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Why is care closer to home failing and what does it mean for community nurses?

Understanding food poverty

Shaping future healthcare leaders

Marking five years of the Community Rehabilitation Alliance

'Leaky legs' is not a diagnosis! Impact of exudate on patients with venous leg ulceration

Choosing the most appropriate dressing: a practical guide

Lymphoedema: a journey taken together

Caring for peristomal skin in the community

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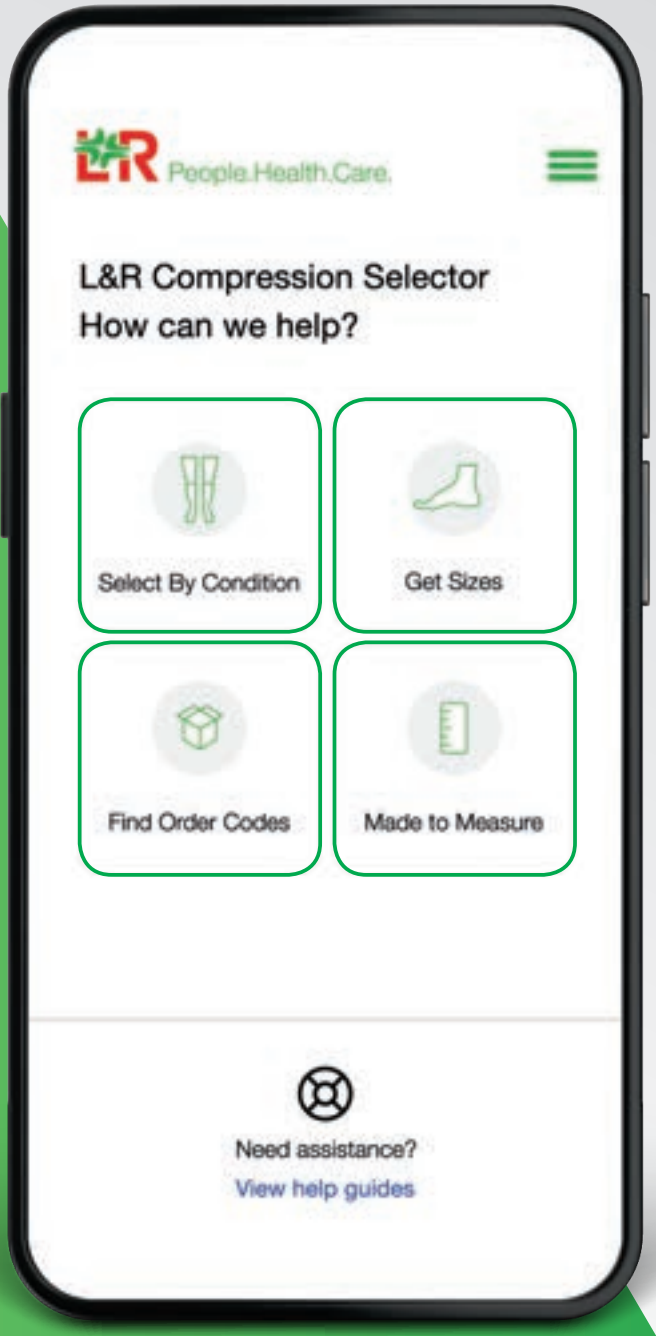

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Challenges of providing care closer to home

This month we have an extremely interesting and thought provoking 'Community matters' piece. Please take some of your precious time to read and digest. It discusses the 'ongoing' drive to make community services more responsive to people's needs and reduce pressure in the acute sector and treat them 'closer to home' — in their own community. However, where are the resources to support this? This feature looks at more than just funding though; the King's Fund is quoted and there are some excellent examples of nurses taking matters into their own hands and using their knowledge and expertise to instigate new care initiatives. This is a subject to which we can all relate and is a matter very close to all our hearts.

Reading this issue, brought home to me yet again how the role of community nurses is so much more than just managing individuals' clinical needs — we are eyes and ears to how people and families are coping with life in general, including challenges such as food insecurity. Figures from the Food Foundation paint a stark picture about the prevalence of food insecurity in the UK today (*pp. 14–15*). By recognising and addressing the broader social determinants of health, including access to nutritious food, we can contribute to promoting health equity and improving overall health outcomes in communities, which in turn can support holistic wellbeing. Gambling-related harms is another area that is recognised as a public health concern, with far-reaching impacts on individuals, families and communities. The article here (*pp. 56–60*) reinforces why community nurses should use the Making Every Contact Count (MECC) approach when seeing patients, and be alert to any signs of harmful gambling behaviours so that they can point patients to appropriate support services and resources.

As always, a variety of clinical areas are covered, such as the impact of wound exudate on patient quality of life, choosing the most appropriate wound dressings, lymphoedema, stoma care, and new guidance on sepsis, to name but a few. So, I hope that you find this issue interesting and relevant to your day-to-day practice. And remember, this is your journal, so if there are any areas you would like to see covered, please just get in touch. We would love to hear from you.

Finally, the JCN study days are rolling out across the country, so don't forget to check when we are in your area, as they are a great way to hear experts speak, meet exhibitors and discuss latest products and treatments and, of course, to network and catch up with colleagues — www.jcn.co.uk/events.

Annette Bades, editor-in-chief, *JCN*

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Editorial board

I am a district nurse, nurse teacher in practice, associate lecturer and Queen's Nurse who believes that excellent community nursing is vital and that community nurses should be more visible. Care should be available to everyone who wishes to remain at home. I have an interest in dementia, end-of-life care and teaching in practice to support newly qualified nurses. I am very pleased to be a part of the JCN editorial board, an accessible journal for all community nurses to inform their practice and strive for excellent care.
Gail Goddard

I am a district nurse and an academic with a passion for end-of-life care, older people and nurse education. I believe that care at home gives people the best opportunity to remain in control of their own health and wellbeing. It is a privilege to be a guest in a person's house and to help them achieve their goals. It is also a privilege to train nurses of the future to adopt this personalised care approach to really make a difference. I am excited to join the editorial board of the JCN where I can see the hard work that community nurses undertake.
Amanda Young

I am a dietitian with experience in primary and secondary care. While interested in the dietary management of disease in general, my overarching passion is the promotion of evidence-based nutrition among healthcare professionals. This is especially important given the lack of accurate dietary information on the internet and in the media, which patients are often exposed to. I'm grateful to be part of the JCN editorial board to promote and keep nutrition on the agenda.
Patrick Ward-Ongley

I've been working in district and community nursing for 20 years. My particular passion is for continuity of care in community nursing, which encourages healthy behaviour, builds trusting relationships, can reduce healing times, and makes people feel more positive about their healthcare experience. We have a responsibility to prepare for the future by continuing to develop leadership and clinical skills. The JCN is a great resource for support, education and to share best practice.
Hattie Taylor

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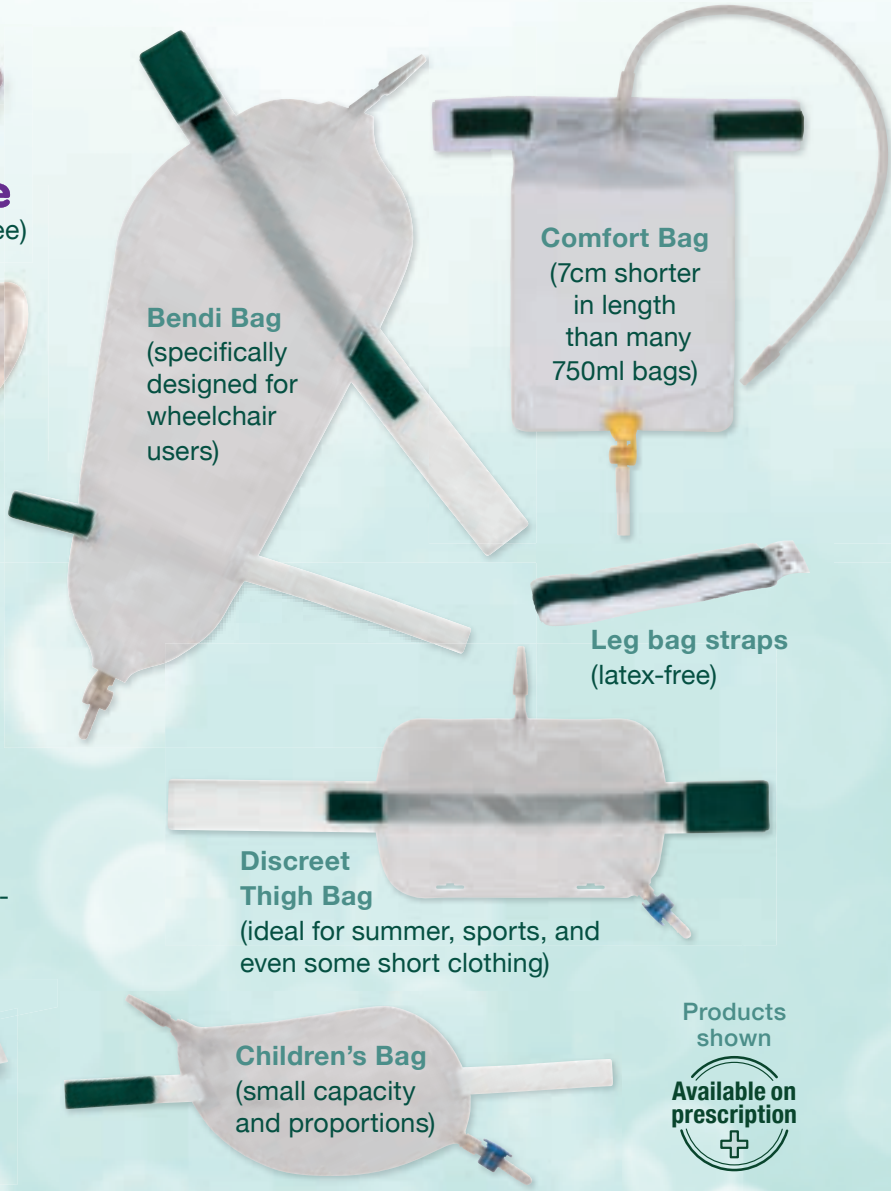

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In each issue of the *Journal of Community Nursing*, we investigate a topic affecting our readers. Here, we ask...

Why is care closer to home failing and what does it mean for community nurses?

It's a famous maxim that the definition of insanity is repeating the same action over and over while expecting a different result.

Reluctant as we are at JCN to accuse the government of succumbing to collective madness, it is hard to reconcile the deluge of policy documents stating that care needs to be moved away from hospitals and into the community, with the fact that primary care services still appear woefully underfunded. While health ministers talk endlessly about prevention and health promotion, community and district nurses leave in their droves through burn-out and lack of opportunity, and patients with complex needs continue to take up acute beds, leaving hospitals oversubscribed with chronically ill patients who can't be discharged.

While insanity might be a slightly hysterical way to describe how those in government have repeatedly claimed to prioritise the community while cutting back on resources, it certainly smacks of doublespeak.

So, where did it all go wrong? And what needs to be done to put it right?

WHAT IS CARE CLOSER TO HOME?

The phrase 'care closer to home' has been around for some time now, making an early appearance

Community nurses have always been aware that care closer to home is better for the health and wellbeing of people who require care at home (QNI, 2021). While there is much talk of preventing ill health, there is little or no investment in health visiting or school nursing services. These services can have a great impact on the health and wellbeing of young people, which they can take into adulthood (RCN, 2019; QNI, 2023). In some areas, school nursing services have been decommissioned altogether, as the impact measurement of school nurse interventions cannot be measured within a government term. It is the same for health visiting, as measuring the outcomes of having a well-funded health visiting service cannot easily be measured in health outcomes, except in longitudinal studies which no government has the appetite to fund (Daelmans et al, 2015).

Skill mix in community services is welcomed, but a reliance on expansion of the unregistered and non-nurse workforce in primary and community care has not solved the workforce problem. Instead, it has put people at risk of being treated by people who are not able to assess, plan and implement care in the same way that nurses can (QNI, 2022). There are advanced practitioners working autonomously in the community without professional or financial recognition, and this has contributed to the exodus of many qualified nurses (QNI, 2022).

The QNI was founded in 1887 to bring care closer to home and has supported community nurses ever since, expanding to include all nurses who work in community and social care settings. They need to be valued and recognised for the work they do to enable people to receive person-centred care in their preferred place of care. Until they are valued and recognised, the workforce issues will not be resolved and any policies to bring care closer to home will not be delivered (King's Fund 2016).

Amanda Young
Director of nursing programmes, Queen's Nursing Institute (QNI)

As a proud district nurse with the specialist practitioner qualification (SPQ) working in the community, I have tried for many years to raise the profile of nursing which happens outside of the hospital setting. Community nursing has always had to champion itself with assistance and support from the QNI and RCN, with very little interest from the wider NHS or government. I have taken a few politicians out on shadowing experiences for the QNI, and they are always genuinely totally surprised by the work that we do and the complexity of the care that we give. They also usually promise to do what they can to raise our profile and talk about their experiences, but sadly I have not seen much evidence of this. Unfortunately, despite our best efforts to raise the profile of community and primary care nursing, there has not been much interest to date.

This lack of awareness is also demonstrated by patients and their carers. How many times have we been told by a patient, 'I didn't know that you existed until I needed you'. Sadly, as our client group are often elderly or palliative, they do not have a loud voice to speak to our worth and raise our profile within healthcare as they are often not media savvy. So, even though we do give fantastic care and receive really positive local feedback, this is not heard loud and clear nationally.

The QNI has been leading the field in trying to raise the profile of nursing outside of hospitals and has been encouraging community nurses to bring their own seat to the table if they are not offered one. But, it is an uphill struggle to do this as we are often the last to be invited and sadly often are not invited at all.

Hopefully this year the NHS careers nursing recruitment videos, the Nurses' Day videos, etc will all contain positive images of community and primary care nursing, and we will also be able to break through to national media so that not all the images used are of a hospital-based nurse. There is room for so many different images of nurses in so many settings, rather than the standard ones used at the moment.

All of this will improve the profile of the excellent care that happens outside of the hospital setting. But the real game changer that needs to happen is for the money to follow the patients into the community and primary care. This would improve the resources available, increase the workforce, retain the existing workforce, and also give the option of a community career pathway to expand and value the workforce outside of the hospital setting. This would then further improve the standard of care offered to our patients in their own homes.

Gail Goddard
Floating district nurse manager and senior lecturer; Queen's Nurse

in the government's cuddly titled document *Our Health, Our Care, Our Say*, which outlined a reduced reliance on hospitals: 'Our strategy is to put people more in control, to make services more responsive, to focus on those with complex needs and to shift care closer to home' ('Our health, our care, our say' — assets.publishing.service.gov.uk).

There was a focus on treating and preventing long-term conditions in the community to release pressure on hospital beds, and of course, hidden in the detail, the usual preoccupation with budgets: 'The same procedure in primary care can cost as little as one-third compared to secondary care'.

Care closer to home as a policy gained more traction following publication of the *Five year Forward View* in 2014, with its plan for 'a future that sees far more care delivered locally', and which encouraged 'efforts to deliver more healthcare out of acute hospitals and closer to home, with the aim of providing better care for patients' ('Five Year Forward View' — www.england.nhs.uk).

So far so good. But many years later, why are we are still reading reports that primary care services are in crisis, with patients unable to be discharged from hospital because of a lack of community services ('Sick man of Europe: why the crisis-ridden NHS is falling apart' — www.theguardian.com)?

FOLLOW THE MONEY

Despite the government's repeatedly stated aim to shift resources away from the acute sector to the community, it appears that this is simply not

Care closer to home is working in some places, at times, but not in all places and certainly not all of the time. In district and community nursing we do prevent unnecessary admissions and enable people to stay in the place of their choice. Wholly more complex care coordination and communication is required in the modern world. Coordinating care closer to home for people who are more poorly with multiple health conditions, more likely to have dementia, and are frail, and sometimes living in complicated social and living conditions that impact on their health takes time if done effectively. Furthermore, resulting lengthy discussions around mental capacity, ethical dilemmas, and safeguarding situations are also on the increase; these are time-consuming.

In fact, it would be true to say that we do continue to do more with less. Technology enables us to be swifter and engage with the multidisciplinary team (MDT), agreeing actions and responsibilities in a vastly quicker way than just a few years ago. It could be argued that technology will continue to improve care, with virtual wards and remote monitoring here, emerging now, or on the horizon.

In addition to what has been mentioned, pressures on healthcare services because of gaps in social care are significant and we see this in most places, even when services work closely together and in real time. Procuring or arranging packages of care can take long periods of time, sometimes while people decondition or are admitted from home to a 'safer' place as they wait. This truly distresses us as professionals and impacts on us greatly. Could it be that until health and social care is truly integrated, the tension between the two will continue to be a significant sticking point in truly providing 'care closer to home'?

Also on the horizon, thankfully, is more reliable data. Many community organisations have been partaking in the community nurse safer staffing tool, and we see as well, some of the relatively new data about how community nurses are responding to urgent community referrals. The numbers don't surprise us, as we have always been aware of the urgency of our work (we are not an emergency service, however, if we don't intervene and fast, it will often become an emergency), but this is what we have argued in the past has been 'unseen work' and this brings hope that our work will no longer be unseen. With this in hand, will we be able to start discussing some investment to the community?

Hattie Taylor
District nurse lead (Purbeck), Dorset Healthcare University NHS Foundation Trust; Queen's Nurse

happening. In fact, the trend in funding seems to be travelling in the opposite direction. Analysis from the King's Fund has shown that over the past five years, while all areas of healthcare experienced growth in budgets, the areas that experienced the highest rises were acute and ambulance services, while community services… you've guessed it, experienced the least amount of budget growth ('Moving care closer to home: three unanswered questions' — www.kingsfund.org.uk). Far from prioritising primary care, the government seems to be intent on ploughing more resources into acute services.

KNOWLEDGE IS POWER

Funding isn't the only reason that care, rather than getting closer to home, seems to be moving further away. Poor data is another factor.

While there is a plethora of information available on acute services, such as which types of patients are treated in hospital, the range of interventions used and most importantly, patient outcomes, the same level of data on community services simply does not exist. In the community, data tends to focus on the number of appointments delivered but is woefully inadequate when it comes to the profile of the actual patients and their outcomes, with many having complex comorbid conditions that require a range of health and social care interventions.

Writing in *Digital Health*, Danielle Jefferies outlines how this leads to what has been termed as a 'cycle of invisibility' where primary care leaders are effectively commissioning blind without being able to evaluate treatments or accurately assign resources ('How data can help make "care closer to home" a reality' — www.digitalhealth.net).

Care closer to home evokes a huge number of emotions and often has different meanings to individuals, caregivers, professional bodies and organisations. Coupled with this is that there are an enormous number of factors that impact on the concept and practice of care closer to home, which can result in it not being delivered to the standard desired or as was originally envisaged.

There have also been a huge number of changes to contend with, including the after effects of the pandemic, cost-of-living crisis, the changing arena of the health and social care landscape, the increasing difficulties of recruitment and retention in the caregiving and primary care sector, and the increasing levels of individuals requiring care — often with very complex and long-term challenges who are wishing to be at home or have their care delivered as close to home as possible. Despite all these factors, there remains a political and social desire for care to be closer to home, but this implementation is fraught with tension.

The delivery of excellent care closer to home requires integrated, person-centred care to be delivered by a whole spectrum of individuals, including the highly committed community nurses and their teams and the surrounding community and this, of course, includes the lay care givers in the home setting who do so much to ensure that their loved ones can be cared for at home. Providing care at home and closer to home is often a rewarding experience for all involved and the preferred mode of care for the patient at the centre of this, with community nurses experiencing that privilege on a daily basis.

However, for person-centred, collaborative and integrated care to be effective, funding on a universal and localised basis needs to be provided as well as long-term planning and systematic support. This includes strategies to aid recruitment and retention of care and healthcare staff, including community nurses. Recruitment and retention are very complex issues and must be explored locally but also certainly at a national and political level. Addressing the long-term issues of providing care for often very vulnerable members of our society also needs to be continually addressed and will change due to funding, medical developments, and consumer demand, so forward thinking at all levels is required.

Broad systemic support needs to be in place to ensure that care closer to home is excellent and not just in some areas a pipe dream that may lack the necessary skilled workforce to provide such care. Certainly, community nurses are well skilled and are often the linchpins in providing, leading and organising this care, however, they need the infrastructure in place to enable and empower them to offer the high quality integrated person-centred care at home that they wish to provide and which individuals deserve to receive.

Teresa Burdett
Principal academic, Bournemouth University

BOOTS ON THE GROUND

As all community nurses know, staffing is another ever-present issue in primary care. Recently, the King's Fund pointed to high staff vacancy rates and endemic workforce shortages in the community. But while the number of hospital nurses has actually grown over the past 10 years, district nurse and health visitor numbers in particular are heading in the opposite direction ('Moving care closer to home: three unanswered questions' — www.kingsfund.org.uk).

Unfortunately, this may only be the tip of the iceberg, with other reports painting a much starker picture, estimating that community nurse numbers may have fallen by almost 50% since 2009, an unsustainable figure in any profession, let alone one that is supposed to be leading the way in a new era of preventative care ('England's community nurse workforce down almost 50%' — www.nursinginpractice.com).

All of which mean that while care closer to home is a snappy slogan, the reality is that a systemic shortfall in funding and resources has left it practically undeliverable.

HOW CAN WE FIX IT?

According to the King's Fund, all is not lost, with the think-tank coming-up with a range of solutions that mean that care closer to home could yet become a viable policy, including ('Making care closer to home a reality' — www.kingsfund.org.uk):

- If care closer to home is to work, staff such as community nurses need to be equipped to deliver it. The health and care system is currently focused on hospitals, with acute care becoming increasingly specialised. However, patients are presenting with increasingly complex conditions, which need integrated rather than specialist care
- The whole healthcare system needs more generalism in staffing and skill-sets, alongside multidisciplinary teamwork. This means trusting community nurses to assess risk and help people to live at home. It will also require funding, both to attract skilled staff and for education and training
- Currently, so-called 'expert' specialist training is often concerned with acute conditions. However, education needs to focus as much on the assessment and prevention skills required in the community as it does on hospital specialisms.

In short, what is required is a fundamental shift in attitude, where primary care is valued as much as what is often regarded as the more 'glamourous' acute sector. Also, this change cannot always come from staff on the ground such as community nurses and social care staff; the impetus must come from the top, with government ministers and healthcare leaders committing to the vision for primary care that is so often trumpeted in policy documents and white papers.

To be fair to the government, its recently published workforce plan did contain an ambition to grow primary care staff numbers in an effort to 'enable the service ambition to deliver more preventative and proactive care across the NHS'. The plan sets out target to grow these roles 73% by 2036–37' ('NHS Long Term Workforce Plan' — www.england.nhs.uk).

Will it work? Who knows, after all 73% is a big number. But without some significant changes, care closer to home will be just another half-remembered government rebrand (remember CCGs anyone?).

WHAT CAN YOU DO TO BRING CARE CLOSER TO HOME?

As usual, it falls to community nurses themselves to show that if it's done with passion and innovation (and the right resources) care closer to home could actually be a force for good.

Writing about an integrated care service in Buckinghamshire, chief nurse Carolyn Morrice described how a group of nurses took the initiative in the care for older people by identifying and managing their health needs before they hit crisis point and required hospital admission. Crucially, the service includes a liaison nurse who provides a point of contact to offer support to patients while contacting relevant services. As Morrice writes, 'these nurses are knowledgeable about the normal ageing process and disease progression and can identify areas of concern, for example in the physical, psychological, social, environmental or financial aspects of an individual's health and welfare' ('Nurses leading the way to integrated care' — www.england.nhs.uk).

So, not rocket science then. Just good old-fashioned nursing expertise backed-up by supportive management. Perhaps instead of endlessly consulting management 'experts' and writing white papers, NHS leaders ought to take inspiration from the work community nurses are actually doing on the ground, day in, day out. It might sound like a crazy idea, but instead of constant tinkering and reorganisation, what nurses really need is the support to do the job they are already doing, but with the time, resources and support to do it better.

From community nurses across the UK, the message to ministers might be — worry less about snappy slogans such as care closer to home and more on getting your own house in order. JCN

REFERENCES

Daelmans B (2015) Effective interventions and strategies for improvoing early childhood development. *BMJ* 351: h4029

King's Fund (2016) *Understanding quality in district nursing services: learing from patients, carers and staff*. Available online: https://assets.kingsfund.org.uk/f/256914/x/2025bbbc39/understanding_quality_district_nursing_services_2016.pdf

Queen's Nursing Institute (2021) *Untapped potential: district nursing services and the avoidance of unplanned admission to hospital*. Available online: https://qni.org.uk/wp-content/uploads/2021/11/Untapped-Potential-District-Nursing-Services-report 2021.pdf

Queen's Nursing Institute (2022) *Workforce standards for the district nursing service*. Available online: https://qni.org.uk/wp-content/uploads/2022/02/Workforce-Standards-for-the-District-Nursing-Service.pdf

Queen's Nursing Institute (2023) *A school nurse in every school. Report from a round table discussion held on 15 December 2023*. Available online: https://qni.org.uk/wp-content/uploads/2024/03/Round-Table-Report-A-School-Nurse-in-every-School-December-2023.pdf

Royal College of Nursing (2019) *Health visitors and school nurses: a summary of recent evidence and trends in the UK workforce — executive summary*. RCN, London

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1. Moloney S, Fitzgerald D, Roshan D, Gethin G. Impact of hidradenitis suppurativa-specific wound dressing system on patient quality of life and dressing-related pain: pilot study. J Wound Care. 2022 Nov 2;31(11):898-906. 95% CI, P <0.001 HidraWear is clinically proven to show 95% of patients will experience a significant benefit Vs previous management solution. Patients experience a significant improvement in dermatological quality of life (19.4 down to 4.6 DLQI Scoring) using HidraWear Vs traditional wound dressing products and techniques, 95% CI, P <0.001

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Understanding food poverty

Ana Maria Narvaez, senior policy and advocacy officer, The Food Foundation

Last November, the *Nature Food* journal published an article stating that life expectancy in the UK can be increased by up to 10 years by sustained adherence to a healthier diet (Fadnes et al, 2023). This immediately caught the author's attention. If we all are clear that healthy foods are the cornerstone of having longer, healthier and more dignified lives, why is the government not prioritising making healthy food accessible to people?

FOOD INSECURITY: THE FIGURES

Food insecurity and access to nutritious foods are pressing issues affecting families across the UK. The Food Foundation has been monitoring household food insecurity across the UK since March 2020. The latest data from the Food Insecurity Tracker indicates that 15% of households experienced moderate or severe food insecurity in January 2024, affecting an estimated eight million adults and three million children (https://foodfoundation.org.uk/initiatives/food-insecurity-tracking).

'... families are forced to navigate difficult choices regarding their food budget, often sacrificing food to cope with financial constraints.'

Access to nutritious food is distinctly affected, with 60% of households experiencing food insecurity also reporting cutting back on purchasing fruit, compared to 11% of food secure households. A similar pattern is observed with vegetables (44% of food insecure households cutting back compared to 6% of food secure households) and fish (59% vs 15%).

FOOD: THE STRETCHED ITEM WITHIN THE BUDGET

The challenge of household food security in the UK has been intensified by a decade of austerity, compounded by the Covid-19 pandemic and the ongoing cost-of-living crisis. According to the Food Foundation's Food Prices Tracking (https://foodfoundation.org.uk/initiatives/food-prices-tracking#tabs/Basic-Basket-Tracker), over the past two years the cost of an adequately healthy weekly food shop has increased by approximately 25%, exacerbating the obstacles faced by families already struggling to make ends meet.

In this context of economic strain, families are forced to navigate difficult choices regarding their budget, often sacrificing food to cope with financial constraints. As incomes increase at a slowed rate (Statista, 2024) and expenses which are not able to be squeezed, such as rent, transportation, or childcare, remain high, food as an elastic item in the budget can be subject to stretching and adjustment.

FOOD INSECURITY EQUATES TO HEALTH INEQUALITY

One of the key factors contributing to disparities in healthy food consumption between the most and least deprived is the cost of nutritious options relative to unhealthy alternatives. The Food Foundation's annual Broken Plate report found that, on average, healthy food costs over twice as much per calorie as less healthy, making it financially out of reach for many families on low incomes. As a result, unhealthy food becomes not only the most budget-friendly option but, for

some, the only affordable one. Indeed, the most deprived families would need to spend an unrealistic 50% of their disposable income on food to afford the government-recommended healthy diet (https://foodfoundation.org.uk/publication/broken-plate-2023).

The disparity in access to healthy food has significant implications for public health and exacerbates existing health inequalities in the UK, particularly concerning food-related poor health. Evidence shows that the most deprived communities disproportionately suffer from higher rates of diseases such as obesity, type 2 diabetes, cardiovascular disease, and dental decay (NHS England, 2023; National Food Strategy). These health outcomes are mirrored in food consumption patterns, with more deprived groups consuming significantly less healthy foods.

Diet is a modifiable risk factor for poor health, indicating that many of these inequalities can be preventable by improving access to foods that provide adequate nutrition. Addressing this issue requires comprehensive solutions that tackle the root cause: poverty.

ADDRESSING FOOD POVERTY

Community nurses and healthcare professionals play a crucial role in understanding the lived experiences and socioeconomic barriers to accessing nutritious food faced by people and families. By leveraging their expertise and insights, policymakers can develop more effective strategies to address food insecurity and improve health outcomes in the UK.

To ensure that families can afford and access healthy food to prevent food insecurity and food-related illnesses, the Food Foundation (2024) is calling on all political parties to:

- Require that the cost of healthy and sustainable diets be taken into account when setting benefit levels and the national living wage
- Expand the Free School Meals scheme to ensure all children can access a hot, nutritious meal
- Expand eligibility, improve uptake and increase the value of the Healthy Start Scheme.

Addressing food poverty and promoting access to healthy diets is not only a matter of social justice, but also a public health imperative. Bridging the gap of these inequalities is crucial to give back 10 years of healthy life to vulnerable families. By recognising the interconnectedness of food security and health outcomes, the wellbeing of people and communities across the UK can be improved. JCN

REFERENCES

Fadnes LT, Celis-Morales C, Okland J-M, et al (2023) Life expectancy can increase by up to 10 years following sustained shifts towards healthier diets in the United Kingdom. *Nature Food* 4: 961–5

Food Foundation (2024) *Election '24 Nourising the Nation*. Manifesto. Available online: https://foodfoundation.org.uk/sites/default/files/2023-09/Election%2024_Manifesto.pdf

NHS England (2023) *National Diabetes Audit (NDA) 2022-23 quarterly report for England, Integrated Care Board (ICB), Primary Care Network (PCN) and GP practice*. Available online: https://digital.nhs.uk/data-and-information/publications/statistical/national-diabetes-audit/core-q3-22-23/national-diabetes-audit-nda-2022-23-quarterly-report-for-england-icb-pcn-and-gp-practice

National Food Strategy. Available online: www.nationalfoodstrategy.org/

Statista (2024) *Average year-on-year growth of weekly earnings (3-month-average) in the United Kingdom from March 2001 to January 2024*. Available online: www.statista.com/statistics/933075/wage-growth-in-the-uk/

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Shaping future healthcare leaders

Matthew Bradby, head of communications, Queen's Nursing Institute (QNI)

The Queen's Nursing Institute (QNI) is rebranding its leadership programme for experienced nurses working in the community, primary care and social care.

The Ambition to Lead Programme (formerly known as Aspiring Nurse Leaders programme) is also open to allied health professionals (AHPs), as well as nurses working in the community with a minimum of five years of experience.

The programme is designed to support the professional development of the participants to become future leaders in healthcare. Participants will engage in a diverse range of learning experiences, including presentations, online sessions, lectures, and group work, culminating in a transformative 12-month journey. With a strong emphasis on mentorship and hands-on projects, the programme aims to cultivate resilient and visionary professionals poised to make meaningful contributions to their communities.

BACKGROUND AND CURRENT NEEDS

Originally launched in 2017 and developed by Queen's Nurse Sharon Aldridge-Bent MBE, the QNI leadership programmes have empowered over 150 nurses, marking a significant milestone in fostering leadership excellence within the healthcare community. The leadership programme is now overseen by Dr Cate Wood, the QNI's director of nursing programmes (leadership and standards). Dr Wood has expressed appreciation for the foundations laid by her predecessor, emphasising a commitment to building upon existing strengths while also refining the programme to meet current needs and incorporate feedback from past participants.

Dr Wood said: 'At the QNI, we are dedicated to fostering a new generation of leaders who are equipped to navigate the complexities of modern healthcare. With the reimagined programme, we aim to empower nurses and AHPs from diverse backgrounds to unlock their full potential and drive positive change in healthcare in the community.'

Programme graduate Queen's Nurse Lisa Gavin, clinical service manager (Gypsy, Roma Traveller and Inclusion Health) from Surrey, reflects on her QNI journey:

This course has been a wonderful opportunity to grow and develop my leadership experience, both with the in-person sessions and in the intervening periods. To share knowledge and experiences with senior nurses, from a wide variety of nursing roles and services, has been both transformative and supportive. We have been able to learn from each other and positively encourage and challenge each other to expand our professional horizons and to negotiate our various journeys through senior systems.

For myself, the mentorship has been so much more than support and encouragement: introductions and connections have been made at regional and national level and I have learned new skills to influence the development of inclusion health to build on the work that I have been developing locally. I have been encouraged and challenged to approach my role with a new and more strategic view and to have the confidence to value my own contribution to establishing an inclusion health approach to community health care.

HOW TO APPLY

The Ambition to Lead programme is open to all nurses and AHPs working in community settings and interested in developing their leadership skills. Please note that you do not have to be a Queen's Nurse to apply. Applications for 2024 are open from 2 April – 6 May 2024 and for more information visit the QNI website.

SUSTAINABILITY PROJECTS IN THE COMMUNITY

The QNI is also looking for community nurses and organisations who would like to develop innovative projects around environmental sustainability in healthcare. These projects require a financial commitment from the organisation but working in partnership has been proven to achieve real results for patients and services. **JCN**

More information

To find out more about undertaking an innovation programme with the QNI this year, please go to: https://qni.org.uk/explore-qni/nurse-led-projects/sustainability-and-innovation-projects-in-partnership/

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Reference List

1 Boyd AS (2010) Ichthammol revisited. Int J Dermatol 49: 757–60 **2** Eagle M (1999) Paste-impregnated bandages. J Wound Care 8(6): 300–1 **3** Fincham Gee C (1990) Paste bandages for leg ulcers. Wound Management 4(9): 25–9 **4** Kogan S, Sood A, Granick MS (2017) Zinc and wound healing: A review of zinc physiology and clinical applications. Wounds 29(4): 102–6 **5** Lansdown ABG, Mirastschijski U, Stubbs N et al (2007) Zinc in wound healing: Theoretical, experimental and clinical aspects. Wound Repair Regen 15: 2–16 **6** Maher SF (2015) Chronic venous leg ulcers – role of topical zinc. Chronic Wound Care Management and Research 2: 95–100 **7** Pasquet J, Chevalier Y, Pelletier J et al (2014) The contribution of zinc ions to the antimicrobial activity of zinc oxide. Colloids and Surfaces A: Physiochem Eng Aspects 457: 263–74 **8** Williams C (1999) Examining the range of medicated and paste-impregnated bandages. Br J Nurs 8(15): 1019–20

Marking five years of the Community Rehabilitation Alliance

Tamsin Starr, health and social care writer

After decades as the Cinderella service, rehabilitation is now increasingly talked about in the same breath as medicine and surgery. The Community Rehabilitation Alliance (CRA), which the Chartered Society of Physiotherapy (CSP) convenes and co-chairs, has used the power of more than 60 health interest groups to bring about this change and set the scene for future transformation. Here, Tamsin Starr showcases its achievements and future plans.

'For decades, rehab was the Cinderella service,' says Sara Hazzard, assistant director at the CSP and co-chair of the CRA. 'Surgery and medicine were seen as essential within the healthcare system, while rehab was the add on.'

CSP members recognise the deep frustration of seeing patients not receiving needs-led personalised rehab, close to home. However, establishing rehab as a right and an equal pillar of healthcare has required a collective vision, which could only be realised through the united power of more than 60 organisations.

The CRA was formed in 2019 to do just that. Its pivotal influence grew from campaigning and getting a national accountable rehab lead in England, establishing best practice standards in all four countries, and persuading senior health policymakers to use the standards to inform new and much needed national frameworks.

'... to see accessible, personalised rehab that considered all the factors affecting people's health, with care arranged in a sensible way and a workforce built around this approach.'

Since its launch, the CRA has gained 61 members in England. From physical to mental health, medical royal colleges to Richmond Group charities, there is unity in their commitment to rehabilitation being high on the healthcare agenda.

What brought CRA members together was a shared belief in the transformative power of rehab for people and for the health and care system. Amit Arora, British Geriatrics Society vice president for workforce and one of the 2023 co-chairs of the alliance explains: 'There was a longstanding concern that patients who had come to acute hospitals were given the rehab they wanted or needed when they were in hospital, but not outside of it. Rehab needed to continue in the community to maintain them in the physical state that they are in or to the best levels of their possible abilities. The CRA brought this out into the open, and united us around this common goal, which went outside our specialisms.'

Henry Gregg, an upcoming 2024 co-chair who represents Asthma + Lung UK on the alliance, adds: 'Even though we're coming at it from different specific perspectives and different conditions, we are all committed to making sure that all parts of the system are properly funded.'

At the alliance's core is the drive for an increased emphasis on personalised care, recognising that many people have multiple long-term conditions. 'They are almost all let down when they need high-quality person-centred care close to home,' adds Sara.

The CRA's first joint statement set out this mission to transform rehab's place in healthcare. 'It was about changing the way rehab was seen from one element in an individual condition pathway to being key to treatment across multiple conditions and delivered by a multidisciplinary team that went beyond the NHS alone,' says Sara.

Defining what good sustainable rehab would look like put them on the starting blocks to drive rehab up the agenda — both within the NHS and politically. 'In advocating for rehabilitation for everyone, we were advocating for reducing fragmentation and therefore waiting times,' adds Amit. 'We needed the right kind of data so we could argue for the right staff numbers, and better resources.'

Their ambition was to see accessible, personalised rehab that considered all the factors affecting people's health, with care arranged in a sensible way and a workforce built around this approach. 'No one gets written off as too complex, ending up back in hospital when that could have been avoided,' Sara explains.

She continues, 'We needed to work together to achieve this. We used the strength of being a coalition of so many health and care charities and professional bodies as a lever to encourage government and the NHS

to take rehab seriously, to recognise and fund it. Now we are focusing on ensuring the workforce will be there to deliver it.'

'We currently have two working groups and two task and finish groups. To date, a total of 13 sub-groups of the CRA have been convened to deliver the above.'

'It can't be about one condition or one profession pushing a narrow agenda. Our strength comes from the fact all professional groups — allied health professionals, nurses, doctors, exercise professionals — are standing alongside those receiving care. And we are backed by the charities covering all the big conditions, from cancer to musculoskeletal (MSK) conditions,' Sara continues.

'This gives us more influence with decision-makers and opens doors that require a multi-profession and multi-condition approach. Anything else could be seen as out of step, self-serving or even lacking importance. The imperative is to be the solution to the wicked problems and to be the collective thinkers who know the problems are significant but not insurmountable.'

A sudden acceleration to the CRA's plans came in the unlikely form of the global Covid-19 pandemic. With the pandemic demanding new thinking for decades-old problems, the CRA was ready with the answer. The Long Covid-driven spike in rehab needs — respiratory, speech and language, psychological, loss of senses and more — left the NHS in urgent need of a new model. Spiralling waiting lists made the argument even more vital that without access to high-quality, person-centred rehab in hospital, and then in the community, patient flow breaks down. Not to mention people ending up in the most costly ends of the system — A&E or GP surgeries.

The CRA's community rehabilitation best practice standards, published in December 2022, leveraged this to drive rehab into the planning of the newly formed integrated care boards, and health and care boards in Scotland, Wales and Northern Ireland.

Making community rehabilitation seen and counted had been an ambition of healthcare professionals for decades. So, the CRA combined its standards with a blueprint for data collection in its *Making Community Rehab Data Count* report. 'Nobody counted rehab data — and if you don't count it, the impact can't be measured, so you don't fund it,' explains Sara.

'A sudden acceleration to the CRA's plans came in the unlikely form of the global Covid-19 pandemic. With the pandemic demanding new thinking for decades-old problems, the CRA was ready with the answer.'

This built on an appointment the CRA pushed for in order to drive through a system-wide transformation — the role of national director intermediate care and rehabilitation, NHS England. Jenny Keane, a qualified radiographer and former Northern Ireland chief allied health professions officer, was appointed in 2021 by NHS England.

Sara explains: 'That was the first step — that role has been intensely helpful in taking the work we did and using it to develop the standards into NHSE's intermediate care framework and community rehab model. It also drove the urgent and emergency care plan championing the policy that people don't just need a bed, they need rehab wrapped around it.'

Particularly welcome was the latter's recognition of the interdependency with rehab in meeting discharge objectives intending to avoid revolving door admissions. Sara is struck by the need not just to discharge people at any cost, but to ensure that people have the right care from the right people in the right place at the right time.

The framework also set out the need for each intermediate care board to appoint their own senior responsible officer for rehab. They would help transform services and align provision, optimise coordination through a local rehab provider network, as well as drive forward the all-important data gathering.

The CRA's positioning as solution-provider took years of relentless hard work and constant pressure, as Sara explains: 'Relationships are the bread and butter of how you get innovation heard, seen and shared. They get you a seat at the table with decision-makers, where policy is shaped. Joint letters led to meetings and influencing that led to giving evidence, and finally NHS England adopting our model and approach.'

Still, many members remained braced to welcome — with caveats — last year's intermediate care framework and new model for community rehabilitation. When it was published, they could not quite believe how much of their advice and input had been reflected, not to mention seeing rehab placed on a par with medicines and surgery — and the CRA credited.

'I'm always poised to welcome the parts of new policy that are good and urge caution where it really doesn't deliver,' admits Sara. 'It adopted so much of what we had created as an alliance that I had to read it twice.'

As well as the wider benefits for CSP members, being part of the alliance has also strengthened the position of the physiotherapy profession when it comes to influencing with impact.

'As the CSP, we're always championing the role that physiotherapists and support workers play and the evidence that makes us intensely relevant as the solution. Colleagues at the CSP devote time specifically to ensure that we have influence. It does take time and commitment to convene an alliance of a large number of health and care organisations, but it has enabled us to strengthen existing relationships and forge new ones. Together we

have turned up the heat when we've needed to, made noise when it served our common purpose, and collectively normalised the language of rehab. We have had a firm focus on community services, and, when needed, on other parts of the system too, such as post-Covid return of rehab space issues.'

As Sara looks forward to what the CRA can achieve in the next five years, she remains upbeat and optimistic, but under no illusion about the size of the shift. 'It can feel an insurmountable challenge with conditions continuing to deteriorate, more needs emerging and longer and more entrenched waiting lists. But we now have the models and the standards in place to show us what we need to do differently,' she says. 'However, as always, the devil of implementation at scale is in the detail. We have a shared vison, which is a crucial step, but now we need a shared reality, that will only be possible with investment in a community workforce.'

'The framework and new model, which reflect the best practice standards from the CRA, show services what good rehab looks like. This is not only a sign of national commitment to rehabilitation, the like of which we've not seen before, it's a trail blazed so that our members can be a part of the significant role of physiotherapy in delivering rehab.'

She is quick to add: 'I will continue to work with colleagues and partners to campaign for a rehab workforce in the community. We need the profession involved in rehabilitation to be ready for when the system creates these new positions where people need health and care. We want physios to embrace the potential for advanced practice roles in the community, support workers and rehab practitioners.'

Asthma + Lung UK's Henry Gregg points to positive conversations with politicians about rehab. 'We had a very useful meeting with [former health minister] Will Quince where we talked him through what his commitment to workforce would look like in terms of rehabilitation. And how if you don't put significant investment into that area, you're not going to see the benefits of having more doctors and nurses, as people will keep coming back to the doctor if they don't get better through rehabilitation services.'

'The CRA will continue to keep the pressure on nationally to ensure that rehab is an equal pillar of healthcare and that the best way to reach people who are not getting rehab is to ensure access for all.'

The timing — with all political parties having one eye on their general election manifestos — again seems poised to accelerate more wins. A shift to prevention has been on the table for decades, but the next general election may just open the door to longer-term thinking. 'Progress is partly dependent on the economy and on what a future government might fund for healthcare,' Henry adds. 'It's important to make the case ahead of that money being available, so they know where to put it. And the alliance has put rehabilitation on the map and on the agenda.'

Amit continues that any wins must be reflected across the four nations. Scotland is arguably the furthest ahead, with a 'Once for Scotland' approach to rehabilitation published, rehab leads appointed in every Scottish health board to deliver it, and community rehabilitation best practice standards to guide implementation. It went a step further when the Right to Rehab Coalition launched a campaign and petition to have rehab recognised as a human right in Scottish legislation.

Wales has similarly published an all-Wales community rehabilitation best practice standards, with campaigning wins including a £30m investment to improve people's chances of living at home independently. Numerous rehab policy announcements have shown that campaigning by the CSP is proving effective.

Stormont's power-sharing collapse has slowed progress in Northern Ireland, but the CSP, working in partnership with others, has been engaging with key political stakeholders to drive the rehab and recovery agenda forward.

Amit continues: 'We have an agreed ambition that we will develop the services for rehabilitation in the community and have equitable access to high-quality, person-centred rehab across the UK, not just in England. Across the UK we will invest and develop this alliance and its sister alliances to make that happen.'

The CRA will continue to keep the pressure on nationally to ensure that rehab is an equal pillar of healthcare and that the best way to reach people who are not getting rehab is to ensure access for all. Sara adds: 'We look forward to having a similar impact on the re-design of rehabilitation services for people leaving hospital but in the future as a way of ensuring people can avoid unnecessary admissions in the first place. Rehabilitation has an increasingly important role to play in primary care, secondary care and critically in the community.'

'Our job is to ensure that at each level rehabilitation is not forgotten, and that focus is not just on people when they are in hospitals but on those in community and social care services, so that hospitals are able to help at the right time for the right reasons.'

All allied healthcare professionals and nurses are committed to change. Sara says that CSP members continue to show leadership across the UK. 'We have members leading front-runner and exemplar services as well as official pilots. We know our members are facing some of the greatest demands and stresses for at least a generation. Where and when possible, members can expect us to back their calls locally for community rehab services to be part of the workforce planning and to hold national decision-makers to account to deliver on what they have now promised.' JCN

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‘Leaky legs’ is not a diagnosis! Impact of exudate on patients with venous leg ulceration

Sarah Gardner

When caring for people with venous leg ulceration, exudate management is commonly seen as one of the main challenges for clinicians. However, unfortunately, the reason for this wound-related symptom is often not identified or fully understood and therefore the clinical interventions necessary to address the problem are not implemented (Tickle, 2016). This results in people living with wounds that are failing to heal and producing a volume of exudate that has a significant impact on their quality of life (Cunha et al, 2017). Commonly, the words ‘leaky legs’ or ‘wet legs’ are documented in patient notes as the presenting problem — this is not a clinical diagnosis; it is a symptom of an underlying condition which more than likely is venous disease. Unless this is recognised and treated correctly, those ‘leaky legs’ will continue to be a problem and potentially could have a devastating impact on the patient. It is therefore important to have a good understanding of venous disease as well as the role that exudate plays in wound healing, from initial wounding, through the stages of healing, and when (and why) it becomes a problem.

KEYWORDS:
■ Exudate ■ Venous leg ulceration ■ Quality of life

ROLE OF EXUDATE IN HEALING

Exudate is produced as an essential part of the healing process, and in wounds that are healing normally it plays an important role by:

- Providing a moist environment that allows tissue-repairing cells to migrate across the wound bed
- Enabling the distribution of essential growth factors and immunological mediators across the wound bed
- Supplying all the necessary nutrients required for cell development
- Promoting autolysis (natural debridement) of dead tissue.

(World Union of Wound Healing Societies [WUWHS], 2019).

Sarah Gardner, independent tissue viability consultant, Cumbria

When a wound is progressing normally, exudate usually presents as a straw-coloured fluid and, generally, the volume produced will decrease as healing takes place. Wounds that are failing to heal will often produce a high volume of exudate and this can lead to adverse effects on both the wound and the person living with the wound (Green et al, 2014).

COMPOSITION OF EXUDATE

Exudate is derived from blood and contains a wide range of essential components, all with their own function (*Table 1*; WUWHS, 2019). It also contains micro-organisms, debris from devitalised tissue and metabolic waste products that have occurred because of the healing process. If these components are not managed or controlled, problems may occur.

It is known that the composition of exudate in a non-healing wound is different from a healing wound (Vowden and Vowden, 2003). A non-healing wound contains higher levels of pro-inflammatory cytokines which stimulate the process that increases the level of matrix metalloproteases (MMPs) (WUWHS, 2019). High levels of MMPs may result in the degradation of the extracellular matrix (ECM), the essential ‘scaffolding’ necessary for wound repair. Levels of growth factors are lower than in a healing wound, which impacts negatively on the proliferation and migration of cells necessary for new blood vessel formation as well as epithelialisation and wound contraction (Kroeze et al, 2012). Mitosis, the proliferation of fibroblasts and a key feature of wound healing, is also lower in a non-healing wound (WUWHS, 2019).

INTERSTITIAL FLUID BALANCE

To prevent fluid accumulating in the tissues, there is a process of drainage and recirculation of interstitial fluid. Previously, it was thought that 90% of fluid was reabsorbed into the capillaries with the remaining amount draining back into the lymphatic system (Mortimer and Rockson, 2014). However, research has discovered that the lymphatic system plays a more prominent role, with all the interstitial fluid being taken up where it becomes lymph; this is eventually returned to the central circulatory system (Mortimer and Rockson, 2014).

The amount of interstitial fluid is controlled by various factors and, if the rate of production exceeds drainage capability, it will result in tissue oedema (Mortimer and

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Rockson, 2014). If a wound is present, the amount draining from that wound will also increase — this is known as wound exudate. The type and volume of exudate produced is often determined by the status of the wound and may give an indication of its potential to heal (Vowden and Vowden, 2003).

CAUSES OF HIGH EXUDATE VOLUME

There are some wound types which are more prone to a higher volume of exudate; these include chronic venous leg ulcers (VLUs), dehisced surgical wounds, fungating wounds and burns (WUWHS, 2019). Local and systemic factors will increase the risk of abnormal exudate volume, such as:

- Infection
- Presence of foreign bodies
- Malnutrition
- Medication
- Venous insufficiency
- Heart failure
- Patient's tolerance of the treatment plan

(WUWHS, 2019).

Lack of robust wound assessment, incorrect diagnosis and inappropriate dressing selection are also contributing factors.

LEG ULCERATION AND THE IMPACT OF EXUDATE ON QUALITY OF LIFE

In venous leg ulceration, the presence of venous stasis increases the hydrostatic pressure in the capillaries leading to a greater permeability of the capillary walls and an increase of leakage into the tissues that presents as oedema (Wounds UK, 2013). Non-healing VLUs tend to be stuck in the inflammatory phase of the healing process, producing exudate that contains high levels of inflammatory mediators and proteolytic enzymes (Raffetto et al, 2020). This results in increased protease activity, ECM destruction and further delays in healing. Furthermore, if this harmful exudate is in contact with the skin, it can cause periwound skin damage and wound expansion (Wounds UK, 2013).

Table 1: Examples of exudate components (WUWHS, 2019)

Exudate component	Function
Water	Medium for other components, prevents tissues drying out
Fibrin	Blood clotting
Immune cells (e.g. lymphocytes and macrophages)	Immune defence, growth factor production
Platelets	Blood clotting
Proteins (e.g. albumin, fibrinogen, globulins)	Transport of other molecules, anti-inflammatory effects, blood clotting, immune factors
Growth factors	Stimulate cellular growth
Proteases	Degradation of proteins, assisting in autolysis and cell migration, scar remodelling
Metabollic waste products	By-products of cellular metabolism
Micro-organisms	All wounds contain some micro-organisms
Wound debris/dead cells	Proteases in exudate aid autolysis of devitalised tissue

'Wound leakage impacts on relationships, with some female patients describing a loss of femininity and being unable to be intimate with their partners. Issues with body image and self-esteem are common.'

It is known that those living with leg ulceration frequently report a poor quality of life due to wound chronicity. Unmanaged exudate is commonly responsible for this and is cited by patients as one of the worst things about living with a leg ulcer (Menon, 2012). The presence of these highly exuding, non-healing wounds triggers a series of problems which affect the individual physically, psychologically and/or socially (Gethin et al, 2014). The impact can be devastating, and it is essential that this is acknowledged as part of patient holistic wound assessment and steps taken to alleviate suffering.

There are several exudate-related factors that contribute to poor quality of life.

Leakage and malodour

Leakage and malodour can be extremely distressing to patients and their carers, with many reporting adverse effects on their psychological wellbeing. Some describe feelings of self-loathing, disgust and low self-esteem and report how the stigma associated with these wound-related symptoms leads to significant embarrassment and a withdrawal from social activities (Gethin et al, 2014). Wound leakage impacts on relationships, with some female patients describing a loss of femininity and being unable to be intimate with their partners. Issues with body image and self-esteem are common (Salome et al, 2016).

There can also be a socioeconomic impact, as some people stop going to work or even worse are dismissed by their employers because of their leaking, malodorous wound, leading to a loss of income (Gonzalez and Verdu, 2011). After failing to have wound exudate managed effectively by their healthcare worker, anecdotally it has been suggested that some patients try to manage the problem themselves by buying sanitary products to wrap around their legs or applying plastic bags to contain the leakage. This can potentially lead to further damage and complications. A person's everyday functioning as a result of living with leakage and malodour is restricted, with depression and low mood being a common presentation (Green et al, 2014).

The unpleasant odour present in some wounds is usually associated with a high bacterial load when

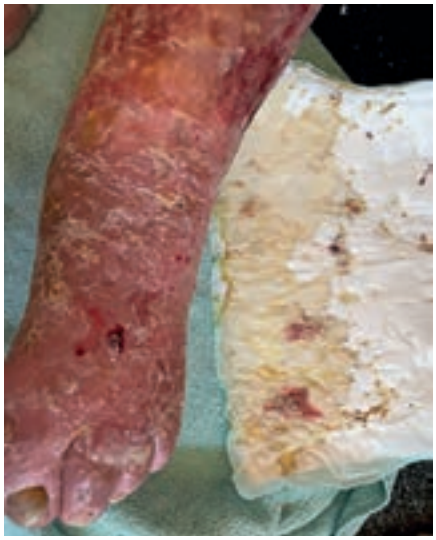

Figure 1.
Malodour associated with dressings saturated with chronic exudate.

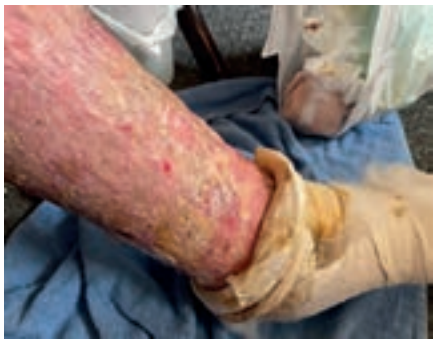

Figure 2.
Exudate will often leak through bandages onto clothing and bedding.

exudate volume is high (*Figure 1*). This malodour is an extremely stressful factor for patients, causing problems such as poor appetite, nausea, vomiting and weight loss (Green and Jester, 2009). The odour acts as a constant physical reminder to the patient of their wound (Jones et al, 2013), with some describing the inability to escape the 'smell'. The embarrassment and shame caused by malodour is devastating for patients, with some trying to manage the situation by withdrawing from any social activities and creating a self-imposed isolation (Green and Gibson, 2013).

Soiling of clothing and bedding

Leakage of exudate and associated soiling of clothing and bedding is another distressing factor for patients and can impact on everyday tasks such as an increase in washing due to frequent clothing and bed linen changes (WUWHS, 2019). For those who are dependent on others for help, the additional laundry requirement can place a huge burden on carers or family members, leading to guilt and sometimes a breakdown in relationships. More recently, in the author's opinion, with energy prices being so high, it is likely that patients have been concerned about the costs associated with frequent clothing and linen changes. This will only increase the anxiety experienced (*Figure 2*).

Increased pain associated with periwound skin damage

Wound-related pain has been highlighted as a factor associated with exudate, which significantly impacts on quality of life because of how it limits a person's daily activities (Goto and Saligan, 2020). Pain can inhibit mobility, sleep, diet, lifestyle, and relationships. A person's mental health can be affected, and chronic pain can lead to depression and social isolation (Goto and Saligan, 2020).

Pain associated with exudate is commonly due to periwound skin damage, but the prevalence is not well documented. It is acknowledged, however, that its impact is 'substantial', both on individuals and healthcare systems (Woo et al, 2017).

High levels of harmful MMPs, together with a high bioburden within the exudate, is toxic to the skin, causing a breakdown of the skin barrier (*Figure 3*) (Wounds UK, 2013). Patients describe the pain as burning, sharp and constant, with many saying that they get little reprieve even with analgesia (Green and Jester, 2009). One large-scale international survey involving patients with chronic wounds found that 25% of respondents experienced pain around the wound, likely from periwound maceration and local inflammatory responses (Woo et al, 2008). Periwound maceration delays overall wound healing and is also associated with higher pain levels before and during dressing changes (Woo et al, 2017). It is therefore important that skin protection is a consideration when planning wound care for a patient.

Increased episodes of infection

Unmanaged exudate increases the risk of infection, as this wet environment allows microbes to thrive and proliferate, resulting in local or sometimes spreading/systemic infection (Percival and Suleman, 2017) (*Figure 4*).

Unfortunately, misdiagnosis of infection frequently results in patients taking multiple courses of systemic antibiotics rather than the root cause of local infection being addressed (Finlayson and Edwards, 2019). This constant locally infected and inflammatory status, complicated by biofilm, results in highly exuding, static wounds (Finlayson and Edwards, 2019). Thus, it is essential that clinicians can recognise and

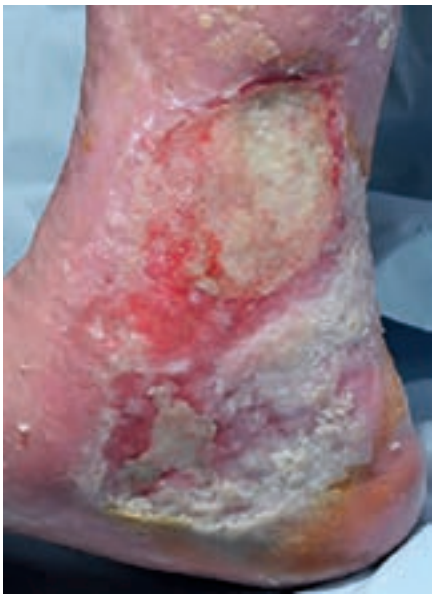

Figure 3.
Skin maceration secondary to unmanaged exudate.

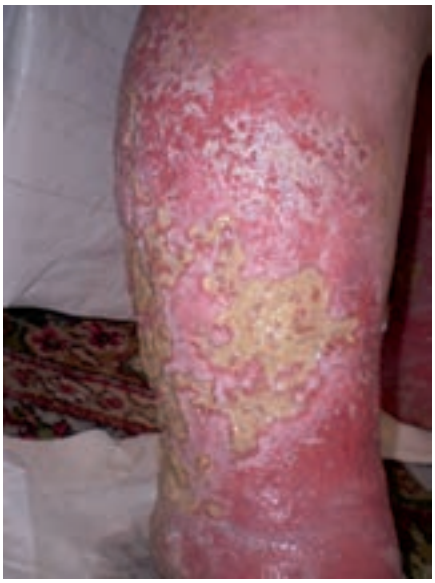

Figure 4.
Local wound infection/biofilm secondary to oedema and a high exudate volume.

diagnose infection so that it can be treated appropriately.

Increased clinical interventions

People living with highly exuding wounds often require increased input from healthcare services for dressing changes. The economic impact of this demand on the National Health Service is considerable, with nursing/clinical resource being the greatest cost (Dowsett, 2015; Guest et al, 2015). However, the need for frequent dressing changes also impacts on the quality of life of the person living with that wound. Having to regularly attend a dressings clinic or having community nurse visits, sometimes every day, disrupts a person's routine, interferes with mealtimes, work commitments or family and social time, adding to the stress and anxiety that many experience. Dressing changes may be traumatic for some due to wound-related symptoms such as odour or pain. Indeed, patients report having anticipatory pain due to having had dressing change experiences that have lacked care and compassion or an acknowledgement of the amount of pain experienced (Woo, 2015).

In the author's clinical experience, unfortunately, these frequent dressing changes will often continue as routine practice because of a failure to stop and consider why the wound remains so wet. Unless this is done, the root cause of the problem will remain undiagnosed and the scenario will not improve.

HOW CAN WE MINIMISE THE PROBLEMS?

Identify and treat the underlying cause

It is essential that the underlying cause of excess exudate is identified, as without this it is likely that the leg ulcer will remain unhealed, prolonging the negative impact on the individual's life.

For those presenting with leg ulceration, it is likely that the aetiology will be venous stasis resulting in oedema of the lower limb which impacts on a high exudate volume (Wounds UK, 2013). Assessment, as recommended by the National Wound Care Strategy Programme (NWCSP, 2023), should be undertaken within two weeks of a person presenting with a lower limb wound to help establish aetiology and to ensure that patients are put on the correct treatment pathway. This early intervention and commencement of therapeutic care enhances healing and prevents the production of harmful exudate and its association with wound chronicity.

'It is important to reinforce that to treat the underlying venous disease therapeutically, the correct "dosage" of compression should be applied.'

Strong compression therapy (delivering a minimum of 40mmHg) in the form of multilayer bandaging or leg ulcer hosiery kits is the gold standard treatment for VLUs (Shi et al, 2021; NWCSP, 2023). Its mode of action is multifaceted, but it is particularly efficient in reducing oedema and controlling exudate volume by lowering venous hypertension and decreasing capillary permeability (Fletcher et al, 1997). Reduction in exudate volume following application of therapeutic compression can be rapid, resulting in improvements to the wound bed and periwound skin health, as well as a reduction in pain. Wound inflammation then diminishes and healing progresses into its proliferative phase (Fletcher et al, 1997).

It is important to reinforce that to treat the underlying venous disease therapeutically, the correct 'dosage' of compression should be applied. Unfortunately, use of reduced compression has become commonplace, only delivering half the pressure required for healing (Hopkins, 2023). As a result, oedema is often not managed effectively, and exudate continues to have a detrimental impact on both the wound and the individual. This sub-optimal care should be challenged, and changes made in practice to ensure that all patients receive the best, therapeutic, evidence-based treatment.

Prevent wound infection

The risk for developing infection should be considered as part of holistic leg ulcer assessment with aetiology seen as a significant factor (International Wound Infection Institute [IWII], 2022). The presence of oedema and excess exudate associated with venous disease is likely to increase microbial bioburden in the wound, so a proactive approach based on therapeutic compression and absorbent dressings should be used. Wound cleansing and debridement should also be part of the treatment plan as an additional means of preventing wound infection, together with appropriate frequency of dressing changes based on exudate assessment and treatment evaluation (European Wound Management Association [EWMA], 2004).

Address pain and periwound skin damage

The cause of pain should be identified and included as part of overall holistic leg ulcer assessment. Infection and limb oedema are common causes of leg ulcer pain (Price et al, 2007), but as previously mentioned, exudate is also a contributing factor due to the damage it does to the periwound skin.

Reducing oedema and exudate through therapeutic compression will ultimately have an impact on pain levels, but appropriate dressing selection to enable optimal fluid handling is important, as is the protection of the periwound skin (*Figures 5* and *6*). Using skin barrier products such as barrier films is an effective way of protecting vulnerable skin from further damage and will help to reduce pain associated with this (Wounds UK, 2013).

Analgesia is an important component in this holistic assessment (Richardson and Upton, 2011). Patients should always be advised on both pharmacological and non-pharmacological options as part of their pain plan in partnership

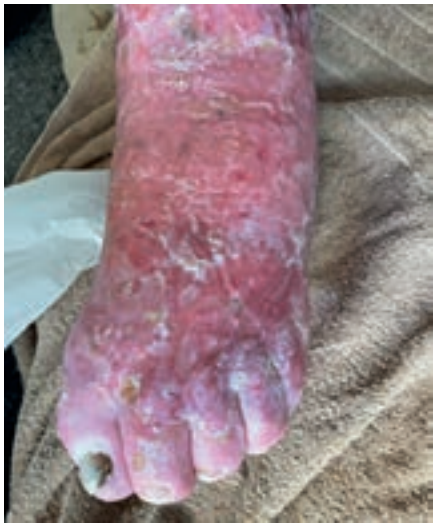

Figure 5.
Before the use of absorbent dressings.

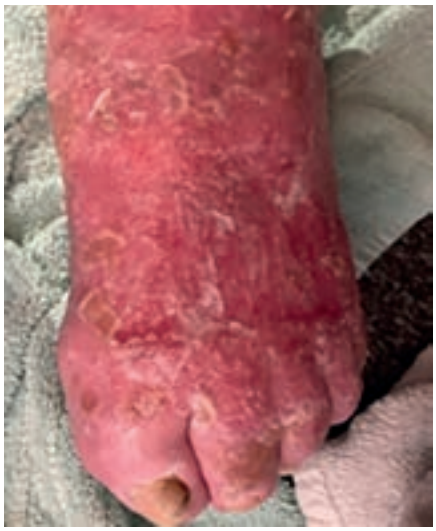

Figure 6.
After the use of effective absorbent dressings which help to reduce skin macderation.

with their lead healthcare professional.

Acknowledge the role of dressings

Dressings play an important role in the management of excess exudate. They handle exudate and its components through absorption, retention, and moisture vapour transmission and if applied correctly are efficient when working against gravitational forces and the mechanical forces applied by compression therapy modalities (Menon, 2012). However, it is important to point out that not all dressings are designed to perform effectively when working against gravitational and compressive forces, so selection should be based on clinical presentation and a good understanding of the product being considered for use.

When selecting a dressing, consideration should be made about its ability to reduce the risk of strikethrough leakage or its contact with the periwound skin so that maceration or excoriation can be avoided. The type and volume of exudate should also be taken into account, as dressings may vary in how they handle viscosity for example. It is important to understand the mode of action of the various dressings available, as without this knowledge there is the danger that a wound may deteriorate due to dressings being chosen incorrectly.

Specifications such as size, shape, and the dressing's ability to conform to the limb should also be considered, together with its ability to stay securely in place (*Figure 7*). Dressings selected using these criteria should help determine the 'wear time' of the product and enable more accurate care planning regarding frequency of dressing changes (Alvarez et al, 2021).

Consider patient tolerance of their treatment plan

Patient non-concordance is frequently cited by healthcare professionals as a reason for non-healing VLUs (Stanton et al, 2016), with the reluctance to have compression therapy impacting significantly on the wound's ability to heal. Without therapeutic compression, the underlying cause of high exudate and non-healing will not be addressed and therefore the wound will become complex and static.

Pain is often a reason why patients cannot tolerate compression, but rather than label as 'non-concordant', clinicians should work closely with them to identify the reasons why they are finding treatment difficult to tolerate. Having a clear explanation of the causes of leg ulceration or why exudate volume is high, using active listening skills and showing empathy for their situation will help develop positive nurse-patient relationships built on trust. Clinicians, however, need to be confident in their approach, both in their sharing of knowledge and in their practical skills. Support should be sought through education and training if this is lacking.

CONCLUSION

Managing exudate associated with VLUs appears to be a common problem for clinicians, but the greater concern should be for the impact it has on those living with these wounds, particularly in relation to poor quality of life. Exudate and odour are cited as major factors contributing to this, with patients reporting that these symptoms were inadequately managed by healthcare professionals (Green and Jester, 2009). Those living with heavily exuding wounds are constantly worried about what other people are thinking, and this is made worse if they are having to work. These concerns have a considerable impact on mental health and people become increasingly socially isolated (Green and Jester, 2009).

Acknowledging the impact these wounds may be having on a patient should form part of holistic leg ulcer assessment. Rather than accepting that excess wound exudate is typical with this wound type, clinicians should recognise that this presentation is not normal and start to manage the problem effectively.

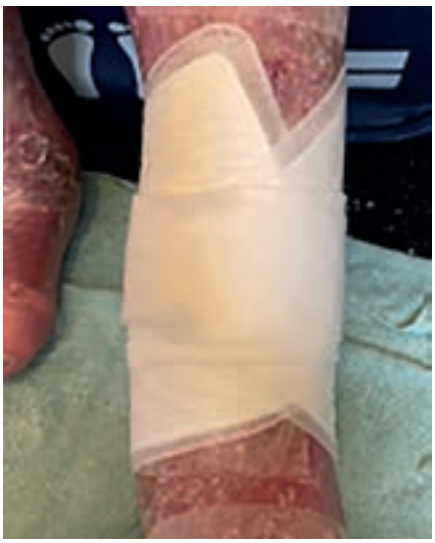

Figure 7.
Choose dressings that conform to the limb.

Identifying underlying causes of excess exudate, such as infection, oedema, or underlying medical conditions (e.g. heart failure) is essential, and a plan to address the underlying cause should be actioned immediately. Being proactive and providing therapeutic care (e.g. strong compression therapy and using dressings that are designed to effectively manage exudate without loss of performance when exposed to gravitational and mechanical forces) in a timely way will prevent wound chronicity and further complications. In addition, it is essential that the impact of the wound and wound-related symptoms on patient quality of life are acknowledged, and that the care plan includes actions necessary to improve their situation. JCN

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REFERENCES

Alvarez OM, Granick MS, Reyzelman A, Serena T (2021) A prospective, randomised, controlled, crossover study comparing three multilayered foam dressings for the management of chronic wounds. *J Comp Eff Res* 10(6): 481–93

Cunha N, Campos S, Cabete J (2017) Chronic leg ulcers disrupt patients' lives: A study of leg ulcer-related life changes and quality of life. *Br J Community Nurs* 22(Sup9): S30–7

Dowsett C (2015) Breaking the cycle of hard to heal wounds: Balancing cost and care *Wounds Int* 6(2): 17–21

European Wound Management Association (2004) *Position Document: Wound Bed Preparation in Practice*. MEP Ltd, London

Finlayson K, Edwards H (2019) The diagnosis of infection in chronic leg ulcers: a narrative review on clinical practice. *Int Wound J* 16(3): 601–20

Fletcher A, Cullum N, Sheldon T (1997) A systematic review of compression treatment for venous leg ulcers. *BMJ* 315: 576–80

Gethin G, Grocott P, Probst S, Clarke E (2014) Current practice in the management of wound odour: an international survey. *Int J Nurs Stud* 51(6): 865–74

Gonzalez R, Verdu J (2011) Quality of life in people with venous leg ulcers: an integrative review. *J Adv Nurs* 67(5): 926–44

Goto T, Saligan LN (2020) Wound pain and wound healing biomarkers from wound exudate: a scoping review. *J Wound Ostomy Continence Nurs* 47(6): 559–68

Green J, Gibson S (2013) Review of patient's experiences with fungating wounds and associated quality of life. *J Wound Care* 22(5): 265–75

Green J, Jester R (2009) Health-related quality of life and chronic venous leg ulceration: part 1. *J Community Nurs* 14(Sup6): S12–S17

Green J, Jester R, McKinley R, Pooler A (2014) The impact of chronic venous leg ulcers: a systematic review. *J Wound Care* 23(12): 601–12

Guest JF, Ayoub N, Mcllwraith T, Uchegbu I, Gerrish A, Weidlich D, Vowden K, Vowden P (2015) Health economic burden that wounds impose on the National Health Service in the UK. *BMJ Open* 5(12): e009283

Hopkins A (2023) Increasing the use and impact of compression therapy: understanding the barriers to optimal provision. *J Wound Management* 24(3): 81

International Wound Infection Institute (2022) *Wound Infection in Clinical Practice*. Wounds International, London

Jones JE, Robinson J, Barr W Carlisle C (2013) Impact of exudate and odour from chronic leg ulceration. *Nurs Standard* 22(45): 53

Kroeze KL, Vink L, de Boer e, Scheper RJ, van Montfrans C, Gibbs S (2012) Simple wound exudate collection method identifies bioactive cytokines and chemokines in (arterio) venous ulcers *Wound Rep Regen* 20(3): 294–303)

Menon J (2012) Managing exudate associated with venous leg ulceration. *Br J Community Nurs* 17(Sup6): S6–S16

Mortimer S, Rockson SG (2014) New developments in clinical aspects of lymphatic disease. *J Clin Invest* 124(3): 915–21

National Wound Care Strategy Programme: (2023) *Recommendations for Leg Ulcers*

Percival SL, Suleman L (2017) Slough and biofilm: Removal of barriers to wound healing by desloughing. *J Wound Care* 24(11): 498–510

Price P, Fogh K, Glynn C, Krasner DL, Osterbrink J, Sibbard GR (2007) Managing painful chronic wounds: the wound pain Management Model. *Int Wound J* 4: 4–15

Raffetto JD, Ligi D, Maniscalco R, Khalil RA, Mannello F (2020) Why venous leg ulcers have difficulty healing: overview on pathophysiology, clinical consequences, and treatment. *J Clin Med* 10(1): 29

Richardson C, Upton D (2011) Managing pain and stress in wound care. *Wounds UK* 7(4): 100–7

Salome G, De Almeida S, De Jesus M (2016) The impact of venous leg ulcers on body image and self-esteem. *Adv Skin Wound Care* 29(7): 316–21

Shi C, Dumville JC, Cullum N, Connaughton E, Norman G (2021) Compression bandages or stockings versus no compression for treating venous leg ulcers. *Cochrane Database of Syst Rev* Issue 7. Art. No: CD013397

Stanton J, Hickman A, Rouncivell D, Collins F, Gray D (2016) Promoting patient concordance to support rapid leg ulcer healing. *J Community Nurs* 30(6): 111–6

Tickle J (2016) Wound exudate: a survey of current understanding and clinical competency. *Br J Nurs* 25(2): 102–9

Vowden K, Vowden P (2003) Understanding exudate management and the role of exudate in the wound healing process. *Br J Community Nurs* Sup5: S4–S13

Woo KY, Harding K, Price P, Sibbald G (2008) Minimising wound-related pain at dressing change: evidence-informed practice. *Int Wound J* 5(2): 144–57

Woo KY (2015) Unravelling nocebo effect: the mediating effect of anxiety between anticipation and pain at wound dressing change. *J Clinical Nurs* 24(13–14): 1975–84

Woo KY, Beeckman D, Chakravarthy D (2017) Management of moisture associated skin damage: a scoping review. *Adv Skin Wound Care* 30(11): 494–501

World Union Wound Healing Societies (2019) *Consensus Document. Wound Exudate: Effective assessment and management*. Wounds International, London

Wounds UK (2013) *Best Practice Statement. Effective exudate management*. Wounds UK, London. Available online: www.wounds-uk.com

Choosing the most appropriate dressing: a practical guide

Annemarie Brown

Selection of the most appropriate wound dressing is vital for promoting effective wound healing. With the vast number of options of wound dressings currently available, healthcare professionals may find it confusing to select the most appropriate dressing (World Union of Wound Healing Societies [WUWHS], 2020a). This article discusses the importance of wound assessment, focusing on identifying goals of treatment and the selection of an appropriate dressing to manage any identified barriers to healing. In turn, this will help community nurses provide person-centred care that promotes healing and improves overall patient wellbeing.

KEYWORDS:
■ Dressing selection ■ Wound assessment ■ Debridement
■ Infection ■ Periwound skin

Guest (2021) found the total annual NHS cost of wound care in 2017 to be £10.2 billion, more than that of obesity and approaching the combined NHS cost of managing osteo and rheumatoid arthritis (Woolf, 2018). This figure includes costs such as increasing numbers of patient visits, which rose by 10,000% between 2012/3 and 2017/8 (in terms of healthcare assistant, district nurse and general practice nurse visits) (Guest, 2021). In terms of wound dressing costs, Guest (2021) found that dressing and bandage types were continually switched at successive wound dressing changes for the majority of patients. This implies some confusion and conflict within the treatment plan, with no clear goal of treatment being identified.

Annemarie Brown, lecturer, BSc Adult Nursing, School of Health and Human Sciences, University of Essex

'... dressing and bandage types were continually switched at successive wound dressing changes for the majority of patients. This implies some confusion and conflict within the treatment plan... .'

To decide upon a clear, effective care plan, cost-effectiveness and available research evidence should be considered. The first step is to undertake a thorough holistic wound assessment to identify the underlying cause of the wound, develop an effective treatment plan and, in turn, reduce morbidity and costs (Posnett et al, 2009; Ousey and Cook, 2012; Lindholme and Searle, 2016; Wounds UK, 2023).

The TIMERS clinical decision-making tool is an example of a systematic, evidence-based method of wound assessment (Leaper et al, 2012; Harries et al, 2016; Atkin et al, 2019). TIMERS is an acronym of the elements of structured wound assessment, namely:

- Tissue
- Infection/inflammation
- Moisture balance
- Epithelial edge
- Regeneration and repair
- Social and patient-related factors.

This article focuses on wound-related elements within TIMERS.

ASSESSMENT — IDENTIFYING BARRIERS TO HEALING AND SETTING TREATMENT GOALS

A comprehensive medical patient history needs to be taken, determining any existing comorbidities, medications, previous treatments, if applicable, nutritional status and general health and lifestyle factors, such as smoking and alcohol intake, which may impact on wound healing (Ousey and Cook, 2012).

The focus should then be on the actual wound to determine the cause and ensure that appropriate management strategies are put in place. Assessment should consider:

- Aetiology of the wound
- Position of the wound
- Duration of the wound
- Wound dimensions
- Any undermining or tunnelling
- Exudate volume
- Signs of infection
- Type of wound tissue present
- Periwound area
- Pain

(adapted from LeBlanc et al, 2021).

If the wound is due to an underlying aetiology, such as venous hypertension, pressure damage, or diabetic foot ulceration, appropriate management should be implemented. Following this, the wound bed should be assessed and any potential barriers to healing identified and an appropriate

management and dressing regimen selected.

IDEAL WOUND DRESSING PROPERTIES

The characteristics of an ideal wound dressing include:

- Creating an environment which promotes rapid and cosmetically acceptable healing
- Removing or containing odour
- Reducing pain
- Preventing or treating wound infection
- Ability to modify or inhibit matrix metalloproteinase (MMP) activity within the wound if necessary
- Effectively containing exudate volume
- Causing minimum distress or disturbance to the patient
- Hiding or covering a wound for cosmetic reasons

(adapted from European Wound Management Association [EMWA], 2017).

ASSESSING A WOUND USING THE TIMERS FRAMEWORK

The first step is to examine and record the percentage of tissue types present in the wound bed, such as:

- Necrotic
- Sloughy
- Infected
- Granulating
- Epithelialising.

Assessing the tissue at the wound bed enables clinicians to differentiate between viable and non-viable tissue (EWMA, 2017). Viable tissue includes healthy granulation or epithelial tissue, whereas non-viable tissue includes slough, which is necrotic tissue that needs to be removed from the wound for healing to take place. Slough can be stringy, moist, and yellow or grey, or thick, leathery and black, necrotic looking, also called eschar (Hovan, 2021; Ousey et al, 2021).

It is important to differentiate between wet slough and eschar to formulate the most effective, cost-effective and evidenced-based wound care treatment plan, as the dressings used will differ. If the wound bed contains eschar, the primary aim would be debridement to rehydrate, soften and remove the eschar (Hovan, 2021). This is because removing necrotic or devitalised tissue will ensure that the presence of bacteria and elevated levels of metalloproteinases contained within the necrotic tissue, which can adversely affect wound healing, are removed (Halim et al, 2012).

Box 1 What to consider when choosing a wound dressing

- Type of wound or aetiology
- Wound characteristics, such as tissue type — granulating, sloughy, etc
- Goal/expectations of treatment
- Anatomical location of the wound
- Patient-related factors — pain, fragile skin, ability to self-care if needed, preference
- Cost

DRESSINGS DESIGNED TO AID DEBRIDEMENT

The quickest way to debride a wound is by sharp or surgical debridement. However, this is a skilled procedure and not all healthcare professionals are trained to undertake this and, therefore, may need to promote debridement by autolysis (Halim et al, 2012).

Autolytic debridement uses the body's own fluids and endogenous proteolytic enzymes to remove dead tissue and debris. This is achieved by applying moisture-retentive dressings which trap fluid and therefore liquefy the non-viable tissue. It is a gentle but slow debridement method and can take several days to weeks. Some softening and separation of the necrotic tissue should be observed within a few days. However, if significant autolysis is not observed within one to two weeks, an alternative method may need to be considered, such as referral to a specialist for surgical debridement (Fletcher et al, 2016).

When undertaking autolytic debridement, moisture-retentive dressings, such as hydrocolloids or film dressings, should be used in conjunction with fluid-donating products, such as hydrogels, if the slough is dry (Brumberg et al, 2021). It is important, however, to protect the periwound skin with barrier films and creams to avoid maceration, which may occur if the wound becomes very wet — this may also result in the wound enlarging (Romando, 2012).

Autolytic debridement is a conservative approach and is not suitable for patients with poor vascular perfusion, actively infected wounds, or wounds with significant tunnelling or undermining (Lloyd Jones, 2015). Further, some wounds are not suitable for this method of debridement, for example, if a heel pressure ulcer has 100% stable eschar, with no fluctuance (see below), purulence or odour evident, autolytic debridement is not recommended without performing a vascular assessment, rather the eschar should be left to detach itself naturally without intervention (Bosanquet et al, 2016).

Fluctuance is when the area feels boggy to touch, meaning that there is an accumulation of fluid/debris under the eschar. If the wound is a diabetic foot ulcer or there is evidence of fluctuance, specialist opinion should be sought. The application of moisture-retentive dressings may increase the risk of wound infection as necrotic tissue, which contains bioburden, provides an excellent medium for anaerobic and aerobic bacteria to grow (Gray et al, 2011).

Autolytic debridement should also be avoided in patients who are immunocompromised or have severe neutropenia (Gray et al, 2011).

Once eschar has softened and the remaining slough is soft, debridement can be speeded up with the use of debridement pads/cloths. These

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1. Velickovic VM, Prieto PA, Krga M, Jorge AM. Superabsorbent wound dressings versus foam dressings for the management of moderate-to-highly exuding venous leg ulcers in French settings: An early stage model-based economic evaluation. Journal of Tissue Viability. 2022;31(3):523–30. **2.** Velickovic VM, Lembelembe J P, Cegri F, Binic I, Abdelaziz AB, Sun S, *et al.* Superabsorbent wound dressing for management of patients with moderate-to-highly exuding chronic leg ulcers: An early stage model-based benefit-harm assessment.The International Journal of Lower Extremity Wounds. 2021.

can be used to remove debris and devitalised slough fast and effectively. They are easy to use and will enable healthcare professionals to visualise the wound bed more accurately (Callaghan and Stephen-Haynes, 2016). This can help with accurately grading pressure ulcers if required.

WET SLOUGH — ALGINATES AND HYDROFIBRES

Once eschar softens, it is still necessary to continue the debridement process, with the additional challenge of managing any excess exudate. Again, debridement pads are ideal for this, as they rapidly remove any debris or surface slough (Porter, 2015).

In addition, alginates or hydrofibres should be used as primary dressings. These can be used on infected and non-infected wounds and can absorb over twenty times their weight in fluid (Obagi et al, 2019). The calcium ions within alginate dressings gel on contact with wound fluid, thus maintaining the moisture balance within the wound (Obagi et al, 2019). Alginates are also useful for wounds prone to bleeding, as the calcium activates platelets, inducing haemostasis, and for packing wounds. However, they should not be used on dry wounds or those with low exudate volume as they may adhere to the wound causing pain on removal (Obagi et al, 2019).

Hydrofibres are made from carboxymethylcellulose fibres and act in a similar way to alginates, but with the ability to absorb even more fluid (Obagi et al, 2019). Alginates and hydrofibres can be left for several days, depending on exudate volume. For cavity wounds, alginates and hydrofibres should be packed lightly into the wound. Alginates need to be cut to the wound size as they wick exudate laterally and, as a result, maceration around the wound edges can be a problem if incorrectly applied. Hydrofibres, on the other hand, wick vertically, therefore it is not necessary to cut them to fit the wound bed. Both alginates and hydrofibres are designed to be primary dressings and will need a secondary dressing, such as a foam, hydrocolloid, or an absorbent pad, depending on exudate volume. *Table 1* outlines appropriate dressing products according to tissue type.

Table 1: Dressing selection according to tissue type (adapted from Ousey et al, 2021; WUWHS, 2020b; International Wound Infection Institute [IWII], 2022; Rippon et al, 2021)

Tissue type	Aims of treatment	Appropriate dressings
Dry necrotic slough	▸ Rehydrate, soften, and remove by autolysis/debridement ▸ Restoration of wound base and functional extracellular matrix proteins	Moisture-retentive, such as hydrocolloids, films. May require addition of hydrogels or hydrogel sheets Honey
Wet necrotic/sloughy	▸ Debride soft slough ▸ Absorb exudate ▸ Maintain moisture balance in the wound	Debridement pads Alginates — primary Hydrofibres — primary Foams/hydrocolloids (not for very wet wounds), superabsorbent dressings — secondary Non-medicated wound dressings (NMWDs)
Granulating/ epithelialising wounds	▸ Provide a moist environment ▸ Impermeable to bacteria ▸ Maintain optimum temperature for wound healing (body temperature)	Hydrocolloids Foams Honey dressings Can be left on for several days according to exudate volume
Infected/high bacterial burden/biofilm suspected Wounds at risk of infection	▸ Reduce bioburden and bacterial load	If spreading/systemic infection is suspected, a wound swab is recommended in addition to: antimicrobial dressings containing silver, iodine, polyhexamethylene biguanide (PHMB), honey, or NMWDs (e.g. dialkylcarbamoyl chloride [DACC]) Consider combining irrigation with solutions such as octenidine dihydrochloride or PHMB Use for two weeks only and review May need up to four week' treatment Select an absorbent dressing based on exudate volume, such as foams, superabsorbent dressings

INFECTION/INFLAMMATION/ SUSPECTED PRESENCE OF BIOFILM

It may not be possible to address all the barriers to healing initially. However, when wound infection or wounds with obvious high bacterial loads are suspected, addressing this should be the primary treatment objective to prevent the potential development of sepsis and to reduce patient pain and discomfort (Ousey and Cook, 2012).

WUWHS (2016: 4; 6) define biofilm as:

Bacteria attached to surfaces, encapsulated in a self-produced extracellular matrix and tolerant to antimicrobial agents (this includes antibiotics and antimicrobials).

It is suggested that a biofilm keeps a wound in a vicious inflammatory state preventing normal wound healing cycles from occurring.

Biofilm should be suspected when:

- Wound fails to respond despite appropriate antibiotic treatment
- Wound fails to respond to antimicrobial treatment
- Wound healing stalls when antibiotic treatment is complete
- Increased exudate volume and/ or moisture
- Wound fails to progress to healing despite optimal wound management

- Low-level chronic inflammation and erythema
- Poor or friable granulation tissue
- Infection lasting more than 30 days,
- Wound bed has a shiny, slimy (gelatinous) appearance that reappears rapidly when removed

(Keast et al, 2014; IWII, 2022).

Indeed, biofilm is present in the majority of chronic wounds and should be suspected in all wounds failing to heal (Malone et al, 2017).

Treating biofilm

The primary aim of treatment is to physically remove the biofilm, using debridement methods which suit the clinical environment and the patient (Callaghan and Stephen-Haynes, 2016). Debridement should be combined with the use of cleansing fluids, such as polyhexamethylene biguanide (PHMB) (Rippon et al, 2023). Fletcher et al (2016) suggest that a wound with suspected biofilm should be debrided and cleansed regularly, since it is difficult to remove all of the biofilm, which has the potential to regrow and form mature biofilm within just days. Fletcher et al (2016) also recommend using antimicrobial products, such as silver, honey, iodine or PHMB for a minimum of seven to 10 days and then to reassess effectiveness.

GRANULATING/EPITHELISING WOUNDS

For wounds that have 100% granulation tissue, or epithelising wounds, dressings that provide a moist environment, are impermeable to bacteria, insulate and maintain an optimal temperature and facilitate pain-free removal are ideal (Ousey et al, 2021). Examples include foam dressings and hydrocolloids.

PROTECTING THE PERIWOUND SKIN

As part of wound assessment, the periwound skin should be examined to identify whether the skin is erythematous, excoriated, or macerated. This fragile skin is easily breached if exudate is not effectively managed, which also increases the risk of wound infection (LeBlanc et al, 2021). Exudate is rich in enzymes and growth factors necessary for wound healing, however, if in prolonged contact with the periwound skin, maceration, which appears as a white margin around the wound, can develop and the wound itself will begin to break down (LeBlanc et al, 2021).

'As part of wound assessment, the periwound skin should be examined to identify whether the skin is erythematous, excoriated, or macerated.'

Erythematous maceration or excoriation can develop in the peri-wound area if there is leakage of exudate or prolonged contact. The area will become red and inflamed and may appear similar to irritant contact dermatitis and can be painful (Schofield, 2013).

Products to protect the periwound skin

Tapes to secure dressings should be avoided if possible to avoid skin stripping. Consider the use of dressings with silicone-based edges if the patient's skin is very fragile (Langoen and Bianchi, 2013).

Liquid-forming acrylate and siloxane-based skin barrier products are available in creams, films, sprays and wipes. These should be applied according to the manufacturer's instructions and allowed to dry fully before the dressing is applied to avoid build-up of the film. They are also extremely flammable if not completely dried on the skin and some are unsuitable for use on infected skin.

CONCLUSION

This article has discussed the importance of wound assessment and identification of wound tissue type to develop an effective management plan. Elements of the TIMERS framework have been used to discuss how to select appropriate dressings according to tissue type. The different properties of the main dressing groups have been discussed with tips on how to apply these effectively, together with a discussion on the importance of the periwound area, which is often overlooked. JCN

REFERENCES

Atkin L, Bucko Z, Montero EC, et al (2019) Implementing TIMERS: the race against

Table 2: Tips on the use of foam dressings and hydrocolloids

Foams	Hydrocolloids
Choose a foam dressing with suitable fluid handling properties as they vary	Suitable for mild/moderate exudate volume Do not use on infected wounds
Do not use on necrotic or dry wounds	Can be left for seven days depending on exudate volume
Do not cover with a film dressing to secure if only non-adhesive available, as this disrupts the evaporation of exudate (MVTR). Secure with tape/film around edges, using a 'window' technique	Use two hands and pull adhesive dressings at a low angle parallel to the skin, slowly while supporting the skin with the other hand/fingers at the adhesive–dressing interface (LeBlanc et al, 2021). Use adhesive-removers or water to break the adhesive bond if necessary
In wounds such as skin tears, mark the dressing with an arrow to indicate the correct direction of removal (Ousey et al, 2021)	Patients should be warned about 'gel and smell' which can develop with the use of hydrocolloids due to pectin and gelatine within the dressing and may be confused with infection but is harmless (Obagi et al, 2019)
Provide cushioning of the wound	May be unacceptable for vegan/vegetarians due to the gelatine element of the dressing
They can be left in place for up to four to seven days, but should be changed once saturated with exudate	Can reduce pain due to occlusive nature which covers pain endings
	Change when the exudate forms a visible white bubble near to the dressing edge

hard-to-heal wounds. *J Wound Care* 28(Suppl 3a): S1–S50

Bosanquet DC, Wright AM, White RD, Williams IM (2016) A review of the surgical management of heel pressure ulcers in the 21st century. *Int Wound J* 13(1): 9–16

Brumberg V, Astrelina T, Malivanova T, Samoilov A (2021) Modern wound dressings: hydrogel dressings. *Biomedicines* 9: 1235

Callaghan R, Stephen-Haynes J (2016) *Real-life perspectives on use of monofilament fibre technology in practice. The community nursing perspective*. Wounds UK, London. Available online: www.wounds-uk.com

European Wound Management Association (2017) *How to Guide — Meeting CQUIN targets: Improving the assessment of wounds*. Wounds UK, London. Available online https://wounds-uk.com/how-to-guides/meeting-cquin-targets-improving-the-assessment-of-wounds/

Fletcher J, Wolcott RD, I Fromantin I (2016) Biofilm management in practice. In: World Union of Wound Healing Societies, Florence Congress, *Position Document. Management of Biofilm*. Wounds International, London

Gray D, Acton C, Chadwick P, et al (2011) Consensus guidance for the use of debridement techniques in the UK. *Wounds UK* 7(1): 77–8

Guest J (2021) Burden of wounds to the NHS: what has changed since 2012/13? *Wounds UK* 17(1): 10–15

Halim AS, Khoo TL, Saad M (2012) Wound bed preparation from a clinical perspective. *Ind J Plastic Surg* 45(2):193–202

Harries RL, Bosanquet DC, Harding K (2016) Wound bed preparation: TIME for an update. *Int Wound J* 13(Suppl 3): 8–14

Hovan H (2021) *Assessing Wound Tissue and Drainage Types: Slough Versus Purulence*. Wound Source. Available online: www.woundsource.com

International Wound Infection Institute (2022) *Wound Infection in Clinical Practice*. Wounds International. Available online: woundinfection-institute.com/wp-content/uploads/IWII-CD-2022-web-1.pdf (accessed 12 March, 2024)

Keast D, Swanson T, Carville K, Fletcher J, Schultz G, Black J (2014) Top Ten Tips: Understanding and managing wound biofilm. *Wounds Int* 5(20): 1–4

Langoen A, Bianchi J (2013) Maintaining skin integrity. In: Flanagan M, ed. *Wound Healing and Skin Integrity: Principles and Practice*. Wiley-Blackwell, Sussex

Leaper DJ, Schultz G, Carville K, Fletcher J, Swanson T, Drake R (2012) Extending the TIME concept: what have we learned in the past 10 years? *Int Wound J* 9(Suppl 2): 1–19

Lindholm C, Searle R (2016) Wound management for the 21st century: combining effectiveness and efficiency. *Int Wound J* 13(suppl 2): 5–15

LeBlanc K, Beeckman D, Campbell K, et al (2021) *Best practice recommendations for prevention and management of peri wound skin complications*. Wounds International. Available online at: www.woundsinternational.com

Lloyd Jones M (2015) Should necrotic wounds always be debrided? *Wound Essentials* 10(2): 26–9

Malone M, Bjarnsholt T, McBain AJ, James GA, Stoodley P, Leaper D, Tachi M, Schultz G, Swanson T, Wolcott RD (2017) The prevalence of biofilms in chronic wounds: a systematic review and meta-analysis of published data. *J Wound Care* 26(1): 20–5

Obagi Z, Damiani G, Grada A, Falanaga V (2019) Principles of wound dressings — a review. *Surg Technol Int* 35: 50–7

Ousey K, Cook L (2012) Wound assessment made easy. *Wounds UK* 8(2). Available online: www.wounds-uk.com/made-easy

Ousey K, Atkin L, Conway B, et al (2021) *Wound care and dressing selection for pharmacy teams*. Wounds UK, London. Available online: www. wounds-uk.com

Posnett J, Gottrup F, Lundgren H, Saal G (2009) The resource impact of wounds on health care providers in Europe. *J Wound Care* 18(4): 154–61

Rippon, MG, Rogers A, Ousey K (2023) Polyhexamethylene biguanide and its antimicrobial role in wound healing: a narrative review. *J Wound Care* 32(1): 5-20.

Rippon MG, Rogers A, Ousey K (2021) Antimicrobial stewardship strategies in wound care: evidence to support the use of dialkylcarbamoyl chloride (DACC)-coated wound dressings. *J Wound Care* 30(4): 284–96

Romando J (2012) Wound debridement. In: Bryant RA, Nix DP, eds. *Acute & Chronic Wounds. Current management concepts* (4th edn). Elsevier-Mosby, St. Louis, MO: 279–88

Schofield J (2013) Skin integrity and dermatology. In: Flanagan F, ed. *Wound Healing and Skin Integrity. Principles and Practice*. Wiley-Blackwell, Surrey

Woolf A (2018) *Tackling the elephant in the room*. NHS England. Available online: www.england.nhs.uk/blog/tackling-the-elephant-in-the-room/ (accessed 10 February, 2024)

World Union of Wound Healing Societies (2020a) *Optimising wound care through patient engagement*. Wounds International. Available online: www.woundsinternational.com/ resources/details/optimising-wound-care-throughpatient-engagement

World Union of Wound Healing Societies (2020b) *The role of non-medicated dressings for the management of wound infection*. Wounds International, London. Available online: www.woundsinternational.com

Wounds UK (2023) *Best Practice Statement: Development of a wound care formulary using clinical evidence and ensuring effective change management*. Wounds UK, London. Available online: www.wounds.uk

Revalidation Alert

Having read this article, reflect on:

- What should be included in comprehensive, holistic wound assessment
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- Why it is important to evaluate tissue type present
- The different dressings available.

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Lymphoedema: a journey taken together

Garry Cooper

Lymphoedema is a long-term condition which is incurable at the present time. Due to the nature of the condition, being both long-term and manifesting in physical changes (swelling), its impact on the person and their lives can be hard to quantify. Management options need to be considered within a person-centred approach, with the four cornerstones of treatment being skin care, exercise, compression therapy and manual lymphatic drainage (MLD). Evidence for each is varied and practitioners need to determine their therapeutic benefit. Beyond the cornerstones of treatment, future developments are ongoing within the areas of surgery, such as venous anastomosis and pharmacological interventions, which may reduce the effects of continual inflammation. In the future, these developments may become part of the care delivered to those affected by lymphoedema. However currently, skin care, exercise, and compression therapy remain fundamental, with MLD included if therapeutically indicated, as well as educating and empowering those involved in self-management with the support of practitioners.

KEYWORDS:
Lymphoedema ■ Impaired lymphatics ■ Management ■ Burden ■ Disruption

Lymphoedema is a chronic, long-term condition that forms part of the overarching definition of chronic oedema, resulting in swelling (oedema) in any part of the body due to lymphatic failure (International Lymphoedema Framework [ILF], 2006; Rankin, 2016). The lymphatic system is spread throughout the body and is responsible for fluid movement, immune response, and the absorption of nutrients (Health Service Executive [HSE], 2022). Lymphatic failure can be either primary or secondary lymphoedema (ILF, 2006; HSE, 2022), leading to accumulation of fluid, debris, bacteria, and protein, which results not only in swelling but also an increased risk of infection (ILF, 2006; 2012).

Primary lymphoedema relates to intrinsic (internal) causes, such as syndromes or genetics, for example Milroy's disease, which affect the development of the lymphatic system (Gordon et al, 2021). Secondary lymphoedema is caused by extrinsic (external) factors which damage the lymphatic system, for example cancer and its treatment and venous disease (ILF, 2006). In total, there are between 30–40 distinct types of lymphoedema (ILF, 2006; Gordon et al, 2021).

Prevalence of lymphoedema increases with age, with individuals over the age of 85 having a significantly higher risk compared to those under 65 years. Moffatt et al (2017) reported a prevalence of four people per 1000 in the general population under 65 years old, but up to 29 per 1000 in those aged over 85 years. Existing caseload reviews indicate that women (72–79%) are more affected than men (21–28%) (Cooper and Bagnall, 2016; Keeley et al, 2019; Moffatt et al, 2019).

The majority of cases of lymphoedema are secondary, accounting for 82.5% — among these, non-cancer-related causes represent 66% — while primary lymphoedema accounts for 17.5% of cases (Keeley et al, 2019). Due to the role of the lymphatics, increased swelling can not only lead to physical restrictions, such as reduced mobility, but also increase the risk of cellulitis (infection) and decrease quality of life (ILF, 2006; Cooper-Stanton et al, 2022). Management of lymphoedema involves a muti-component holistic approach to address both the physical and psychological aspects of this condition.

MANAGEMENT

Lymphoedema is managed through physical therapy interventions that attempt to control and minimise the excess fluid that is present due to lymphatic failure (ILF, 2006; HSE, 2022). These combined approaches have been titled the four cornerstones, namely:

- Skin care
- Exercise
- Compression therapy
- If needed, manual lymphatic drainage (MLD)

(ILF, 2006).

The other name for these combined approaches during the initial intense phase of treatment to reduce and reshape the oedematous

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limb is decongestive lymphatic therapy or complex decongestive therapy (CDT) (ILF, 2006; HSE, 2022). Since the establishment of the cornerstones within the consensus document produced by the International Lymphoedema Framework (ILF, 2006), advances have occurred in technology, possible pharmacological interventions, and our understanding of the lymphatic system (Rockson, 2021). Despite these advances, there remains a clear focus upon self-care to empower those affected by lymphoedema with the appropriate resources, such as information, skills and equipment so that they can manage their condition and its impact on their lives.

PERSON-CENTRED APPROACH

Apart from the four cornerstones of treatment and advances mentioned above, it is important to consider the broader impact on a person when diagnosed with a long-term condition, such as the potential significant physical, emotional and social implications.

Holistic needs of individuals should be addressed as lymphoedema can disrupt a person's life (Bury, 1982; Cooper-Stanton et al, 2022), with the treatments also becoming a burden (Demain et al, 2015). People may question who they are as a person (identity) with lymphoedema and how they navigate a changed landscape or world view of their lives (Cooper-Stanton et al, 2022). With this in mind, we can begin to enter the world of the person affected, and how they may adapt to what is proposed, such as wearing compression therapy, or choose not to adhere or even refuse to follow guidance (Demain et al, 2015). By attempting to understand how a person's life has been disrupted not only physically, but also within their relationships and identity, compassion can be demonstrated (Demain et al, 2015; Cooper-Stanton et al, 2022).

Compassion can play a crucial role in fostering communication and understanding when individuals choose rationalised non-adherence to medical recommendations or treatment plans, as discussed in the work of Demain et al (2015). Considering identity and how this shapes a person's decisions, can help healthcare professionals to empower those affected by lymphoedema. Empowerment may involve giving information, supporting a person to develop skills within their self-management, or even choosing to take things at their own pace. This article outlines the physical approaches used to managed lymphoedema, which, in the author's opinion, may take a person a period of time to fit into their lives and accept, rather than seeing it as a burden.

'Holistic needs of individuals should be addressed as lymphoedema can disrupt a person's life (Bury, 1982; Demain et al, 2022), with the treatments also becoming a burden.'

SKIN CARE

Having a good skin care regimen is vital for lymphoedema management (HSE, 2022). Due to oedema, there is an increased risk of infection which in turn affects immune surveillance within the lymphatic system (Mortimer and Rockson, 2014). There are also changes within the skin itself, such as hyperkeratosis (Rockson, 2021). Use of emollients is vital, such as ointments, creams and gels, with adjuncts, for example a steroid cream if dermatological conditions are present, i.e. dermatitis (ILF, 2006; Jones et al, 2019; Razzaque et al, 2022).

Ointments offer the most benefit due to their oil content which provides a barrier on the skin, trapping moisture, but may damage clothing and bedding. They are mainly used when bandaging a person's limbs (Jones et al, 2019; Razzaque et al, 2022). Creams provide a step-down approach from ointments, but require more frequent applications, with gels (which contain more water) being less effective when moisturising the skin (Jones et al, 2019; Razzaque et al, 2022). Applying emollients after cleansing the limb is essential to reduce bacteria that is present on the body — this can be done through soap substitutes which both cleanse and moisturise (Jones et al, 2019; Razzaque et al, 2022). A tailored approach is vital to ensure that skin care becomes routine.

EXERCISE

Reducing the complications of infections can also be supported through tailored approaches to exercise based upon the abilities of the individual, for example, walking can improve both lymphatic and vascular return of fluid (Douglass et al, 2016; HSE, 2022). The exact amount of exercise needed is unclear in the literature, and it is advised that the capability of the person, such as ability to walk or move as well as their motivation, should be considered to develop a tailored approach (Singh et al, 2016; Barufi et al, 2021; HSE, 2022). Indeed, the ability of patients to move their lower limbs (legs), such as ankle rotation, can result in stimulation of the vascular and lymphatic system (Kwan et al, 2011; HSE, 2022).

Videos have been created by Lymphoedema Network Wales (LNW) and leaflets from the Lymphoedema Network Northern Ireland (LNNI) to support the delivery of exercise through suggested approaches (LNW, 2021; LNNI, 2022).

While exercise can be helpful for those affected by lymphoedema, the most beneficial approach is to combine exercise with the gold standard treatment option — compression therapy (Abe et al, 2021).

COMPRESSION THERAPY

Compression therapy remains the fundamental component in lymphoedema management to reduce its progression and treat complications, such as lymphorrhoea (leaking lymph fluid) (ILF, 2006; HSE, 2022).

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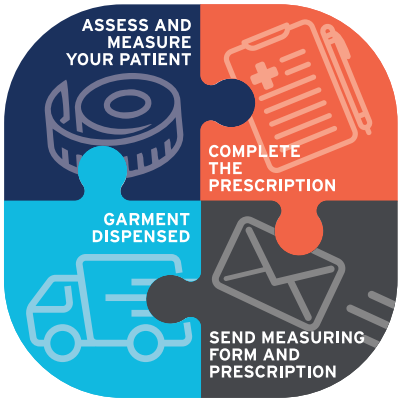

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pressure and the resulting capillary filtrate, but also to improve lymphatic function (ILF, 2012). Compression therapy can be worn both during the day and night, which is determined by a practitioner who assesses the cause of lymphoedema, the person's health, and also the success of existing management options. Compression therapy can be used in two broad approaches:

- Intensive therapy phase (decongestive lymphatic therapy [DLT] or complete decongestive therapy [CDT])
- Maintenance phase

(ILF, 2006).

Intensive therapy focuses on reducing and reshaping a swollen limb and managing symptoms associated with lymphoedema, which may take place over a two- to four-week period or longer. This can involve bandages, such as short-stretch, or adjustable compression wraps (ILF, 2006; HSE, 2022). Once a limb has been reduced or reshaped and symptoms are under control, the maintenance phase aims to sustain the progress made during intensive therapy and prevent relapse (HSE, 2022). This phase may involve compression hosiery or kits as part of a lifelong commitment. Due to the long-term nature of the condition, a person may go between these two phases reflecting the changing nature of the condition (ILF, 2006; HSE, 2022).

Comprehensive holistic assessment is vital before initiating compression therapy to determine whether there are any arterial risk factors present. These include family history of heart disease, smoking, or pallor to the limb, which may be a sign of poor blood flow as a result of arterial insufficiency, or reported intermittent claudication/numbness, which may indicate peripheral arterial disease (PAD) (British Lymphology Society [BLS], 2020).

While measuring ankle brachial pressures index (ABPI) is advocated as part of arterial assessment, its accuracy and suitability for those with swollen limbs, such as lymphoedema, has been challenged (BLS, 2020). Presence of swelling can alter the readings that are obtained leading to an unnecessary delay in treatment, which in turn increases the risk of complications, such as cellulitis and lymphorrhoea (Lymphoedema Wales, 2022). The BLS has created a vascular assessment tool to support decision-making in this area and their guidance is currently being updated (BLS, 2020).

Toe brachial pressure index (TBPI), however, has been seen to be more suitable than ABPI when swelling is present in the lower limb (Weller et al, 2019; BLS, 2020; National Wound Care Strategy Programme [NWCSP], 2023).

In addition to guidance from the BLS, the NWCSP (2023) indicates the need to consider 'red flags' that form part of assessment, such as acute infection, acute limb ischaemia, deep vein thrombosis (DVT), which should be reviewed on a case-by-case basis.

In the absence of any red flag, an initial 20 millimetre of mercury (mmHg) of compression therapy may be applied. Compression therapy and the amount of mmHg being delivered varies between manufacturers and the chosen medical device, such as compression hosiery or adjustable compression wraps (ILF, 2006; 2012). For example, British standard hosiery is 14–17mmHg (class 1), while German standard hosiery used for the majority of lymphoedema care is 18–21mmHg (class 1), and an adjustable wrap-based system may deliver 20–40mmHg (HSE, 2022).

The decision-making process regarding compression therapy involves several key considerations, including the purpose of the therapy, the individual's health status, and the specific type and level of compression needed to achieve therapeutic outcomes (ILF, 2006; HSE, 2022; NWCSP, 2023). As mentioned previously, the treatment and management plan for individuals with lymphoedema will alter over time to ensure that it remains effective and suitable.

MANUAL LYMPHATIC DRAINAGE (MLD)

MLD involves applying pressure to the oedematous limb and surrounding area by the hands of a practitioner trained in the removal of fluid and stimulation of the lymphatics (Guerero et al, 2017; Yan et al, 2022). Medical devices have also been created that apply pressure to the swollen limb that mimic aspects of MLD, for example intermittent pneumatic compression (IPC). The ability of MLD to move fluid within the superficial lymphatic system has been demonstrated following the development and use of fluoroscopy (Suami et al, 2019).

Despite MLD being recognised as one of the cornerstones of lymphoedema management (ILF, 2006; HSE, 2022), its effectiveness and long-term effects have yet to be established (Huang et al, 2013; Devoogdt et al, 2023). Indeed, a study by Harris and Piller (2003) indicated that fluid removed with MLD returned fully or partially within 20–30 minutes if external compression was not applied (Harris and Piller, 2003). A study by Blom et al (2022) with those diagnosed with mild breast cancer-related lymphoedema indicated that early adoption of compression therapy without MLD led to a reduction in limb volume. Together, the studies above indicate the expanding research base since the conception of MLD in 1936 (Williams, 2010) and the question that remains regarding its effectiveness.

As indicated in the all-Ireland guidance for lymphoedema (HSE, 2022), MLD may be used when therapeutically indicated alongside compression therapy. A future MLD position document is being launched in 2024 by the BLS.

FUTURE DEVELOPMENTS

As said, other developments have occurred since the initial four cornerstones. Surgery is an area that has grown in both its use and techniques. It still remains an area that is not readily available across the National Health Service (NHS) but may be

offered privately. Liposuction is a procedure that has been offered in other countries and to a small degree within the UK for those with late stage lymphoedema who no longer respond to the intensive or maintenance phases (Rockson, 2021; National Institute for Health and Care Excellence [NICE], 2022). Other procedures in the early stages of lymphoedema also have the potential to be beneficial. For example, lymphaticovenous anastomosis (LVA), where carefully selected and functioning veins and lymphatics are surgically (micro) connected to provide a route for fluid to be drained (Rockson, 2021); while vascularised lymph node transfer involves the removal and repurposing of lymph nodes from another part of the body to an area in which they are absent, such as following axillary node clearance due to breast cancer (Schaverien et al, 2018). Although these techniques have been used more extensively in other countries, they are relatively new within the UK.

There have also been developments in the possible use of pharmacological approaches (Rockson, 2021). These approaches have focused upon reducing the inflammatory process that is present within lymphoedema and the development of fibrosis (Rockson, 2021). Despite the potential benefits, larger scale trials are needed to determine their full efficacy, safety and long-term effects.

CONCLUSION

Lymphoedema is a long-term condition for which there is currently no cure. It can occur due to a poorly developed lymphatic system, such as genetic (primary lymphoedema), or be the result of external factors, such as surgery (secondary lymphoedema).

Both primary and secondary lymphoedema are managed in a similar way through what are described as the four cornerstones of treatment, i.e. skin care, exercise, compression therapy and MLD — each being used to support a person with lymphoedema. While developments have occurred, such as with surgery and pharmacological interventions, the four cornerstones remain integral within the current delivery of care to alleviate symptoms, reduce swelling and improve patient quality of life. Healthcare professionals should also consider the disruption that lymphoedema can have on a person's life and the treatment burden. By acknowledging and engaging in conversations about lymphoedema, clinicians can begin to develop a truly therapeutic relationship that supports individuals who are managing the condition. JCN

Revalidation Alert

Having read this article, reflect on:

- Who within your caseload are the ones less likely to engage with the proposed management options, and what are their reasons when explored with them?
- What management options are you able to deliver and who do you need to contact to explore other options for those diagnosed with lymphoedema?
- How you might support those diagnosed with lymphoedema to engage in their self-management, and who can support you in this endeavour.

Then, upload the article to the free JCN revalidation e-portfolio as evidence of your continued learning: www.jcn.co.uk/revalidation

REFERENCES

Abe K, Tsuji T, Oka A (2021) Postural differences in the immediate effects of active exercise with compression therapy on lower limb lymphedema. *Support Care Cancer* 29: 6535–43

Barufi S, Pereira de Godoy H, Pereira de Godoy J, Guerreiro Godoy M (2021) Exercising and compression mechanism in the treatment of lymphedema. *Cureus* 13(7): e16121

British Lymphology Society (2020) *Assessing vascular status in the presence of chronic oedema prior to the application of compression hosiery: Position Document to guide decision making*. BLS, Available online: www.thebls.com/public/uploads/documents/document-95871580220184.pdf

Blom KY, Johansson KI, Nilsson-Wikmar LB, Brogårdh CB (2022) Early intervention with compression garments prevents progression in mild breast cancer-related arm lymphedema: a randomized controlled trial. *Acta Oncol* 61(7): 897–905

Brown S, Dayan J, Coriddi M, Campbell A, Kuonqui K, Shin J, et al (2022) Pharmacological treatment of secondary lymphedema. *Front Pharmacol* 25(13): 828513

Bury M (1982) Chronic Illness as biographical disruption. *Sociol Health Illn* 4(2): 167–82

Cooper-Stanton G, Gale N, Sidhu M, Allen K (2022) A qualitative systematic review and meta-aggregation of the experiences of men diagnosed with chronic lymphoedema. *J Res Nurs* 27(8): 704–32

Cooper G, Bagnall A (2016) Prevalence of lymphoedema in the UK: Focus on the southwest and West Midlands.*Br J Community Nurs Supplement* 21(4): 6–14

Demain S, Gonçalves AC, Areia C, Oliveira R, Marcos AJ, et al (2015) Living with, managing and minimising treatment burden in long term conditions: a systematic review of qualitative research. *PLoS One* 10(5): e0125457

Devoogdt N, Thomis S, De Groef A, Heroes AK, Nevelsteen I, Gebruers N, et al (2023) The effectiveness of fluoroscopy-guided manual lymph drainage as part of decongestive lymphatic therapy on the superficial lymphatic architecture in patients with breast cancer-related lymphoedema: a randomised controlled trial. *Cancers (Basel)* 15(5): 1545

Douglass J, Graves P, Gordon S (2016) Self-care for management of secondary lymphedema: a systematic review. *PLoS Negl Trop Dis* 10(6): e0004740

Guerero RM, das Neves LMA, de Jesus Guirro RR, de Olivero Guirro EC (2017) Manual lymphatic drainage in blood circulation of upper limb with

lymphedema after breast cancer surgery. *J Manipulative Physiol Ther* 40(4): 246–9

Gordon K, Mortimer PS, van Zanten M, Jeffery S, Ostergaard P, Mansour S (2021) The St George's classification algorithm of primary lymphatic anomalies. *Lymphat Res Biol* 19: 25–30

Harris R, Piller N (2003) Three case studies indicating the effectiveness of manual lymph drainage on patients with primary and secondary lymphedema using objective measuring tools. *J Bodywork Movement Therapies* 7(4): 213–21

Health Service Executive (2022) *All-Ireland Lymphoedema Guidelines 2022: for the diagnosis, assessment, and management of lymphoedema*. HSE, Belfast. Available online: www2.healthservice.hse.ie/organisation/national-pppgs/all-ireland-lymphoedema-guidelines/

Huang T-W, Tseng S-H, Lin C-C, Bai C-H, Chen C-S, Hung C-S, et al (2013) Effects of manual lymphatic drainage on breast cancer-related lymphedema: a systematic review and meta-analysis of randomized controlled trials. *World J Surg Oncol* 11(15): 1–8

International Lymphoedema Framework (2006) *Best practice for the management of lymphoedema*. ILF, London. Available online: www.lympho.org/uploads/files/files/Best_practice.pdf

International Lymphoedema Framework (2012) *Surgical Intervention: A position document on surgery for lymphoedema*. ILF, London. Available online: www.lympho.org/uploads/files/files/Surgery-final.pdf

International Lymphoedema Framework (2012) *Compression Therapy: A position document on compression bandaging*. ILF, London. Available online: www.lympho.org/uploads/files/files/Compression-bandaging-final.pdf

Jones A, Woods M, Malhotra K (2019) Critical examination of skin care self-management in lymphoedema. *Br J Community Nurs* 24(Sup10): S6–S10

Keeley V, Franks P, Quéré I, Mercier G, Michelini S, Cestari M, et al (2019) LIMPRINT in specialist lymphedema services in United Kingdom, France, Italy, and Turkey. *Lymphat Res Biol* 17(2): 141–6

Kwan ML, Cohn JC, Armer JM (2011) Exercise in patients with lymphedema: a systematic review of the contemporary literature. *J Cancer Survivor* 5: 320–36

Lymphoedema Network Northern Ireland (2022) *Exercise for lymphoedema of the lower legs*. LNNI. Available online: www.lnni.org/sites/default/files/documents/Exercise%20Legs2%20updated%20Feb%202022.pdf

LNW (2021) *Lymphoedema, Pocket Medic*. Available online: https://pocketmedic.org/lymph-patients/lymphoedema/

Lymphoedema Wales (2022) *The Chronic Oedema Wet Leg Pathway*. Lymphoedema Wales. Available online: https://learning.nhs.wales/mod/resource/view.php?id=9312

Moffatt C, Keeley V, Hughes A, Clark K, Lisle J, Benson M, et al (2019) The UK experience — subjective control of swelling in patients attending specialist lymphedema services. *Lymphat Res Biol* 17(2): 211–20

Moffatt C, Keeley V, Franks P, Rich A, Pinnington L (2017) Chronic oedema: a prevalent health care problem for UK health services. *Int Wound J* 14(5): 772–81.

Mortimer P, Rockson S (2014) New developments in clinical aspects of lymphatic disease. *J Clin Invest* 124(3): 915–21

National Wound Care Strategy Programme (2023) *Lower Limb Wounds — Leg Ulcer Recommendation August 2023*. Available online: www.nationalwoundcarestrategy.net/wp-content/uploads/2024/02/NWCSP-Leg-Ulcer-Recommendations-v2-1.8.2023.pdf

National Institute for Health and Care Excellence (2022) *Liposuction for chronic lipoedema*. Interventional procedures guidance [IPG721]. NICE, London. Available online: www.nice.org.uk/guidance/ipg721

Rankin J, Morris K, Reilly A (2022) The 2022 All-Ireland Guidelines for the diagnosis, assessment and management of lymphoedema. *Br J Community Nur Chronic Oedema Supplement* October 2022. Available online: www.lnni.org/content/2022-all-ireland-guidelines-diagnosis-assessment-and-management-lymphoedema

Rankin J (2016) The national lymphoedema partnership. *Br J Community Nurs* 21(Sup4): S40–S41

Razzaque A, Peace J, Onselen J, Cassford T, Tewari A (2021) *Emollients are the mainstay for the majority of skin disease*. Primary Care Dermatology Society. Available online: www.pcds.org.uk/files/general/Emollient-Treatment-web.pdf

KEY POINTS

- Lymphoedema is a long-term condition which is incurable at the present time.
- Management options need to be considered within a person-centred approach, with the four cornerstones of treatment being skin care, exercise, compression therapy and manual lymphatic drainage (MLD).
- Comprehensive holistic assessment is vital before initiating compression therapy to determine whether there are any arterial risk factors present.
- Holistic needs of individuals should be addressed as lymphoedema can disrupt a person's life.

Rockson S (2021) Advances in lymphedema. *Circ Res* 128(12): 2003–16

Schaverien MV, Badash I, Patel KM, Selber JC, Cheng MH (2018) Vascularized lymph node transfer for lymphedema. *Semin Plast Surg* 32(1): 28–35

Singh B, Disipio T, Peake J, Hayes S (2016) Systematic Review And Meta-Analysis Of The Effects Of Exercise For Those With Cancer-Related Lymphedema. *Arch Phys Med Rehabil* 97(2): 302–15

Suami H, Heydon-White A, Mackie H, Czerniec S, Koelmeyer L, Boyages J (2019) A new indocyanine green fluorescence lymphography protocol for identification of the lymphatic drainage pathway for patients with breast cancer-related lymphoedema. *BMC Cancer* 19(1): 985

Williams A (2010) Manual lymphatic drainage: exploring the history and evidence base. *Br J Community Nurs* 15(4): S18–S24

Weller C, Team V, Ivory J, Crawford K, Gethin G (2019) ABPI reporting and compression recommendations in global clinical practice guidelines on venous leg ulcer management: A scoping review. *Int Wound J* 16(2): 406–19.

Yan L, Yang Y, Zhang Z, Li W, Li H, Mu D (2022) Manual lymphatic drainage for breast cancer-related lymphedema: a systematic review and meta-analysis of randomized controlled trials. *Clin Breast Cancer* 22(5): e664–e673

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Caring for peristomal skin in the community

Jennifer Burch

The almost quarter of a million people living in the UK with a stoma are likely to encounter damage to the skin around their stoma. Community nurses are well placed to assist in skin assessment and planning of interventions to improve skin integrity if damage does occur. As part of that skin assessment process, it is important to understand the terminology used to identify issues being observed as well as the potential causes. Although general wound healing is similar across different areas of the body, wound healing products used on peristomal skin need to be considered in terms of how they might adversely affect adhesion of the stoma appliance. Sometimes simple changes to diet or skin care routine, which community nurses can suggest, is enough to improve the peristomal skin condition.

KEYWORDS:
■ Stoma ■ Peristomal skin ■ Skin assessment ■ PMASD
■ PMARSI ■ Skin care

In the community there are an estimated 205,000 people living with a stoma (Marinova and Marinova, 2023). It is likely that the most common stoma in the UK is the colostomy, but with surgical improvements it is becoming less necessary for a permanent colostomy to be formed. The two faecal output stomas are the most common types — colostomy and ileostomy — and there is also the urine output stoma, termed a urostomy or ileal conduit.

It is important to understand the differences between stoma types to know the risk factors for each in terms of potential damage to the skin. A colostomy will pass thick faeces and flatus, which requires the appliance to be changed when there are faeces in it. Faeces are often passed daily but for some people it can be several times a week and others several times a day. An ileostomy will pass loose faeces and flatus, the faeces contain proteolytic enzymes from digestion. The usual ileostomy appliance is drainable and will for many people need emptying four to six times each day. An urostomy will continually pass liquid in the form of urine. The appliance is drainable with a bung or tap fastening, and urine will need to be drained from the appliance four to six times daily, on average (Burch and Black, 2017).

'If a secure seal is not achieved between the skin and the stoma appliance, there is a risk of appliance leakage and release of odour, faeces or urine.'

SKIN

The skin is formed from several layers and has many functions, such as protection and excretion of sweat. The layers of the skin are the epidermis (outer layer), dermis (middle layer), and subcutaneous layer or hypodermis (inner layer) (Tortora and Derrickson, 2018). The outer layer of skin is dead and if damage is superficial and only includes this layer there may be no obvious damage. Damage to the epidermis will not result in pain or bleeding as there are no pain receptors or blood vessels in this area. However, this layer of skin on the abdominal wall is only millimetres thick, so deeper damage is common in the peristomal area (Tortora and Derrickson, 2018). Damage beyond the outer skin layer may be associated with both pain and bleeding, or serous fluid may be seen. Bleeding and serous fluid can be difficult to manage when under the adhesive of a stoma flange (baseplate or faceplate) and adhesion can be compromised (O'Flynn, 2019). If a secure seal is not achieved between the skin and the stoma appliance, there is a risk of appliance leakage and release of odour, faeces or urine. Appliance leakage is associated with embarrassment and may result in people being reluctant to leave their home (Mitchell et al, 2007).

TERMINOLOGY FOR SKIN DAMAGE

There are two main types of skin damage that occur with a stoma:

- Peristomal moisture-associated skin damage (PMASD)
- Peristomal medical adhesive-related skin injury (PMARSI) (LeBlanc et al, 2019).

PMARSI is an umbrella term that includes allergic contact dermatitis, folliculitis, skin stripping, erythema or skin tears. PMASD is inflammation of the skin as a result of exposure to urine or faeces from the stoma (LeBlanc et al, 2019). PMASD and PMARSI are terms commonly used in North America but less so in the UK. More common terms for peristomal skin damage used in the UK are contact dermatitis or irritant dermatitis. Contact dermatitis is

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the most frequently encountered peristomal skin complication and can present as erythema, skin erosion and ulceration, which can be the result of stoma effluent, skin cleanser or adhesive (D'Ambrosio et al, 2022).

RISK FOR SKIN DAMAGE

There are multiple potential risk factors for peristomal skin damage. One of the main risk factors is from the stoma output touching the peristomal skin. As an ileostomy will pass a looser faecal output compared to a colostomy, potentially this has an increased likelihood of seeping under the adhesive stoma flange. Loose faeces may account for a higher risk of skin damage associated with having an ileostomy (Voegeli et al, 2020) — almost twice as likely than for people living with a colostomy (Voegli et al, 2020). Furthermore, the digestive enzymes that remain in the faeces of the ileostomy can damage the peristomal skin more rapidly than the faeces passed from a colostomy (Steinhagen et al, 2017).

A person with a colostomy is at risk of skin damage due to skin stripping if they need to remove the colostomy appliance multiple times daily. Whereas a person with a urostomy might more commonly encounter the skin around their stoma becoming macerated because of urine touching it (Stelton, 2019).

Non-modifiable risk factors include emergency surgery and diabetes (Baykara et al, 2014). It is reported that people having a stoma formed as part of emergency surgery are less likely to have their stoma siting before surgery, which means that there is an increased likelihood of a poorly sited stoma compared to planned surgery (Baykara et al, 2014). Diabetes is a general risk factor for skin damage as a comorbidity alongside living with a stoma (He et al, 2021). In a study in China of over 200 people living with a stoma for colorectal cancer, the authors described six risk factors for peristomal skin complications, and many concur with research from other institutes (He et al, 2021). The risk factors for PMASD were:

- Loose stool
- Height of the stoma os (stoma opening) above the skin surface
- Having an ileostomy
- Increased fasting blood glucose values
- Skin creases around the stoma
- History of radiotherapy.

In the author's clinical experience, all of these would have an increased risk of faeces contacting the peristomal skin, or an increased risk of skin damage due to poor wound healing.

SKIN COMPLICATIONS

It is uncertain how common peristomal skin complications are, or when they are more likely to occur. D'Ambrosio et al (2022) in their systematic review reported the incidence of peristomal skin complications ranged from a third to three-quarters of people with a stoma, but consider this to be an underestimation. It is possible that more people encounter a peristomal skin complication but either the patient does not recognise the condition or does not contact a healthcare professional (Herlufsen et al, 2006; LeBlanc et al, 2019).

It is important to consider peristomal skin complications as they can contribute to increased healthcare costs as well as reduced quality of life. Increased cost might be incurred due to longer hospital stays or readmission to hospital (Taneja et al, 2017). Research has also shown that quality of life is reduced for many reasons, including sexual and body image problems (Vonk-Klaassen et al, 2016). A leaking appliance, which can occur due to a poor fit or improper application, can negatively affect an individual's ability to socialise (Liao and Qin, 2014). Also, having a recently formed stoma, and the development of a parastomal hernia (protrusion of the abdominal content, most commonly the bowel, around the stoma site) can result in reduced physical activity (Goodman et al, 2022).

Another issue that makes adaptation to life with a stoma difficult is the need to change dietary intake to improve the function of the stoma (Zewude et al, 2021). Nonetheless, in Australia, Ketterer et al (2021) reported that most out of over 300 people living with a stoma who responded to their questionnaire described their quality of life to be moderate to high. Quality of life was better for people who were working, who did not need to change their pre-stoma clothing, and who were able to have sexual relations. While it is acknowledged that none of this research was undertaken in the UK, this is anecdotally seen in the UK.

SKIN ASSESSMENT TOOLS

Two validated assessment tools are used in practice to guide nurses when carefully assessing peristomal skin. In the author's clinical opinion, neither is effective in all scenarios and there can still be differences reported when assessing the same situation due to individual differences in nurse ratings.

One assessment tool is the ostomy skin tool or DET score, where DET stands for discolouration, erosion and tissue overgrowth (Martins et al, 2010). This has more recently been revised to the Ostomy Skin Tool (OST) 2.0 (Martins et al, 2022). This assessment tool is designed to be used to assess peristomal skin and can be used to determine improvement or deterioration. As the tool provides a score, this can be useful to further categorise the problem.

The second tool is the Scale for Peristomal Skin Disorders Classification (SACS2) (Antonini et al, 2016). This is useful to standardise terms used in the assessment and classification of peristomal skin complications by identifying the type and location of the problem.

SKIN CARE

LeBlanc et al (2019) undertook a small consensus of stoma experts and determined that peristomal skin should be intact and free from damage, but if abnormalities were detected they should be assessed for causation. Assessment should

include description of the skin, the location, severity and distribution of skin damage, as well as the duration. However, despite several assessment tools being available there are none that are globally appropriate for use, although when assessment tools are used, they can help nurses to standardise terms used.

After assessment of peristomal skin damage, it can be difficult to determine the most appropriate stoma appliance to use. This is because decisions are based on several patient factors, such as the stoma type, output and condition of the peristomal skin (LeBlanc et al, 2019). If in doubt, it can be useful to refer to a stoma specialist nurse.

In general, care should be taken when removing a stoma appliance to prevent skin damage, such as skin stripping, although routine use of adhesive removers is unnecessary (LeBlanc et al, 2019). Stoma appliances should be carefully removed using two hands, one to support the peristomal skin and the other to pull downward on the stoma appliance. People who might benefit from an adhesive remover include those who have needed long-term steroid use, have radiation damage, or age-related skin changes (LeBlanc et al, 2019).

There are several specialist stoma products available to manage peristomal skin damage. These include (LeBlanc et al, 2019):

- Stoma powder to absorb moisture
- Stoma seals to add adhesion around the stoma
- Stoma paste to smooth the surface of the abdominal wall where there might be creases.

Skin that is at risk of breaking down due to a high faecal output (over 1000ml per day) might require additional protection, such as the use of a barrier film. However, in general, use of creams and ointments will reduce the adhesive properties of the stoma flange and risk the appliance leaking and so should be avoided (LeBlanc et al, 2019).

WHEN TO SEEK ADVICE

It is important for patients to contact their nurse when changes are noted in the peristomal skin area (LeBlanc et al, 2019). It can be useful to advise patients not to experiment with stoma products, but rather to be assessed by a healthcare professional to determine what is most appropriate for the situation.

DIETARY ADVICE

Depending on the cause of the problem, dietary advice can be given as part of the stoma management plan, such as chewing food well (Bridges et al, 2019). Thickening consistency of faeces can reduce the risk of leakage associated with loose stool for people with an ileostomy. Thus, healthcare professionals can suggest that patients change carbohydrates to processed versions, such as wholegrain bread changed to white bread, brown rice replaced with white rice, and wholemeal pasta altered to white pasta (Bridges et al, 2019). For some people medications can be helpful to thicken faecal output, such as the use of regular loperamide (Bridges et al, 2019). Caution should be exercised with consumption of alcohol; as large volumes can cause loose stool (Michónska et al, 2023).

PRACTICAL TIPS TO ADDRESS SKIN DAMAGE

Following careful assessment of the peristomal skin, healthcare professionals should determine the most appropriate intervention. For wet peristomal skin, a stoma powder can help to provide a dry surface upon which to place the stoma appliance. Where the patient has caused skin stripping by repeated removal of the stoma appliance, several interventions might be suitable. If the person has a colostomy and is changing their appliance more than once daily, it might be more appropriate to use a two-piece instead of a one-piece appliance to reduce the number of times each week the adhesive flange needs to be replaced. Alternatively, if the person has fragile skin due to medication, such as steroids, or increased age, it might be beneficial to use an adhesive remover (LeBlanc et al, 2019). Alternatively, reviewing the appliance change technique might reveal that retraining is necessary to ensure careful removal of the appliance, gentle cleaning and effective skin drying. In the author's clinical experience, this will also enable the clinician to check that:

- The person is not pulling the appliance away from the skin in a manner that might damage the skin
- Faeces are not left on the peristomal skin
- Adhesion of the new appliance is not being compromised by a wet skin surface.

As said, for people who require the peristomal skin to have additional protection from corrosive enzymes in the loose faecal output, a barrier film might be beneficial. This adds a physical barrier to the peristomal skin and should be used after careful cleaning and drying.

For people with loose faecal output, it might be useful to thicken the faeces, as thicker faeces are less likely to seep under the adhesive of the stoma appliance. Thickening the faeces should result in less contact irritant dermatitis damaging the peristomal skin. As said, faeces can be thickened by changing the diet or taking loperamide.

Where the skin surface around a stoma is uneven, stoma products can be beneficial, as they are designed to help create a smoother surface for the stoma appliance to adhere to, ensuring better adhesion and lessening any risk of leakage or skin irritation. One way to achieve a flat skin surface is to use stoma paste or stoma seals in skin creases. Alternatively, using a seal around the stoma can aid adhesion to the skin. This can be useful for several reasons:

- If the skin next to the stoma is not flat
- If the output from the stoma is causing damage to the inner edge of the stoma adhesive
- If there is a dip in the skin surface next to the stoma.

CONCLUSION

It is essential for people living

with a stoma to have healthy, intact peristomal skin to ensure good adhesion between their skin and the stoma appliance. Community nurses are well placed to provide a carefully undertaken assessment of both the stoma and the peristomal skin to inform a plan of care to resolve any skin damage. Skin complications occur for a variety of reasons, e.g. modifiable factors, such as how an appliance change is undertaken, as well as non-modifiable factors, such as the use of medications including steroids which weaken the skin. Clinicians can provide general advice on ways to manage peristomal skin damage but if the skin does not improve in a timely manner, it is advisable to seek advice from the specialist stoma nurse. JCN

REFERENCES

Antonini M, Militello G, Manfredda S, Arena R, Gasperini S, Veraldi S (2016) SACS 2.0: A proposal for the classification of peristomal skin disorders. Results of a multicenter observational study. *WCET J* 36(3): 22–9

Baykara ZG, Demir SG, Karadag A, Harputlu D, Kahraman A, Karadag S, et al (2014) A multicenter, retrospective study to evaluate the effect of preoperative stoma site marking on stomal and peristomal complications. *Ostomy Wound Manag* 60: 16–26

Bridges M, Nasser R, Parrish CR (2019) High output ileostomies: the stakes are higher than the output. *Nutrition Issues in Gastroenterology* XLVI(2): 20–33

Burch J, Black P (2017) *Essential stoma care*. St Mark's Academic Institute. Available online: www.stmarksacademicinstitute.org.uk/resource-type/book/

D'Ambrosio F, Pappalardo C, Scardigno A, Maida A, Ricciardi R, Calabrò GE (2022) Peristomal skin complications in ileostomy and colostomy patients: what we need to know from a public health perspective. *Int J Environ Res Public Health* 20(1): 79

Goodman W, Downing A, Allsop M, Munro J, Taylor C, Hubbard G, Beeken RJ (2022) Quality of life profiles and their association with clinical and demographic characteristics and physical activity in people with a stoma: a latent profile analysis. *Qual Life Res* 31(8): 2435–44

He D, Liang W, Yao Q, Zhao J, Liu R, Chen G, Wang H, Ye X, Huang R (2021) The effect of stoma education class on peristomal dermatitis in colorectal cancer patients with defunctioning ileostomy — a retrospective study of 491 patients. *Transl Cancer Res* 10: 581–8

Herlufsen P, Olsen AG, Carlsen B, Nybaek H, Karlsmark T, Laursen TN, Jemec GB (2006) Study of peristomal skin disorders in patients with permanent stomas. *Br J Nurs* 15(16): 854–62

Ketterer SN, Leach MJ, Fraser C (2021) Factors associated with quality of life among people living with a stoma in nonmetropolitan areas. *Nurs Res* 70(4): 281–8

LeBlanc K, Whiteley I, McNichol L, Salvadalena G, Gray M (2019) Peristomal medical adhesive-related skin injury: Results of an international consensus meeting. *J Wound Ostomy Cont Nurs* 46: 125–36

Liao C, Qin Y (2014) Factors associated with stoma quality of life among stoma patients. *Int J Nurs Sci* 1(2): 196–201

Marinova P, Marinova R (2023) Providing structured stoma care through established patient pathways. *Br J Healthcare Management* 29(1): 38–41

Martins L, Ayello EA, Claessens I, et al (2010) The ostomy skin tool: tracking peristomal skin changes. *Br J Nurs* 19(15): 930, 932–4

Martins L, Down G, Dissing B, et al (2022) The Ostomy Skin Tool 2.0: a new instrument for assessing peristomal skin changes. *Br J Nurs* 31(8): 442–50

Michónska I, Polak-Szczybylo E, Sokal A, Jarmakiewicz-Czaja S, Stepien AE, Deren K (2023) Nutritional issues faced by patients with intestinal stoma: a narrative review. *J Clin Med* 12(2): 510

Mitchell KA, Rawl SM, Schmidt CM, et al (2007) Demographic, clinical, and quality of life variables related to embarrassment in veterans living with an intestinal stoma. *J Wound Ostomy Continence Nurs* 34(5): 524–3

O'Flynn SK (2019) Peristomal skin damage: assessment, prevention and treatment. *Br J Nurs* 28(5): S6–S12

Steinhagen E, Colwell J, Cannon LM (2017) Intestinal stomas — postoperative stoma care and peristomal skin complications. *Clin Colon Rectal Surg* 30(3): 184–92

Stelton S (2019) Stoma and peristomal skin care: a clinical review. *Am J Nurs* 119(6): 38–45

Taneja C, Netsch D, Rolstad BS, Inglese G, Lamerato L, Oster G (2017) Clinical and economic burden of peristomal skin complications in patients with recent ostomies. *J Wound Ostomy Cont Nurs* 44: 350–7

Tortora G, Derrickson BH (2018) *Principles of Anatomy and Physiology*. 15th edn. John Wiley & Sons, Chichester

Voegeli D, Karlsmark T, Eddes EH, Hansen HD, Zeeberg R, Håkan-Bloch J, Hedegaard CJ (2020) Factors influencing the incidence of peristomal skin complications: Evidence from a multinational survey on living with a stoma. *Gastrointest Nurs* 18: S31–S38

Vonk-Klaassen SM, de Vocht HM, den Ouden MEM, Eddes EH, Schuurmans MJ (2016) Ostomy-related problems and their impact on quality of life of colorectal cancer ostomates: A systematic review. *Qual Life Res* 25(1): 125–33

Wang H, Jiang G, Wang Y, Jia H, Qu H, Yong X, Ma L (2023) Construction and validation of the perioral moisture-related skin damage (PMASD) risk prediction model in patients with colorectal cancer. *Int Wound J* 20(6): 2207–14

Zewude WC, Derese T, Suga Y, Teklewold B (2021) Quality of life in patients living with stoma. *Ethiopian J Health Sci* 31(5): 993

Revalidation Alert

Having read this article, reflect on:

- Risk factors for peristomal skin damage
- The two main types of skin damage that can occur
- What should be evaluated during skin assessment
- The dietary advice you might give to patients with a stoma.

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Sepsis: an update on NICE guidance for adults aged 16 and over

Linda Nazarko

Each year, 245,000 people in the UK develop sepsis, with most cases arising in primary care (Rudd et al, 2020). Currently, around 20% of people who develop sepsis do not survive (Burki, 2018), and approximately 40% of survivors have cognitive or functional impairment (Prescott and Angus, 2018). In an effort to save lives and improve outcomes, the National Institute for Health and Care Excellence (NICE), in common with other international guidelines, has recommended that sepsis is treated within an hour with broad-spectrum antibiotics (Academy of Medical Royal Colleges, 2022). On the 31 January 2024, NICE updated its NG51 guideline for the UK, which was originally published in 2016. The update includes recommendations on recognition and early assessment, initial treatment, escalating care, finding the source of infection, early monitoring, and information and support. This article updates readers on changes to the NICE guidance and how they affect clinical practice.

KEYWORDS:
■ Sepsis ■ Detection ■ Treatment ■ Early management

Sepsis is life-threatening and life-changing. Around 20% of people who develop sepsis do not survive and 40% of those who survive have significant cognitive or functional impairment (Burki, 2018; Prescott and Angus, 2018). For many years, recommendations focused on speed of treatment, however there is a growing recognition that:

> *While this degree of urgency may be appropriate for the most severely ill patients with septic shock or where sepsis is the result of a surgical emergency, the mandate was extended to all patients with presumed sepsis, even though supporting evidence is weak and contested, and a significant proportion of patients do not benefit.*
>
> (Academy of Medical Royal Colleges, 2022: 9)

'The NICE update (2024a) aims to ensure that the sickest of people are attended to very quickly, but that clinicians take a little more time to diagnose those who are less acutely ill and to prescribe an appropriate antibiotic rather than a broad-spectrum antibiotic.'

Updated National Institute for Health and Care Excellence (NICE) guidance reflects the growing body of evidence on how to detect, diagnose and initiate treatment in people who have sepsis (NICE, 2024a). This article explains what sepsis is, how to identify, diagnose, and determine who requires the most urgent treatment and who clinicians can take a little more time to diagnose. The NICE update (2024a) aims to ensure that the sickest of people are attended to very quickly, but that clinicians take a little more time to diagnose those who are less acutely ill and to prescribe an appropriate antibiotic rather than a broad-spectrum antibiotic.

WHAT IS SEPSIS?

Sepsis is an abnormal response to infection that leads to the body injuring its own tissues (UK Sepsis Trust, 2024a). It is described as:

> *... a dysregulated host response to an infection associated with life-threatening organ dysfunction.*
>
> (Singer et, al, 2016)

There are at least 245,000 cases in the UK every year and 200,000 admissions to hospital (Rudd et al, 2020). Initial mortality rates are around 20% — there are around 48,000 deaths, one every five minutes in the UK (Burki, 2018).

WHAT ARE THE CONSEQUENCES?

Around half of those who develop sepsis recover fully, a third die

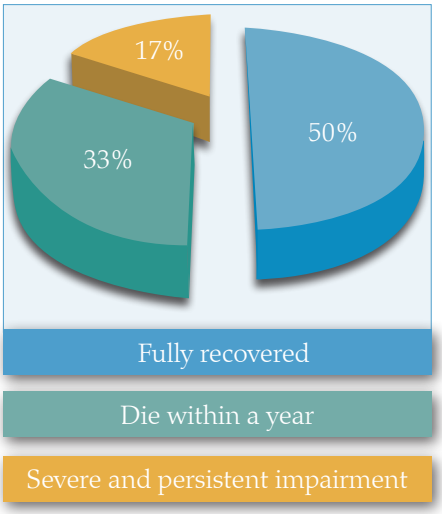

Figure 1.
Consequences of sepsis (author's own work adapted from Prescott and Angus, 2018).

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within a year of infection, and around 17% suffer persistent impairment. The person may develop impaired cognition or physical impairment — an average of one to two new functional limitations, such as no longer being able to bathe or dress independently. There are thought to be many reasons why health deteriorates following sepsis, including an accelerated progression of pre-existing chronic conditions, residual organ damage, and impaired immune function (Prescott and Angus, 2018). *Figure 1* illustrates the consequences of sepsis.

SURVIVING SEPSIS

The key to enabling people to survive sepsis is for clinicians to be aware of which groups of people are at greatest risk, when to suspect sepsis, and to have the ability to identify those who are sickest and respond appropriately. Treatment for sepsis is most effective when started early (World Health Organization [WHO], 2023).

WHO IS AT GREATEST RISK?

Certain groups of people are at greatest risk of sepsis, such as children in the first year of life and people aged 75 and over. Frail people are also at risk because their immune systems do not function as effectively as fit and healthy adults (Gentile et al, 2014).

People who have an impaired immune system because of illness should also be considered, such as those with diabetes (Berbudi et al, 2020). Some people, such as those with rheumatoid arthritis, are at increased risk of infection due to their long-term condition and also treatment with corticosteroids or immunosuppressants, which again increase vulnerability to sepsis (Riley and George, 2021).

People who have a breach in the body's immune defences, a portal of entry for bacteria and viruses, are at increased risk of infection. This includes those who have had surgery or other invasive procedures in the last six weeks, people with any cuts, burns or skin infections, and those with catheters or cannulae. In addition, people who misuse intravenous (IV) drugs are at risk (WHO, 2023; NICE, 2024a).

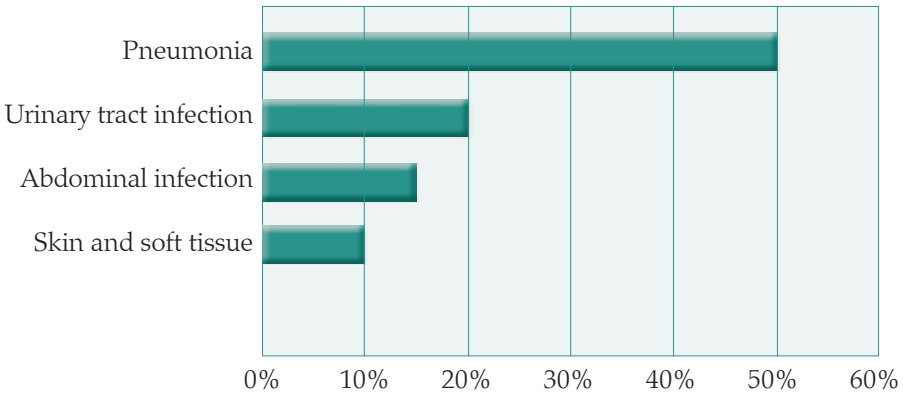


Figure 2.
Common infections precipitating sepsis (author's own work).

'The key to enabling people to survive sepsis is for clinicians to be aware of which groups of people are at greatest risk, when to suspect sepsis, and to have the ability to identify those who are sickest and respond appropriately.'

Women who are pregnant, have given birth or had a termination of pregnancy or miscarriage in the past six weeks are at high risk of sepsis (NICE, 2024a). Women who require procedures such as caesarean section, forceps delivery, removal of retained products of conception are again at higher risk (NICE, 2024a).

COMMON INFECTIONS PRECIPITATING SEPSIS

Certain infections, such as pneumonia, are more likely to trigger sepsis than other infections. *Figure 2,* based on data in Daniels and Nutbeam (2022), illustrates this.

WHEN TO SUSPECT SEPSIS

Anyone who has an infection can develop sepsis. Thus, it is important that clinicians consider sepsis in all people who have symptoms of an infection. NICE (2024a) guidance recommends that clinicians take non-specific symptoms into account and listen to concerns of the person and/or family. Extra care is required when assessing vulnerable people, such as individuals whose first language is not English and those with communication difficulties, such as learning disabilities or neurological impairment. *Figure 3* outlines the screening process.

NEWS2 SCORE

Early warning scoring systems (EWS) were initially developed to enable hospital-based nurses and junior medical staff to recognise acute physiological deterioration and to use a trigger threshold to rapidly obtain experienced help (Williams, 2022).

The National Early Warning System (NEWS) was introduced in 2012 and revised in 2017, when it was renamed NEWS2 (Williams, 2022). NEWS2 uses six physiological measurements:

- Respiratory rate
- Oxygen saturation
- Temperature
- Systolic blood pressure
- Heart rate
- Level of consciousness.

Each parameter scores 0–3 and individual scores are added together for an overall score. An additional two points are added if the patient is receiving oxygen therapy. The total possible score ranges from 0 to 20. The higher the score, the greater the clinical risk. Higher scores indicate the need for escalation, medical review and possible clinical intervention and more intensive monitoring (*Table 1*).

Escalation triggers are scores of 3 in one parameter and scores that total 5 and 7. These trigger a clinical review and a score of 7 or more triggers a critical care referral (Royal College of Physicians [RCP], 2017). NEWS2 should be used as a supplement rather than a substitute for clinical expertise (Patel et al, 2018). Indeed, the Academy of Medical Royal Colleges (2022) proposed that NEWS2 should be used to supplement clinical judgement to identify adult patients with suspected sepsis who are critically ill and need treatment quickly.

Using NEWS2 to identify those who are sickest

Updated NICE (2024a) guidance recommends that clinicians working in acute hospitals, acute mental health settings, or the ambulance service use NEWS2 to assess people with suspected sepsis who are aged 16 or over, and are not or have not recently been pregnant. NICE (2024a) recommends that when NEWS2 is used, the score determines the level of response.

A NEWS2 score of 7 or more would, for example, require antibiotic treatment within an hour, a score of 5–6 within three hours, and 1–4 within six hours.

The guidance states that clinicians should consider using an early warning score to assess non-pregnant adults with suspected sepsis in community settings.

Red Flags

Neutropenic sepsis, a potentially life-threatening complication of neutropenia (low neutrophil count), should be suspected in people who are unwell and are having or have had systemic anticancer treatment or immunosuppressant treatment for reasons unrelated to cancer within the last 30 days. If suspected, the person must be referred immediately for assessment in secondary or tertiary care (NICE, 2023; 2024a).

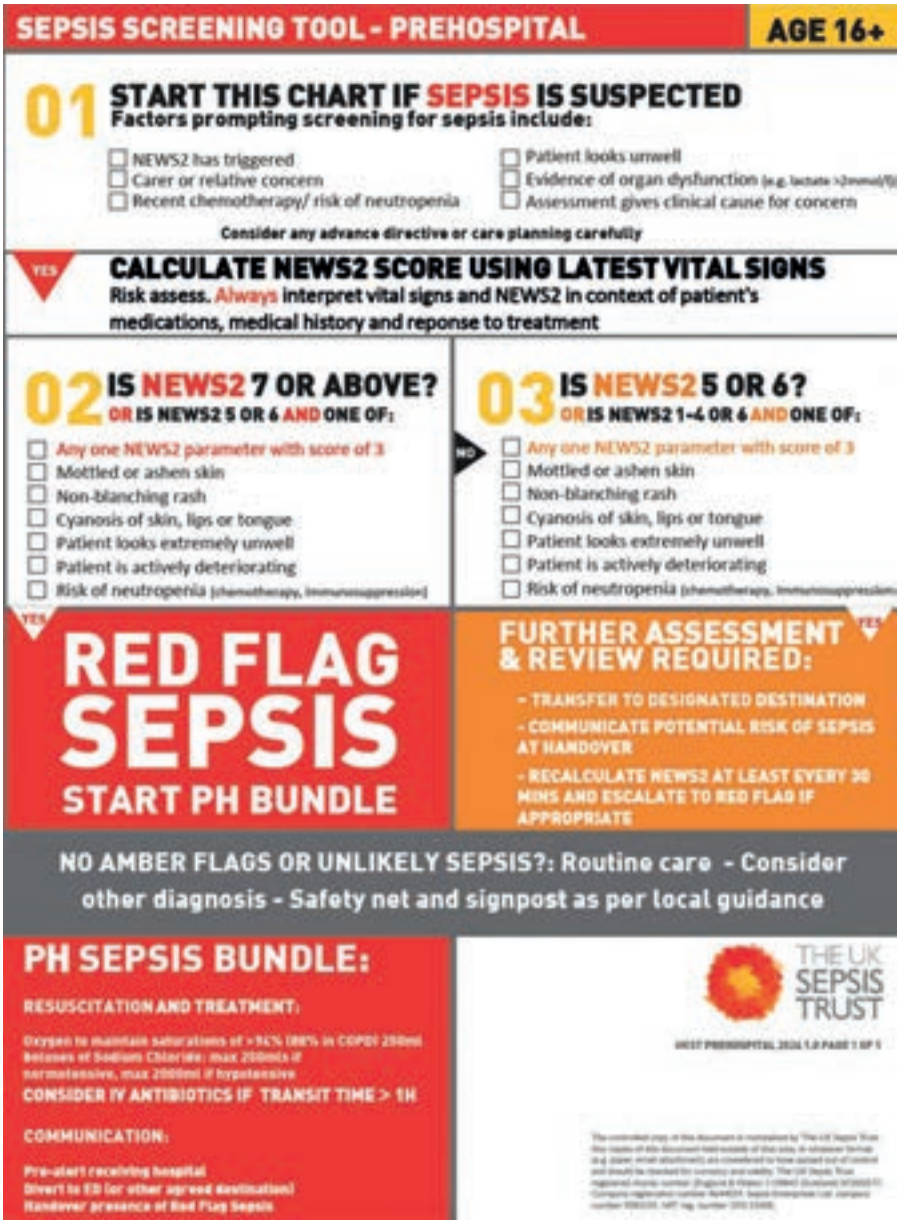


Figure 3.
Out of hospital sepsis screening tool. Reproduced courtesy of the UK Sepsis Trust (Sepsis Trust, 2024b).

Although NEWS2 is recommended by NHS England and is mandated in ambulance services and NHS acute hospitals, it has not been endorsed by the Royal College of General Practitioners (RCGP). The RCGP note that:

> *There are calls for GPs to use NEWS2 scores as part of their clinical assessment of acutely deteriorating patients. This particularly applies to those requiring inpatient care and ambulance transportation.*

They have commented on the need for more research evidence before they can consider recommending its widespread uptake in general practice (RCGP, ND).

TREATING CRITICALLY UNWELL PATIENTS WITH SEPSIS

The aims of these changes are to enable clinicians to identify those who are sickest and to provide rapid treatment; clinicians can spend more time determining diagnosis in those who are less critically unwell. Research involving 10,628 people found that it was vitally important to treat only the most severely ill with antibiotics within a one-hour timeframe (Academy of Medical Royal Colleges, 2022; Van Heuverswyn et al, 2023).

NICE (2024a; 2024b) guidance states that there should be arrangements in place to give broad-

Table 1: NEWS thresholds and triggers

NEWS	Clinical risk	Response
Aggregate score 0–4	Low	Ward-based response
Red score Score of 3 in any individual parameter	Low–medium	Urgent ward-based response
Aggregate score 5–6	Medium	Key threshold for urgent response
Aggregate score 7 or more	High	Urgent or emergency response

spectrum antibiotics if there are any high risk criteria in a pre-hospital setting in remote and rural locations where the transfer time is more than one hour, depending on clinical judgement and local protocols.

The guidelines also remind clinicians to consider the appropriateness of hospital transfer in people who are very frail or approaching the end of life.

TREATING PEOPLE WITH SEPSIS

The Academy of Medical Royal Colleges (2022) reviewed the evidence for treating everyone with suspected sepsis with antimicrobials within an hour and concluded that there was a lack of high-quality evidence for a one-size fits all approach. They considered that overuse of antimicrobials increased the risk of side-effects and encouraged antimicrobial resistance and overdiagnosis of sepsis. Indeed, the pressure to treat people and get IV broad-spectrum antibiotics started has resulted in some people who do not have sepsis being diagnosed as septic (Academy of Medical Royal Colleges, 2022). Some people who are acutely unwell may have other conditions.

NEWS2 is part of the toolkit that enables clinicians to determine if the person has sepsis or another condition and how quickly treatment needs to start. If, for example, the person has acute abdominal pain and a NEWS of 5, the clinical response might be to order scans to determine diagnosis before treatment.

The new guidance recommends when sepsis is suspected and the person is not critically ill, clinicians in acute settings take time to establish a diagnosis and when clinically indicated start an appropriate antimicrobial rather than a broad-spectrum one. This will lead to better targeting of antibiotics and reduce the risks of antimicrobial resistance (Morris, 2024)

REDUCING THE RISKS OF SEPSIS

Sepsis can be life-threatening and life-changing. Around 40% of people admitted to hospital with sepsis are readmitted within 90 days, around 12% have another infection, and 5% heart failure (Prescott and Angus, 2018). There is much that can be done to reduce the risks of people developing sepsis. Actions include:

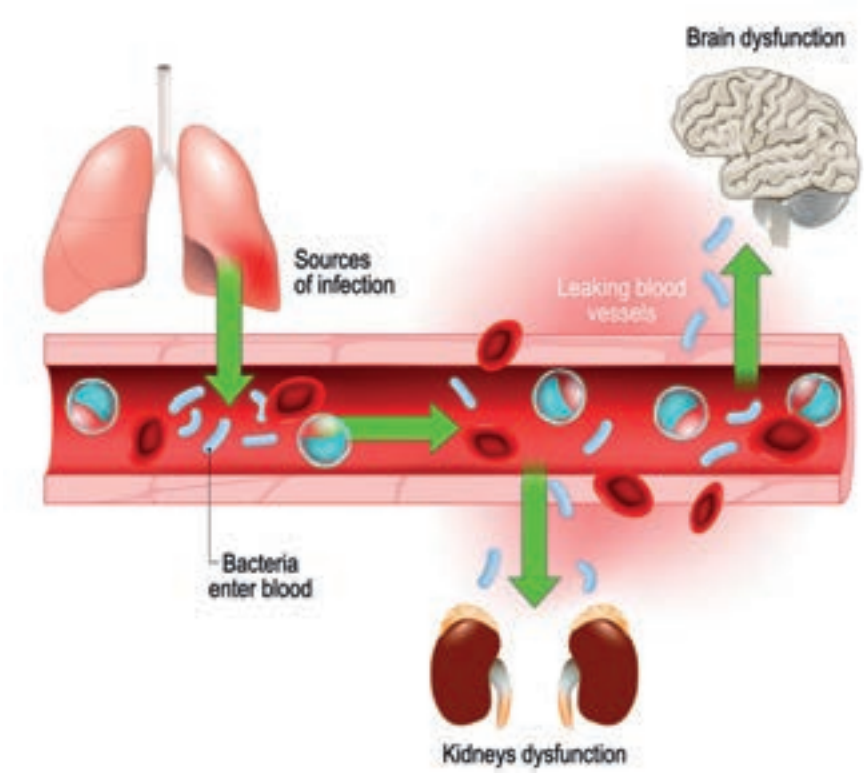
- Promoting health so that people are less vulnerable to infection
- Minimising the use of medical devices, such as indwelling urinary catheters
- Using infection control measures in healthcare
- Prudent antimicrobial prescribing (WHO, 2023).

DISCUSSION

The 2024 NICE guidance provides a welcome update on the recognition and treatment of sepsis. However, in the author's clinical opinion, some areas remain unclear.

As yet, there is no agreement on using NEWS2 in community and primary care settings, although anecdotal evidence suggests it is being introduced by default. Care Quality Commission (CQC) inspectors are reported to be checking that community nursing services are using NEWS2, and intermediate care, hospital-at-home and rapid response services are said to be using NEWS2. Staff in community services and primary care have also commented that when they escalate patients to ambulance services, they are being asked to provide NEWS scores. Clarity on this matter is urgently needed.

The NICE 2024a and 2024b guidance speaks of antibiotics being administered to the sickest people with suspected sepsis if they are not likely to be seen in hospital within an hour. The guidance suggests that this might affect people in rural areas, as there can be delays



Diagrammatic view of circulating bacteria and inflammatory mediators leading to multiple organ failure in sepsis.

Photograph: Designua/Shutterstock

in despatching ambulances and in handing over patients in accident and emergency departments (Hansard, 2022). Thus, clarity is needed on who will be able to administer antibiotics in such circumstances. The NICE (2024a) guidance mentions general practitioners (GP), but the person may not have seen a GP. Nurses and paramedics who are non-medical prescribers (NMPS) may be able to prescribe and administer but, like the GP, they may not be with the person. In the author's clinical opinion, a system is needed to enable paramedics and nurses to give antibiotics under protocol to the sickest of patients.

CONCLUSION

The NICE (2024a) update on sepsis will, in future, enable clinicians to determine who is most critically ill and requires urgent attention. It will ease the pressure to treat everyone with suspected sepsis within the same timeframe. This will give clinicians time to diagnose and treat more accurately and reduce the risks of harming people with inappropriate antimicrobial treatment. JCN

KEY POINTS

- Each year, 245,000 people in the UK develop sepsis, with most cases arising in primary care (Rudd et al, 2020). Currently, around 20% of people who develop sepsis do not survive (Burki, 2018), and approximately 40% of survivors have cognitive or functional impairment (Prescott and Angus, 2018).
- Updated guidance recommends NEWS2 is used to assess people in acute hospitals, acute mental health settings or the ambulance service.
- Clinicians should consider using an early warning score to assess non-pregnant adults with suspected sepsis in the community.
- The guidance enables clinicians to identify those most critically unwell and to treat appropriately.
- Antimicrobial therapy should be given to the most critically ill within an hour — this may be outside of hospital.

REFERENCES

Academy of Medical Royal Colleges (2022) *Statement on the initial antimicrobial treatment of sepsis*. October 2022 v2.0 (Replaces May 2022 version). Academy of Medical Colleges, London. Available online: www.aomrc.org.uk/wp-content/uploads/2022/10/Statement_on_the_initial_antimicrobial_treatment_of_sepsis_V2_1022.pdf

Berbudi A, Rahmadika N, Tjahjadi AI, Ruslami R (2020) Type 2 diabetes and its impact on the immune system. *Curr Diabetes Rev* 16(5): 442–9

Burki TK (2018) Sharp rise in sepsis deaths in the UK. *Lancet Respir Med* 6(11): 826

Daniels R, Nutbeam T, eds (2022) *The Sepsis Manual*. 6th edn. UK Sepsis Trust.

Gentile LF, Nacionales DC, Lopez MC, Vanzant E, Cuenca A, Cuenca AG, et al (2014) Protective immunity and defects in the neonatal and elderly immune response to sepsis. *J Immunol (Baltimore, Md)* 192(7): 3156–65

Hansard (2022) *Ambulance Pressures*. Volume 823: debated on Tuesday 19 July 2022. House of Commons. Available online: https://hansard.parliament.uk/Lords/2022-07-19/debates/C63B0C87-9E36-44CE-8E79-7AF4A679BC49/AmbulancePressures

Morris L (2024) *NICE recommends better targeting of antibiotics in suspected sepsis cases*. National Health Executive. Available online: www.nationalhealthexecutive.com/articles/nice-recommends-better-targeting-antibiotics-suspected-sepsis-cases

National Institute for Health and Care Excellence (2023) *Neutropenic sepsis*. NICE, London. Available online: https://cks.nice.org.uk/topics/neutropenic-sepsis/

National Institute for Health and Care Excellence (2024a) *Suspected sepsis: recognition, diagnosis and early management*. NICE guideline [NG51] NICE, London.

Available online: www.nice.org.uk/guidance/ng51

National Institute for Health and Care Excellence (2024b) *Sepsis*. NICE, London. Available online: https://cks.nice.org.uk/topics/sepsis/

Patel R, Nugawela MD, Edwards HB, et al (2018) Can early warning scores identify deteriorating patients in pre-hospital settings? A systematic review. *Resuscitation* 132: 101–11

Prescott HC, Angus DC (2018) Enhancing recovery from sepsis: a review. *JAMA* 319(1): 62–75

Riley TR, George MD (2021) Risk for infections with glucocorticoids and DMARDs in patients with rheumatoid arthritis. *RMD Open* 7: e001235

Royal College of General Practitioners (ND). *NEWS2 score for assessing the patient at risk of deterioration*. RCGP, London. Available online: www.rcgp.org.uk/policy/rcgp-policy-areas/news2-score-for-assessing-the-patient-at-risk-of-deterioration

Royal College of Physicians (2017) *National Early Warning Score (NEWS2) 2*. RCP, London. Available online: www.rcplondon.ac.uk/projects/outputs/national-early-warning-score-NEWS2-2

Rudd KE, Johnson SC, Agesa KM, et al (2020) Global, regional, and national sepsis incidence and mortality, 1990–2017: analysis for the Global Burden of Disease Study. *Lancet* 395(10219): 200–11

UK Sepsis Trust (2024a) *What is sepsis*. Available online: https://sepsistrust.org/about/about-sepsis/

UK Sepsis Trust (2024b) *The Sepsis Manual*. Available online: https://sepsistrust.org/wp-content/uploads/2024/01/Sepsis-Manual-7th-Edition-2024-V1.0.pdf

Singer M, Deutschman CS, Seymour CW, et al (2016) The third international consensus definitions for sepsis and septic shock (Sepsis-3). *JAMA* (8): 801–10.

Williams B (2022) The National Early Warning Score: from concept to NHS implementation. *Clin Med* 22(6): 499–505

Van Heuverswyn J, Valik JK, Desirée van der Werff S, Hedberg P, Giske C, Nauclér P (2023) Association between time to appropriate antimicrobial treatment and 30-day mortality in patients with bloodstream infections: a retrospective cohort study. *Clin Infect Dis* 76(3): 469–78

World Health Organization (2023) *Sepsis*. WHO, Geneva. Available online: www.who.int/news-room/fact-sheets/detail/sepsis

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Gambling-related harms: what community nurses can do

Victoria Sharman

Disordered gambling is a behavioural addiction that causes harms to individuals, their families and wider society. Gambling harms have been recognised as a public health concern, but little attention has been given in health care to enable community nurses to identify and support patients experiencing gambling-related harms. Uptake of gambling support has been low due to the perceived stigma experienced by the person. Community nurses can use the Making Every Contact Count (MECC) approach when interacting with patients by identifying the signs of harmful gambling, discussing this with their patients, and signposting them to appropriate support. This article explores how community nurses can do this.

KEYWORDS:
■ Gambling-related harms ■ Signs ■ Risk factors ■ Making Every Contact Count (MECC) ■ Signposting

In the United Kingdom (UK), gambling is a popular social activity that over half (56%) of the population participated in during 2020 (Gunstone et al, 2020). People gamble due to the pleasure of winning, to dream of changing their lives, as part of social activities, and also to escape from frustrations, boredom and dissatisfaction in life (Binde, 2009). Within the UK opportunities to gamble are available on the high street through bookmakers, arcades, bingo halls and casinos, as well as through the internet which 96% of households now have access to (Office for National Statistics [ONS], 2020). The most popular gambling activity is participation in the national lottery, with 34% of people having bought a lottery ticket in the last 12 months (NHS Digital, 2021). This is followed by sports betting, online slot machines/instant win games, horse racing, bingo, football pools and casino games (Gambling Commission, 2020).

'... gambling-related harm is when gambling affects all aspects of life from debts, financial worries, relationship breakdown, job losses, repossessions, crime, anxiety, and loss of self-esteem.'

The prevalence of adult harmful gambling within England is 0.5% of the population (Office for Health Improvement and Disparities and Public Health England, 2023), which sounds low but not everyone gambles. For those who do participate in gambling, one in four experience harm (Muggleton et al, 2021). A definition of gambling-related harm is when gambling affects all aspects of life from debts, financial worries, relationship breakdown, job losses, repossessions, crime, anxiety, and loss of self-esteem (Latvala et al, 2019).

Harmful gambling is regarded as a health concern rather than as previously framed a sin, vice or personal failing (Ferentzy and Turner, 2013). Gambling disorder has become the first non-substance behavioural addiction to be classified in the Diagnostic and Statistical Manual of Mental Disorders fifth edition (DSM-V). Gambling can be best understood as a behavioural addiction, as the person is not addicted to a substance but rather the behaviour that is rewarding to them (Mann et al, 2016). The DSM-5 criteria look at ongoing and reoccurring gambling behaviours over the last twelve months and a diagnosis of gambling disorder is made when the behaviour cannot be explained by the person experiencing mania. Gambling disorder criteria include the person needing to gamble increasing amounts of money to experience excitement, they feel restless and irritable when reducing or stopping gambling, they have been unsuccessful when trying to reduce or stop gambling, they gamble when feeling negative emotions, they hide the extent of their gambling, and it is impacting their life (American Psychiatric Association, 2013).

During a nursing career, it is likely that nurses will encounter people experiencing gambling harms (Duncan, 1996). However, the hidden nature of harmful gambling means that its recognition has received

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little attention in healthcare (George and Murali, 2005). National clinical advisor for gambling harms, Dr Henrietta Bowden Jones, believes that a lack of training has contributed to the problem of gambling-related harms being under the radar for healthcare professionals (Johnson, 2017). This article aims to expand community nurses' awareness of gambling-related harms by describing the harmful impacts, detailing the signs of disordered gambling, highlighting the risk factors, providing guidance on how to talk to patients about gambling and where to signpost a patient for support.

GAMBLING-RELATED HARMS

Gambling harms affect all aspects of people's lives from health, debts, relationship breakdown, job losses, repossessions, crime, anxiety and loss of self-esteem (Latvala et al, 2019). Health concerns are common for people with problem gambling and include insomnia, depression, anxiety, substance misuse, cardiovascular, musculoskeletal and gastrointestinal disorders (George and Copello, 2011).

A person experiencing gambling-related harms is twice as likely to attend their general practitioner with mental health concerns, five times more likely to be hospitalised and eight times more likely to receive psychological counselling than a non-gambler (Cowlishaw and Kessler, 2016). Harmful gamblers are more likely than non-harmful gamblers to have either had suicidal thoughts in the past year or to have attempted suicide (Wardle et al, 2018). The charity, Gambling with Lives, estimates that 250–650 lives are lost to gambling-related suicide each year in the UK (Gambling with Lives, 2021).

Gambling-related harms also impact other people, and it has been found that 7% of the population have been affected by another person's gambling (Office for Health improvement and Disparities and Public Health England, 2023). Immediate family members are impacted the most by someone else's gambling — 48% of spouses or partners, 41% were affected by a parent gambling and 38% have been harmed by gambling from a child (Office for Health Improvement and Disparities and Public Health England, 2023). However, harms are also experienced by friends and work colleagues.

Box 1 Summary of gambling-related harms (Fong, 2005)

Mental health

- Stress, depression, anxiety, panic, emotional distress such as shame and guilt, substance misuse, self-harm and suicidality

Physical health

- Headaches, digestive disorders, nausea, poor sleep, high blood pressure, heart problems, reduced immune system, poor diet/nutrition and higher smoking rates

Social issues

- Loss of employment, debt/bankruptcy, housing problems, relationship problems, crime

At a societal level, gambling has both positive and negative impacts on populations. Gambling is lucrative as the gambling industry in Great Britain made a profit of £15.1 billion in 2022. Gambling is understood as a commercial activity that contributes to the UK economy, generating 46,000 jobs (Lock, 2022). However, the costs of harmful gambling are estimated to be between £1.05 to £1.77 billion for England (Office for Health Improvement and Disparities and Public Health England, 2023).

Social consequences of harmful gambling have been shown to cause housing issues, homelessness, abuse, neglect, debt, bankruptcy, adverse childhood experiences and relationship breakdowns (Wardle et al, 2018). Gambling-related harms are more prevalent for males who are under 35 years old, people who are unemployed and people living in more deprived areas, which means that harmful gambling is related to health inequalities (Office for Health improvement and Disparities and Public Health England, 2023).

A survey of clients attending the National Gambling Treatment Service found that 63% reported debt with the mean average spending per day of £413. Furthermore, 11% of their clients had experienced a loss of job and 27% a loss of relationship due to their gambling (GambleAware, 2021). The social issues of harmful gambling show the consequences are felt by the public and not just the individual. Public Health England (2021) concluded that harmful gambling should be regarded as a public health issue because of the impacts on individuals, their families and society.

Donovan (2015) advocated that all nurses should support public health improvements, as nurses are not only able to understand the needs of individuals, but also the communities in which they work.

SIGNS OF GAMBLING-RELATED HARMS

Despite the hidden nature of harmful gambling, community nurses are in a unique position to identify gambling-related harms through their work roles. Signs of gambling-related harms include (Bond et al, 2016):

- Missing time from education, work, family and household responsibilities
- Being late for commitments and/or taking an unusual amount of time to complete simple tasks
- Loss of interest in usual activities and hobbies
- Neglecting the care of one's self or family
- Changes in personality, sleep, diet
- Appearing stressed, anxious, depressed, irritable, hopeless, suicidal

- Difficulties in managing or stopping gambling
- Secretiveness or dishonesty about gambling
- Not paying bills, running out of money, borrowing money, declined credit or not enough food in the home
- Selling possessions
- Excessive anxiety or excitement around 'payday' (wages, benefits, etc)
- Unwillingness to talk about money or how money is spent
- Excessive use of smart mobile phone.

RISK FACTORS

Gambling-related harms are more prevalent among people experiencing poor health, low life satisfaction and wellbeing (Office for Health Improvement and Disparities and Public Health England, 2023). Risk factors have been identified for people due to their existing health conditions, their occupation and how they gamble. There is increased risk for people to experience gambling-related harms if they:

- Have a neurological condition or acquired brain injury
- Take a dopamine agonist medication for Parkinson's disease or aripiprazole for psychosis
- Are current or military veterans
- Are employed in the gambling or finance industries
- Are sports professionals (National Institute for Health and Care Excellence [NICE], 2023).

Gambling products that promote solitary, fast and repetitive play have been found to be most harmful. This is particularly evident when people enter 'the zone' of continuous play where they lose track of time and awareness of their losses (Dow Schüll, 2012). Different gambling products have different risks for harm. *Table 1* lists the online gambling products found to be more harmful in a population of UK users.

SEEKING HELP

Seeking help for problems with gambling has been low. Indeed, the proportion of disordered gamblers seeking help is less than 10% (Loy et al, 2018), and approximately only 3% are in treatment (NICE, 2021). Often people want to manage the harms from their gambling independently or they are embarrassed to seek help (Evans and Delfrabbro, 2005).

Stigma has been identified as a concern in those who seek help for harmful gambling (Hing et al, 2012). The self-stigma described by people experiencing harmful gambling results in secrecy, problem denial, and low rates of help seeking (Hing et al, 2014). People experiencing harmful gambling feared they would be judged for participating in gambling (Hing et al, 2015).

When people do seek help it is usually crisis driven due to potential losses of relationships, homes, and jobs (Evans and Delfabbro, (2005). Mental health concerns are the main reason why people seek help, followed by financial, relationships and severe impacts to their personal life (Statista, 2023). 92.2% of referrals to the National Gambling Treatment Service are self-referrals with only 1% of referrals coming from primary care (GambleAware, 2021). By developing awareness of gambling-related harms, nurses can challenge stigma and encourage help seeking earlier before a personal crisis occurs.

Patient story

I used to go into the betting shop at the weekend to place a few bets on football with my mates. It was only a few quid and it then made watching the match in the pub more interesting. For the Euros I set up an account with my favourite bookies as it made sense. On my first bet of the tournament, I turned £1 into £150 which was fantastic. That's when it changed, I thought I can do this. So, I put my birthday money on my account and spent it all. I tried to get it back and that all went. My online account gave me £10 free play for the slots so I used this as it was free. I played slots on my mobile any chance that I could. I did have a few big wins, but not enough to get back what I had lost. I missed a few bills and took out a loan to pay them, but I put the money straight into my betting account. I've sold a few things, taken out another credit card and more loans. Just one big win will clear it and get me out of trouble. I'm getting divorced which is really expensive. I'm worried that I will lose my job as I received a letter from my manager as I hadn't been to work for 10 days. I was trying to win and didn't think I would be playing all day. I should have said something to my manager. I feel stressed and can't sleep. I keep thinking I need to stop, as I can't take it anymore.

TALKING TO PATIENTS ABOUT GAMBLING-RELATED HARMS

While routine screening for harmful gambling does not occur in the NHS (Roberts et al, 2019), community nurses should be professionally curious when they observe patients experiencing signs of gambling-related harm. NICE (2023) recommends that healthcare professionals ask people about gambling:

- As part of a holistic assessment and health check
- When people present with a mental health problem
- When people present with addictions
- When people are experiencing homelessness or at risk of this
- When there are safeguarding concerns
- If there is a family history of gambling or other addictions.

If gambling-related harms are suspected, nurses should discuss this with the person directly in a supportive and non-judgemental manner as part of the Making Every Contact Count (MECC) approach to support improvements to health and wellbeing through routine healthcare interactions (Public Health England, NHS England and Health Education England, 2016). Community nurses can ask 'Do you gamble'? 'Are you

worried about your gambling?' to start a conversation about gambling (NICE, 2023). If gambling harms are occurring, nurses can help the person to access support.

SIGNPOSTING AND SUPPORT

If the person is experiencing gambling-related harms, community nurses can use motivational interviewing rather than just give advice. Motivational interviewing encourages and strengthens a person's motivation towards change (Rollnick et al, 2008). When discussing gambling-related harms, community nurses can use Rollnick et al's (2010) three core skills of asking, listening and informing to show that they value the patient's views and decision-making. For example:

- Ask open-ended questions to engage the patient to consider change with their gambling
- Listen non-judgementally and empathetically to the patient's gambling experience and encourage them to expand their views on perceived barriers to change
- Inform the patient by gaining their permission to share information and discuss the implications of this

(Rollnick et al, 2010).

Community nurses can signpost the person to the NHS website on Help for Problems with Gambling (NHS, 2021). Through the website the person can self-complete the problem gambling severity index (PGSI) questionnaire to determine if gambling is causing a problem for them. The PGSI is a standardised tool to measure gambling harms that is used in many different countries. It consists of nine questions that look at whether a person is betting more than they can afford, trying to win back their money, if they feel guilty about their gambling, and whether gambling is causing them health problems. A score of 8 or above indicates harmful gambling. The NHS website on Help for Problems with Gambling also provides information on seeking urgent help for mental health and accessing gambling treatment through the NHS, charities, and support groups. Advice is also provided on how to exclude yourself from gambling companies, to install gambling website blocking technology, and to contact your bank and debt advisors for financial support.

Table 1: Online gambling products listed in order of harm (Delfabbro et al, 2023)

1.	Slots
2.	Combination of bets on sports (in-play)
3.	Other table games (live)
4.	Roulette (live)
5.	Combination bets on sports (pre-event)
6.	Single bets on sports (in-play)
7.	Bingo
8.	Combination bets on racing
9.	Less established sports
10.	Roulette (software)
11.	Blackjack (live)
12.	Multiple bets on sports (in-play)
13.	Single bets on sports (pre-event)
14.	Poker (tournament)
15.	Poker (cash)
16.	Blackjack (software)
17.	Multiple bets on sports (pre-event)
18.	Single bets on racing

'If gambling-related harms are suspected, nurses should discuss this with the person directly in a supportive and non-judgemental manner ... .'

Harmful gambling treatment is a holistic approach that typically aims for abstinence, which can include peer support, family interventions, cognitive behavioural therapy (CBT), pharmacological treatment with naltrexone, support with issues relating to finances, housing, employment and legal matters.

CONCLUSION

To reduce the gambling-related harms sustained by individuals and their families, community nurses need to be aware of the signs of problem gambling, to be professionally curious and talk to patients about gambling and then signpost them to the appropriate support. Community nurses are in an ideal position to make every contact count and support a public health approach to addressing gambling-related harms. JCN

REFERENCES

American Psychiatric Association and American Psychiatric Association (eds) (2013) *Diagnostic and statistical manual of mental disorders: DSM-5* (5th edn). American Psychiatric Association

Binde P (2009) *Gambling motivation and involvement: A review of social science research*. Swedish National Institute of Public Health

Bond KS, Jorm AF, Miller HE, et al (2016) How a concerned family member, friend or member of the public can help someone with gambling problems: a Delphi consensus study. *BMC Psychol* 4: 6

Cowlishaw S, Kessler D (2016) Problem gambling in the UK: Implications for health, psychosocial adjustment and health care utilization. *Eur Addiction* Res 22(2): 90–8

Delfabbro P, Parke J, Catania M, Chikh K (2023) Behavioural markers of harm and their potential in identifying product risk in online gambling. *Int J Ment Health Addiction*. https://doi.org/10.1007/s11469-023-01060-8

Donovan H (2015) Pushing the boundaries. *Primary Health Care* 25(5): 5

Dow Schüll N (2012) *Addiction by design. Machine gambling in Las Vegas*. Princeton University Press

Duncan S (1996) Just a flutter: While for the majority of people gambling is a fun activity, for some it becomes an addiction. Stan Duncan reports on the signs and symptoms which might alert nurses to those in difficulty. *Nurs Standard* 10(48): 22–3

Evans L, Delfabbro PH (2005) Motivators for change and barriers to help-seeking in australian problem gamblers. *J Gambling Stud* 21(2): 133–55

Ferentzy P, Turner NE (2013) *The history of problem gambling. Temperance, substance abuse, medicine and metaphors*. Springer

Fong TW(2005) The biopsychosocial consequences of pathological gambling. *Psychiatry (Edgmont)* 2(3): 22–30

GambleAware (2021) *Annual statistics from the National Gambling Treatment Service*. Available online:www.begambleaware.org/sites/default/files/2021-11/FINAL_GA_Annual%20stats_report_2020-21_English.pdf

Gambling Commission (2020) *Gambling participation in 2019: Behaviour, awareness and attitudes. Annual report*. Available online: www.gamblingcommission.gov.uk/PDF/survey-data/Gambling-participation-in-2019-behaviour-awareness-and-attitudes.pdf

Gambling with Lives (2021) *Gambling-suicidal ideation, attempts and completed suicides*. Available online: www.gamblingwithlives.org/research

George S, Copello A (2011) Treatment provision for Britain's problem gamblers: Present gaps and future opportunities. *Adv Psychiatr Treatment* 17(5): 318–22

George S, Murali V (2005) Pathological gambling: An overview of assessment and treatment. *Adv Psychiatr Treatment* 11(6): 450–6

Gunstone B, Gosschalk K, Joyner O, Diaconu A, Sheikh M (2020) *The impact of the COVID-19 lockdown on gambling behaviour, harms and demand for treatment and support*. Available online: www.begambleaware.org/sites/default/files/2020-12/yougov-covid-19-report.pdf

Hing N, Nuske E, Gainsbury S (2012) *Gamblers at risk and their help-seeking behaviour*. Gambling Research Australia. Available online: www.gamblingresearch.org.au/sites/default/files/2019-10/Gamblers-at-risk-and-their-help-seeking-behaviour.pdf https://doi.org/10.13140/2.1.4527.3925

Hing N, Holdsworth L, Tiyce M, Breen H (2014) Stigma and problem gambling: Current knowledge and future research directions. *Int Gambling Stud* 14(1): 64–81

Hing N, Russell A, Nuske E, Gainsbury S (2015) *The stigma of problem gambling: Causes, characteristics and consequences*. Available online: https://responsiblegambling.vic.gov.au/documents/351/Hing-Stigma-of-problem-gambling-2015.pdf

Johnson S (2017) Gambling remains a hidden addiction because 'healthcare staff lack training'. *Guardian*. Available online: www.theguardian.com/healthcare-network/2017/oct/09/gambling-addiction-professional-training-mental-health

Latvala T, LintonenT, Konu A (2019) Public health effects of gambling — debate on a conceptual model. *BMC Public Health* 19(1): 1077

Lock S (2022) *Number of employees in the gambling industry in Great Britain from 2009 to 2019, by sector*. Available online: www.statista.com/statistics/203391/number-of-employees-of-all-gambling-sectors-in-the-uk-since-2009/

Loy JK, Grüne B, Braun B, Samuelsson E, Kraus L (2018) Help-seeking behaviour of problem gamblers: A narrative review. *SUCHT* 64(5–6): 259–72

Mann K, Fauth-Bühler M, Higuchi S, Potenza MN, Saunders JB (2016) Pathological gambling: A behavioral addiction. *World Psychiatry* 15(3): 297–8

Muggleton N, Parpart P, Newall P, Leake D, Gathergood J, Stewart N (2021) The association between gambling and financial, social and health outcomes in big financial data. *Nat Hum Behav* 5(3): 319–26

National Institute for Health and Care Excellence (2021) *Guideline scope. Gambling: identification, diagnosis and management*. NICE, London. Available online: www.nice.org.uk/guidance/gid-ng10210/documents/final-scope

National Institute for Health and Care Excellence (2023) *Harmful gambling: Identification, assessment and management. Draft for consultation*. NICE, London. Available online: www.nice.org.uk/guidance/GID-NG10210/documents/draft-guideline

NHS (2021) *Help for problems with gambling*. Available online: www.nhs.uk/live-well/addiction-support/gambling-addiction/

NHS Digital (2021) *Gambling behaviour*. Available online: https://digital.nhs.uk/data-and-information/publications/statistical/health-survey-for-england/2021-part-2/gambling

Office for Health improvement and Disparities and Public Health England 2023) *Gambling-related harms evidence review: Summary*. Available online: www.gov.uk/government/publications/gambling-related-harms-evidence-review/gambling-related-harms-evidence-review-summary--2

Office for National Statistics (2020) *Internet access- households and individuals, Great Britain: 2020*. Available online: www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetandsocialmediausagebulletins/internetaccesshouseholdsandindividuals/2020

Public Health England, NHS England and Health Education England (2016) *Making Every Contact Count (MEEC)*. Available online: www.england.nhs.uk/wp-content/uploads/2016/04/making-every-contact-count.pdf

Roberts A, Bowden-Jones H, Roberts D, Sharman S (2019) Should GPs routinely screen for gambling disorders? *Br J Gen Pract* 69(682): 226–7

Rollnick S, Butler CC, Kinnersley P, Gregory J, Mash B (2010) Motivational interviewing. *BMJ* 340(apr27 2): c1900–c1900

Rollnick S, Miller WR, Butler C (2008) *Motivational interviewing in health care: Helping patients change behavior*. Guilford Press

Statista (2023) *Main factors prompting gamblers to seek treatment, support, or advice in Great Britain as of November 2021*. Available online: www.statista.com/statistics/1263559/main-factors-seeking-gambling-treatment-great-britain/

Wardle H, Reith G, Best D, McDaid D, Platt S (2018) *Measuring gambling-related harms. A framework for action*. Available online: https://eprints.lse.ac.uk/89248/1/McDaid_Gambling-Related_harms_Published.pdf

Reflections on the QNI gardening project within care homes

This article uses the Driscoll model of reflection (Driscoll, 2001) to examine a pilot undertaken by two healthcare professionals using gardening as therapy to support improvements in health and wellbeing within a care home setting. The authors of this article are registered adult nurses; Anna Redpath is an advanced nurse practitioner and Carolyn Fleurat is a district nurse and both have extensive knowledge and experience in the clinical and operational delivery of community nursing services.

Reflection provides nurses with a systematic way to understand experiences to improve professional development through learning to promote best practice (Horton-Deutsch and Sherwood, 2017). Purposeful reflection can lead to a deeper understanding of the situation and through new learning inform future practice and optimise care delivery (Asselin et al, 2012; Caldwell and Grobbel, 2013), and is used in nursing education and clinical practice worldwide (Galutira, 2018).

This article uses Driscoll's model of reflection (2001) to explore the implementation of gardening as therapy in care homes utilising Driscoll's descriptors of 'What?', 'So what'? and 'Now what?' to structure and inform the exploration.

WHAT?

The Covid-19 pandemic brought unprecedented challenges and vulnerabilities to healthcare systems, particularly in care homes and support facilities. In response, a visionary project emerged — the Green Wellbeing Project — aiming to redesign care services and prioritise mental health and wellbeing within these institutions. This project integrated the National Health Service (NHS) 'delivering a net zero' plan (NHS England, 2020) into care delivery, and offered opportunities for care homes to become sustainable in their approach to providing nutrition to their residents, highlighting the importance of sustainable and recyclable products. In the authors' experience, it afforded residents the opportunity to follow their hobbies and interests, with the added benefit of improving mood and reduced rates of hospital admissions and GP visits through early identification of deterioration.

Informed by the vision incorporated within the NHS *Green Plan* (www.england.nhs.uk/greenernhs/get-involved/organisations/), the authors completed a successful application to the Queen's Nursing Institute (QNI), Elsie Wagg annual scholarship programme, which supports nurses to deliver gardening projects in conjunction with the National Garden Scheme (NGS). A £5000 funding grant was used to help initiate the project and it was agreed with the project leads and care home managers that the project would be delivered through a six-week pilot programme in four local care homes in the Midlands.

Due to knowledge and experience of care delivery within the homes and existing professional relationships, the project was implemented within the 12-month timeframe of the programme. The authors met with care home managers, activity coordinators and gardeners to discuss the overall objectives of the project — i.e. to improve engagement and wellbeing of residents through gardening therapy, provide an informal healthcare offer to residents and education and support to care staff — and to explain how the programme would be implemented. Five or six residents who were particularly isolated and would benefit from the programme with differing care needs were identified from each care home. Activities and opportunities were planned to ensure that they enabled residents to actively participate, and a space (both indoors and outdoors) was identified in each home where the sessions would be held. The aim was to utilise the outdoor space at each session; however, weather considerations were built into the activity planning so sessions could continue indoors if required.

The project also incorporates the NHS *Green Plan* through the use of social prescribing. Social prescribing is a non-medical intervention to

support the management of the wider determinants of health (Drinkwater et al, 2019). This included offering green social prescribing sessions to the residents and empowering care coordinators to provide opportunities to access green space and facilitate gardening sessions.

Through these sessions, healthcare professionals delivering the project holistically assessed the residents, observing any barriers to optimising their health and wellbeing. Continuity in care delivery was provided to enable early identification of deterioration in residents and a non-pharmacological approach to therapy-based care interventions was used. This included residents taking part in several activities such as planting seeds, building bird boxes/bug houses, reading gardening books, group discussions, exploring the outdoor space and accessing gardens.

In addition, education and support were offered to care home staff to underpin the project. Supportive information was also provided to care homes covering skin care, hydration, prevention of falls, and a stop and watch early warning tool that focuses on 'softer signs' to recognise the deterioration of a resident (Nesbitt-Johnson, 2017). The project included collaborative delivery with voluntary, community and social enterprise (VCSE) partners to further enhance the initiative, with the opportunity to upscale in the future to other groups within the community. The project leads included learning opportunities within the sessions for nursing students and allied health professionals and care staff within the home, including them in the project delivery and developing their communication and assessment skills and knowledge base.

The project integrated with the NHS *Green Plan's* objectives, focusing on several key areas:

- Clinical transformation: a central goal of this initiative was to deliver efficient and streamlined care that reduces the burden on acute and carbon-intensive services. By emphasising low carbon prevention, health promotion and optimisation measures, the project aimed to keep residents healthy, reducing the complexity of disease and minimising hospital admissions
- Sustainable medicines: one of the most innovative aspects of the project is its non-pharmacological approach. By prioritising mental health, dementia care, and interventions such as social prescribing, the project sought to reduce the reliance on medication. It was perceived that successful interventions can lead to improved mental health, reduced medication usage, and overall better outcomes for residents

- Energy efficiency: sustainability was at the core of the project. Care homes are introducing recyclable products and using existing green spaces and equipment. They are implementing compost boxes for food waste, which not only reduce the carbon footprint but also enrich the environment. This approach ensures that the care homes are eco-friendly while delivering optimal care
- Active travel and transport: food production on-site is another key component of the project's sustainability initiative. By growing food on-site, the project reduces the need for food deliveries. It adopts a holistic approach to healthcare that fosters a sense of self-sufficiency and reduces the carbon footprint. Pilots supported by NHS England have evidenced improved mental health care for patients with physical ailments which has reduced demand for GP appointments and cut hospital admissions by three quarters (NHS England, 2018)
- Sustainable procurement: the project is committed to reducing waste and promoting sustainability. The introduction of compost bins further diminishes the carbon footprint while fostering a culture of responsible waste management.

SO WHAT?

The increasing population, the reduction in the number of district nurses, and complexity of current health needs is impacting on the ability to provide effective care (Malbin et al, 2016; Campbell, 2018). The ageing population is expected to increase from 16% in 2008 to 23% in 2033 (Government Office for Science, 2016). Workforce pressures are not isolated to the NHS, as 88% of care homes reported recruitment challenges, which have a negative impact on the quality of care delivered (Care Quality Commission [CQC], 2022).

Concerns have arisen about the NHS's ability to manage the present and future healthcare demands of a growing and aging population. It is also acknowledged that pharmaceutical medications, while undeniably transformative, are becoming more costly and their actual effectiveness may not always align with the promising outcomes reported in initial, eagerly publicised clinical trials. Additionally, use of drugs often comes with side-effects, which constitute a significant reason for hospital admissions, particularly among the elderly, who are often underrepresented in clinical trials (Chung, 2014).

There is variable quality of care delivery through care home medical professional visits. 43% of all GP home visit requests come from care homes (CQC, 2022). At present, there are multiple professionals entering care homes providing various interventions and care delivery is often duplicated. Frequently, residents in care homes have complex needs, including dementia, that impact on their ability to live independently (Black et al, 2013). Patients living with

dementia have a high incidence of depression, with an expected variance of 30% higher in vascular dementia and Alzheimer's disease, and over 40% in patients with Parkinson's and Huntington's disease (Kitching, 2015). This can be overlooked in practice and thought to be symptoms of the disease. However, this should be managed effectively to optimise quality of life using a combination of non-pharmacological and pharmacological strategies (Kitching, 2015).

Delivery of the *NHS Long Term Plan* requires an adaption to the current care delivery model and a renewed commitment to illness prevention by working collaboratively as multidisciplinary teams, including the private and voluntary sector (NHS England, 2019). Therefore, it is essential to trial new models of care encompassing these factors.

The Green Wellbeing Project offers gardening as therapy. Exposure to plants and green space and particularly gardening is beneficial to mental and physical health (Thompson, 2018). Indeed, this type of therapy could potentially alleviate some of the strain on NHS services. Consequently, healthcare practitioners should promote the utilisation of green spaces and encourage their patients to participate in gardening activities. Additionally, they should advocate for local authorities to expand public open spaces and increase the tree population, contributing to the mitigation of air pollution and addressing the challenges of climate change. A category of holistic therapies, known as 'green care' or therapy involving interaction with plants and gardening, seeks to address the wellbeing of individuals as a whole (Sempik et al, 2002; Buck, 2016).

A SMART model was used to support implementation of the project. The SMART acronym stands for specific, measurable, attainable, realistic and timely (Doran et al, 1981):

- S: supplying equipment to improve green space and provide activities for residents through implementing an education package and support for activity coordinators and care staff. Liaise with multidisciplinary team (MDT) to organise planned

sessions to incorporate nursing and therapy support
- M: pre- and post-evaluation including personal wellbeing scores and patient case report testimonies from care home staff/managers/family and residents
- A: agreement from four homes within the current care home network to facilitate and implement the project
- R: current established relationships and engagement, current gardener/activity coordinators in the care home to facilitate and support
- T: project can be implemented quickly but its long-term benefits and longevity will be measured over an extended period.

Pre-evaluation questionnaires were completed, with the overall theme demonstrating that residents felt they were not accessing the gardens as much as they could, despite all homes having accessible gardens. Although activities were provided in the home, they were not always supportive of residents' personal interests and there were concerns around risk assessment in using tools and residents getting too cold or sunburnt being out in the garden.

Post-evaluation questionnaires demonstrated that residents had overall enjoyed the programme and their wellbeing had improved. Relationships between care home managers and staff and health workers were established and developed throughout the programme, with open communication improving access to healthcare advice.

NOW WHAT?

The residents recognised the authors each week and looked forward to the sessions. One of the benefits of the green project is the continuity of care delivery and relationship building, thereby recognising behaviours and abilities and when intervention can be helpful. It provided an opportunity for the authors and supporting healthcare professionals to identify health needs by engaging with residents on a regular basis in a non-threatening setting, which also provides the opportunity to assess wellbeing and implement support in a timely manner. The following case reports provide examples of valuable interventions.

Case report: patient A

NM is a frail elderly woman with dementia who was encouraged to attend the project to improve socialisation and anxiety. During the gardening project, she was constantly itching and uncomfortable and extremely anxious. Following discussion with the lead carer, it became clear that this had been a longstanding issue and during an unplanned hospital admission, NM had been diagnosed with dermatitis. The GP has assessed the patient virtually and prescribed alternative antihistamines and emollients and NM is waiting for an appointment with a dermatologist. There have also been multiple referrals to the district nurse (DN) team and advanced nurse practitioner to review the patient for treatment for cellulitis and wound care, which leads to miscommunication and lack of ownership around care delivery resulting in duplicated and uncoordinated care and treatment.

Following review of the medical records, it was clear that the lack of continuity in care was affecting the patient's treatment. NM had been referred multiple times to the district nursing caseload for wound care. However short-term treatment was provided and once the wounds were

healed, she was discharged from the service. Through discussion with the lead carer, it was clear that there was a lack of understanding around the long-term skin care required.

The authors spent some time providing education and advice around managing the skin condition and explaining that the treatment is long term and should be applied daily to maintain skin integrity. Following assessment of NM, she was prescribed the correct emollient and a basic daily skin care regimen was agreed with the lead carer for two weeks and then to undertake a subsequent review.

Following the second review, NM's skin condition had improved, and the care staff felt confident with the treatment plan and had an understanding of the long-term condition and associated signs and symptoms. This helped to reduce the risk of infection by maintaining skin integrity, ensuring that escalations were appropriate, and NM did not receive any inappropriate antibiotic treatment.

Case report: patient B

IR is a 78-year-old female, with a frailty score of 6 (i.e. moderately frail) and middle stage dementia. She has had two reported falls in the last 12 months, but with no hospital admissions. The falls risk assessment tool (FRAT) score suggested that she was at medium risk.

IR joined the Green Wellbeing Project to enjoy time outside of the home. The home where she resides receives a weekly visit from an advanced clinical practitioner (ACP) as part of the primary care network (PCN) Enhanced Health in Care Home Funding (EHCH) on a Tuesday. The ACP offers four priority visits during the session, which are identified by care staff. District nurses visit the home for other individuals' planned care needs during the week. The home does not receive any face-to-face GP visits, but does have access to urgent care visits from the acute care at home team for patients with sub-acute needs. The Green Wellbeing Project sessions were planned for a Wednesday.

'I didn't think I would be very interested in the outside activities as I feel the cold very easily but you encouraged me to wrap up warm and give it a try. I now feel less lonely and enjoyed getting to know some of the other ladies in the home better. You can still feel lonely even in a place with lots of other people.'

Resident

When engaging with the resident with the garden activity, the first author noted that IR's right eye was red and swollen. When asked about this, she stated that her right eye was very sore and had been since the weekend, she also commented that at times during the day her right eye closed completely. One of the carers overheard and said that the case had been discussed with the ACP the previous day, who said that they did not have time to review patient IR and recommended eye baths and to add to the list the following week. The first author assessed and diagnosed right eye conjunctivitis and provided a prescription of appropriate treatment with the ACP visit to remain as planned for a review.

Patient IR mobilised with a frame but the first author noted that the frame was labelled with another individual's name and was in poor condition. An urgent occupational therapy referral was made to assess for an appropriate walking aid.

Timely intervention for minor illness or injury can result in the prevention of unnecessary hospital admission (Mudge and Hubbard, 2019). Patient IR was identified as frail and at risk of falls. Untreated conjunctivitis can lead to poor vision increasing the risk of falling when mobilising. It also results in individuals feeling generally unwell and can reduce appetite, which again increases a falls risk along with other issues such as dehydration and agitation (Kaur et al, 2019; Dupuis et al, 2020; Ouyang et al, 2023). Unsuitable mobility equipment can also significantly increase the risk of falls.

Case report: patient C

During the Covid-19 pandemic, BR had been required to isolate in her room on several occasions due to outbreaks of Covid in the home and also having Covid herself on two occasions. Following the pandemic, she had not been out of her bedroom for over 12 months and had become very used to staying in her room and requested that all her meals be brought there. BR was frequently encouraged by care staff to come out of her room for meals and activities but she declined, recognising herself that she had lost confidence in leaving her bedroom.

The home manager identified BR as being suitable for the Green Wellbeing Project to support her confidence. The sessions were planned to be flexible, both outdoors and indoors, along with sessions that could be adapted as one-to- one. The first couple of activities took place as one-to-one sessions with BR in her room. These included planting and watering seeds, looking at gardening books and photographs, and putting

together lavender bags. BR really welcomed the sessions in her room. Over the weeks a good relationship was built up with BR, who, with encouragement, agreed to come into the conservatory for a session and then eventually into the garden. It was wonderful to have BR fully engaged in the sessions, and this then led to her going out on a trip to the cathedral. BR's daughter and staff at the home were thrilled to see her confidence restored.

Case report: patient D

DF is a frail elderly gentleman with a diagnosis of Parkinson's disease. He has limited mobility and uses a wheelchair, but often tries to mobilise independently and has frequent falls. This has resulted in him requiring one-to-one care to ensure his personal safety. The home manager identified DF as a resident for the Green Wellbeing Project, as he was often isolated from the group and did not attend any of the current activities provided by the home.

From talking with DF it became apparent that he had been a keen gardener and had taken pride in looking after his garden before becoming a resident in the home. He disclosed that he loved being out in the garden but due to the wheelchair provided by the home it was difficult for family members and carers to push him up and down a hill to access the garden.

Hopes for the future...

A reduction in hospital admissions and GP visits: the project's proactive approach to healthcare could result in a significant reduction in hospital admissions and GP visits. Residents would be healthier and their mobility issues addressed earlier, preventing the need for acute care.

Left over finances from the project enabled us to have an additional session around Christmas where residents were excited to see the project leads and we were also joined by the QNI's director of nursing programmes (Innovation and Policy). Care homes have continued to develop the project activities with support of care activity coordinators using equipment donated from the project. We are in the process of redesigning the health-led support, with the implementation of health coaches employed by the community trust and GP partners. In addition, we are exploring funding with the local authority to implement a community-based example, in collaboration with VCSE partners.

'I visit my mum every day. I can tell when the Green Wellbeing Project has visited as mum is more positive and not only her I can see a difference in the other residents who she sits with. Out of all the activities they have done, I think they liked making up the hanging baskets the most.'

Family member

During each session, seedlings were brought up from the greenhouse to ensure residents were able to monitor the progress and DF was always excited to see this each week. Support was also provided to DF to use a screwdriver and craft hammer to build bird boxes and bug houses and he demonstrated and improved his dexterity using these items. He enjoyed these activities and felt a sense of achievement in seeing the finished products. The authors alerted the care home manager about DF's predicament, i.e. that he was unable to access the outdoor space due to the inappropriate wheelchair provided to navigate the landscape of the garden, and they were able to link with a local VCSE organisation who support with recycled equipment. They also ensured that DF was provided more opportunity with the one-to-one carer to access the garden and take part in gardening activities.

BENEFITS AND OUTCOMES

The outcomes of this innovative project reflect the commitment to improving care quality, sustainability, and resident wellbeing and include:

- Enhanced mental health and wellbeing: by incorporating mental health and wellbeing into the care delivery model, residents have experienced improved moods, reduced social isolation, and a renewed sense of purpose. They now have opportunities to follow their hobbies and interests, which has a positive impact on their mental health
- Identification of deteriorating patients: with health professionals leading the delivery, the project has enabled early identification of deteriorating patients. This proactive approach allows for timely interventions and better care outcomes
- Non-pharmacological interventions: the project focuses on non-pharmacological approaches to care, reducing the need for medication. This approach aligns perfectly with the NHS *Green Plan's* emphasis on sustainable medicines and addresses the potential overuse of drugs in the elderly population
- Community involvement: by involving local volunteers and VCSE partners, the project is not limited to care homes alone. It has the potential to upscale and expand its benefits to other

community groups fostering a sense of inclusivity and shared responsibility for wellbeing.

CONCLUSION

The project to redesign care services, with a focus on mental health and sustainability, is a remarkable testament to the capacity for innovation and adaptability in our healthcare systems. Aligning with the NHS G*reen Plan's* core principles, it has achieved impressive outcomes that enhance quality of care for residents and reduce healthcare costs by taking a more preventative approach to care and providing timely interventions and early assessment of needs. This contributes to a more sustainable future. The project identified that continuity of care delivered by the same health professional is a major factor for effective and efficient healthcare. This has led to a review of current service provision to identify ways in which continuity can be improved in care homes, implementing a lead clinician to ensure continuity and integrated care with the NHS and private care providers.

This initiative represents a model for healthcare transformation that prioritises the wellbeing of individuals, the environment, and the broader community. As the authors reflect on the project's success, they can envisage a future where healthcare institutions prioritise sustainable and holistic care, ultimately improving the lives of those they care for while nurturing the environment. JCN

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REFERENCES

Asselin ME, Schwartz-Barcott D, Osterman PA (2012) Exploring reflection as a process embedded in experienced nurses' practice: A qualitative study. *J Adv Nurs* 69(4): 905–14

Black BS, Johnston D, Rabins PV, Morrison A, Lyketsos C, Samus QM (2013) Unmet needs of community-residing persons with dementia and their informal caregivers: Findings from the maximizing independence at home study. *J Am Geriatr Soc* 61(12): 2087–95

British Medical Journal (2019) Social prescribing. *BMJ* 364: l1285. Available online: www.bmj.com/content/364/bmj.l1285/rapid-responses

Buck D (2016) *Gardens and health; implications for policy and practice*. King's Fund. Available online: www.kingsfund.org.uk/publications/gardens-and-health

Caldwell L, Grobbel CC (2013) The importance of reflective practice in nursing. *Int J Caring Sci* 6(3): 319–26

Campbell D (2018) NHS suffering worst ever staff and cash crisis, figures show. *Guardian*, Tuesday 11 September 2018

Care Quality Commission (2022) *Workforce*. Available online: www.cqc.org.uk/publication/state-care-202122/workforce

Chung JY (2014) Geriatric clinical pharmacology and clinical trials in the elderly. *Transl Clin Pharmacol* 22(2): 64–9

Doran G, Miller A, Cunningham J (1981) There's a S.M.A.R.T. way to write management goals and objectives. *Management Review* 70(11): 35

Drinkwater C, Wildman J, Moffatt S (2019) Social prescribing. *BMJ* 364: l1285

Driscoll J, Teh B (2001) The potential of reflective practice to develop individual orthopaedic nurse practitioners and their practice. *J Orthopaedic Nurs* 5(2): 95–103

Dupuis P, Prokopich CL, Hynes A, Kim H (2020) A contemporary look at allergic conjunctivitis. *Allergy Asthma Clin Immunol* 16: 1–18

Galutira GD (2018) Theory of reflective practice in nursing. *Int J Nurs Sci* 8(3): 51–6

Government Office for Science (2016) *Future of an ageing population*. Available online: https://assets.publishing.service.gov.uk/media/5d273adce5274a5862768ff9/future-of-an-ageing-population.pdf

Horton-Deutsch S, Sherwood GD (2017) *Reflective practice: Transforming education and improving outcomes*. Vol 2. Sigma Theta Tau International, Indianapolis

Kaur S, Larsen H, Nattis A (2019) Primary care approach to eye conditions. *Osteopathic Family Physician* 11(2): 28–34

Kitching D (2015) Depression in dementia. *Aust Prescrib* 38: 209–11

Malbin J, Charles A, Honeyman H (2016) *Understanding quality in district nursing services; learning from patients, carers and staff*. The King's Fund, London

Mudge AM, Hubbard RE (2019) Management of frail older people with acute illness. *Intern Med J* 49(1): 28–33

Nesbitt-Johnson M (2017) *Decreasing Nursing Home Readmissions Using the Stop and Watch Early Warning Tool*.

NHS England (2018) *Mental health 'game-changer' care leads to 75 per cent reduction in hospital admissions*. Available online: www.england.nhs.uk/2018/05/mental-health-game-changer-care-leads-to-75-reduction-in-hospital-admissions/#:~:text=Improved%20mental%20health%20care%20for,rolling%20out%20across%20the%20country

NHS England (2019) *NHS Long Term Plan*. Available online: https://www.longtermplan.nhs.uk/

NHS England NHS England (2020) *Delivering a 'net zero' national health service*. Available online: www.england.nhs.uk/greenernhs/a-net-zero-nhs/

Ouyang S, Zhang X, Li H, Tang X, Ning X, Li R, Liang Y (2023) Cataract, glaucoma, and diabetic retinopathy are independent risk factors affecting falls in the older adult with eye diseases. *Geriatr Nurs* 53: 170–4

Sempik J, Aldridge J, Becker S (2002) *Social and therapeutic horticulture: evidence and messages from research*. Centre for Child and Family Research, Loughborough University. Available online: https://dspace.lboro.ac.uk/dspace-jspui/bitstream/2134/2928/1/Evidence6.pdf

Thompson R (2018) Gardening for Health: A regular dose of gardening. *Clin Med (Lond)* 18(3): 201–5

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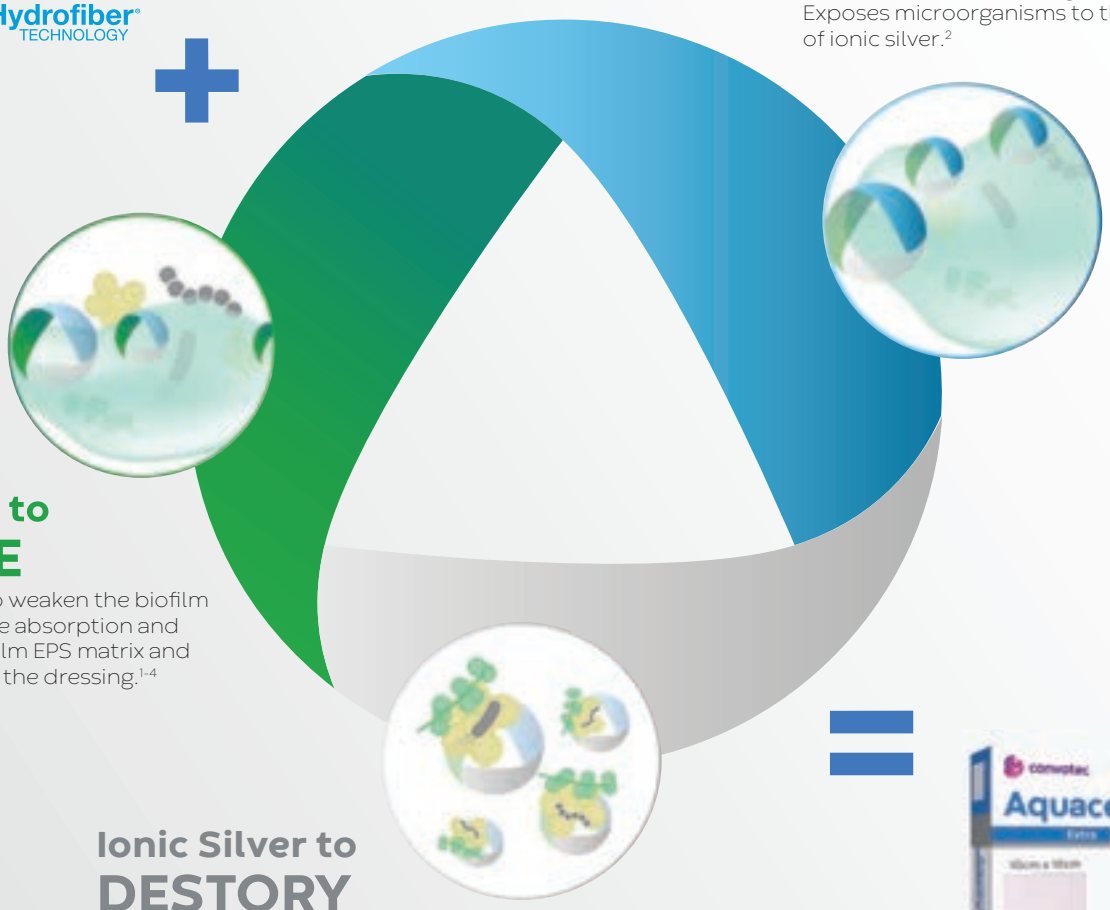

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References
1.Said J, Walker M, Parsons D, Stapleton P, Beezer AE, Gaisford S. An in vitro test of the efficacy of an anti-biofilm wound dressing. Int J Pharm. 2014;474(1-2):177-181. **2.**Parsons D, Meredith K, Rowlands VJ, Short D, Metcalf DG, Bowler PG. Enhanced performance and mode of action of a novel antibiofilm Hydrofiber® wound dressing. Biomed Res Int. 2016;2016. **3.**Meredith K, Coleborn MM, Metcalf DG. Assessment of Silver-Containing Gelling Fiber Dressings Against Antibiotic-Resistant Pathogens Using an in vitro Biofilm Model. Infect Drug Resist. 2023;16:7015-7019. doi:10.2147/IDR.S433981 **4.**Seth AK, Zhong A, Nguyen KT, et al. Impact of a novel, antimicrobial dressing on in vivo, P seudomonas aeruginosa wound biofilm: Quantitative comparative analysis using a rabbit ear model. Wound Repair and Regeneration. 2014;22(6):712-719. **5.**Banin E, Brady KM, Greenberg EP. Chelator-induced dispersal and killing of Pseudomonas aeruginosa cells in a biofilm. Appl Environ Microbiol. 2006;72(3):2064-2069. **6.**Wilkinson LJ, White RJ, Chipman JK. Silver and nanoparticles of silver in wound dressings: A review of efficacy and safety. J Wound Care. 2011;20(11):543-549. doi:10.12968/jowc.2011.20.11.543 **7.**Percival SL, Slone W, Linton S, Okel T, Corum L, Thomas JG. The antimicrobial efficacy of a silver alginate dressing against a broad spectrum of clinically relevant wound isolates. Int Wound J. 2011;8(3):237-243. **8.**Hobot J, Walker M, Newman G, Bowler P. Effect of Hydrofiber® wound dressings on bacterial ultrastructure. J Electron Microsc (Tokyo). 2008;57(2):67-75. **9.**Chen X, Stewart PS. Biofilm removal caused by chemical treatments. Water Res. 2000;34(17):4229-4233.

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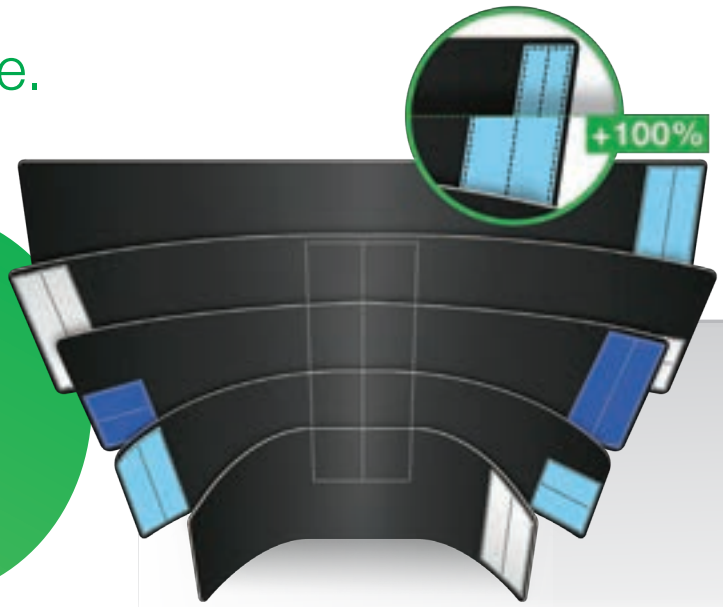

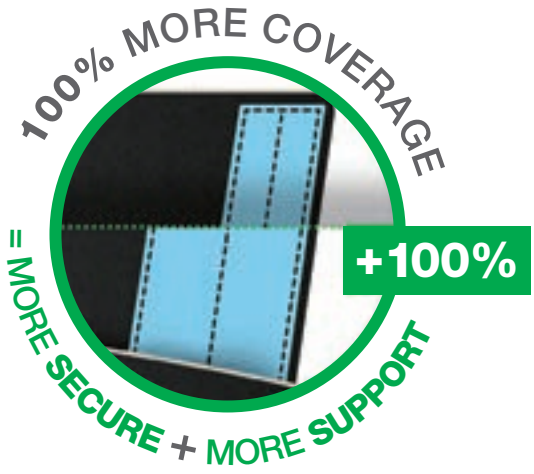

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