams, quality improvement education lead at CSH, will discuss sustainability and healthcare with Sir Muir Gray CBE.

5 OCTOBER: INTEGRATION

The final day of the conference will focus on integration, with an opening talk from Lou Patten, strategic advisor for the NHS Confederation Integrated Care System (ICS) Network, on the challenges and opportunities of the ICS.

Following Lou Patten, chief nurse and director of infection prevention and control at Buckinghamshire Healthcare NHS Trust, Karen Bonner, will speak with Dame Elizabeth Anionwu. Dame Elizabeth Anionwu became the UK's first sickle cell and thalassaemia nurse specialist in 1979.

Giving a talk on diagnosing in the NHS will be chief executive at the Nuffield Trust, Nigel Edwards.

The QNI's chief executive, Dr Crystal Oldman CBE, will bring the conference to a close and there will be a conversation between BBC 'Call the Midwife's' Dr Turner, the actor Stephen McGann, and the programme's writer and co-producer, Heidi Thomas OBE, to discuss influencing public health through entertainment. **GPN**

To book...

... your place for the conference, please visit: https://qni.org.uk/news-and-events/events/qni-annual-conference-2023/

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DAY 2

Professor Brian Webster-Henderson, Professor Alison Leary MBE, Sam Foster, Professor Alison Machin

DAY 3

Fatima Khan Shah, Rob Webster CBE, Sir Muir Gray CBE, Rachel Stancliffe, Siobhan Parslow-Williams, Dr Crystal Oldman CBE

DAY 4

Lou Patten, Karen Bonner, Dame Elizabeth Anionwu, Nigel Edwards, Stephen McGann, Heidi Thomas OBE

Find out more here:
www.qni.org.uk

Scan to find out more and book

Chronic obstructive pulmonary disease and comorbid conditions

For many nurses working in general practice, chronic obstructive pulmonary disease (COPD) is a familiar condition. From carrying out annual reviews to supporting people living with the symptoms of cough, phlegm, breathlessness and managing their effect on day-to-day living, most general practice nurses (GPNs) will have some experience of supporting people living with COPD. Increasingly, though, GPNs are having to consider comorbidities as part of the review, as for many people living with COPD, this will be just one of the long-term conditions they have already been diagnosed with or of which they will be at risk. In this article, the relationship between COPD and other long-term conditions will be highlighted, along with recommendations about how to identify and manage comorbidities in order to holistically optimise outcomes.

WORDS:

- COPD
- Comorbidities
- Assessment
- Diagnosis
- Interventions

Beverley Bostock

Advanced nurse practitioner, Mann Cottage Surgery; Association of Respiratory Nurse Specialists, Primary Care Society

Photograph: crystal light/Shutterstock

The National Institute for Health and Care Excellence (NICE) emphasises the importance of managing comorbidities as one of the foundations of good chronic obstruction pulmonary disease (COPD) care (NICE, 2019). Furthermore, the guideline from the Global Initiative for Obstructive Lung Disease (GOLD) stresses the importance of considering comorbid or new diagnoses as the cause of any symptoms, especially when patients present with what appears to be an exacerbation of COPD (GOLD, 2022). According to GOLD, specific diagnoses to be considered in people with respiratory symptoms such as breathlessness and chest tightness include pneumonia, pulmonary embolism, pneumothorax, pleural effusion and cardiac conditions such as heart failure, atrial fibrillation (AF) or myocardial infarction (MI).

In this article, the relationship between COPD and other long-term conditions will be highlighted, along with recommendations about how to identify and manage comorbidities in order to holistically optimise outcomes.

By the end of this article, readers will be able to:

- Recognise the importance of the initial assessment and diagnosis of respiratory symptoms
- Consider the shared pathophysiology of cardiopulmonary diseases
- Reflect on the relationship between lifestyle factors and cardiopulmonary disease
- Analyse the links between COPD and other long-term conditions
- Review key interventions which can holistically improve outcomes for people living with COPD and comorbidities.

INITIAL ASSESSMENT AND DIAGNOSIS

Diagnosis of COPD depends upon the presence of key symptoms such as cough, sputum, breathlessness, and a reduced ability to carry out activities of daily living in someone with risk factors for this condition — in the western world, this is smoking (NICE, 2019). If the history is suggestive of COPD, post-bronchodilator spirometry should be carried out to assess lung function. NICE also recommends a chest X-ray at diagnosis to exclude other pathologies and a full blood count (FBC) to identify anaemia or polycythaemia. NICE also advises clinicians to consider serial home peak flow measurements to exclude asthma. Any variability might then lead to spirometry with reversibility testing, as peak flow variability might suggest the presence of asthma.

From a cardiovascular perspective, an electrocardiogram (ECG), serum natriuretic peptides and echocardiography will help to determine the presence of cardiac disease or pulmonary hypertension, especially if there are clinical signs such as tachycardia, oedema or cyanosis. In people with a significant smoking history, the possibility of cardiovascular disease, heart failure and cancer should not be overlooked.

PATHOPHYSIOLOGY OF COPD AND COMORBIDITIES

Although COPD is often viewed as a respiratory condition, it has long been recognised as a multi-system disorder (Kotlyarov, 2023). This is partly down to the pathophysiology of the condition, which includes inflammation, oxidative stress and hypoxia, and partly down to the significant smoking history which is likely to have contributed to the COPD diagnosis but which is also linked to many other conditions (NICE, 2019; Rodrigues et al, 2021). The inflammatory changes that underpin the pathophysiology of COPD are also key drivers of other conditions, such as cardiovascular disease (CVD) (Bays et al, 2021). CVD is also a risk factor for heart failure. People with COPD are already at risk of cor pulmonale as a result of the reduced ability of the heart to oxygenate blood, leading to right-sided failure and pulmonary hypertension (NICE, 2019).

Symptoms of COPD may also lead to people becoming less physically active, with resultant deconditioning, weight gain and an increased risk of developing type 2 diabetes (T2D). It is unsurprising then, that general practice nurses (GPNs) often find that people with COPD have other conditions which complicate the standard management of the respiratory disease. For example, the role of oral corticosteroids in the person with an acute exacerbation of COPD (AECOPD) who also has T2D may need careful consideration and oral corticosteroids can also increase CVD risk (Aldibbiat and Al-Sharefi, 2020; Pujades-Rodriguez et al, 2020).

COMMON COMORBIDITIES

Bronchiectasis

According to the British Thoracic Society (BTS) guidelines on bronchiectasis, this diagnosis should be considered if a patient describes persistent production of mucopurulent or purulent sputum (Hill et al, 2018). They also recommend that patients with COPD should be investigated for bronchiectasis if they report two or more exacerbations annually, or if they have had a previous positive sputum culture for pathogenic micro-organisms while stable. Although it is common for people with COPD to have a productive cough, the GOLD guidelines recommended computerised tomography (CT) scans when trying to ascertain the cause of symptoms, such as excessive sputum production which might be due to coexisting bronchiectasis (GOLD, 2022; Huang et al, 2022). GOLD specifically recommends CT scans for people with COPD who are having recurrent exacerbations, who have significant hyperinflation and a forced expiratory volume in the first second (FEV1) <45% predicted, or in those with symptoms which are at odds with the level of lung function impairment.

If a diagnosis of bronchiectasis is made, the focus will be on chest clearance using devices and physiotherapy. Reducing the amount of sputum in the lungs will reduce the risk of exacerbations and may also improve drug deposition when using inhaled therapies (Daynes et al, 2021).

Asthma with fixed airways disease

In the author's clinical experience, the thorny issue of asthma/COPD overlap troubles many GPNs, so it may be better to consider this presentation as asthma, but where the lungs do not reverse back to normal fully with treatment. This may be as a result of under-treatment of the asthma, leading to airway remodelling, or as a result of smoking (Mekov et al, 2021). Either way, the underlying pathophysiology is still asthma-related, meaning that inhaled corticosteroids should always be prescribed.

The difference with this presentation compared with the usual presentation of asthma is that the persistent airflow obstruction will lead to ongoing symptoms, even though the patient is taking the appropriate dose of inhaled corticosteroids (ICS). As a result, people who have asthma with fixed airways disease will need an ICS combined with a long-acting bronchodilator or even triple therapy to address both the underlying inflammation and the symptom (GOLD, 2022). This is the pragmatic approach to managing asthma with fixed airways disease (GOLD, 2022). However, NICE states that there is a lack of evidence concerning the most clinically and cost-effective treatments for people with asthma/COPD overlap, and that more trials are needed to study this patient group to provide evidence and ensure that the most effective treatments are prescribed (NICE, 2019).

Diabetes

Several studies have linked COPD to metabolic syndrome, which is defined by the presence of prediabetes or T2D with hypertension and dyslipidaemia in people with abdominal obesity (Chan et al, 2019). People with diabetes are at least twice as likely to experience a cardiovascular event and for that event to be fatal compared to those without (Goodarzi and Rotter, 2020). The risk of developing T2D is higher in smokers (Maddatu et al, 2017), and T2D predominantly affects people who are overweight and relatively inactive. The breathlessness on exertion, which is suffered by many people with COPD, may lead them to reduce their activity levels, leading to deconditioning and weight gain, so it is evident why people with COPD may have an increased risk of T2D related to lifestyle.

There are also some interesting links between COPD and both type 1 and type 2 diabetes, relating to genes and to neutrophil activity (Hughes et al, 2020; Park et al 2022). Productive coughing and the use of inhalers may impair the taste, and breathlessness may make chewing bulky foods like

vegetables harder. For those who have not yet developed T2D, advice about healthy eating with COPD and the importance of remaining physically active should be reinforced, both from the perspective of the COPD itself and from the position of holistic wellbeing, in order to reduce the risk of T2D and CVD. For those who already have a diagnosis of T2D, the combination of COPD and T2D will increase their risk of a cardiovascular event, so all the usual interventions should be implemented: glucose, blood pressure and lipid lowering therapies and a sodium glucose cotransporter 2 inhibitor to protect the heart and kidneys (NICE, 2022). It is important to remember that diabetes is a cardiovascular disease with a shared pathophysiology (Hughes et al, 2020).

Cardiovasular disease (CVD)

COPD and CVD are complex disorders that frequently co-exist and when they do, they are associated with worse outcomes than either condition alone (Rabe et al, 2018). The link between COPD and CVD is multifactorial. First, the key cause of COPD in the western world (smoking) will increase the likelihood of cardiovascular risk factors such as hypertension and dyslipidaemia, leading to stroke, ischaemic heart disease and peripheral arterial disease (Kondo et al, 2019). Second, COPD is an inflammatory disease, as is cardiovascular disease. Third, the deconditioning that may occur as a result of breathlessness may also increase the risk of weight gain, diabetes and CVD. It is essential, then, that people with COPD have a CVD risk assessment to determine their risk factors and address this risk through lifestyle interventions and the appropriate use of blood pressure and lipid lowering therapies.

Some research has suggested that people with COPD who take statins, which have an anti-inflammatory as well as a lipid lowering effect, have a lower risk of all-cause mortality, heart disease-related mortality, acute exacerbations of COPD, pulmonary hypertension and C-reactive protein (Lu et al, 2019). However, this finding has not been consistently replicated and in the United Kingdom, statin therapy should only be initiated if CVD risk is 10% or higher (20mg atorvastatin), or if the individual has a previous history of CVD (80mg atorvastatin) (NICE, 2023a).

All-cause mortality

Other interventions have also been shown to be effective in reducing all-cause mortality. Two recent studies, 'Informing the Pathway of COPD Treatment' (IMPACT) and 'Efficacy and Safety of Triple Therapy in Obstructive Lung Disease' (ETHOS), have shown that using triple therapy (an inhaled corticosteroid with a long-acting B2 agonist and a long-acting antimuscarinic antagonist — [ICS/LABA/LAMA]) is associated with a significant reduction in all-cause mortality when compared to a dual bronchodilator (Lipson et al, 2020; Martinez et al, 2021). The GOLD guidelines include a table indicating the evidence from randomised controlled trials, supporting the use of triple therapy and non-pharmacological interventions (smoking cessation, pulmonary rehabilitation, lung volume reduction surgery, non-invasive positive pressure ventilation and long-term oxygen therapy) to reduce mortality in people living with COPD (GOLD, 2022).

Heart failure

The symptoms of heart failure can be quite vague and include fatigue, breathlessness and oedema (NICE, 2018). Heart failure is predominantly divided into two groups:

- Heart failure with reduced ejection fraction (HFrEF), where the ejection fraction is below 40%
- Heart failure with preserved ejection fraction (HFpEF), where it is above 50%

(NICE, 2023b).

People with COPD will be at risk of both types. HFrEF is often the result of CVD risk factors such as hypertension, or events such as a myocardial infarction, while HFpEF is more common in women and people with T2D (NICE, 2018). Cor pulmonale is right-sided heart failure associated with chronic lung disease and pulmonary hypertension. People with cor pulmonale may present with peripheral oedema, a raised jugular venous pressure, a systolic parasternal heave and a loud pulmonary second heart sound (NICE, 2019).

Each type of heart failure requires a different approach to pharmacological management. In HFrEF, the four pillars of pharmacological management include renin angiotensin aldosterone system inhibition with angiotensin-converting enzyme (ACE) inhibitors, angiotensin receptor blockers (ARBs) or an angiotensin receptor-neprilysin inhibitor (ARNI), along with beta blockers, a sodium-glucose cotransporter-2 inhibitor (SGLT2i) and a mineralocorticoid receptor antagonist (MRA) (Docherty et al, 2022). It is important to note that beta blockers are not contraindicated in COPD and NICE made the use of beta blockers in people with COPD a key performance indicator in their heart failure guideline (NICE, 2018). In HFpEF, the only drugs known to have a positive impact are SGLT2i, with dapagliflozin being the only one approved by NICE at the time of writing (NICE, 2023c). However, because cor pulmonale is linked to the underlying chronic lung disease, optimisation of the management of that condition is also essential. This will include reviewing inhaled therapies, consideration of long-term oxygen therapy and assessment for pulmonary hypertension, which, if diagnosed, will require specialist intervention and management (NICE 2019).

All people living with a diagnosis of heart failure will benefit from lifestyle interventions and cardiac rehabilitation (Taylor et al, 2023). However, engagement with both pulmonary and cardiac rehabilitation programmes for people living with heart failure and COPD is low, so GPNs are key in encouraging people to sign up for these programmes.

It is important to recognise that the symptoms of COPD and heart failure overlap considerably. In view of the fact that people with COPD are high risk for heart failure, GPNs should remain alert to this possibility and take note of symptoms which may indicate heart failure rather than

COPD. These might include frothy sputum, breathlessness when lying flat (orthopnoea), and lower limb oedema (NICE, 2018).

Atrial fibrillation

Atrial fibrillation is around four times more common in people with COPD (Chen et al, 2015). In one study, 22% of people admitted to hospital with COPD had coexisting AF and all-cause mortality was significantly higher in people with arrhythmias (Desai et al, 2019). People with COPD should be made aware of this risk and taught how to check their own pulse. Arrythmia Alliance has a range of resources to help people to learn this skill: https://heartrhythmalliance.org/programs/know-your-pulse.

Research has shown that, among other things, lack of oral anticoagulation and beta-blockers were predictive factors for all-cause mortality in people with COPD and AF (Rodríguez-Mañero et al, 2019). While there is clear guidance regarding anticoagulation prescribing in AF for people with a CHA2DS2-VASc score of 2 or more (CHA2DS2-VASc score = congestive heart failure, hypertension, age, diabetes mellitus, prior stroke or TIA or thromboembolism, vascular disease, age, sex category), it is important to remember that, as in heart failure, beta blockers are not contraindicated and should be used in line with current guidelines (NICE, 2021).

Depression

The multisystem inflammation that occurs in COPD can also lead to an increased risk of neuropsychiatric disorders (Ouellette and Lavoie, 2017). Depression is a common comorbidity of many long-term conditions but in one study in people with COPD almost 60% reported that low mood and mental health issues impacted on their quality of life and negatively affected their health behaviours (Stellefson et al, 2019). These findings were particularly true for individuals with lower socioeconomic status, indicating a health inequalities issue.

COPD may lead to hypoxia and cognitive impairment, which increases an individual's risk of a mental health condition (Morris et al, 2019). People with COPD who feel depressed or anxious may be less likely to engage in important behaviour change interventions, such as smoking cessation, while adherence to medication is also impaired by co-existing mental health problems (Ouellette and Lavoie, 2017; Sim et al, 2021). Mind-body exercises such as tai chi and yoga, pulmonary rehabilitation and cognitive behavioural therapy (CBT) have all been shown to be effective in managing anxiety and dyspnoea in people with COPD (Yohannes et al, 2017; Gordon et al, 2019; Li et al, 2019).

People with COPD and co-existing mental health conditions are also more likely to suffer recurrent exacerbations of COPD, with an increased risk of loss of lung function and even death (Cardoso et al, 2018; Underner et al, 2018). GPNs should be mindful of the impact that poor mental health can have on someone living with COPD and should proactively assess for anxiety and depression. The extended health and wellbeing team, including social prescribers, can then offer support, with ongoing referrals being made as required.

SUMMARY

People with COPD are at high risk of other long-term conditions as a result of shared pathophysiology and risk factors. When assessing the individual presenting with suspected COPD, it is essential to recognise the importance of a robust initial assessment in order to make a reliable diagnosis of the cause of their symptoms. The pathophysiology of cardiopulmonary diseases and lifestyle risk factors can overlap, so COPD may occur with a range of other respiratory, cardiovascular and metabolic conditions. GPNs are well placed to undertake a holistic review of the patient presenting for a diagnosis or review of their COPD and to consider the possibility of comorbid conditions. This will facilitate the implementation of key interventions which can improve outcomes and optimise wellbeing. GPN

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Heart failure: detecting the undetected

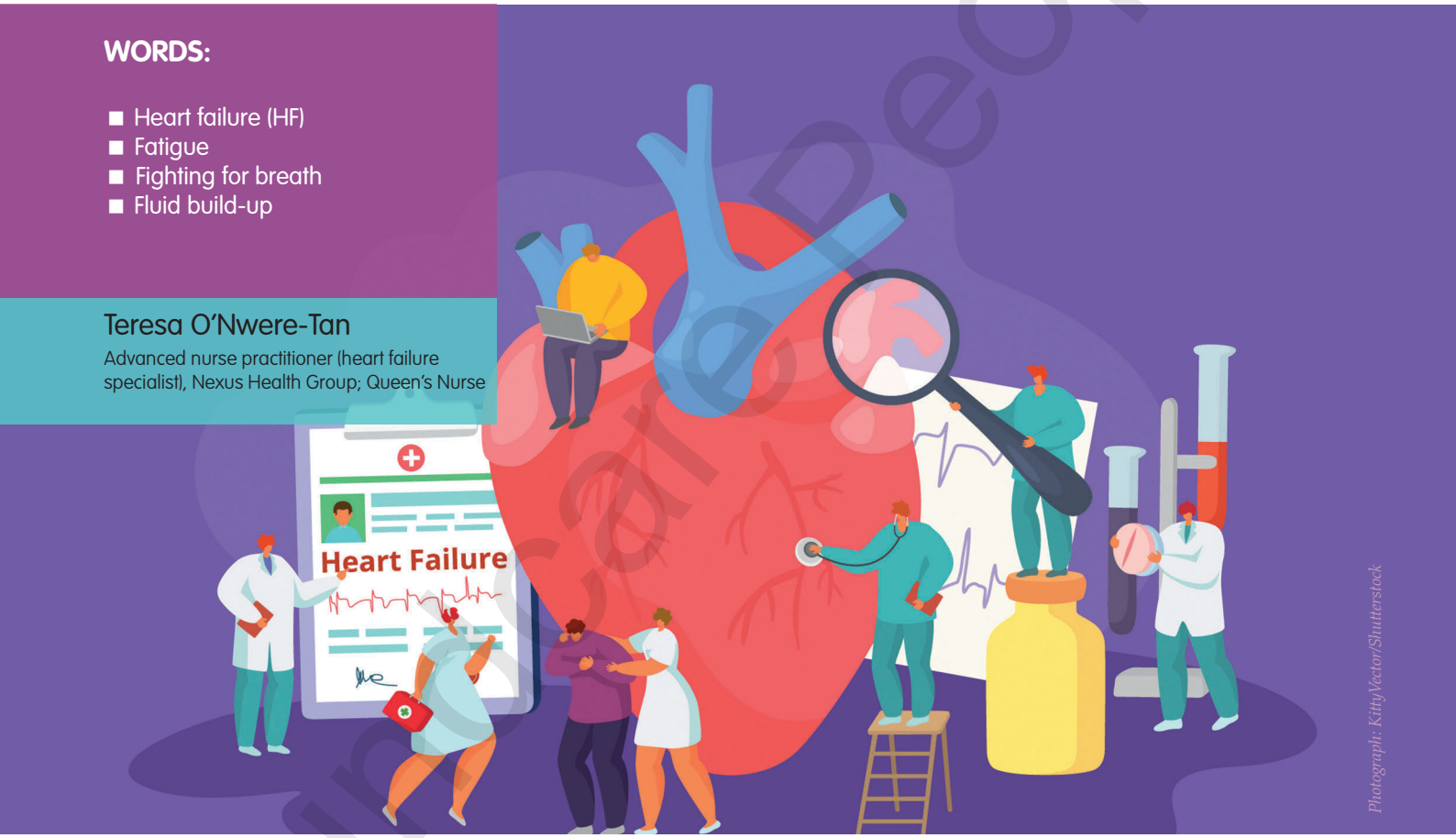
Heart failure (HF) is a clinical syndrome distinguished by the inadequate pumping of the heart. It represents a prolonged condition that impacts approximately one million individuals in the UK, a figure surpassing the toll of other ailments such as cancers and strokes. Recognising symptoms like fatigue, fluid retention, and breathlessness can often present a challenge, given that patients may be asymptomatic, and these symptoms are not always specific to heart failure. The utilisation of a simple blood test, such as NT-pro BNP, followed by advanced diagnostics like echocardiography and magnetic resonance imaging (MRI) scans, hold pivotal importance for achieving timely diagnosis, implementing targeted therapies, reducing mortality rates, reducing hospital admissions, and decelerating the progression of the disease. Simultaneously, this approach works towards enhancing the quality of life for patients and reducing health inequality gaps. The recent 25in25 summit convened by the British Society for Heart Failure (BSH) brought together stakeholders from other countries to discuss and address HF mortality rates. This resulted in the participants collaboratively formulating and signing a declaration with the aim of reducing HF mortality in the first year after diagnosis by 25% within the next 25 years.

WORDS:

- Heart failure (HF)
- Fatigue
- Fighting for breath
- Fluid build-up

Teresa O'Nwere-Tan

Advanced nurse practitioner (heart failure specialist), Nexus Health Group; Queen's Nurse



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Affecting millions of people worldwide, heart failure (HF) is a complex clinical syndrome characterised by the insufficiency of the heart to pump and meet the metabolic demands of the body. HF is a significant public health issue that should be at the forefront of everyone's agenda. Recognised as an endpoint for a vast number of conditions of a cardiovascular and non-cardiovascular nature, the prevalence of HF is projected to increase significantly owing to an ageing population, an increase in risk factors and associated long-term conditions (LTCs), such as obesity, diabetes, chronic obstructive pulmonary disease (COPD), chronic kidney disease (CKD) and hypertension (Voors and van der Horst, 2011; van Deursen et al, 2012).

> **Heart failure is a significant public health issue that should be at the forefront of everyone's agenda.**

On the 9th of March 2023 at the 25in25 summit, convened by the British Society for Heart Failure (BSH), stakeholders hailing from more than 48 health organisations and specialities from the UK, US, Canada and Europe, met, discussed and signed collaboratively a declaration to reduce HF mortality in the first year after diagnosis by 25% in the next 25 years.

IMPORTANCE OF EARLY DETECTION OF HEART FAILURE

It is recognised that early detection of HF is crucial in improving patient outcomes, the severity of their symptoms, their quality of life, and reduction of risk of hospitalisation and death (Savage et al, 2023). Currently 80% of people with HF are first diagnosed during a hospital admission (Bottle et al, 2018). Studies have shown worse outcomes, as well as higher healthcare resource economic burden, if patients have an index diagnosis of HF first made in hospital versus that made in the community setting (Bachtiger et al, 2023).

There is evidence that nearly 50% of patients exhibit symptoms and signs of HF in the six months preceding acute HF hospitalisation, reflecting crucial missed opportunities for earlier intervention (Sandhu et al, 2021; Bachtiger et al, 2023).

Despite a plethora of life-saving treatments for patients living with heart failure, the combination of a lack of awareness, late diagnosis, and delayed access to specialists results in an increased 30-day mortality post heart failure admission, and increased one-year mortality rates (34% (National Institute for Cardiovascular Outcomes Research [NICOR], 2021). It is the aim of the British Society for Heart Failure (BSH) to empower clinicians and patients with the skills for early detection of suspected heart failure and to improve prevention, as well as better management of the condition, to reach the aforementioned goal of 25in25.

F-WORD CAMPAIGN

The BSH'Freedom from Failure — the F-word campaign', calls for (self) recognition of common symptoms of HF, namely:

- Fatigue
- Fighting for breath
- Fluid build-up.

The campaign urges people to then seek medical advice, thus raising awareness of the symptoms and signs of HF. Utilising the BSH'F-word' campaign, the author has outlined some case studies to help general practice nurses (GPNs) recognise symptoms in patients, themselves and others. Each of these symptoms (and in combination) presenting in any health setting is an opportunity for early detection of HF.

Practice point

It is vital to raise awareness of HF to uncover patients as yet undiagnosed so that they can get the treatment they deserve.

Fatigue

Mr X, a 78-year-old male with a background of hypertension and chronic kidney disease, was referred to the community'Falls clinic'. He was reviewed by the falls specialist nurse practitioner and described postural dizziness as well as a three-month history of exercise intolerance due to fatigue. His antihypertensive medications were adjusted, and routine blood tests performed, which did not reveal a cause of his fatigue. The geriatrician discussed his case with a cardiologist who suggested that NT-proBNP be checked, and this came back as significantly elevated at 2786ng/l. He underwent an echocardiogram within two weeks, which showed a left ventricular ejection fraction (LVEF) of 30% (HF with reduced ejection fraction [HFrEF]). His medications were optimised to HFrEF quadruple therapy, leading to an improvement in fatigue and exercise intolerance.

Fighting for breath

MrsY is a 68-year-old woman who presented to her primary care clinician with shortness of breath and cough, expectorating green sputum for the past two weeks. She is a smoker and has COPD, with three infective exacerbations in the last six months. Her clinician issued her a'rescue pack' of doxycycline and prednisolone. Despite this, her symptoms became progressively worse, to a point where she could no longer climb stairs or walk more than 300m. Her doctor ordered a series of tests including an NT-proBNP test, echocardiogram, and chest x-ray. Her NT-pro BNP

Illustration reproduced courtesy of Teresa O'Nwere-Tan

returned as 1839ng/l, and echo showed reduced LVEF of 40% and a clear chest x-ray, supporting the diagnosis of heart failure. She was referred to a consultant cardiologist and heart failure specialist nurse for optimisation of her medication and to the smoking cessation team.

Fluid build-up

Ms Z is a 43-year-old busy accountant and mother to three children aged three to six years. She has obesity with a body mass index (BMI) of 37. Over the last 12 months she has noticed a marked reduction in her exercise tolerance, and felt that her abdomen and legs were getting bigger, despite attending fitness sessions with a personal trainer and eating a reduced calorie diet. Previously she was able to keep up in the exercise class, but recently could only complete the first two to three minutes before having to stop.

She presented on several

occasions to primary care, and an NT-proBNP was then ordered, as her abdominal girth was increasing and pitting oedema in her legs was found. The NT-proBNP was elevated at 10,676 and she was seen three days later at the Rapid Access Heart Failure Clinic, where an echocardiogram showed severe systolic dysfunction (LVEF 10%). She was treated with oral loop diuretics (furosemide and bumetanide are commonly used) and was initiated other disease modifying treatment for LVSD, as per National Institute for Health and Care Excellence and local guidelines, such as an angiotensin-converting enzyme inhibitor (ACEI), sodium/glucose cotransporter-2 inhibitor (SGLT2i) and beta blocker (NICE, 2018).

CONCLUSION

As illustrated by the clinical cases discussed here, several comorbidities, such as COPD and chronic kidney disease as well as the process of ageing, that accompany heart failure, can also present with similar symptoms and thus delay diagnosis of HF or lead to misdiagnosis. It is thus vital to make every patient contact count and for clinicians working in primary and community care, as well as those in secondary care specialties intersecting with heart failure, to be educated to recognise HF and use the simple blood test NT-proBNP for earlier detection of HF in those with symptoms or signs. It is also essential to improve heart failure awareness among the general public (including policymakers) to enable earlier detection through 'active looking', education, and resources where heart health can be promoted to prevent the development as well as progression of heart failure.

In the author's clinical experience, detecting the undetected is crucial, and implementing strategies, such as teaching clinicians and patients the F-word campaign using patient participation groups, posters, tutorials and MDT meetings. We must also encourage NT-pro BNP use in suspected heart failure cases as early detection can significantly reduce mortality rates and other adverse outcomes in HF. Achieving a 25% reduction in mortality within 25 years will require a concerted, collaborative effort, hence the establishment of the 25in25 collaborative comprising all those involved in the initiative and the Summit.

'Detecting the Undetected' was also the theme adopted by the Heart Failure Association of the European Society of Cardiology (HFA-ESC) across Europe for their heart failure awareness week held in May this year. Heart failure is hidden in plain sight, as illustrated in the cases above, and it is the collective responsibility of healthcare professionals to seek it out earlier and treat optimally to give those with heart failure a better chance. Routine appointments or reviews, for example, offer GPNs the opportunity to identify people with related comorbidities/risk factors by checking for the symptoms of heart failure — fatigue, feeling breathless, filling with fluid. If present, a simple NTproBNP blood test can rule out or indicate further investigation (such as an echocardiogram) to diagnose HF.

Ultimately, increasing access to early detection strategies, overcoming health inequalities and improving digital health literacy can significantly improve outcomes for individuals affected by heart failure and reduce its burden on society. GPN

Revalidation Alert

Having read this article, reflect on:

- Your knowledge of the signs and symptoms of heart failure
- Why early detection of heart failure is important
- The education you offer patients about heart failure.

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

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Group clinics: a care model whose time has come?

Group clinics were one of 10 high impact actions for primary care in 2016. In randomised controlled studies, they improve self-management of type two diabetes and demonstrate positive impacts on: key biometrics, knowledge of diabetes, quality of life, patient-initiated behaviour changes and empowerment. These changes sustain in those from low-income underserved communities. They also improve adherence with quality and outcomes framework standards, reduce A&E visits among vulnerable people with diabetes, and build trust between clinicians and patients. There is evidence that group clinics improve access, reduce waiting times and free up clinician time. They are especially well suited to general practice nursing's caseload. Introducing group clinics upskills nurses and the whole primary care team, and return joy and autonomy to nursing through deeper connections with patients and by providing the opportunity for nurses to reimagine and revitalise repetitive chronic disease reviews. This is highly motivating and supports retention. Their time has come.

KEY WORDS:

- Group clinics
- Shared medical appointments
- Virtual care
- Job satisfaction
- Person-centred care

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Photograph: Aigul Garaeva/Shutterstock

The idea of reviewing and supporting patients in a group rather than a one-to-one appointment has been around since the turn of the century when the practice started in the USA (Noffsinger, 2013). Early pioneers in England emerged in 2009 when both GP (Ham et al, 2011) and specialist teams (Birrell, 2009) introduced the group clinic model for the first time.

Group clinics were recommended as one of 10 High Impact Actions (HIAs) in the *GP Forward View* (NHS England, 2016) and since then, at least 40% of GP practices have tapped into group clinic training. In 2020, the pandemic led to video group clinics (VGCs) being tried and tested at scale across primary care in England and outpatient and community care settings in Wales.

As we move into the post-pandemic era, and with the recovery challenge so huge, is it time to explore if group clinics are a care model whose time has come?

WHAT HISTORY TEACHES US

The lens of history offers valuable insights. The pre-cursor of group clinics was group therapy led by clinical psychologists. Noffsinger (2013), inspired by his personal experiences of group therapy, recognised that many of its benefits would hold true in a broader medical setting. This led him to develop and test the concept of 'group visits' (also called 'shared medical appointments').

Group therapy evolved shortly after World War II. It was a response to the huge demand for psychological therapies among both the civilian population and war veterans; many of whom were traumatised by their war-time experiences. There were far too few clinicians and long waiting lists of patients needing help. The solution that clinicians came up with was group therapy, which enabled them to support more people in less time. The idea stuck and now group therapy is a well-established practice within clinical psychology and psychiatry across the world.

Learning from history and looking at today's access and workforce challenges, it makes you wonder why group clinics are not top of the primary care access agenda right now?

A DEVELOPING WORLD POPULATION HEALTH CHALLENGE

It has been known for a long time that the needs of patients have changed fundamentally since the NHS was created 75 years ago.

Back then (around the time that group therapy was conceived),

the NHS was primarily focused on treating people when they became acutely unwell. Clinicians had few tools to support those living with long-term health conditions.

Today, the primary focus is enhancing outcomes for those living with chronic health conditions. Forty-three percent of adults in England live with a long-term condition, and those in disadvantaged areas develop them 10 years earlier than those in more affluent areas (Stafford et al, 2017).

Today, patients generally self-manage their condition alone or supported by loved ones, and clinicians spend little more than 60 minutes a year with most. In the authors' experience, in unguarded moments, most clinicians admit that even with 60 minutes spent, doing annual reviews often feels futile and patients return year after year having made little progress and with biometrics unchanged or worsening.

Today, the challenge is supporting people to sustain self-management and lifestyle change over decades. And yet, how do we connect and work with patients? It is largely the same as it was 75 years ago. Einstein is famously quoted as saying that the first sign of madness is to keep doing the same thing and expecting a different result. We have been delivering care in one-to-one appointments to a population with changing needs for a very long time; could there be a better way?

WHAT IS THE EVIDENCE TO SUPPORT GROUP CLINICS?

Group clinics have a robust evidence base and have frequently been randomised against one-to-one appointments in controlled studies. The strongest evidence is in diabetes. There are several systematic reviews of randomised controlled trials (Riley and Marshall, 2010; Booth et al, 2015; Edelmann et al, 2015; Wadsworth et al, 2019; Graham et al, 2021). These reviews found that group clinics, in particular for people with type 2 diabetes, have a greater positive impact on a range of measures when compared to a control group receiving one-to-one appointments. Specifically, group clinics:

- Improve clinical biometrics — in particular, HbA1c and blood pressure (Kirsh et al, 2017)
- Result in superior preventative care for those from low-income and underserved communities (Vaughan et al, 2019)
- Improve patients' knowledge of diabetes (Riley and Marshall, 2010)
- Result in more patient-initiated behaviour change (Dickman et al, 2011)
- Reduce A&E visits among vulnerable people with diabetes (Clancey et al, 2003)
- Improve diabetes-related quality of life (Trento et al ,2010)
- Increase the percentage of patients achieving the eight National Institute for Health and Care Excellence (NICE) recommended care processes by 18% within 12 months, with a subsequent improvement in Quality and Outcomes Framework achievement in British general practice (Gandhi and Craig, 2019).

Wadsworth et al (2019) focused their systematic review on how group clinics impact on patient-centred experiences. They concluded that compared to one-to-one appointments, group clinics led to measurable improvements in patient trust, patient perception of quality of care and quality of life and improvements in relevant biophysical measurements; that group clinics were more engaging and empowered patients as active participants in their own healthcare. These patient-centred benefits are over and above improved access and more efficient use of clinicians' time.

GROUP CLINICS: ACCESS, RECOVERY AND WAITING LISTS

As said, group clinics originated from an ambition to increase access to clinical care after World War II. Today, we have strong evidence of their positive impact. Group clinics release one-to-one appointments, improve access and reduce waiting times (Bauer Bartley and Haney, 2010). They also reduce hospital visits (Edelman et al, 2015). These benefits have also been seen in British general practice. Gandhi et al (2019) found that switching to group clinics for a practice list of 1,000 people with type 2 diabetes as their first contact for their annual diabetes clinical review:

- Freed up clinician time and released a 0.5 FTE advanced nurse practitioner
- Reduced waiting times for annual diabetes reviews from six to two weeks
- Reduced did not attend (DNA) rates, which were 5.94% for group reviews compared to 11.7% DNA rate for one-to-one reviews.

Because nurses are able to spend up to an hour with the group, it supports a much more in-depth exploration of the challenges they face. Indeed, in the authors' experience, peer-to-peer discussion and advice supports patients to take back control of their life.

Box 1 Facts about one-to-one appointments

One to one appointments will always exist. Yet research shows that:

- Clinicians miss 50% of psychosocial and psychiatric problems during consultations (Davenport et al, 1987)
- 54% of patient problems and 45% of patient concerns are not elicited by the clinician or disclosed by the patient (Stewart et al, 1979)
- Patients and clinicians do not agree on the main presenting problem in 50% of consultations (Starfield et al, 1981)
- 32% of British clinicians regularly or quite often encounter barriers when explaining relative risk to patients
- 40–80% of medical information provided by clinicians in one-to-one appointments is forgotten immediately (McGuire, 1996)
- Almost half the information patients remember is incorrect (Anderson et al, 1979).

Jenny Aston, advanced nurse practitioner, reflects on her team's experience.

Clinician perspective

As an advanced nurse practitioner, I was diagnosing increasing numbers of patients with type 2 diabetes and pre-diabetes. I was constantly repeating the same dietary and lifestyle advice with variable results. My passion for prevention meant I was aware of the importance of behaviour change in diabetes, and also ignited my interest in group clinics. They looked more effective and I hoped they would be more satisfying too.

Very few patients attending the national diabetes prevention course achieved sustained change or improvement. I was keen to do something different in-house. We attended training as a team and now we have got through the inevitable teething problems of set up and wider practice team engagement, our group clinics run really efficiently.

There are a wide range of clinical pathways that lend themselves to group clinics, including: asthma, diabetes, menopause, hypertension and chronic pain management. We run regular face-to-face pre-diabetes and diabetes group clinics, and have also expanded to online GP-led menopause group clinics as well.

In our practice, there are four reasons why group clinics work better than one-to-one appointments:

- *They are more time efficient. A shared appointment significantly reduces the time a clinician spends with individual patients; instead of 10 or 20 minutes with each, you spend 30–40 minutes with a group of six to eight patients*
- *They are more satisfying for clinicians. This fresh approach leaves clinicians feeling patients are more engaged. So far, all our staff have enjoyed group clinics much more than their one-to-one clinics*
- *They are more patient focused. Patients like the group clinic approach because they set the agenda. They get to ask about the things that matter, rather than what the clinician wants to tell them. They also learn from others' questions and experiences*
- *They encourage teamwork within the practice. Our facilitators are part of our social navigator team and essential to successful group clinics. Their role in group clinics has supported their integration.*

VIDEO OR FACE-TO-FACE?

Since 2020, there have been no clinical or information governance barriers to the widespread adoption of group clinics in England and Wales. Having scoped the risks associated with delivering care in VGCs in 2020/21, NHS England and Welsh Government co-created standardised risk management procedures for clinical teams to adopt, including gaining verbal consent to participate and maintain confidentiality; establishing patients' identity and location without compromising privacy (VGC only). In 2020, NHS Resolutions confirmed it indemnifies clinical work undertaken in group clinics (face-to-face and VGC).

The first author from working with teams making the change at practice level, has found that valuable insights are emerging around patient and clinician preferences for face-to-face and video as delivery methods for group clinics.

Practice teams find it easier to get people living with diabetes to attend face-to-face group clinics. Mental health specialists share anecdotally that those with severe anxiety or enduring mental health issues may also prefer face-to-face group clinics.

VGCs are particularly convenient for those who work or have caring responsibilities. Those with mobility issues or who suffer from fatigue find video easy as there is no need to travel and park. Men may also be quicker to jump onto VGCs. Furthermore, those who are overweight engage well with VGCs and feel less exposed. Young people — especially teenagers — may also be more responsive in VGCs and often like to use the CHAT function to contribute.

VGCs can help overcome estate limitations, which is emerging as a huge problem in primary care (Wilkinson, 2022). They also obviate the need for long-distance travel for those needing specialist support, especially in rural areas. VGCs and face-to-face group clinics facilitate multidisciplinary teams (MDTs) coming together to support populations of patients. VGCs reduce travel and time away from wards for clinicians in MDTs.

The delivery processes and information governance arrangements that underpin face-to-face and VGCs are the same, and so the choice of which way to deliver is down to clinicians, patient preferences and organisational limitations like estate.

WHY GROUP CLINICS MATTER FOR THE GENERAL PRACTICE NURSING WORKFORCE

Evaluation undertaken in Wales (Lynch, 2022) found that group clinics are especially well suited to delivering simple aspects of clinical care, as defined by Christensen et al (2000). Simple clinical work includes

Quote...

Whenever you find yourself repeating the same information over and over again, consider a group clinic. Patients and clinicians will find it both much more satisfying and the evidence suggests they produce better health outcomes.

Jenny Aston, ANP

interventions that are protocol or guideline driven and where clinical risk is lower and intervention usually planned. It accounts for a large volume of NHS care, and is often the domain of nurses.

Lynch (2022) found that nurses and allied health professionals describe VGCs as bringing joy to often repetitive, monotonous, simple clinical work through deeper connection to patients. This aligns with findings in several systematic reviews (Booth et al, 2015; Graham et al, 2021). Staff described the relief of having the autonomy to improve simple clinical interventions that they understood were neither adding value to patient care nor valuing their clinical skills. They also shared how VGCs align with their professional values. They talked about the privilege of meeting people in their own homes, expressing pride and joy in the difference VGCs had made to patients' experiences and to the quality of their own working lives. They described how VGCs meant that they could continue to work rather than shield at home during Covid, and how the VGC experience meant that they wanted to continue to work when previously they were planning on leaving their post or retire.

In their systematic review of practitioner and patient experiences, Graham et al (2021) identified comprehensive patient-led care, peer support and reduced repetition and improved efficiency compared with one-to-one appointments as the key benefits valued by practitioners.

Designing and mobilising VGCs restored a sense of autonomy to nurses' clinical practice (Lynch, 2022). Operationalising group clinics developed a range of skills in both nurses and the wider team. VGCs built digital maturity (Lynch, 2022). It has also been found that general practice nurses improved their understanding and application of quality improvement and change management skills (Health Education England [HEE], 2018). Staff took on additional leadership, clinical, or operational responsibilities (Lynch, 2022; Papoutsi et al, 2022), e.g. practice IT staff took on patient facing roles and supported patients to join VGCs, receptionists facilitated group clinics, healthcare assistants facilitated and simultaneously developed their knowledge of diabetes management, and clinicians learnt by listening to their patients' experiences (Papoutsi et al, 2022). The whole practice team benefitted from building empathy, closer relationships, more integrated internal working and from working in partnership with community organisations to deliver group clinics (HEE, 2018; Papoutsi et al, 2022).

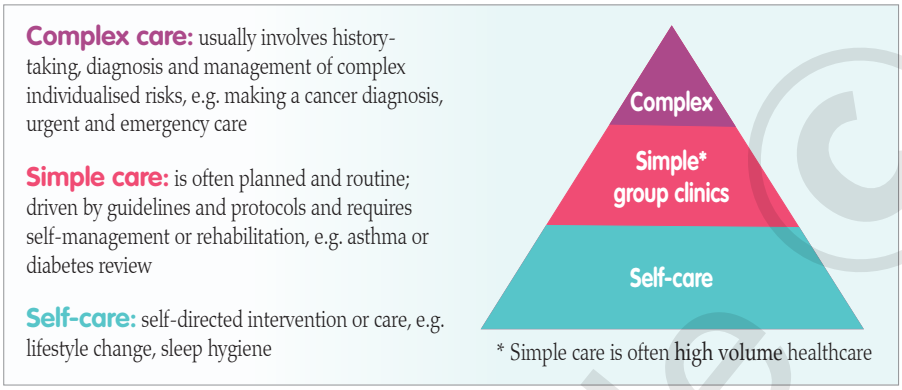

FIGURE 1.
Where group clinics fit into care pathways (adapted from Christensen et al, 2000).

CONCLUSION

With benefits for everyone and a robust evidence base to back them, group clinics are a way of working whose time has come. GPN

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Further information

If you are interested in getting started with group clinics, tap into these resources:

- Short animation that describes how VGCs work: www.youtube.com/watch?v=5Av9gBX2Kwl&feature=youtu.be
- Short film that describes how face-to-face group clinics flow: https://youtu.be/JVwyeorGq14
- Faculty of Sexual and Reproductive Healthcare: www.fsrh.org

Future NHS:

- Log on to Future NHS: https://future.nhs.uk/
- Once you are logged in, follow this link to the VGC Hub: https://bit.ly/nhsvgchub

In Wales:

- Follow this link to the VGC toolkit in English: https://digitalhealth.wales/tec-cymru/vc-service/i-am-clinician/training/virtual-groups/video-groups/resources/toolkit
- Click here to access the hub and toolkit in Welsh: https://digitalhealth.wales/cy/tec-cymru/vc-service/i-am-clinician/training/virtual-groups/video-groups/resources/toolkit

E-learning:
There are two free modules of e-learning available via e-Learning For Health that explain the basics. Access them by following this link: www.e-lfh.org.uk/programmes/video-group-clinics/

Team training:
Including access to the latest best practice, a comprehensive toolkit and support for all members of the practice team from administrative staff through to clinicians and facilitators is available in many parts of the country. If you would like to tap into local training, contact: georgina@elcworks.co.uk

Skin tone in the management of incontinence-associated dermatitis

Moisture-associated skin damage (MASD) is an umbrella term to describe the trauma that occurs when there is prolonged exposure to moisture. Incontinence-associated dermatitis (IAD) is an MASD condition caused by urinary and/or faecal incontinence. It often causes significant pain and has a negative impact on an individual's quality of life. Prompt diagnosis of IAD is key to successful management, but the early symptoms of erythema and redness may not be obvious in those with a dark skin tone. Delays in assessment and treatment mean that maceration, infection and the development of pressure ulcers become more of a risk. This is compounded by the lack of education and awareness of the significance of skin tone in relation to wound care. This article is based on published research, together with the practical experience of healthcare professionals at the Complex Wound Clinic (CWC) in North West London. The aim is to highlight the importance of considering skin tone when managing IAD. This can be achieved by using a validated skin tone assessment tool which shows a range of six skin tones. The importance of skin tone is a critical subject as the latest 2021 Census data shows that in England and Wales, 18% belong to a black, Asian, mixed or other ethnic group (Gov.UK, 2021 Census data).

KEY WORDS:

- Skin tone
- IAD
- Assessment
- Management
- Allergies and medications

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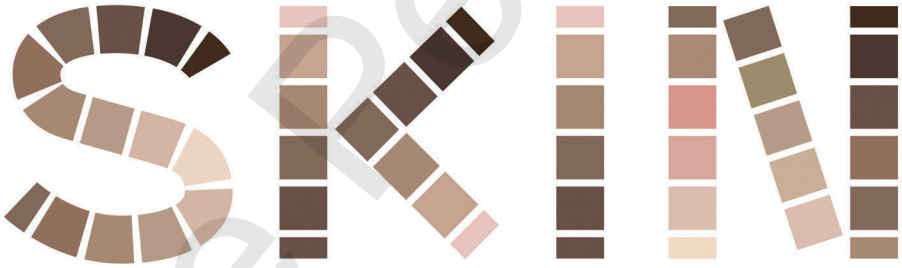
Nurse consultant tissue viability, London North West University Healthcare NHS Trust



Photograph: gritsiuk katrain/Shutterstock

THE COMPLEX WOUND CLINIC

The Complex Wound Clinic (CWC) at Central and North West London (CNWL) NHS Foundation Trust provides wound assessment and management to help improve chronic wound healing rates.

The specialist team assist other clinicians in the care of patients with complex wounds, providing the expert support required to deliver the most appropriate management. The service is provided in the community, in patients' homes (including nursing homes) and in clinics. Since the Covid pandemic, an increasing number of patients are being referred with moisture-associated skin damage (MASD), mostly due to incontinence-associated dermatitis (IAD). Many patients have had little or no previous contact with healthcare services; preferring to keep their continence problems 'in the family'.

THE SKIN

The skin is the largest organ of the body, providing a protective barrier against pathogens. It also protects internal tissues and organs from harmful ultraviolet (UV) radiation, chemical irritants, temperature, toxins, and mechanical injuries (Lopez-Ojeda et al, 2022). To maintain this protective function, skin integrity is essential. When the skin is exposed to excess moisture, it becomes prone to maceration and breakdown (Green et al, 2022). This may lead to the development of complex problems, including pressure ulceration, MASD, skin tears and infections (Waller and Cole, 2023).

MOISTURE-ASSOCIATED SKIN DAMAGE (MASD)

MASD is caused by prolonged exposure of the skin to moisture. This compromises the protective function of the skin, causing it to become more susceptible to penetration by microorganisms, as well as mechanical damage from shear and friction (Gray et al, 2011).

MASD can be aggravated by chemical irritants, proteolytic and lipolytic enzymes and an alteration in the skin pH (Young, 2017), all of which have the capacity to compromise the barrier function. Damage can range from superficial erythema to extensive skin breakdown and may be complicated by bacterial and fungal infections (Young, 2017). It is more frequently seen in older skin, which is more fragile and susceptible to breakdown. With increasing age, epidermal turnover becomes slower, there are fewer sweat glands and sebum production is reduced (Young, 2017).

Additional risk factors for skin breakdown, include:

- Obesity
- Limited mobility

- Poor skin hygiene
- Use of abrasive cloths for drying the skin

(Young, 2017).

MASD is an 'umbrella' term to describe four conditions, which are characterised by the type and source of irritant:

- IAD
- Intertriginous dermatitis
- Peristomal MASD
- Periwound MASD.

This article concentrates on IAD.

INCONTINENCE-ASSOCIATED DERMATITIS (IAD)

Incontinence-associated dermatitis (IAD) is the most frequently diagnosed form of MASD and is caused by urine and/or faeces (Young, 2017). Enzymes in the faeces damage the stratum corneum and may exacerbate the effects of urine on the skin. This makes double incontinence more damaging to the skin than either type of incontinence alone (Young, 2017).

Skin damage is usually found in the perianal area, although it can extend further depending on the degree of the incontinence and speed with which the contaminants are removed from the skin (Beeckman et al, 2015).

Initially, IAD presents as erythema of the skin, which may be patchy or completely cover the affected area. The erythema is a result of inflammation, and the skin feels warm to the touch. The erythema may develop into superficial wounds (loss of epidermis) and may present with vesicles, bullae, papules or pustules (Beeckman et al, 2015). The skin may also present with a glossy surface (Nakagami et al, 2006). IAD can cause considerable pain (often burning in nature) and distress, particularly following an episode of incontinence (Woo et al, 2017).

Additional factors increasing the risk of developing IAD include fragile skin, compromised mobility, diabetes mellitus, difficulties in performing personal hygiene, increased body mass index (BMI) and poor nutritional status (Beeckman et al, 2015; Young 2017).

IAD is also an independent risk factor for the development of pressure injury (Glass et al, 2021). A review concluded that people with IAD are five times more likely to develop pressure ulcers than those who are continent (Beeckman et al, 2015).

While there is no accurate record of the number of people living with IAD, 52% of individuals living independently in the community, with faecal or dual incontinence reported having IAD (Gray et al, 2011). The actual numbers may be higher due to the perceived stigma of incontinence.

"... skin changes in people with dark skin tones are not always recognised quickly enough, and it may take longer to make an accurate diagnosis and administer optimum care.

Some facts regarding incontinence in the UK are:

- 14 million people have urinary incontinence (Woodward and Norton, 2020)
- 6.5 million have bowel problems (Woodward and Norton, 2020)
- Continence issues can appear at any time of life (NHS England, 2018)
- One in 10 of the UK population experience faecal incontinence, with over half a million adults affected (NHS England, 2018)
- Nearly two-thirds of people with faecal incontinence also have urinary incontinence (Norton et al, 2007)

Faecal incontinence is a physically and psychosocially debilitating disorder which negatively impacts quality of life. It causes significant distress to patients and often creates difficulties for families and carers (Meyer and Richter, 2015). Even though it is a common condition, the prevalence is often underestimated due to reluctance to report symptoms or seek professional care.

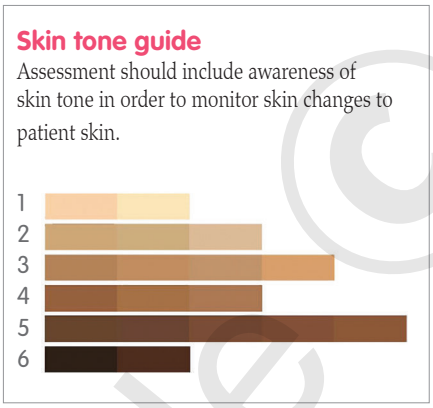


FIGURE 1.
Skin tone tool (adapted from Ho and Robinson, 2015).

CLINICAL SIGNIFICANCE OF SKIN TONE

In the author's experience, skin changes in people with dark skin tones are not always recognised quickly enough, and it may take longer to make an accurate diagnosis and administer optimum care. Looking for signs of redness is usually the first step when assessing a patient's skin to identify the early signs of pressure damage. In darkly pigmented skin, erythema can be more difficult to recognise and may be overlooked in the initial assessment.

The patient's baseline skin tone should always be included when assessing the skin, so that any changes can be monitored and identified at an early stage. This is essential to ensure that important signs are not missed, so that skin breakdown and damage can be avoided. Indeed, in the author's clinical experience, the darker the skin tone, the easier it is to miss the early signs of erythema.

Skin tone is determined by the brown pigment, melanin, which protects the skin by absorbing harmful UV radiation from the sun. As the skin encounters UV rays, melanocytes produce additional melanin (Ho and Robinson, 2015; Gupta and Sharma, 2019). There is no difference in the number of melanocytes between skin types. The palest and the darkest skin

will, on average, contain a similar number of melanocytes. However, the production and concentration of melanin in the epidermis is higher in dark skin (Ho and Robinson, 2015; Gupta and Sharma, 2019).

SKIN TONE ASSESSMENT TOOL

Given the importance of identifying a patient's baseline skin tone, a Wounds UK Expert Working Group (Wounds UK, 2021) recommends the use of a skin tone tool based on an adaptation from Ho and Robinson (2015) (*Figure 1*).

This validated classification tool shows a range of six skin tones. The tone can be selected which most closely matches the patient's inside upper arm. It is a simple and economical way of assessing skin tone, which requires no power source, calibration, or processing software. This makes it widely accessible to all care givers needing to record baseline skin tone. When assessing skin tone, it is important to note that it may differ across different areas of the body, which is why the inside upper arm is recommended to ensure consistency of results.

The Fitzpatrick classification was one of the most widely used methods of skin phototyping. Developed in the 1970s, it is based on a person's self-reported tendency to burn in the sun and likelihood to tan. However, this classification tool has been found to be subjective and biased towards white skin, so is now of limited practical use (Ho and Robinson, 2015).

Practice points

- Always listen to the patient's perspective on their wound and overall health
- Use neutral and professional terminology which focuses on skin tone
- Inspect the skin thoroughly and regularly, so that diagnosis can be made before maceration occurs
- Incorporate the skin tone assessment tool into existing IAD management frameworks.

SKIN TONE AND IAD ASSESSMENT

In moderate-to-severe IAD, the epidermis breaks down and in light skin it will appear pink or red. The affected area usually has poorly defined edges and may be patchy or continuous over large areas (Beeckman et al, 2015).

When identifying 'redness' in IAD, consideration must be given to how this may present in a range of skin tones, even if this is not always obvious in literature and guidelines. For example, the Ghent Global IAD Categorisation Tool (GLOBIAD) categorises IAD severity based on visual inspection of the affected skin areas (Beeckman et al, 2018). It relies on 'redness' as a key indication of damage and all images are of light skin tones. It does, however, acknowledge that a variety of tones of redness may be present; and in patients with darker skin tones, the skin may be paler or darker than normal, or purple rather than red (Beeckman et al, 2018).

The unique characteristics of dark skin tones should be taken into account when assessing IAD. They include higher lipid content and more melanosomes in the stratum corneum compared with light skin. These characteristics may cause inflammation to present as violet-black or black, which may mask erythema. Because darker skin has more melanin than light skin, assessment of blanching can also be muted, complicating identification of early skin injury (Francis, 2019).

It is worth noting that skin irritation in patients with dark skin tones may cause hyperpigmentation (increased pigmentation) or hypopigmentation (reduced pigmentation), with no redness visible (Nijhawan and Alexis, 2011).

Changes in skin colouration are often the main visual sign of erythema in dark skin. This can be easier to identify when affected areas are compared with unaffected

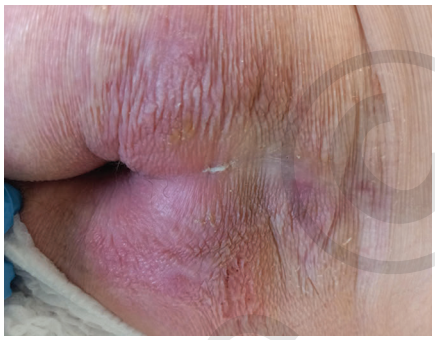


Figure 2.
Erythema is clearly visible in skin type 1.

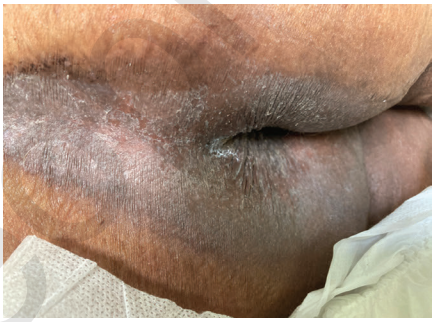


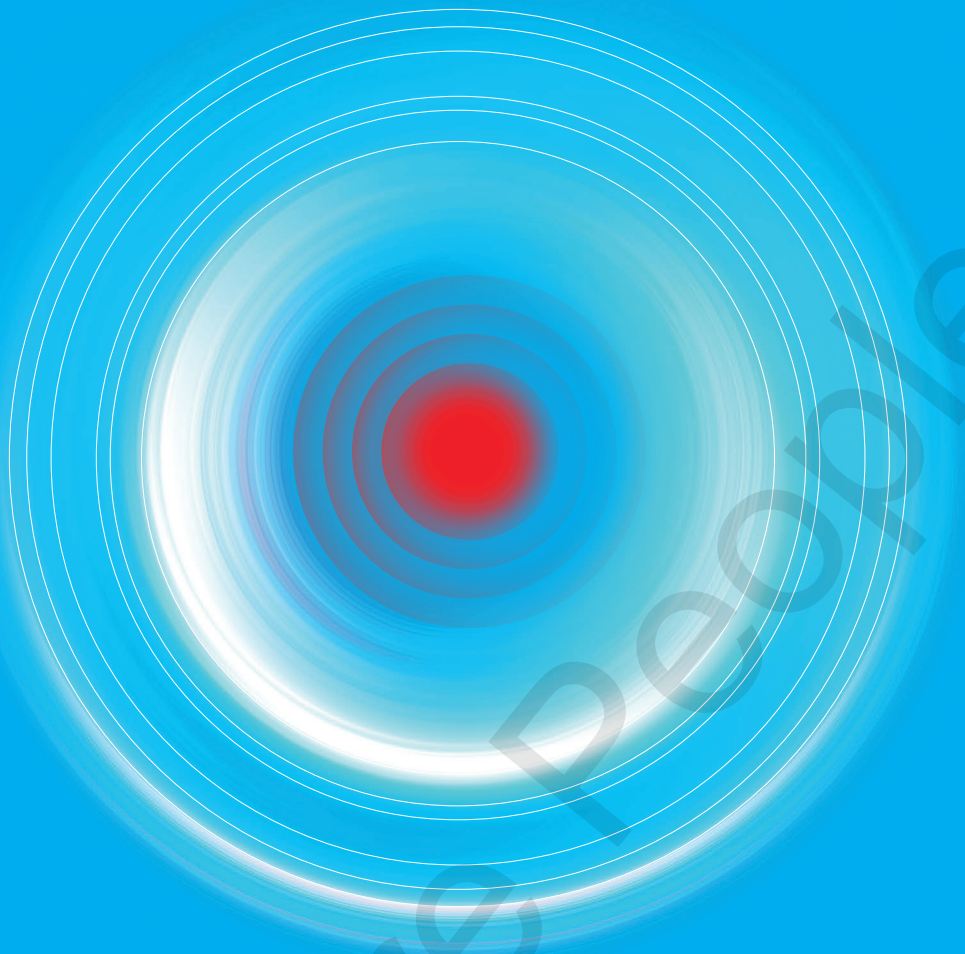
Figure 3.
Erythema is less obvious in skin type 4.

skin. *Figures 2* and *3* demonstrate that while erythema is obvious in skin type 1 (*Figure 2*), it is less easy to diagnose in skin type 4 (*Figure 3*). Yet, the patient with skin type 4 is in the early stages of IAD. Without an early diagnosis, the skin is likely to breakdown, which may even lead to a pressure ulcer forming.

IAD MANAGEMENT CONSIDERATIONS

The skin should be examined thoroughly and regularly, taking into account skin tone. This should form part of an overall holistic assessment which includes not just the patient's skin, but also their overall health and medical history, together with any significant cultural considerations (Wounds UK, 2021). Taking this approach means that care can be individually tailored to meet each patient's needs. Regular skin assessments mean that any changes can be managed at an early stage, with protective measures such as barrier and cleansing products used before damage occurs.

When caring for patients with IAD, it is important to remember that skin tone is separate from race. For example, not all people classified as



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black have dark skin tones; and not all those classified as white have light skin tones. In the author's clinical opinion, this is where the skin tone assessment tool is invaluable, as it shows a range of six skin tones, not linked to ethnicity.

It is important to acknowledge that different patient groups may have different needs. In some communities people may be mistrustful of the healthcare system and be reluctant to seek help (Mukwende, 2020). This reluctance has been intensified by the recent pandemic, when access to health care was severely limited. Indeed, in the author's clinical experience, many patients only seek clinical intervention for IAD when their symptoms have a major impact on their everyday life.

When assessing a patient with IAD, it is always worth asking direct questions, such as,'are any parts of your skin sore?' or'have you noticed any changes to your skin?'This can help to obtain information that might otherwise have been missed.

Selecting treatments and products tailored to the individual patient is essential. Wherever possible, shared decision-making should take place, so that the individual feels engaged with and confident in the care they are receiving (Moore et al, 2015). Supported self-care should be encouraged where possible, with education about the importance of skin integrity and protection forming part of the care plan (Fletcher et al, 2020).

Skin protection products such as barrier creams should be used to create a protective layer on the skin's surface, that simultaneously maintain hydration levels while blocking external moisture and irritants (Waller and Cole, 2023). Appropriate continence pads also have a significant role to play in management.

The skin of patients who are incontinent should be cleansed at least once daily and after each episode of faecal incontinence (Beeckman et al, 2015). The author's clinic (CWC) prefers cleansing products which are simple to use with good skin compatibility. Antimicrobial octenidine-impregnated wash mitts are regularly used for cleaning intact skin when managing IAD. The clinic's qualitative data shows patient and professional satisfaction with the mitts (Dhoonmoon and Dyer, 2020). Octenidine is an antimicrobial with good tissue compatibility (Vanscheidt et al, 2012), and is known to prevent bacterial growth (Cutting and Westgate, 2012). It also has deodorising properties, which is an advantage when managing IAD. In the author's clinical experience, the mitts are easy to use in a non-clinical setting, which can help improve compliance.

CASE REPORTS

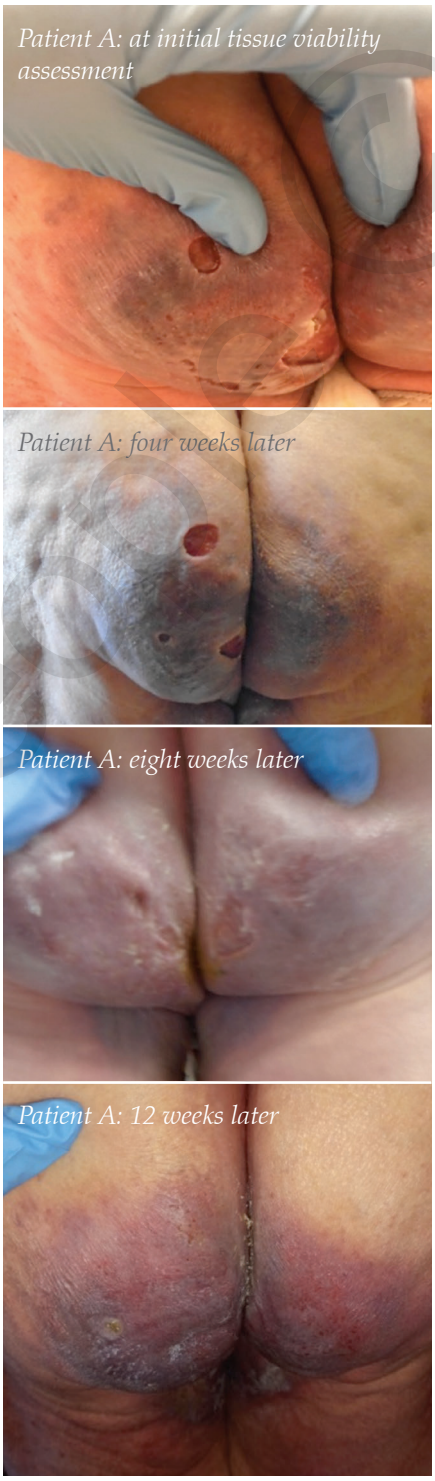
Patient A

Patient A was referred to the CWC by her general practice nurse (GPN) who was concerned about non-healing'sores' on the patient's buttocks, which were causing pain and intense itching. These symptoms were having a significant impact on her life. She was mobile and quite independent, but did have a history of recurrent falls. The patient lives with her daughter who supports her with cooking, cleaning and food shopping.

Her previous medical history included diverticular disease, gastric polyp, hiatus hernia, fracture of the humerus, hypertension and chronic obstructive pulmonary disease (COPD).

At initial assessment, pressure areas and skin integrity were checked. Assessment included a skin tone evaluation, which was recorded as type 3. She had a broken moisture lesion to her buttocks and natal cleft; and there were clear signs of venous engorgement. It is likely that the early signs of erythema were missed by her carers, due to her skin tone making diagnosis less obvious.

The patient advised that she 'dribbles' constantly, so wears a sanitary towel. She is changing this more frequently due to the amount of blood leaking from the moisture



lesion. She also reported that she sweats heavily, particularly in the anal area, which has made the area feel very itchy. The patient's urinary incontinence and perspiration contributed to the breakdown of her skin. The itchiness caused the patient to scratch her buttocks, causing more excoriation to the already vulnerable area.

An enzyme alginogel was prescribed for use on the open wound, with octenidine-impregnated wash mitts to help manage irritation

in the periwound areas. Her daughter was shown how to manage the skin care regimen and was fully engaged with the treatment plan. The patient declined referral for continence assessment, stating a preference to 'manage this herself'.

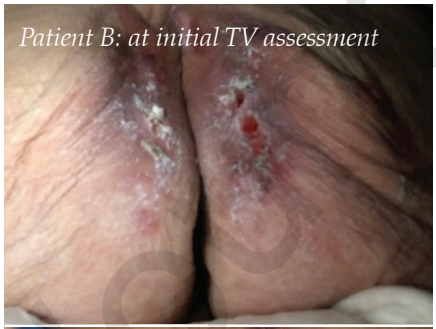
Eight weeks after initiating the treatment plan, the moisture lesions were considerably smaller and were causing little or no discomfort to the patient. At 12 weeks, there was evidence of complete healing. It was agreed that no further visits were required and that the management regimen would be continued.

Patient B

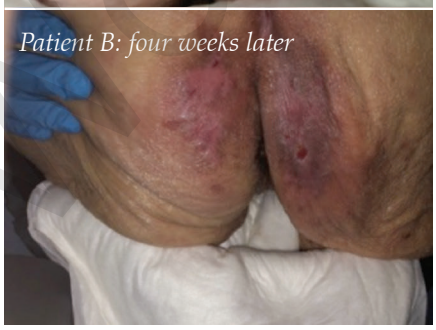
Patient B was referred to the author's clinic by her GP due to a chronic skin lesion to the buttocks.

Her medical history included reduced mobility following a recent hip fracture, hypertension, raised cholesterol levels, type two diabetes mellitus and asthma She lives with her daughter who is her main carer and very supportive of her mother.

At initial assessment, her skin was very dry and IAD was present. Her skin tone was type 2. After discussions with the patient, she stated that she had both faecal and urinary incontinence. The pain from the lesions was so severe that she could not sit down. Also, the odour from her skin disturbed her sleep and appetite. The patient's treatment goal was to sit down to eat and enjoy a meal.



Patient B: at initial TV assessment



Patient B: four weeks later

Her daughter had been cleaning the buttock area regularly with scented bubble bath to help keep her mother 'feeling clean and fresh'. Baby lotion was also applied to the area. Both products were likely to have increased skin irritation. Having skin tone type 2 and double incontinence meant that her daughter missed the early signs of IAD, only seeking medical intervention when there were obvious skin lesions.

A management plan was discussed and agreed with the patient and her daughter, with good skin care being central to treatment. They agreed to discontinue the use of scented bubble bath and baby lotion. Instead, they were taught how to use octenisan wash mitts on the periwound areas, followed by a barrier cream.

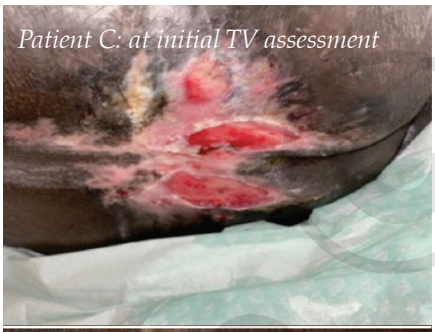
Four weeks later, the patient was able to sit out for lunch and evening tea with her daughter. No pain was reported, the lesions were healing, and odour was no longer an issue. No further clinical input was required, as they both felt well supported and wanted to continue the cleansing and barrier cream regimen.

Patient C

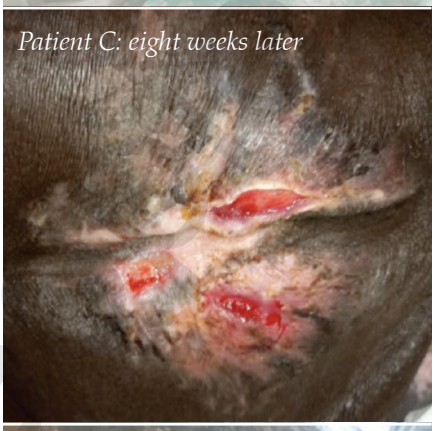
Patient C was referred to the author's clinic by the district nurse due to skin deterioration on both buttocks linked to double incontinence. She lives alone at home but is bedbound and supported by a four times daily package of care.

Her medical history included advanced stage Alzheimer's disease, faecal and urinary incontinence, hypertension, raised cholesterol and type 2 diabetes mellitus. She had been offered catheterisation to manage her urinary incontinence but declined this intervention, preferring to use pads.

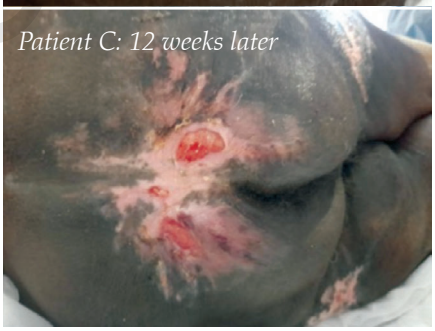
At initial assessment, the skin was eroded and burning pain was being caused by extensive excoriation. A diagnosis of IAD was made, and her skin tone was recorded as 6, meaning that the early stages of IAD had not been diagnosed by her carers.



Patient C: at initial TV assessment



Patient C: eight weeks later



Patient C: 12 weeks later

Although her carers had been using a barrier cream, the patient's faecal incontinence caused the skin to continue breaking down, leading to further erosion. Due to pain, the patient did not allow carers to deliver personal care.

The management plan included liaison with the local continence service to ensure that the patient had the correct pads; and with the occupational therapy team to install the required pressure-relieving equipment in her home.

Carers were advised to clean faeces with plain wipes and warm water first, then use octenidine-impregnated wash mitts to remove any contaminants and bioburden from the intact areas of skin. A skin protectant ointment was applied to the lesions.

At the four-week review with the patient and her carers, they reported that the patient accepted this management plan as the cleansing regimen did not cause pain. She was much calmer and not shouting or crying when approached for personal care. They also noted that the patient's appetite had improved.

Eight weeks later, further healing was noted. At 12 weeks, her skin integrity showed significant improvement and as healing continued to progress, she was discharged from the care of the tissue viability team.

CONCLUSION

All forms of MASD, including IAD, have a significant impact on patient wellbeing and quality of life, so it is vital that all care is delivered using best practice and with a patient-centred approach. Optimising treatment and outcomes depends on accurate skin assessment, for which knowledge of the signs and symptoms across skin tones is essential (Mukwende, 2020). This means that training is needed so that all clinicians and carers are confident to make this assessment and understand its importance in best practice. Healthcare professionals have a responsibility to prevent health inequality, so recognising and taking into account skin tones is an opportunity to improve care. This will help to create an environment in which patients feel confident in the care they receive, regardless of their skin tone. GPN

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Abnormal menstrual bleeding patterns: what GPNs should know

This article looks at amenorrhoea and oligomenorrhoea, both of which can be a cause of concern for those women affected. Such issues can be difficult for clinicians to diagnose and treat, because of variations in bleeding patterns, complicated history in some patients, and associated problems. Signs and symptoms, causes, diagnosis, treatment, and complications are covered here, in the hope that general practice nurses (GPNs) and non-medical prescribers will feel more confident in recognising concerns and can then get earlier investigations and treatment, thus reducing the risk of complications and improving quality of life for women affected.

KEY WORDS:

- Amenorrhoea
- Oligomenorrhoea
- Management
- Complications
- Prognosis

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Photograph: Janpen Boonbao/Shutterstock

This article is the first of a two-part series on abnormal bleeding patterns in women. Women presenting with concerns about their monthly periods can be challenging for general practice nurses (GPNs) because of the wide variation in symptoms, bleeding irregularities and possible underlying causes. This article will look at two problems, amenorrhoea and oligomenorrhoea, and give an overview of causes, investigation, diagnosis, management, and complications, with a view to helping general practice nurses (GPNs) and non-medical prescribers feel more able to recognise and assess women presenting with these problems so that they can facilitate further help and treatment, and hopefully improve the quality of life for those affected.

MENSTRUAL CYCLE

The menstrual cycle is a natural process which occurs on a monthly basis in preparation for possible pregnancy. An egg is released each month from one of the ovaries — ovulation — and alongside this, hormonal changes occur which prepare the uterus for pregnancy. If following ovulation, the egg is not fertilised, the lining of the uterus is shed via the vaginal canal and this is the menstrual period (Mayo Foundation for Medical Education and Research [MFMER], 2023a).

ABNORMAL BLEEDING PATTERNS

Menstrual cycle disorders can cause a woman's periods to differ from the expected monthly pattern. In some cases, monthly bleeds may be completely absent or infrequent, and although some women may not be too worried by this, these changes should always be discussed with a healthcare provider because they can signal underlying medical conditions which can potentially have long-term health consequences (Welt, 2022).

AMENORRHOEA

Amenorrhoea is defined as the absence or cessation of menstruation and is generally divided into the following categories (BMJ Best practice, 2018):

- Primary amenorrhoea: this is the lack of menses by the age of 15 in a patient with appropriate development of secondary sexual characteristics (e.g. breasts or pubic hair), or absent menses by 13 years of age with no signs of pubertal maturation
- Secondary amenorrhoea: this is the lack of menses in a non-pregnant female for at least three to six months when previous cycles have been regular (BMJ Best Practice, 2018). Many of the causes are shared with those for primary amenorrhoea.

Primary amenorrhoea is rare and is estimated to have a prevalence of around 0.3%, whereas secondary

Red Flags

- Primary amenorrhoea: defined as lack of menses by the age of 15 with the development of secondary sexual characteristics (e.g. breasts or pubic hair), or no menses by the age of 13 with no signs of secondary sexual characteristics
- Secondary amenorrhoea: this is cessation of menses in a non-pregnant female for at least three to six months when monthly bleeds have previously been regular
- Oligomenorrhoea: intervals between menstrual cycles are more than 35 days and/or the woman has less than nine periods per year.

amenorrhoea is more common and has a prevalence of 5–60% in competitive endurance athletes and 19–44% in ballet dancers (BMJ Best Practice, 2018).

Causes of primary amenorrhoea

There are multiple causes which are roughly divided into two categories dependent on the presence or absence of secondary sexual characteristics as discussed above.

In females with secondary sexual characteristics present, possible reasons include (Gasner and Rehman, 2022):

- Developmental delay: there is no underlying abnormality found on investigation, but the girl is later than her peers in reaching menarche
- Genitourinary malformations: these include imperforate hymen, absence of the vagina or uterus, or transverse vaginal septum. If the vagina is absent but the uterus is present, this means that there is no passage to the outside for blood to flow. The patient may experience cyclical lower abdominal pains, but no bleed can occur
- Hyperprolactinaemia: this has many causes including medication (phenothiazines), hypothyroidism and pituitary tumours. If the latter is the cause, prolactin levels are often very high
- Testicular feminisation: also called androgen resistance syndrome and occurs with an XY karyotype. There may be ambiguous genitalia, where the external appearance of the vagina is normal but the internal female organs (fallopian tubes, ovaries, uterus, or upper vagina) are absent
- Pregnancy: this should always be considered as a possible cause.

Table 1: Causes of hypothalamic dysfunction (NICE, 2022)

■ Excessive exercise and/or weight loss ■ Stress ■ Physically active females (distance runners, gymnasts), who have low energy availability, with menstrual dysfunction and low bone density
■ Other causes include: hypothalamic or pituitary tumours, infection, or head injury, Prader Willi syndrome (a rare genetic condition that causes a range of physical symptoms, learning and behavioural challenges), Kallman syndrome (a rare genetic disorder that is defined by a delay or absence of signs of puberty with an impaired or absent sense of smell)
■ Ambiguous genitalia if present may be due to androgen secreting tumours, congenital adrenal hyperplasia, or 5-alpha reductase deficiency

In females with amenorrhoea and no secondary sexual characteristics present, possible reasons include: (National Institute for Health and Care Excellence [NICE], 2022):

- Primary ovarian insufficiency which may be due to chromosomal irregularities (e.g. Turner's syndrome, see below)
- Chronic illness: poorly controlled diabetes, cancer, and infections (e.g. tuberculosis), severe cardiac or renal disease
- Hypothalamic dysfunction: some of the reasons for this to occur are shown in *Table 1*.

Causes of secondary amenorrhoea

These include:

- Pregnancy: the most common cause in women of childbearing age
- Polycystic ovary syndrome (PCOS)
- Primary ovarian insufficiency
- Hyperprolactinaemia (see above)
- Hypothalamic amenorrhoea (Klein and Poth, 2013).

Less common causes of secondary amenorrhoea are shown in *Table 2*.

OLIGOMENORRHOEA

There is an overlap between oligomenorrhoea and secondary amenorrhoea (Jamal and Skein, 2022).

Oligomenorrhoea refers to intervals between menstrual cycles of more than 35 days and/or less than nine periods per year (Jamal and Skein, 2022). The prevalence of oligomenorrhoea is estimated to be approximately 13.5% in the general population, with 11–44% of dancers and 6–60% of athletes reporting oligomenorrhoea at some point in their lives (Riaz and Parekh, 2022).

Causes of oligomenorrhoea

Many of the causes of oligomenorrhoea are shared with those for secondary amenorrhoea and the commonest of these include (Cleveland Clinic, 2022):

- PCOS
- Contraception/ hormonal treatments
- Diabetes
- Thyroid abnormalities (hyperthyroidism)

Red Flags

- Multiple causes of primary, and secondary amenorrhoea
- Oligomenorrhoea also has multiple causes, some of which are shared with secondary amenorrhoea
- Pregnancy should always be excluded
- Referral to secondary care is usually needed for further investigations.

Table 2: Less common causes of secondary amenorrhoea (Brown, 2020)

■ Post delivery amenorrhoea may suggest Sheehan's syndrome: a rare condition where damage to the pituitary gland occurs as a result of severe blood loss during childbirth
■ Asherman's syndrome (scar tissue formation) following surgery to the cervix or uterus
■ Virilisation (the development of male traits such as male pattern baldness and excessive facial hair), which may be associated with adrenal or ovarian malignancy
■ Certain drugs, including metoclopramide, methyldopa, opiates, cocaine as well as radiotherapy and chemotherapy
■ Endocrine causes such as Cushing's syndrome or late onset adrenal hyperplasia

Table 3: Other causes of oligomenorrhoea (Cleveland Clinic, 2020

Cause	Additional information
Androgen secreting tumours	■ Tumours on the ovary or adrenal glands can release androgens causing disruption to the menstrual cycle which may lead to symptoms similar to those of PCOS
Cushing's syndrome	■ Excess cortisol secretion which leads to hormonal imbalances
Prolactinoma	■ The tumour causes excess production of prolactin by the pituitary gland and reduced hormone production (e.g. oestrogen) needed for normal menstrual cycles
Congenital adrenal hyperplasia	■ A congenital abnormality which blocks enzyme production from the adrenal glands so that hormones needed for menstruation are insufficient in quantity
Asherman's syndrome	■ See *Table 2*

- Eating disorders and excessive exercise
- Perimenopause
- Medications, such as antipsychotics and antiepileptics.

Other causes are shown in *Table 3*.

HISTORY AND EXAMINATION

A thorough medical history and examination should be taken which may provide important pointers towards an underlying cause.

This should include a history of present problem (Pinkerton, 2023):

- Has menarche occurred and, if so, at what age did periods start?
- Have the changes of puberty occurred (breast development, pubic and axillary hair, etc)?
- Date of last menstrual period (first day)?
- Cycle frequency and regularity in the last three to 12 months and whether periods have ever been regular?
- Duration of bleeding when this occurs and the amount of blood loss?
- Are menses accompanied by significant pain or discomfort (rare, but may be an indication of structural abnormalities)?
- Does the patient experience breast tenderness and mood changes which if not present may suggest abnormal uterine bleeding?
- Dietary intake and exercise patterns should be questioned.

In addition to the above questions, it may be useful to determine if the woman is aware of any medical problems which occurred in infancy or childhood and any family history which may be relevant. Menstrual history and age of onset of menstruation in mother and sisters if there are any, may be useful. A close family member with PCOS may be relevant, as a genetic link is now thought to be associated with the risk of developing this condition (Kosova and Urbanek, 2014).

Similarly, a family history of Turner's syndrome should be questioned. Turners' syndrome is a genetic condition where the female has only one X chromosome instead of the expected two (NHS, 2021). Females with this syndrome often have a range of distinctive characteristics, such as short stature (relevant when assessing blood test results, see *Table 4*), and will also have underdeveloped ovaries, resulting amenorrhoea and infertility (NHS, 2021). Because failure to grow in stature and delayed or absent development of secondary sexual characteristics are key features, the problem may not be suspected or diagnosed until the girl reaches her teens. Medications should be questioned and this should include both prescribed and over the counter (OTC). Certain medications can cause menstrual periods to stop, including some types of antipsychotics, chemotherapy, antidepressants, antihypertensives and antihistamines (MFMER, 2023b). In addition, use of herbal remedies should be ascertained, as St John's wort is now known to reduce the effectiveness of the contraceptive pill, increasing the risk of pregnancy (Gov.UK, 2014).

Red Flags

- A thorough and detailed history is needed
- Physical examination should include, height, weight, BMI, abdominal and pelvic examination (not appropriate in young girls not sexually active)
- Bloods may be useful to assess hormone levels and other abnormalities (thyroid stimulating hormone [TSH], haemoglobin A1C [HbA1C])
- Referral to secondary care for further investigations, ultrasound, computer tomography (CT) or magnetic resonance imaging (MRI) scans may be needed.

EXAMINATION

This should include body mass index (BMI) calculation and assessment for secondary sexual characteristics, such as breast development, acne, and hirsutism (NICE, 2022). A vaginal examination and external genital and pelvic examination may be appropriate, depending on the history, but is not suitable for young girls who are not sexually active and an ultrasound scan may be more appropriate in this case (Willacy, 2022). A review of systems may also be helpful in determining a possible cause (*Table 6*).

INVESTIGATIONS

Investigations are usually done in the secondary care setting on the recommendation of a specialist. However, the following can be useful in primary care to suggest a possible preliminary diagnosis (NICE, 2022):

- For the investigation of primary amenorrhoea, a pelvic ultrasound may be needed for young girls, as discussed above, and will confirm the presence or absence of a uterus or vagina if there is uncertainty
- Serum prolactin levels
- Follicle stimulating hormone (FSH), luteinising hormone (LH)
- Thyroid function test
- Testosterone levels.

DIAGNOSIS

Interpretation of test results is complex and is shown in *Tables 4* and *5*.

MANAGEMENT

Treatment and management will aim to address the underlying cause, and will often require both pharmacological and non-pharmacological approaches with the aim of addressing the woman's concerns and preventing complications (Jamal and Skein, 2022; NICE, 2022). Referral is advised in some cases where diagnosis is unsure or there is concern regarding the possible underlying cause, and this is explained in *Table 7*.

Table 4: Interpretation of test results in primary amenorrhoea (Gasner and Rhaman, 2022; NICE, 2022)

Test requested	Raised	Low	Suggested condition
Serum prolactin	Mildly raised Moderate elevations		Stress or medication Pituitary ademonas
FSH/ LH	Raised with short stature High FSH/LH, normal height	Low with stature Low FSH/LH and normal height	Turner's syndrome Intracranial lesions Ovarian failure Weight loss, excessive exercise, anorexia nervosa or constitutional delay
Thyroid function	Raised thyroid stimulating hormone (TSH)	Low TSH	Hypothyroidism Hyperthyroidism
Testosterone	Moderately increased High levels		May occur in PCOS Further investigation needed to exclude Cushing's syndrome, an androgen secreting tumour or late onset congenital hyperplasia

Table 5: Interpretation of test results in common causes of secondary amenorrhoea (NICE, 2022)

	FSH	LH	Prolactin	Testosterone
Hyperprolactinaemia	Normal/low	Normal/low	High	Normal
Ovarian failure	High	High	Normal	Normal
Hypothalamic, e.g. stress, exercise, or weight loss	Low/normal	Low/normal	Normal	Normal
PCOS	Normal	Normal/slightly increased in 40%	Low/normal in 5–30%	Normal/moderately increased

Lifestyle advice

Those with amenorrhoea related to excessive exercise or eating disorders (anorexia) will require a strict dietary regimen (guided by a dietician) to stimulate gonadotropin-releasing hormone (GnRH) production which should re-introduce the menstrual cycle (Jamal and Skein, 2022). Conversely, when amenorrhoea is caused by PCOS, dietary improvements and weight loss will be advised, and weight loss medication such as orlistat may be helpful.

Treating the underlying disorder

If the cause is hyperthyroidism, antithyroid drugs, radioactive iodine or thyroidectomy will be needed (Riaz and Parekh, 2022). If the aetiology is Cushing syndrome, medication that blocks excess cortisol overproduction is needed (Riaz and Parekh, 2022). Hypothyroidism is treated with levothyroxine and dose will need to be titrated until levels are stable. Prolactinomas, if small, can be treated with dopamine agonists, but surgery may be needed to remove tumours (adnexal and adrenal) and thyroidectomy may be indicated if the cause is hyperthyroidism (Cleveland Clinic, 2022).

Symptom control

Certain types of combined contraceptive pills (COCPs) may be helpful in improving excessive hair growth (e.g. Yasmin), and there are numerous treatment options for acne, available both over the counter and on prescription.

Regulating periods

If the patient does not wish to conceive, birth control pills may restore the menstrual cycle and

Table 6: Review of systems and symptoms to suggest possible causes of amenorrhoea (Pinkerton, 2022)

Symptoms	Additional information
Galactorrhoea, headaches, visual field defects, hearing loss	■ May suggest pituitary disorders
Weight gain, fatigue, and intolerance to cold	■ May indicate hypothyroidism
Tremor, heat intolerance and palpitations	■ May suggest hyperthyroidism
Hirsutism, acne, deepening of the voice	■ Possible androgen excess, e.g. PCOS
Palpitations with very low body weight	■ Anorexia and electrolyte imbalance (hypokalaemia and hypomagnesemia)
Hot flushes, sleep disturbance, vaginal dryness, fragility fractures, loss of libido in patients with secondary amenorrhoea	■ May indicate ovarian insufficiency

Table 7: Referral to secondary care for patients with secondary amenorrhoea (NICE, 2022)

Concern	Additional information
Persistently elevated FSH and LH levels	■ Suggest premature ovarian insufficiency in women below the age of 40 years of age
Recent history of uterine or cervical surgery (e.g. myomectomy, endometriosis or pelvic infection, Caesarean section, or endometrial curettage)	■ May suggest Asherman's syndrome or cervical stenosis
Suspected PCOS	■ If this cannot be managed in primary care
Hyperprolactinaemia (serum prolactin level greater than 100mIU/L or 5–1000mIU/L on two occasions)	■ May be caused by prolactinoma or other pituitary gland tumours or certain medication (e.g. haloperidol or chlorpromazine)
Raised testosterone level not caused by PCOS	■ Suggesting an androgen secreting tumour, late onset congenital adrenal hyperplasia or Cushing's syndrome
Low FSH and LH levels	■ Causes may be weight loss, excessive exercise or stress, but pituitary tumour and hypopituitarism need to be excluded

are frequently used in women with PCOS (Riaz and Parekh, 2022). In women with PCOS, metformin may be prescribed as it has multiple benefits such as lowering blood sugar levels and improving insulin resistance and lowering cholesterol levels (NHS, 2022). The drug may also be effective in stimulating ovulation, therefore encouraging a return of regular monthly periods (NHS, 2022). Treatment of the underlying cause of secondary amenorrhoea is often sufficient to restore normal ovulatory menstrual cycles in women with reversible causes of their symptoms, however this may take several months (McIver et al, 1997).

Hormone replacement

Hormone replacement therapy (HRT) with oestrogen (and progesterone if they still have a uterus) should be offered to women experiencing menopausal symptoms. This will treat symptoms, lessen the risk of cardiovascular disease, and maintain bone density, preventing subsequent osteoporosis and increased fracture risk (Jamal and Skein 2022).

FERTILITY PROBLEMS

Referral to a fertility clinic may be indicated in those wishing to conceive but having difficulty achieving this.

SURGERY

Surgical intervention is the primary treatment for pituitary tumours and genital tract abnormalities.

COMPLICATIONS

Both amenorrhoea and oligomenorrhoea carry a risk of complications. These are described below.

Amenorrhoea

Osteoporosis

Evidence suggests that amenorrhoea associated with oestrogen deficiency (in particular, premature ovarian failure, excessive exercise and weight loss, and anorexia nervosa) increases the risk of osteoporosis and, even if periods resume, this risk remains, especially in adolescents because of the failure to attain a desirable peak bone mass (NICE, 2022). A healthy lifestyle should be advised, to aim for obtaining and maintaining a healthy body weight, smoking cessation, weight bearing exercise and eating a balanced diet (NICE, 2022). Loss of menstruation is also associated with increased fracture risk, particularly wrist and hip fractures, and fertility problems (Rawaz and Nogol, 2022).

Cardiovascular disease (CVD)

Oestrogen is cardioprotective and there is therefore concern that low oestrogen levels and severe oestrogen deficiency may increase cardiovascular risk similar to the level seen in postmenopausal women (Grosman-Rimon et al, 2019). Few studies have addressed the risk of cardiovascular disease in young women with hypoestrogenic amenorrhoea, however, oestrogen decreases low-density lipoprotein (LDL), increases high-density lipoprotein (LDL), and is thought to directly affect vascular endothelial and smooth muscle function (Mclver et al, 1997).

Infertility

Ovulation may not happen and ovulatory problems are a cause of infertility (NICE, 2017). Some women will achieve a successful pregnancy following treatment of the underlying problem or with assisted reproduction (NICE, 2017). Untreated oligomenorrhoea can lead to infertility in polycystic ovarian disease and primary ovarian insufficiency due to anovulation.

In addition, fibrosis that occurs as a result of pelvic inflammatory disease and metabolic derangement occurring in uncontrolled diabetes can also make pregnancy more difficult to achieve (Riaz and Parekh, 2022).

Oligomenorrhoea

Oligomenorrhoea can also be associated with additional complications, including the following (Riaz and Parekh, 2022).

Endometrial hyperplasia

This can develop if oligomenorrhoea is left untreated for many years. Proliferation of the endometrium occurs initially, leading to hyperplasia.

Endometrial cancer

Hyperplasia is regarded as a precursor of endometrial cancer. However, combined oral contraceptive pills (COCPs) provide protection against progression to cancer.

PROGNOSIS

Neither amenorrhoea (primary or secondary) or oligomenorrhoea are serious in themselves, but the complications discussed are potentially worrying and if they are to be avoided, early investigation, diagnosis and relevant treatment needs to be commenced as soon as possible.

CONCLUSION

Abnormal menstrual bleeding is of concern to women affected and can impact on wellbeing and quality of life. Underlying causes can be difficult to establish because of the wide variation in bleeding patterns and a thorough history, examination and investigations are needed for appropriate diagnosis to be made, and treatment started. This article aims to give GPNs and non-medical prescribers information and confidence in recognising and advising women suffering with the problems discussed to enable them to seek advice and start treatment and achieve positive outcomes.

The second article in this two-part series will cover menorrhagia and dysmenorrhoea. GPN

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Abdominal presentations: history-taking and assessment

As a novice or an expert (Benner, 1985), abdominal presentations can be intriguing and puzzling. It is vital to take a good patient history and conduct a systematic physical assessment, and to think about immediate management (this might be simple pain management or helping with moving bowels) and to consider the longer term — changes to the signs and symptoms, not resolving despite treatment or good management, weight loss or bleeding. Always heed the patient's intuition — and yours. Monitoring the abdominal problem, the patient keeping a diary if symptoms are sporadic, and giving worsening care advice are as much a part of treatment as medications and investigations. Low thresholds for review include the above but should also be considered in vulnerable populations such as the very young and very old who can deteriorate quickly, and those with pre-existing and long-term conditions, e.g. malignancy and being immunocompromised.This article should be used as an adjunct to an accredited theoretical course with a completed and successful competency assessment.

KEY WORDS:
- Tympany
- Dullness
- Hydration
- Past medical history
- Allergies and medications

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Photograph: Orawan Pattarawimonchai/Shutterstock

This article can be used as an adjunct to a face-to-face physical assessment course as an aide memoire. It may also be useful for those considering these courses and what they might cover. It should not be used on its own without assessed competency, but can be useful to help unpick complex problems and as a reminder for those working as general practice nurses (GPNs) of the breadth of abdominal presentations and some common ways to manage them.

HISTORY-TAKING

When taking a patient history in those presenting with abdominal conditions, it is helpful to consider some of the useful mnemonics you can utilise to extract important information from the patient, such as SAMOSADIET for ancillary information (social/sexual, if appropriate; allergies; medication; occupation; smoking, including recreational substances; alcohol; diet; immunisation history; exercise; travel — Lewis, 2014), OPQRSTU for symptoms (onset/other; provocative or palliative; quality/quantity; region/radiation; severity [on a scale of 1–10]; timing; what do you (U) think it is — Morton, 1995), LICEF for feelings and concerns (lifestyle; ideas; concerns; expectations; feelings — Royal Pharmaceutical Society [RPS], 2020) and the last one is I2C6 (see below — RPS, 2020), which, in the author's opinion, is a great way to establish rapport with patients and ensure their consent to proceed.

There are many other mnemonics which can be used to assess symptoms, however in the author's clinical opinion, using one with which you are familiar can help to reduce variability.

I2C6 is recommended for getting the consultation underway and includes the healthcare professional, such as a general practice nurse (GPN), introducing themselves to the patient (their role — there are many different roles today which confuse both patients and healthcare professionals — and your name) (RPS, 2020). Then, inform the patient of what is going to happen, which leads into gaining verbal or implied consent, i.e.'can I take a history and examine you, what shall I call you, do you need a chaperone, are you comfortable?' etc (in some settings, analgesia may be needed before proceeding to improve the accuracy of the examination), and finishing with hand cleansing. Such communication and interaction can help to build a rapport, while also covering consent and other medio-legal issues, such as consent, confidentiality, privacy and dignity.

LICEF (RPS, 2020) is a good tool to use during history-taking once the majority of the information has been obtained, as:
- Lifestyle reminds you to ask

about smoking, alcohol, exercise, medications and allergies
- Ideas helps you formulate what it is the patient might believe it is and why they have consulted today
- Concerns might also indicate why the patient has consulted today, for instance, has the condition worsened or stayed the same
- Expectations and feelings will help to manage what it is that the patient would like today and clarify what can and cannot be offered.

Depending on the clinical site, an abdominal ultrasound may not be able to be offered within the next hour and the patient may need to be referred, which may take some time. Try to manage expectations in a positive way, such as, 'I can offer assessment and management today – further investigations may take a little longer to organise' (emergencies obviously need to be treated as such). Indeed, 'feelings' help to connect with the patient in an empathic way and may even give further clues about the problem.

PHYSICAL EXAMINATION OF THE ABDOMEN (BICKLEY, 2020)

Inspection includes a systematic look at all of the abdomen from the clavicles down to the symphysis pubis. Look for:
- Hair distribution (does this look excessive due to hormonal irregularities)
- Scars (check the past medical history)
- Pulsations (do not proceed if you see a pulsatile mass such as an aortic bulge)
- Stretch marks and skin colour/rashes.

Yellow skin could mean jaundice and a widespread rash could include the rose rash of typhoid fever or a viral rash (Bickley, 2020) — check the skin blanches and exclude conditions like eczema before jumping to conclusions. Look for gynaecomastia (increase in breast tissue in boys and men causing breasts to swell) and lesions and refer onward if these are concerning.

"Try to manage expectations in a positive way, such as, 'I can offer assessment and management today – further investigations may take a little longer to organise' (emergencies obviously need to be treated as such).

Auscultation should ideally be performed before the rest of the examination, although the jury remains out on this recommendation (Bickley, 2020). Bowel sounds should be listened for in all of the four quadrants (up to five minutes in each quadrant if they are quiet and you need to exclude obstruction), listening over the renal arteries, the iliac and femoral arteries for any bruits. Obstruction is said to have bowel sounds that are tinkling — this may be the case, but there will be other signs of obstruction such as no flatulence, a swollen and hard abdomen (also known as boarding and guarding), loss of appetite and no passing of stools — all to a greater or lesser extent (Bickley, 2020). It is important to use a good quality stethoscope and become proficient in its use.

Table 1: Common signs and symptoms of chronic recurrent abdominal pain (Hopcroft and Forte, 2020)

	IBS	UTI	Constipation	Diverticulitis	Peptic ulcer
High abdominal pain	Possible	No	Possible	Possible	Yes
Colicky	Yes	No	Yes	Yes	No
Weight loss	No	Possible	No	No	Possible
Diarrhoea	Yes	No	Possible	Yes	No
Rectal bleeding	No	No	Possible	Possible	Possible

Practice points

- Link the personal/past medical and family history with the physical assessment
- Always check activities of daily living, e.g. eating, drinking, passing urine and bowel movements
- Only work within your competency — a minor illness can be major.

All new skills take practice to master — percussion is no different. If the patient has complained of pain and bleeding and possible intermittent obstruction or dullness in the descending colon, consider the abdominal mass that you percuss in the left lower quadrant, which may complement the patient history of hard to pass, infrequent stools and abdominal bloating. The index and second fingers of the dominant hand should be used bent to act like a hammer to tap over the middle finger of the non-dominant hand to elicit a sound, with the whole hand flat on the patient's skin. Practice will help to tune the clinician's ear to normal and abnormal sounds. Skill in performing this can be gained by percussing over your puffed out cheek (tympany or resonance) and as a contrast on your thigh (very dull). Tympany or resonance means that you are percussing over an air-filled space and dull would be over an organ, mass or consolidation.

Palpation should be started away from any pain, while watching the patient's face for signs of flinching or discomfort. Also, check for boarding and guarding — a sure sign of a red flag that needs further investigation. Light and then deep palpation are suggested for checking for tenderness and a soft abdomen (Bickley, 2020; Hopcroft and Forte, 2020).

Assessment in children

Children need careful management with abdominal disorders, not least because they cannot tell you the problem and history-taking is generally from a second party (GeekyMedics, nd.). It is important to check that the abdomen is soft, and that eating/drinking and passing urine/stools are not affected. Differentials of abdominal pain in children include mesenteric adenitis (inflammation of the mesenteric lymph nodes, which often occurs when they have an upper respiratory tract infection [URTI] or tonsillitis/otitis media) and a urine infection (accompanied by offensive urine, dysuria and a high temperature).

Remember, young children should only be assessed by clinicians with the competency to do so and with the consent of the legal guardian. It is also important to consider the anatomical and physiological differences (Royal Children's Hospital Melbourne, nd. a). Appendicitis is uncommon (Cambridge University Hospitals, 2022), but parents and legal guardians often assume that any abdominal pain is this. Thus, it is vital to be aware of how to examine, assess, investigate and reassure.

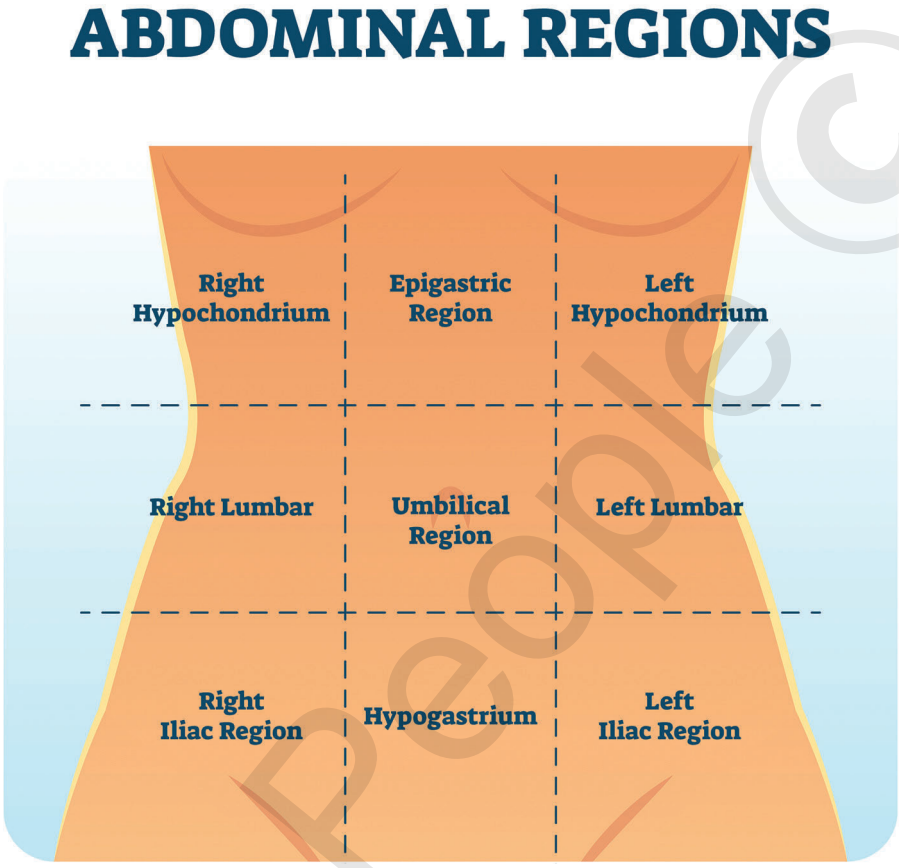
Table 2 outlines the abdominal causes of the sore abdomen, but remember some non-abdominal causes, such as the dissecting aortic aneurysm (circulatory), endometriosis (gynaecology) and food allergies cause discomfort (immmunologicial)

Assessment in pregnancy

Abdominal disorders in pregnancy are hard to manage as physical assessment and investigations are limited by the presence of a foetus (Berlingieri and Grudzinskas, 2023).

Practice points

- If clinicians lack the skills and competence to undertake abdominal assessments, practising scenarios with colleagues and clinical supervision are key.



Urine infections and the nausea and vomiting of early pregnancy are common, also constipation and haemorrhoids. Again, only assess if you are competent to do so and, in the case of advanced practiced, only if you are indemnified (e.g. if you are a midwife or have obstetric and gynaecological qualifications) (Royal College of Nursing [RCN], 2021).

Assessment in the elderly

The elderly may present with a myriad of symptoms related to an abdominal disorder and need careful assessment with regard to past medical and family history, medications, allergies, surgery and current management (Collin et al, 2017). Their condition may be complex and problems can be acute or chronic (*Table 1*). Consider the use of JAM THREADS (Queen Mary, University of London, nd.) to draw out any possible past medical history and management, i.e:

- Jaundice
- Anaemia and other haematological conditions
- Myocardial infarction
- Tuberculosis
- Hypertension and heart disease
- Rheumatic fever
- Epilepsy
- Asthma and chronic obstructive pulmonary disease (COPD)
- Diabetes
- Stroke.

PATIENT STORY FROM PRACTICE

Josie, aged 24, attended the urgent treatment centre (UTC) as a result of having intermittent vomiting and nausea over the last 24 hours. She had had a similar episode a year earlier. She had some nausea after dinner and then vomited a couple of times overnight, but with no diarrhoea and was passing urine normally. Her appetite was back to normal today with no fever at any time. She reported having slight upper abdominal pain intermittently. She was on no medications and had no allergies. Urine and pregnancy tests were taken with Josie's consent and both were negative (pregnancy testing is essential in women of fertile age presenting with abdominal pain). She had had no weight loss, was not overweight and stools showed no change.

Abdominal assessment was normal except for some upper right

Red Flags

- Unintentional weight loss
- Shortness of breath with no known cause, such as anaemia
- Heavy and persistent rectal bleeding or melaena (blood mixed with the stool)
- High National Early Warning Score (NEWS) (Nazarko, 2023)
- Haematemesis (vomiting fresh blood).

quadrant discomfort and a positive Murphy's sign (one of the special tests in abdominal examination which indicates an inflamed gall bladder). On further questioning and history-taking, she revealed that she had a strong family history of cholecystitis — mother, sister, maternal aunt and grandmother. Although she is young to have this abnormality, the strong family history and positive Murphy's test suggest cholecystitis (albeit transitory) and it transpired that she had eaten fried fish and chips with mayonnaise the night before, i.e. a fatty meal.

Management involved monitoring with a patient diary, pain relief, dietary care and onward referral from the GP if an abdominal ultrasound or endoscopic retrograde cholangiopancreatography (ERCP) was needed.

Table 2: Important non-abdominal causes of abdominal pain to consider (Royal Children's Hospital Melbourne, clinical guidelines, nd. b)

Diabetic ketoacidosis (DKA)
Headache (migraine)
Henoch-schönlein purpura (HSP), a condition involving swelling of small blood vessels
Hip pathology
Pneumonia
Psychological factors, such as stress, too much chocolate at Easter or overeating very rich foods, also malnourishment/neglect
Sepsis
Sexually transmitted infection (STI)
Sickle cell disease (vaso-occlusive crisis)
Toxin exposure or overdose
UTI/pyelonephritis

COMMON PROBLEMS IN URGENT AND PRIMARY CARE

Urinary tract infections (UTIs) can present with abdominal pain in adults and children. Dipping the urine to check for abnormalities is essential, together with systematic history-taking and assessment, pain and fever management, and checking the patient's hydration status (Gov.UK, 2020).

Constipation occurs in one in seven adults and one in three children (NHS Inform, 2023) and can be managed successfully by the patient or parent (in the case of a child) with more fluids, more fibre and attention to exercise in adults (NHS Inform, 2023). However, abnormal pathophysiology, such as a mass, obstruction or bleeding, does need to be excluded (National Institute for Health and Care Excellence [NICE], 2023).

Nausea and vomiting occur with gastroenteritis, allergies, food poisoning and many other scenarios. Thus, it is important to consider the cause and best management (Abell and Mather, 2023).

Abdominal pain can be as a result of other systemic problems, namely ascites, diverticulitis, malignancy, irritable bowel syndrome (IBS), inflammatory bowel disease, to mention a few (WebMD, 2023). Hence, it is essential to complete a review of systems, take a thorough history and complete an assessment using all of the tools at your disposal before considering a differential diagnosis.

PUTTING IT ALTOGETHER

Making a clinical decision after completing history-taking and assessment to reach a differential diagnosis is a hard skill to master (Crosskerry, 2105). It is essential to collate the history-taking and examination and consider several likely differential diagnoses. Both of the elements need to be considered before jumping to a conclusion early on which can lead to inappropriate management, e.g. unnecessary investigations and treatment (Banning, 2008). If a certain diagnosis is being considered, test the hypothesis. In simple terms, many things are gender and age dependent (for example, prostate enlargement in males and ovarian cysts in females). Once a diagnosis has been reached and a management plan decided upon, in consultation with the patient, it is crucial to accurately and clearly document for both medical and legal purposes. If you are unsure about the diagnosis, always consult with a more senior and experienced colleague or acute care clinician.

Reflective points

Reflection on consultations is essential and is part and parcel of health care (Johns, 2017). This should be done regularly. Healthcare professionals need to study illnesses new to them, alongside treatment and investigations/management. This will make for a safer and more knowledgeable practitioner. Indeed, duty of care is to keep up to date (Nursing and Midwifery Council [NMC], 2018).

CONCLUSION

As with all system examinations, knowledge, practice and competence are essential. The abdomen is no different. Work with colleagues to develop skills and get feedback from patients too (which is part of revalidation). Keep up to date and make sure that any gaps in knowledge are identified and rectified. Always look at patients' notes to check that the diagnosis and management plan are correct — if not, how were they managed and what can be learnt from this? Lifelong learning is essential to maintain competency and keep patients safe. GPN

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Revalidation Alert

Having read this article, reflect on:

- Any mnemonics you use to assess abdominal symptoms
- What to look out for when assessing an ill child
- Your competency in undertaking a physical examination of the abdomen
- Common complications you encounter in practice
- Steps that need to be taken to reach a clinical diagnosis.

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

Key points

- Abdominal presentations can be intriguing and puzzling. It is vital to take a good patient history and conduct a systematic physical assessment, and to think about immediate management.
- Inspection includes a systematic look at all of the abdomen from the clavicles down to the symphysis pubis.
- It is essential to collate the history-taking and examination and consider several likely differential diagnoses.
- As with all system examinations, knowledge, practice and competence are essential.

Applying a prescribing consultation model to a skin-tear injury

Prescribing by a variety of professionals continues its progression in response to the growing demands for health care. Prescribing by nurses was initiated in the 1990s and supported by the National Prescribing Centre's 'prescribing pyramid' or seven steps or principles for good prescribing (NPC, 1999). This article explores a new prescribing consultation model (RAPID-CASE), which is composed of elements from the prescribing pyramid and the Competency Framework for all prescribers (Royal Pharmaceutical Society [RPS], 2021). The RAPID-CASE consultation model is applied to a clinical scenario to illustrate how it can guide a systematic approach to decision-making, using the example of a lower limb skin tear injury.

KEY WORDS:

- Prescribing
- RAPID-CASE
- Lower limb skin tears
- Safe practice

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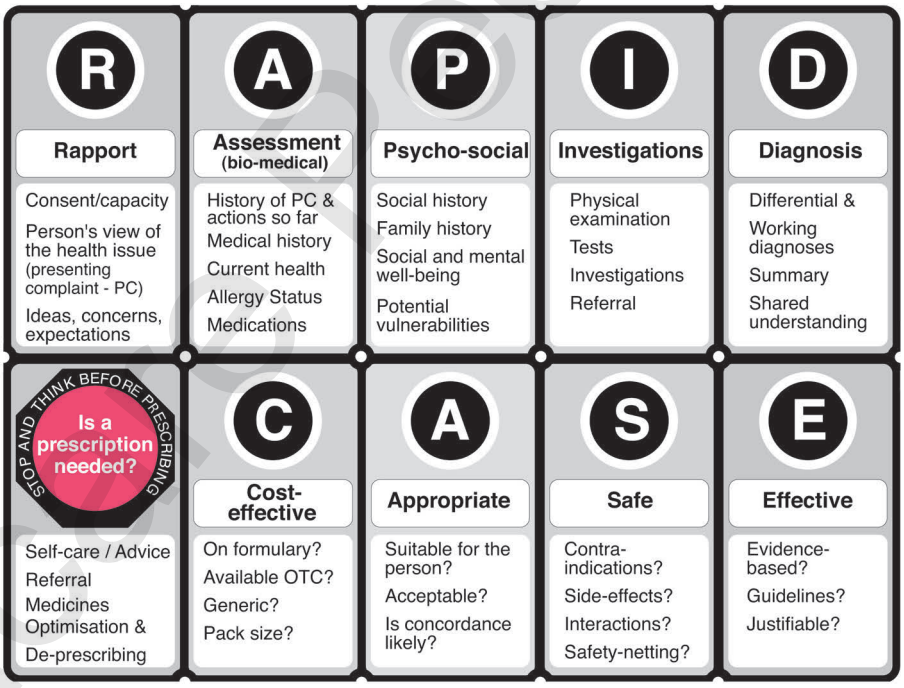

FIGURE 1.
RAPID-CASE assessment for prescribing model (Gould and Bain, 2022).

Prescribing by nurses, midwives, pharmacists, and allied health professionals (AHPs) has grown substantially in recent years (*Table 1*) (Health and Care Professions Council [HCPC], 2021; Nursing and Midwifery Council [NMC], 2023a). The legal authority to prescribe was first awarded to specialist practice qualified (SPQ) nurses (health visitors and district nurses) in the 1990s, with prescribing from a limited nurse prescribers' formulary (NPF) (Joint Formulary Committee [JFC] and Nurse Prescribers Advisory Group [NPAG], 2023). Incremental changes in law extended prescribing rights to other professionals and added full formulary access with some restrictions for controlled drugs (Human Medicines Regulations [HMR], 2012, 2013, 2018, Misuse of drugs regulations, amendment 2012).

"The RAPID-CASE model aims to promote safe and effective prescribing decisions that consider the person's unique situation and preferences.

Prescribing practice was initially supported by National Prescribing Centre publications, including an assessment framework known as the 'prescribing pyramid' or '7 principles of good prescribing' (NPC, 1999). This framework focused on the steps to a safe and effective prescribing choice and retains links to the 'competency framework for all prescribers' (CFAP) (Royal Pharmaceutical Society [RPS], 2021). With the significantly increased range of prescriptions, and the emergent need to undertake remote consultations, a revised version of this model has been developed as a concise reference guide for

Table 1: Number of prescribers (HCPC, 2021; General Pharmaceutical Council [GPhC], 2023; NMC, 2023a)

Profession	Qualification	2017	2022/3	+/-
Nurses and midwives	Community practitioner nurse prescriber (V100/V150)	39,076	39,280	+204
	Independent/supplementary prescriber (V300)	39,877	60,174	+20,297
	NMC total — all prescribers	78,953	99,454	+20,501
Pharmacists	Supplementary prescriber	359	243	-116
	Independent prescriber	5061	15,171	+10,110
	Independent/supplementary	972	916	-56
Allied health professionals	Supplementary prescriber	708	3,492	+2,784
	Independent prescriber	993	3,813	+2,820

prescribing decisions (Gould and Bain, 2022). This article applies the updated model to the example of lower limb skin tear injuries.

Most educational standards for prescribing (HCPC, 2019; NMC, 2023b) embed the CFAP (RPS, 2021), and the CFAP also acts as a continuing professional development (CPD) tool. The framework defines expectations around any prescriber's skills, knowledge, and competence in relation to consultation and governance. Clinical encounters result in some type of decision, such as advice, referral, or treatment planning, which may include prescribing (Gould and Bain, 2022). Thorough, person-centred assessment underpins safe prescribing decisions and, in many instances, this can be done efficiently by using a model to guide a systematic approach. The RAPID-CASE model (*Figure 1*) aims to promote safe and effective prescribing decisions that consider the person's unique situation and preferences. In line with the CFAP (RPS, 2021), it encourages attention to influences on prescribing, such as research evidence, formularies, expert advice, and adherence to or justified deviation from guidelines.

As per the CFAP (RPS, 2021), an appropriate biopsychosocial history and assessment should be done, leading to diagnosis, informed choice, and an agreed plan. Using a consultation model can help prevent some of the issues seen with poor assessment, such as misdiagnosis, error, variable concordance with treatment regimens, or lack of a baseline against which to judge deterioration or improvement. Accessing and interpreting relevant records should ideally be done before the consultation (RPS, 2021). In the authors' clinical opinion, use of a model can assist with streamlining the consultation, while ensuring important aspects such as the person's perspective are also attended to. The application of 'RAPID-CASE' is illustrated in this article through the scenario of Miss Rose Nichol, a 95-year-old care home resident who has sustained a lower limb skin tear injury. Before the consultation, available health records were accessed, with pertinent information reviewed.

RAPID — RAPPORT

Consultations should start with introductions, confirming identity and gaining consent. Assessment of mental capacity should take place when seeking consent as it must be contemporaneous (Department for Constitutional Affairs [DCA], 2013; Griffith, 2017). As the referral was from Miss Nichol's carers, her understanding of the issue would need to be established, along with her mental capacity for consenting to assessment and treatment. While capacity should be assumed (DCA, 2013), the prevalence of dementia in older females (95+) is estimated at over 44% (Prince, 2014) and not always formally diagnosed. In this instance, Miss Nichol was able to retain information, explain how the injury happened, and express awareness that it required treatment, which suggests mental capacity to consent to this assessment.

Developing rapport and establishing the person's view of their health issue is helped by initially exploring their ideas, concerns, and expectations (Neighbour, 1987). The assessment can begin conversationally with mainly open questions, which are useful for prompting an understanding of the person's perspective and priorities (NMC, 2018; RPS, 2021). Applying the ICE mnemonic (Neighbour, 1987), it can be established that Miss Nichol hit her leg accidentally when getting out of bed and thinking it is a small scrape (ideas), she is worried that it might turn into an ulcer (concerns) and wants to get the wound healed as soon as possible (expectations).

RAPID — ASSESSMENT OF BIO-MEDICAL

The history of the presenting complaint can start with a broad open question, followed by more specific or closed questions as appropriate. A good history of the presenting complaint and events leading to it may reveal an underlying issue or alter treatment options. *Table 2* suggests some example questions and potential underlying causes. For Miss Nichol, observing and measuring the wound area will help establish the type of skin tear, while underlying issues related to current health, such as nutritional status, weight loss, skin condition/integrity, and arterial or venous insufficiency should be considered. An assessment template or protocol can help prompt the questions, but it may be generalised to wound care, whereas the use of a more specific lower limb skin tear pathway can be beneficial (Wounds UK, 2020).

In this example, no current medical conditions, medications, or allergies were reported and there were no previous incidents with leg wounds or history of leg ulceration. Miss Nichol described general discomfort, and was taking no over-the-counter medication,

Table 2: Examples of assessment questions

When did this happen?
▪ How long ago? ▪ Has there been any treatment applied?
How did this happen?
▪ Was there a fall? ▪ Was there loss of consciousness?
Why did this happen?

▪ Medical history:
  • Is there reduced tissue perfusion? e.g. Raynaud's, arterial or peripheral vascular disease, anaemia etc
  • And/or comorbidities? diabetes, cardiac/respiratory/renal disease, malignancy, rheumatoid arthritis, impaired immune response, impaired cognition (sensory, visual, auditory), history of falls
▪ Medication history
  • Steroid, cytotoxic, immunosuppressant therapies, opioids, medicines affecting the nervous system, polypharmacy, etc?
  • General health, nutrition, hydration, mobility and activity level?
  • Skin health and condition (e.g. thin, dry, friable, fragile)?
  • Previous episodes: any previous skin tears?

Table 3: ABCDEs of skin tear wound assessment (Gould and Bain, 2022, based on Wounds UK, 2020)

A. Anatomical location	▪ Be precise and use noted locations or an image chart
B. Bleeding or haematoma	▪ Note amount or size of haematoma; treat bleeding
C. Condition and integrity of skin flap and surrounding skin	▪ See diagnosis section for types/classification of skin tears
D. Dimensions and wound bed	
E. Exudate	▪ Volume, type, colour and odour
S. Signs of infection	▪ Redness, increased temperature at site

alternative medicines, or herbal products. Being thorough with medicine usage is important, as polypharmacy and drug interactions can increase the risk of adverse events (National Institute for Health and Care Excellence [NICE], 2018). The prescriber may be following a specific template, but clinical judgment should also guide the use of additional assessments. For example, a scoring tool for nutritional status, pressure ulcer risk assessment, or a sepsis or pain scale may be needed. A recognised tool, such as 'SOCRATES' (*Box 1*), can be used for a more rounded assessment of pain (Gregory, 2019).

Assessments, such as a pain score, should be recorded to act as a baseline against which to measure when evaluating treatment. Specific to wound care, an assessment and record of the wound and its characteristics are needed. This should include the 'ABCDEs' skin tear assessment in *Table 3* as a minimum (Wounds UK, 2020; Gould and Bain, 2022). The condition of the wound and wound bed should be assessed against the classification system (as per the diagnosis section).

> **In relation to vulnerabilities, the RPS (2021) explains this as safeguarding those who are vulnerable (with possible signs of abuse, neglect, or exploitation) and considering both physical and mental health.**

RAPID — PSYCHOSOCIAL AND CONTEXT

Psychosocial assessment involves looking at the wider picture and considering some of the influences on the presenting problem and its treatment. A brief account of contributing factors to consider is found in *Table 4*. Miss Nichol's increased frailty meant that she required residential care. She reported feeling less isolated but has been 'a bit low' since the move. Research involving people with leg ulcers has shown that quality of life and pain are not always discussed or dealt with sufficiently (Green et al, 2018a). This prompted the development of a quality-of-life wound checklist to remind practitioners to raise and address these issues (Green et al, 2018b). Additional assessments, such as for depression and anxiety, may be required, and/or referral indicated. It is important to be alert to the possibility of depression and be familiar with the two core questions ('Whooley questions') that have been shown to indicate depression (Bosanquet, 2015; NICE, 2021a).

Practice point

Whooley questions for depression screening include:

During the past month, have you been bothered by feeling down, depressed or hopeless?

During the past month, have you been bothered by little interest or pleasure in doing things?

'Yes' to one (or both) questions means a positive test and further evaluation is needed.

'No' to both questions means a negative test, i.e. the patient is not depressed.

Table 4: Contributing psychosocial factors

Psychological	▪ Social isolation ▪ Anxiety or low mood, signs of depression
Lifestyle factors	▪ Alcohol intake/illicit drug use ▪ Smoking
Social and setting	▪ Family/carers, support system ▪ Falls safety (e.g. stairs, furniture, rugs, lighting, etc)
Other	▪ Was this preventable? ▪ Vulnerabilities, safeguarding?

Box 1

Example application of the SOCRATES for pain assessment

S	Site: reportedly from wound area with some radiation
O	Onset: started when she hit her leg, worse initially
C	Character: described as a dull ache, but sometimes sharp when she moves
R	Radiation: mainly just the wound, but says her lower left leg is uncomfortable
A	Associated symptoms: none reported
T	Time: reports it there nearly all the time
E	Exacerbating or relieving factors: standing makes it worse. Has had some paracetamol which reportedly helped
S	Severity of the pain: the pain is mild to moderate (5 on a scale of 1–10)

Box 2

Skin tear definition and classification

Definition (LeBlanc et al, 2019)

'A traumatic wound caused by mechanical forces, including removal of adhesives. Severity may vary by depth (not extending through the subcutaneous layer).'

ISTAP classification (LeBlanc et al, 2013)

Classifies as type 1, 2 or 3 based on skin loss:

Type 1: No skin loss: Linear or flap tear which can be repositioned to cover the wound bed

Type 2: Partial flap loss — which cannot be repositioned to cover the wound bed

Type 3: Total flap loss — exposing entire wound bed

Table 5: Investigations

Observing for signs of underlying causes/risks	▪ Dizziness, confusion, ataxia ▪ Weight loss, cachexia or malnutrition (MUST score) ▪ Peripheral vascular/circulatory issues • ABPI assessment as indicated
Infection	▪ Check warmth, exudate, colour, odour ▪ Wound swab

Note: Infection is the most common complication of a laceration (NICE, 2021b). Although not specific to skin flaps, NICE (2021b) guidance states:

There is a high risk of infection in people with a laceration contaminated with soil, faeces, body fluids, or pus. The risk of infection is increased further with factors such as:

- Wound length of more than 5cm
- Foreign body present before cleaning of wound
- Diabetes mellitus
- Oral corticosteroid treatment and other causes of immunosuppression
- Age older than 65 years
- Stellate shape or jagged wound margins
- Wound location on the lower extremity
- Presentation more than six hours after injury

In relation to vulnerabilities, the RPS (2021) explains this as safeguarding those who are vulnerable (with possible signs of abuse, neglect, or exploitation) and considering both physical and mental health. As part of wound care capability (National Wound Care Strategy Programme [NWCSP] and Skills for Health, 2021), staff are expected to consider safeguarding issues, recognise vulnerabilities (such as frailty), and take appropriate action.

Local policies fluctuate, but referral for safeguarding is indicated where harms appear to have occurred through neglect or poor practice. To improve care, Wounds UK (2020) note skin tears as adverse events that should be reported whenever they compromise the person's safety, or according to local protocol. Some areas have adopted a strategy of educating care home staff to treat most skin tears themselves, resulting in a large reduction in referrals to community nursing services (Mangan and Shoreman, 2021). While this may be beneficial within highly pressured community services, particularly during Covid-19, it potentially makes it more difficult to quantify the prevalence of injuries and put measures in place if needed.

RAPID — INVESTIGATIONS/ CLINICAL EXAMINATION(S)

Wounds UK (2020) and NICE (2021b) suggest a structured approach to investigations, including those listed in *Table 5*. In this example, a small wound of 2mm depth, irregular shape, with a partially absent skin layer was noted in the lateral gaiter area of Miss Nichol's left leg. There was minor redness to the surrounding area, no active bleeding, scant exudate, no pitting oedema or hair loss of the lower limb was evident, and peripheral pulses were strongly palpable. In addition to the more general physical examination, an ankle brachial pressure index (ABPI) measurement can be done to check suitability for compression hosiery or bandages (NWCSP, 2020). An ABPI and random BM (Boehringer Mannheim) check can also reveal signs or history of confounding factors, such as arteriosclerosis, calcification or undiagnosed diabetes. Investigations for full blood count (FBC), erythrocyte sedimentation rate (ESR) or C-reactive protein (CRP) (markers for inflammation and infection) had been undertaken within the past

two months and a repeat may be indicated if signs of infection.

In the example of Miss Nichol, there were no signs of wound infection, 'red flag' symptoms, or causes for urgent referral such as signs of arterial disease (ABPI <0.5), dusky periphery or necrosis (NICE, 2019; 2021c).

RAPID — DIAGNOSIS

Making a diagnosis is a necessary step in the prescribing process, but it may need to be a working rather than definitive diagnosis. For example, if wound infection is suspected, but not yet confirmed, broad-spectrum antibiotic treatment can be based on the working diagnosis of an infection until a wound swab result is available. For skin tears, as with other diagnoses, it is important to have a clear definition against which to assess. Although not recognised as a separate type of wound by the World Health Organization's (WHO, 2022) International Classification of Diseases (ICD) system, skin tear injury has a recognised definition, and three types are classified as illustrated in *Box 2*. According to the best practice statement by Wounds UK (2020), skin tears should be graded using a validated tool known as the International Skin Tear Advisory Panel (ISTAP) classification (LeBlanc et al, 2013).

In the example of Miss Nichol, a diagnosis of lower limb skin tear, type 2, partial flap loss was noted. The type of skin tear is important to establish as it influences the treatment options. These are now considered using 'CASE' from the 'RAPID-CASE' model.

TREATMENT OPTIONS

Treatment options were discussed with Miss Nichol and influenced by wound management guidelines (Wounds UK, 2020), the local prescribing formulary, the British National Formulary, and with attention to NICE (2021b) guidance around the management of lacerations. The decision is outlined below using 'CASE' (part of RAPID-CASE), considering cost-effectiveness, appropriateness, safety, and effectiveness.

STOP AND THINK BEFORE PRESCRIBING

In the case of wound care, a prescription is normally required, although some organisations choose to supply dressings and other wound care products through a 'store' or supply chain. Medicines optimisation and deprescribing can be pertinent where the person's wound or deteriorating health is caused by the effect of medicines. For example, someone missing doses of an antihypertensive due to memory issues can be at risk of hypotension and falls when they start receiving it regularly. Deprescribing may also be needed in cases where the benefit of a product no longer outweighs the risk of harm, such as long-term steroid use.

CASE — COST-EFFECTIVE

Most prescribing is from a selection of approved items on local formularies, which are influenced by cost. In this example, items may be the lowest price, but if they cause further damage on removal, they are not necessarily the most cost-effective. The person's preference can also impact as, for example, Miss Nichol expressed she would prefer an alternative to a bulky bandage. Once the choice of product is made, decisions around quantities and pack sizes also needs to be considered to optimise cost-effective prescribing and reduce waste.

CASE: APPROPRIATE

Choice of treatment was influenced by the information gleaned from history-taking to check if it was suitable for Miss Nichol. As she had no known allergies or sensitivities, or cautions from pre-existing medical conditions, it was deemed appropriate to use the recommended treatment. Assessing for sensitivities is important and where the surrounding skin is frail, the product needs to be easily removed. Where there is delayed wound healing, and compression therapy is to be added, it is important to be alert to undetected problems with peripheral arterial circulation (NWCSP, 2020). Concordance with a treatment plan is dependent on a shared understanding and agreement between the prescriber and the person in their care.

CASE: SAFE

Linked to the above considerations specific for Miss Nichol, it was important to consider risks of harm and the need to prescribe cautiously. In relation to wound care products for skin tears, 'medical adhesive-related skin injuries' (MARSI) are a known cause of injury (LeBlanc et al, 2020). As a prescriber's duty of care extends to ensuring safe use of the product, education of care home staff around correct use and risk factors may be needed. As the products themselves can lead to further tissue damage, safety-netting around their removal and signs of sensitivity reaction are important. With an increased risk of infection due to age and other factors, safety-netting should also include looking for signs of infection or worsening of the trauma injury.

CASE: EFFECTIVE

Best practice recommendations for skin tears (LeBlanc et al, 2019) outline treatment aims linked to the stages of injury. For example, controlling bleeding and treating the cause of the injury where appropriate. In this example, the aim is primarily to create the ideal wound healing conditions (Joint Formulary Committee [JFC], 2023), while managing exudate, protecting surrounding skin and avoiding infection (LeBlanc et al, 2019).

The *British National Formulary* (BNF) (JFC, 2023) describes a list of attributes for the ideal dressing to promote moist wound healing, but these may not all be appropriate for skin tears, particularly where an overly dry wound bed, or excess moisture can cause further skin loss (Wounds UK, 2020). Anecdotally, some practitioners continue to use iodine-impregnated dressings (e.g.

Inadine™) and the manufacturer describes them as a non-adherent dressing suitable for use with 'minor traumatic skin loss injuries' (3M KCI, 2020). However, iodine-based dressings are not recommended as they can cause drying of the wound and surrounding skin (Wounds UK, 2020). With a low-to-moderate exudate volume, selection could be a non-adherent mesh, foam, or acrylic dressing (LeBlanc et al, 2019; JFC, 2023). Considerations such as exudate volume, wound bed (and amount of skin flap), and skin fragility influence selection, with the aim of promoting wound healing without the risk of further skin damage (Wounds UK, 2020; JFC, 2023).

PRESCRIBE, PROVIDE INFORMATION, MONITOR AND REVIEW (RPS, 2021)

A shared decision involves ensuring that there is an understanding of the options, risks, and benefits of treatment before the prescription is issued. Safety-netting should include eliciting the person's understanding of what to do if the problem persists, worsens, or if new problems emerge (Neighbour, 1987).

Miss Nichol and her care manager were provided with information around signs of worsening, such as fresh bleeding, pain, inflammation, signs of infection (increased discomfort, redness and swelling), and advice about analgesia. Safety-netting places the responsibility from the healthcare professional to the person receiving care, or in the case of Miss Nichol, appropriate care home staff. Wound healing progress would be monitored and where delays to healing noted, it would be appropriate to assess for underlying causes and potentially, compression therapy (LeBlanc et al, 2019).

PRESCRIBING GOVERNANCE (RPS, 2021)

The consultation, any supplementary assessments and treatment plan should be documented on the shared electronic record, with Ms Nichol's consent to share the record with other healthcare professionals (Department of Health and Social Care [DHSC], 2016). Prescribing decisions should ideally be reflected upon to promote learning and identification of CPD needs.

CONCLUSION

This article has provided an example of applying the RAPID-CASE consultation model for prescribing in practice. Safe, effective practice involves being able to clearly articulate what underpins prescribing decisions and the use of a structured approach is beneficial. GPN

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Key points

- Prescribing by a variety of professionals continues its progression in response to the growing demands for health care.
- Most educational standards for prescribing embed the competency framework for all prescribers (CFAP).
- Thorough person-centred assessment underpins safe prescribing decisions and, in many instances, this can be done efficiently by using a model to guide a systematic approach.
- In line with the CFAP, the RAPID-CASE model encourages attention to influences on prescribing, such as research evidence, formularies, expert advice, and adherence to or justified deviation from guidelines.
- Appropriate biopsychosocial history and assessment should be done, leading to diagnosis, informed choice, and an agreed plan.
- Use of a model can assist with streamlining the consultation, while ensuring important aspects such as the person's perspective are also attended to.
- Making a diagnosis is a necessary step in the prescribing process, but it may need to be a working rather than definitive diagnosis.
- A shared decision involves ensuring that there is an understanding of the options, risks and benefits of treatment before the prescription is issued.
- The consultation, any supplementary assessments and treatment plan should be documented on the shared electronic record, with the patient's consent to share the record with other healthcare professionals.

The time is now to keep children with asthma safe

Here, Laura King, senior asthma practitioner, North-East London, explains why the time is now to pre-emptively act to avoid asthma attacks, which commonly peak in children and young people during mid-September.

This article is a call to action for those involved with children and young people (CYP) who have (or might have) asthma. The evidence has been clear for some time that there is an identified peak in asthma attacks in mid-September, the 'week 38' phenomenon (Transformation partners in healthcare, 2022). However, what is often not discussed is that there is a time when we can perhaps pre-emptively act to avoid attack — and that time is now.

Winter is often seen to be the time to consider respiratory health. However, for patients who wheeze, entering autumn with healthy lungs is key to resilience to winter viruses and triggers. 'Pre-emptive medicine' is one of the key focuses in recent national guidance (NHS England, 2021) and has been a pillar of best practice in both the National Institute for Health and Care Excellence (NICE, 2021) and British Thoracic Society/Scottish Collegiate Guidelines Network (BTS/SIGN, 2019) guidance for some time. It is known that many asthma deaths are avoidable, and that there are many so-called modifiable factors that can contribute to mortality in asthma (Royal College of Physicians [RCP], 2015).

RISK PROFILES

When it comes to the annual review, we know what we should be asking — and that the time with patients is sorely limited. However, it is possible to identify CYP at increased risk of severe or life-threatening attack. While we are acutely aware of some (e.g. six or more salbutamol inhalers, any courses of oral steroids, hospital admissions or attendances), the single most predictive factor is a history of severe attacks (BTS/SIGN, 2019). However, the following should also be considered:

- Historical poor control
- Concurrent atopy (i.e. allergies, but especially food allergies)
- Psychological issues
- Parent or caregiver understanding
- Social deprivation (BTS/SIGN, 2019).

Salbutamol, while effective as a bronchodilator in occasional use (and, of course, the suggested treatment in the event of acute symptoms), can cause issues of its own when over-used, such as deregulation of the beta-2 receptors, also known as desensitisation (Barnes, 2007; Cazzola et al, 2013; Vähätalo et al, 2022). Thus, there is a clear action: treat the inflammation with something that will work, or risk the over-use of beta-2 agonists causing down-regulation of receptors. In plain English: if the patient keeps using salbutamol, it will eventually stop working.

WEEK 38 — ANNUAL PEAK

Week 38 is a phenomenon which is widely known in the asthma world (Transformation partners in healthcare, 2022). The week refers to the week of the year 38/52. It is a diary spread often circled in red or highlighted by those, like the author, in the trade, because historically this is when acute asthma exacerbations peak for the entire calendar year. This year, it sits in the week starting 18 September, 2023.

Week 38 is thought to be the outcome of the following — for some these effects occur in isolation, and for others it may be cumulative (Transformation partners in healthcare, 2022):

- CYP whose diagnosis is unclear, or whose triggers are generally in the autumn or winter may not be taking preventer medication at all
- CYP may become less adherent during the school holidays, due to being out of routine, on holiday, or simply forgetting in the midst of activities
- The cooler and often damp weather can trigger some CYP
- Spores surface at this time of year (Denning et al, 2006).

When considering the reasoning behind this, we can start to unpick how to act. Some of these factors come down to asthma basics — inflammation will either accumulate or return (depending on the individual), and without appropriate treatment this will worsen over time. For some, it is purely environmental and this needs to be considered annually in the context of that person's treatment.

Often, in the author's clinical experience, despite intentions of working pro-actively, clinicians actually end up reactively prescribing oral steroids, or prescribing preventers after the child has already had an attack.

Inhaled corticosteroids, by their very nature, will take around four to six weeks to reach full therapeutic efficacy and so this means that we are on a deadline to review or contact wheezy children and young people. To have time to commence, establish a routine and also whether it is effective, it would be timely to optimise treatment by August to ensure that the preventer therapy keeps that individual safe.

WHAT SHOULD WE BE FOLLOWING?

NICE (2021), BTS/SIGN (2019) and the Global Initiative for Asthma (GINA, 2022) all suggest a trial period when starting preventer therapy. In essence, the role of clinicians is to keep the patient in best health using the smallest dose inhaled steroid that is physiologically effective.

EXPLAINING TO CYP AND FAMILIES

The author often finds herself reviewing CYP in the summer, when they are (by all reports) well and do not feel like they need preventer therapy. A subset of these families will be concerned about corticosteroids, some around potential harm for their CYP, and some simply do not wish to give their child medicine.

For some families, they are just not recognising some of the subtler symptoms, such as a gradual increase in coughing, slight shortness of breath that gradually escalates or chest tightness that starts as very subtle and increases over time to feel normal. For some families with chaotic or stressful lives, this may simply not be noticed even by the young person (King, 2020). Thus, it is important to discuss. For example, a common consultation in the author's clinic may go like this:

Yes, they're totally fine. No symptoms at all.

Oh, fantastic, so not coughing at night — not wheezing —— able to do everything their friends can? Able to run around/run for the bus/be active?

Yeah, they're fine, they can't do P.E. because of their chest so it's totally fine.

CONCERN AROUND STEROIDS

For some families this theme simply revolves around misunderstanding of inhaled steroids. Many parents or carers consider inhaled steroids dangerous and associate them with perceived side-effects more commonly seen with high-dose oral steroids, such as:

- Behaviour changes
- Weight gain from increased appetite
- So-called 'moon face'.

(Chan and DeBruyne, 2000).

Many caregivers also worry about dependence on steroids, the idea that their child may become addicted and that there are long-term side-effects.

ANXIETY AROUND GIVING MEDICATION

Over the years, the author has found this to be a real worry in some of her patient populations. Often a simple conversation around the risks of not treating airway inflammation is enough to help minimise anxiety with the hope that further anxiety does not arise around potential attack. Understanding how and why medicines work can be the single most important factor, ensuring parents and CYP are making informed decisions when it comes to medication.

Practice point

Inhaled steroids take time to work (usually at least four weeks), so the clock is ticking for those patients with niggling inflammation.

POOR ADHERENCE TO THERAPY

There could be many reasons for this, from pure dislike of the device or regimen, to legitimate side-effects. If patients' (or families') reasoning behind poor adherence is not understood, healthcare professionals are unlikely to be able to help. It helps to establish an open forum, allowing them to be honest. Perhaps try phrasing adherence spiel thus,

Taking medicines every day is really tricky and we are all human. How often do you think you forget the [preventer medication]*?*

Some families have either had symptoms long term and have become used to them, or they do not understand that asthma should not limit activities of daily living. It can be useful to have a list in mind of celebrities or sports people who have asthma to illustrate your point, such as the Olympic cycling team which has a high number of athletes with asthma, along with high-profile footballers who are also known to have asthma.

TIPS FOR ESTABLISHING ROUTINE

There are several tried and tested methods in the author's arsenal of 'top tips'. For school-age children who have tried all the usual aide-memoires, such as placing the inhaler by their bed or toothbrush, suggest putting the device in their school shoes. While this might sound dramatic, it means that they have a physical reminder and barrier attached to an activity they have to do to leave home. In the evening, they can place the device back in their shoes for the morning.

Similarly, ask the family if there is something that they do without fail (as long as this is safe and does not damage the device) to act as a physical aid to adherence.

If routine is a real issue (this might be particularly pertinent for CYP who have a chaotic family or home, or perhaps those who have attention deficit hyperactivity disorder [ADHD]), medication regimens can be tailored to their strengths — if they are better at remembering medication for the morning or evening dose, is there a way to change their regimen to once daily? If they are forgetful when they are symptom-free, is maintenance and reliever therapy (MART) likely to ensure that they self-titrate when symptoms arise?

TIPS TO AID MEMORY

The answer? Education. It might be that this is the first time someone has had the time to explain what asthma is, the fact that it is inflammation and therefore needs to be treated with the correct type of medication to combat the fundamental issue. Often, CYP and their families understand asthma to be a series of events, they expect to have attacks with various frequencies, and to have limited activity.

Once all the above is established, i.e. failure in terms of asthma control, it is possible to start delving into what is causing a child or young person to exacerbate or continue experiencing interval symptoms.

In the author's clinical opinion, someone with good asthma control should feel the same and be able to do the same as someone who does not have asthma, apart from taking medication once or twice per day. Asthma should not limit activities, cause frequent cough or wheeze, or make them absent from school, nursery or work.

CONCLUSION

To combat the annual, notorious week 38 phenomenon, clinicians should start trying to pre-empt the factors causing it. These largely stem from:

- Poor diagnosis rates generally leading to delayed prescribing of preventer therapy
- Poor adherence to preventer therapy
- The surge in winter triggers, such as weather changes and spores
- Poor understanding of asthma control and symptoms.

Acting now, with enough time to embed the therapy and establish good adherence, might start chipping away at these pockets of risk and help reduce pressure on the whole healthcare system. GPN

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Resources

Tier training is available for free:

Tier 2 — E learning for health or tier 3 — BeatAsthma (both are free)

NEL lunch and learn sessions:

The author's network of nurse specialists (and friends) run monthly lunch and learn sessions virtually. The topic changes each month, and is usually seasonal.

Sign up at: www.eventbrite.co.uk/e/paediatric-asthma-lunch-learn-topics-tickets-623641637927

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Diabetes digest – remission in type 2 diabetes: is it possible and how can it be achieved?

Here, Callum Metcalfe-O'Shea, advanced nurse practitioner diabetes specialist and co-chair for the Norfolk Health Professionals Diabetes Forum, looks at how remission in type 2 diabetes can be achieved in some cases. Definitions of remission are explored as well as the challenges patients may face. Dietary advice and pharmacological interventions are considered to help general practice nurses (GPNs) structure their approach in achieving remission for suitable patients with type 2 diabetes.

The diagnosis of type 2 diabetes has a vast biopsychosocial impact on patients, with a sense of reality taking place for how this condition can impact on their current and future health (Fink et al, 2019). A common question faced by general practice nurses (GPNs) in the first consultation by patients is: 'can I cure my diabetes?'. While this is not possible in current modern medicine, it can in some cases be put into remission (Ko and Kim, 2022). Explaining remission can often leave patients feeling as though the stigma around diabetes remains, and that the hard work required to do this can seem 'worthless' if no cure can be achieved (Vasdeki et al, 2022).

The role of the GPN is to ensure that they make every 'contact count' and 'get it right first time' — phrases used time and time again, which are applicable to all parts of healthcare (Rayman and Kar, 2020). This includes ensuring that patients with type 2 diabetes are aware of the possibility of remission and what is required to achieve this, and how intensive lifestyle and potential pharmacological interventions are needed (Ko and Kim, 2022). Patients with type 2 diabetes will oversee their health needs as, on average, they will be in contact with a diabetes professional for approximately three hours per year (Diabetes UK, 2016) — highlighting how support at the first appointment can improve motivation (Ko and Kim, 2022). The third part in this diabetes digest series explores the meaning of remission and how steps can be taken to help achieve this in primary care.

"A common question faced by general practice nurses (GPNs) in the first consultation by patients is: 'can I cure my diabetes?'.

WHAT REMISSION MEANS

Defining remission has often produced confusion among GPNs, with different evidence producing different definitions (Vasdeki et al, 2022). Remission has often seemed a distant achievement with evidence indicating that the natural course of type 2 diabetes causes worsening of glucose control due to the progressive decline of beta cell function (Ko and Kim, 2022). Taylor et al (2021) argue, however, that intense lifestyle improvements and at least a 15kg weight loss can improve beta cell function, thus supporting remission theories. While it is easy to understand why defining remission can cause confusion, the true definition can be found in the position statement released by the Association of British Clinical Diabetologists (ABCD) and Primary Care Diabetes Society (PCDS) (Nagi et al, 2019).

The consensus guideline from the ABCD and PCDS lays out three criteria for remission of type 2 diabetes:

- Weight loss
- Fasting plasma glucose <7mmol/L or HbA1c <48mmol/mol (World Health Organization [WHO] diagnostic thresholds) on two occasions separated by at least six months
- Attainment of these glycaemic parameters after complete cessation of all glucose lowering therapies.'

The guideline also adds that remission is sometimes used to describe meeting glycaemic targets even though hypoglycaemic drugs have not been stopped. Care must be taken in the interpretation of stated rates of remission (Nagi et al, 2019).

This definition clearly indicates the requirements of two HbA1c blood tests <48mmol/mol separated by six months with the cessation of all glucose lowering therapies. This definition should be applied to remission when working with patients, with the main principle being that remission is not a cure (Nagi et al, 2019). Remission can be an ever-changing factor, with the greatest challenge being to maintain both weight loss in the long term and lifestyle changes (Vasdeki et al, 2022).

Practice point

Think about the first consultations you have with patients — do you discuss the possibility of remission? Consider ways that this could be included in first consultations to improve patient understanding.

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HOW DOES REMISSION OCCUR?

As mentioned above, the idea of beta cell function decline has often been associated as starting at the time of diagnosis (Ko and Kim, 2022), and progressing to cause worsening glucose levels often requiring anti-hyperglycaemics to help with symptoms (Ko and Kim, 2022). However, the cause of the deterioration has never been fully understood, rather that prolonged exposure to increased saturated fatty acids and high glucose levels in individuals who are genetically predisposed have been predicted to contribute to beta cell failure through mitochondrial dysfunction (Marselli et al, 2020). Taylor et al (2021) go further to highlight how the relation between liver fat and control of constant glucose can impact on normal insulin secretion. In type 2 diabetes, the intake of excessive dietary fat results in accumulation of liver fat causing export of very low-density lipoproteins which deposit in the pancreas, thus effecting beta cell function causing hyperinsulinemia (Taylor et al, 2021).

Therefore, these causes of type 2 diabetes can be reversed through considering the mechanisms of liver fat and beta cell function (Taylor et al, 2021). This was proven back in 2011 through the Counterpoint study, which found that losing a minimum of 15kg in patients with type 2 diabetes over an eight-week period through strict calorie-controlled diets caused normalisation of liver fat levels with decreased hepatic glucose output and improved beta cell function (Lim et al, 2011). At this point, GPNs may be asking — what about those patients with a normal body mass index (BMI) who are diagnosed with type 2 diabetes?

“It is imperative to understand that type 2 diabetes is characterised by an accumulation of fat the liver cannot tolerate (Taylor et al, 2021). However, everyone has different fat thresholds... .

It is imperative to understand that type 2 diabetes is characterised by an accumulation of fat the liver cannot tolerate (Taylor et al, 2021). However, everyone has different fat thresholds, explaining how those with a normal BMI may develop the condition (Marselli et al, 2020). These concepts will help GPNs guide patients’ understanding first in how type 2 diabetes can occur, and second, how remission can be achieved through reduction in liver fat and improvement of beta cell function (Ko and Kim, 2022).

HOW IS REMISSION ACHIEVED WITH DIET?

Once a diagnosis of type 2 diabetes is made, the clock starts ticking towards the increased risk of developing long-term complications associated with microvascular disease (Maneesing et al, 2023). Evidence demonstrates that bariatric surgery is the best intervention for patients who are obese, as it can cause rapid remission through extensive weight loss of up to 40% in patients (Maneesing et al, 2023). However, obviously this is not applicable treatment for all patients, in that many decline surgical interventions and a cohort of patients with type 2 diabetes will have too low a BMI to require this procedure (Fung et al, 2016).

The question many GPNs will be asked is — how much weight should be lost to achieve remission? Maneesing et al (2023) agree with Taylor et al (2021) that approximately 15kg will reduce liver fat deposition to achieve normal glucose levels. However, key to this, irrespective of weight for those with a normal BMI, is carbohydrate dietary intake (Taylor et al, 2019). The reason behind this is that carbohydrates are the primary contributor to post-prandial hyperglycaemia, thus disrupting normal glucose control (Taylor et al, 2019). Low carbohydrate quantities are:

Practice point

Think about the information you give patients either at diagnosis or reviews with regards to nutrition. Is it evidence-based and tailored to their needs? Think of a structured approach to improve practice.

Practice point

When do you initiate oral therapies? Do you ever consider this to help achieve remission?

- Very low carbohydrate: 20 to 50g/day (≤10% of energy, based on 2000 kcal/day)
- Low carbohydrate: >50 to <130 (>10% to <26%)
- Moderate carbohydrate: 130 to 230 (26% to 45%)
- High carbohydrate >230 (>45%)

(Taylor et al, 2021).

Therefore, low carbohydrate diets can be used across the type 2 diabetes population to help improve their chance of remission, both through weight loss and reduction of saturated liver fats causing altered glucose control (Ko and Kim, 2022).

However, not all patients will be able to adhere to a low carbohydrate diet, such as those on insulin regimens (Taylor et al, 2021). Thus, supporting patients overall to adhere to a healthy lifestyle with suitable food choices and portions which meet their individual needs will greatly improve their chance of remission (Schulze et al, 2018).

HOW CAN PHARMACOLOGICAL INTERVENTIONS SUPPORT REMISSION?

Metformin has been used as first-line treatment for type 2 diabetes for over six decades, mainly due to its excellent safety and efficacy profile with improvement in glycaemic control (Vasdeki et al, 2022). However, while its use is still required first-line as per National Institute for Health and Care Excellence guidance (NICE, 2022), new anti-diabetic drugs, including sodium-glucose transport protein 2 (SGLT-2) inhibitors and glucagon-like peptide 1s (GLP-1s) are now being recommended earlier on in the treatment plan to support weight control (NICE, 2022).

Research highlights how combining these weight control medications with metformin can increase remission rates rather than single agents alone, mainly due to the restoration in beta cell function restoring normalised glucose levels (Kramer et al, 2016).

SGLT-2 inhibitors can support remission through decreasing renal glucose reabsorption by acting on the convoluted tubule of the kidney, thus inducing plasma glucose reduction regardless of insulin sensitivity or insulin secretion (Ferrannini, 2017). Furthermore, glucosuria causes calorie loss and results in a decrease in weight and visceral fat, thus potentially supporting efforts to achieve remission targets in type 2 diabetes (Ferrannini, 2017).

> **“... supporting patients overall to adhere to a healthy lifestyle with suitable food choices and portions which meet their individual needs will greatly improve their chance of remission.**

GLP-1s, however, belong to a wider group of incretin hormones responsible for:

- Lowering digestive activity and inhibiting glucagon secretion
- Promoting insulin production
- Delaying gastric emptying

(Jastreboff et al, 2022).

Through these mechanisms, sustained weight loss can be achieved while improving satiety and supporting portion control reduction and healthy eating choices (Jastreboff et al, 2022).

Therefore, in line with NICE (2022) guidance, the introduction of these pharmacological interventions can help support healthy weight loss to try and achieve remission (Vasdeki et al, 2022). But, as per the definition of remission stated by Nagi et al (2019), there is a need to achieve restoration of normal glucose targets after the cessation of all glucose lowering therapies, which should be considered when initiating medications to support glycaemic control.

While support can be gained using pharmacological interventions (Vasdeki et al, 2022), this should be in tandem with promoting healthy lifestyles and weight loss in order to restore beta cell function and help achieve type 2 diabetes remission (Kramer et al, 2016).

CHALLENGES

As to be expected, the challenges associated with achieving remission in type 2 diabetes through significant lifestyle changes, including dietary modifications, are quite substantial. Constantly having to make healthy food choices can lead to decision fatigue, with patients becoming overwhelmed by the number of choices they have to make, making it difficult to stick to a strict diet plan (Taylor, 2021). This can often prove difficult with busy schedules, i.e. finding the balance between healthy living, work commitments and recreational activities (Taylor, 2021).

Weight loss induced by dieting causes physiological changes that impede the sustained reduction in energy intake versus calorie expenditure, meaning a cycle of weight loss and weight gain can occur in a short time which affects remission rates in type 2 diabetes — a phenomenon often referred to as ‘yo-yo dieting’ (Lingvay et al, 2022). Achieving small but steady amounts of weight loss, approximately 1–2lb every one to two weeks, can help with readjustment in energy intake and improve patient confidence and motivation levels for further weight loss (Lingvay et al, 2022).

Practice point

What are the most common challenges you face in helping patients to achieve remission for type 2 diabetes? Reflect on your thoughts and what you can do to improve practice.

Research undertaken by Dambha-Miller et al (2020) identified the issues surrounding change theory and how positive reinforcement and engagement from healthcare professionals can increase remission rates. From reviewing the ADDITION-Cambridge trial of over 850 participants with newly diagnosed type 2 diabetes in 40–69 year olds, positive reinforcement on diet, lifestyle and exercise intake resulted in over 30% retaining remission after a five-year period (Dambha-Miller et al, 2020). The results of the study indicated that a requirement of >10% weight loss was needed early in the disease trajectory to achieve sustained remission, and that lack of engagement and follow-up impacted on patients' ability to continue healthy lifestyles (Dambha-Miller et al, 2020).

This indicates that unless patients are continually engaged and feel motivated to achieve desired weight loss or healthy lifestyle goals, the ability to achieve remission can be affected (Taylor, 2021). Indeed, engagement and motivation are vital, which is why 'getting it right first time' is crucial to help achieve remission in type 2 diabetes (Dambha-Miller et al, 2020).

CONCLUSION

Remission in type 2 diabetes is a multifactorial issue that requires strong patient engagement and motivation, alongside individualised tailoring of patient needs to support them in achieving healthy lifestyles and, where required, sustained weight reduction (Taylor, 2021). Both diet and pharmacological interventions can be used to help patients change lifestyles and increase their ability to lose weight where required (Vasdeki et al, 2022). However, this requires strong GPN support to facilitate lifestyle changes and reduce the risk of further glycaemic deterioration (Taylor, 2021). Additionally, as per the definition produced by Nagi et al (2019), cessation of all glucose lowering therapies alongside other requirements need to be considered by GPNs when initiating therapies.

Overall, achieving remission should be an initial discussion and aim for newly diagnosed patients. This will help facilitate reduction in long-term complications and ensure that patients have an active goal they can work towards to improve their lifestyle (Taylor, 2019). GPN

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