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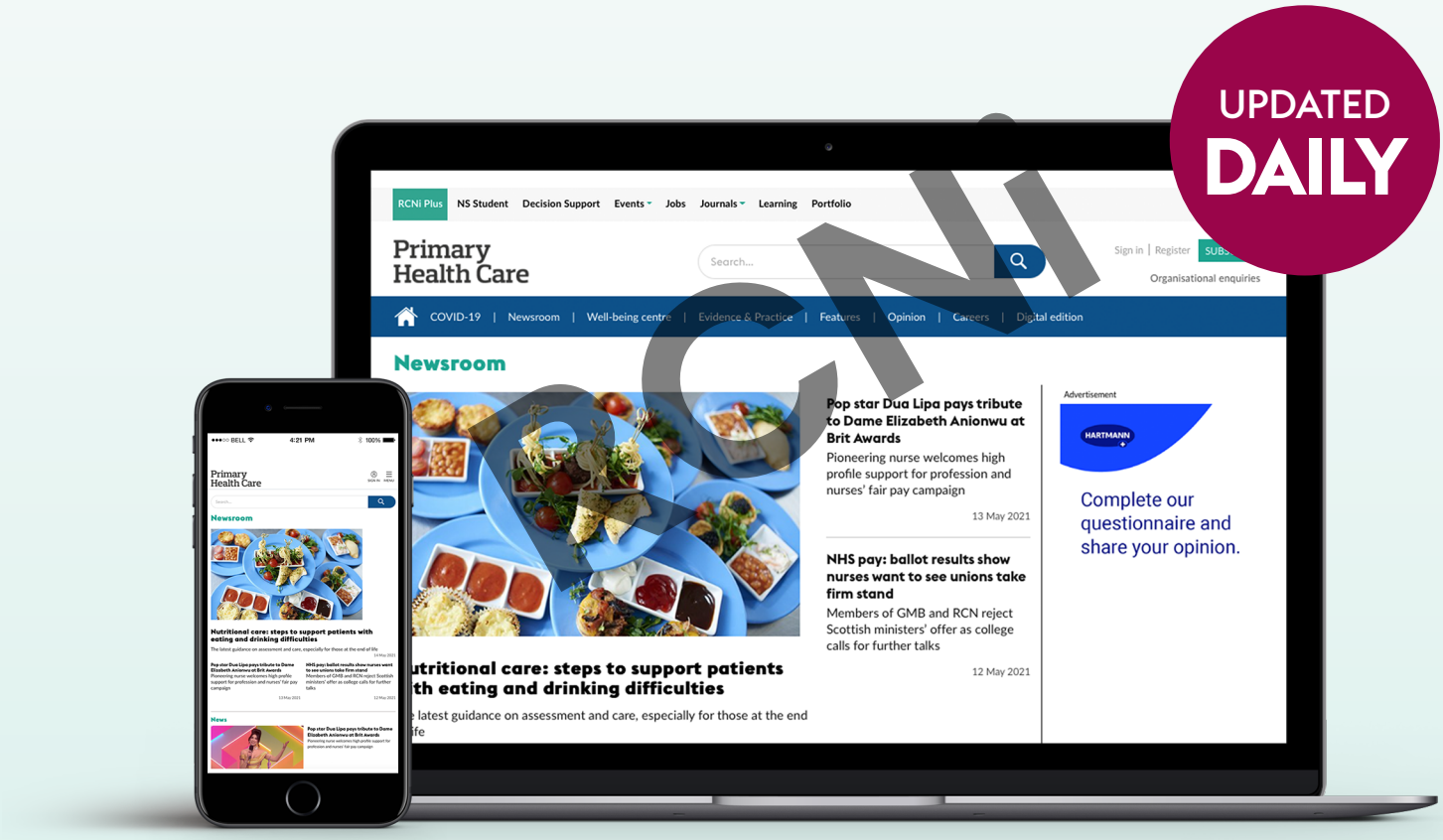

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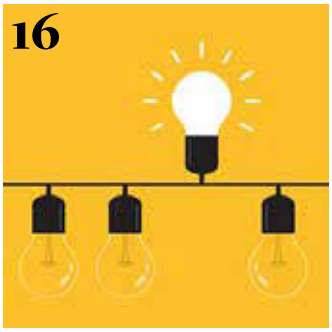

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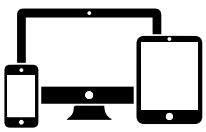

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editorial

Why we need action on community nursing's patient safety red flags

Could 2024 be the year when the concerns of nurses working across community, primary care and public health settings start to see some serious recognition and even action? Our online article Patient safety red flags: is unsafe care being normalised? (rcni.com/unsafe-care) highlights the red flag issues to keep an eye on across the health spectrum.

By Julie Sylvester
editor, Primary Health Care
@RCNi_Julie

These issues can remain unseen and unnoticed. While commentators often concentrate on what is happening in emergency departments and hospital corridors, they can be just as urgent and complex for the community nursing workforce.

The ongoing staffing and skill mix crises in community nursing, which can lead to intense workload pressures, huge caseloads and care being left undone or disjointed, are currently the cause of the biggest red flags for safety.

District nurse numbers have been decimated, falling by almost 50% between 2009 and 2022, down to 3,749 today, RCN figures show. During the same period, the number of health visitors fell from 8,100 to 5,653.

In primary care, nurses are facing similar workload pressures and are bearing the brunt of frustrations among patients waiting for treatment or being discharged early with unfinished care.

As well as logging, sharing and reporting your concerns to your managers and your union, what can you do? How do you make public your concerns about safety red flags?

We need to ensure the voices of community nurses are heard loud and clear in what will almost certainly be a general election year.

Meanwhile, congratulations to Addiction Recovery Community Hounslow, a nurse-led project that achieved elimination of hepatitis C among a marginalised patient group, for winning the RCN Nursing Team of the Year 2023 (analysis, page 6).

'The staffing and skill mix crises in community nursing cause the biggest red flags for safety'

Our mission
Primary Health Care aims to inspire excellence in practice by informing, supporting and educating nurses working in community and primary care.

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RCN Nurse Awards 2023 Team of the Year, Addiction Recovery Community Hounslow, Central and North West London NHS Foundation Trust

Nursing's Team of the Year 2023: 'We don't give up on anyone'

How a nurse-led project at an inner-city addiction centre achieved micro-elimination of hepatitis C among a marginalised patient group

By Yvonne Covell
health journalist

An inspiring and nurse-led project delivered a new hepatitis C treatment to marginalised communities and achieved micro-elimination of the virus locally two years ahead of a national target.

'We just decided that everyone who needed this treatment should have it,' says addiction nurse practitioner Eugenia Moyo-Hlahla, who works at Central and North West London NHS Foundation Trust. 'We weren't going to give up on anyone.'

It was this determined approach that saw the nurse-led team win Team of the Year at the RCN Nursing Awards 2023 last November. Ms Moyo-Hlahla recalls the ambitious goal that drove the team to achieve its target-busting success in testing and treatment for hepatitis C at the Addiction Recovery Community (ARC) Hounslow.

'Once colleagues understood and saw the importance of the project, they embraced it. Once the team got behind it, we were really able to make a difference'

Eugenia Moyo-Hlahla, addiction nurse practitioner

As a long-time addiction recovery nurse, Ms Moyo-Hlahla was aware of the high incidence of hepatitis C among drug users, who may engage in unsafe practices such as sharing needles.

Early detection

Although many people with hepatitis C don't experience symptoms, the virus causes damage to the liver in the long term. Early detection and treatment with antivirals can prevent serious liver damage.

'Previously, we were treating it with interferon injections – which were effective but had lots of side effects,' she says. 'Many of our patients were reluctant to have the treatment because of the side effects they experienced.'

In 2016, the World Health Organization launched a global effort, sparked by advances in technology and research that had seen the development of new, effective antivirals for hepatitis C. NHS England picked up the baton and committed to eliminating the disease by 2025.

'We walked through parks with park rangers and approached people to offer testing and treatment. We made it clear that we weren't condemning or judging – we were there to support and help'

Eugenia Moyo-Hlahla, addiction nurse practitioner

Micro-elimination can be achieved in a local area by ensuring:

- 100% of people using the service have been offered a hepatitis C test.
- 90% of service users have been tested.
- 75% of those who were diagnosed with hepatitis C have started treatment.

'The new treatment involves taking one tablet a day for three months, and patients experience far fewer side effects, so it was a game changer,' says Ms Moyo-Hlahla. With support from NHS England, the team began offering testing and effective treatment to everyone.

Teamwork is crucial

With 22 years' experience as a nurse, Ms Moyo-Hlahla knew that effective teamwork would be crucial if the project was to be successful.

'My time was ring-fenced – I knew that on my own I wouldn't be able to achieve much,' she says.

'But once colleagues understood and saw the importance of the project, they embraced it. Once the team got behind it, we were really able to make a difference.'

The team was determined to reach the people who needed the testing and treatment and understood the scale of the challenge. People living with addiction, struggling with mental health issues and often leading disorganised lives are among the hardest to reach groups.

'We knew that we needed outreach – we had to go to the patients,' says Ms Moyo-Hlahla. Reaching patients in the community was made possible via effective collaboration with numerous partners, who she says carried out their roles with 'great enthusiasm and dedication'.

'For example, we walked through parks with park rangers and approached people to offer testing and treatment. We made it clear that we weren't condemning or judging – we were there to support and help. Of course there were those who disengaged, but generally our message was well-received.'

Range of benefits

Joining forces with partner agencies, including Hep C U Later, Gilead and the Hepatitis C Trust, enabled the team to offer a wider range of benefits: information awareness and testing day events increased uptake, while further support included mental and physical health assessments, access to doctors, nurses and

Tips on establishing an effective team

Project lead Eugenia Moyo-Hlahla's strategies for a successful winning team:

- **Communicate a clear vision** It took time to get everyone on board, but once they understood, they bought into it
- **Make everyone feel valued** Each team member brought their own skills to this effort
- **Identify and solve issues** Reducing paperwork helped the team
- **Celebrate successes** We had team lunches and brought people together to mark achievements, even when we reached smaller milestones
- **Give regular feedback** Monthly updates on how we were doing towards our targets helped keep everyone involved

Further information

Gilead and Hepatitis C Trust. **befreeofhepc.co.uk/hepc-ki**

Hep C U Later. **www.hepculater.com**

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The team called people every day to remind them to take their tablets

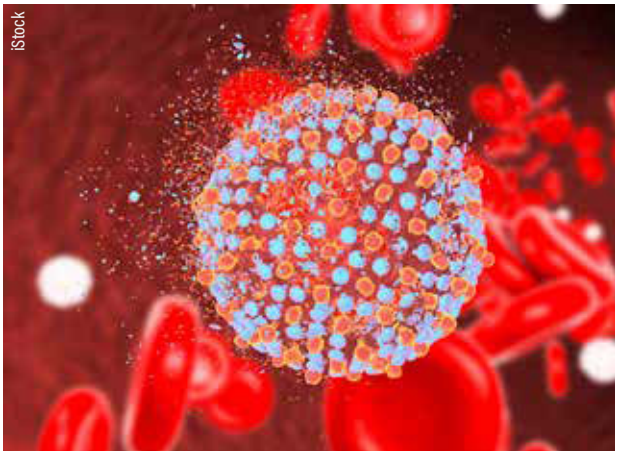


Illustration of the destruction of hepatitis C virus

hepatitis C specialists, recovery workers, employment specialists and peer mentors.

'It became a joy. The times when we tested someone and they saw they did not have hepatitis C after the treatment were priceless. Others had been treated but never retested, so didn't know what their status was and we were able to reassure them. That was what drove us on.'

Gaining momentum

'We called people every day to remind them to take their tablet. If they appeared to disengage, then we would visit them. We would try to engage them and bring them back. We didn't give up on people. Our goal was to reach everyone. As the project gained momentum, we received lots of positive feedback, which also helped to spur us on.'

It is an inspiring project that impressed the judges on many levels. Ultimately, the team achieved micro-elimination of hepatitis C within their patient population in April 2023, two years ahead of NHS England's 2025 target.

Ms Moyo-Hlahla says winning the Team of the Year award is an 'incredible testament to the ARC Hounslow team and the excellent work from all our partner agencies'.

LIVERPOOL VICTORIA

The Team of the Year award is sponsored by LV

Special commendation for team transforming care in rural Scotland

The Highland Urology Nursing Team, a finalist in the Team of the Year category at the RCN Nursing Awards 2023, received a special commendation from the four chief nursing officers of the UK.

The team was regarded as being an exceptional example of a nurse-led initiative, which has seen NHS Highland's performance become one of the best in Scotland.

In 2020, long waiting lists and difficulties in recruiting consultants to vacant posts had put NHS Highland, which serves a vast, rural region, in the unenviable position of having the poorest waiting times in Scotland.

In an initiative backed by the Scottish Government, new, enhanced nursing roles and nurse-led services were introduced.

Nurse-led pathways

Through team training and development, nurse-led pathways from referral to decision-making and treatment in all urology sub-specialties, including prostate, renal and bladder cancer and benign conditions, were successfully put in place.

Senior advanced clinical nurse specialist Brian Corr says that the expansion of the nursing team, and the development of nurses' roles has benefited patients and the clinical team. 'Patients can now be seen sooner, and many don't need to come back to see a consultant.'

The unit's clinical director Karina Laing says: 'We were reliant on locum staff who didn't know the area or the patients, and morale was low. By contrast, the specialist nursing team we have in place now are passionate about the work, confident in their abilities and have in-depth knowledge of the local area. They also work incredibly well as a team – and our patients notice that.'

Mr Corr says that the team's recognition in the awards shines a light on the work it does in a relatively remote setting: 'It gives us so much confidence – what we do for our patients is being recognised nationally.'

Non-medical prescribing has been a success – so where next?

Nurse prescribing has improved nurse autonomy and streamlined patient care and, as a result, demand for training has increased

By Jo Hartley
health journalist

General practice nurse Faye Johnson holds one of almost 100,000 prescribing qualifications registered with the Nursing and Midwifery Council (NMC). For her, it means more professional autonomy – and no longer having to ask her GP colleagues to write up prescriptions. 'I don't miss those days of knocking on a GP's door and waiting around for five minutes for them to sign a bit of paper – it was irritating for the GP and for you,' she says.

Ms Johnson, who works in Brighton, is an independent prescriber, which means in theory she can prescribe anything from the British National Formulary. 'Being able to prescribe gives you more job satisfaction, it makes you feel more autonomous and respected,' she says.

Royal Berkshire NHS Foundation Trust critical care outreach nurse Karin Gerber shares her enthusiasm for independent prescribing, which requires nurses to undertake an intense training course over about six months.

'It is one of the most difficult courses I've done,' Ms Gerber says. 'But it's also the course that's changed my career the most significantly. It makes a difference to patients and opens up so many different roles.'

'The UK leads the world on nurse prescribing. Other countries have brought in nurse prescribing, but they have not necessarily got the entire formulary like we do in the UK'

Matt Griffiths, medicines optimisation nurse at the Royal United Hospitals Bath

Such resounding positivity begs the question: why aren't there more nurse prescribers? If you assume one qualification equals one nurse or midwife, then just 13% of the 780,000 combined workforce are currently prescribers. But Matt Griffiths, who was one of the RCN's prescribing and medicines management leads during the 2000s and lobbied hard to get nurse prescribing over the line, argues it is a fantastic result.

'The UK leads the world on nurse prescribing,' he says. 'Other countries have brought in nurse prescribing, but they have not necessarily got the entire formulary like we do in the UK.'

National target

There is no national target for nurse prescriber numbers, he says, with the focus instead being on deploying the role when and where it can improve patient care. 'It was never intended to be a qualification that people did for the sake of it,' says Mr Griffiths. 'It was a qualification people did depending on the need of services and their roles in those services.'

Improving patient care was the driver for nurse prescribing when a former nurse first mooted the idea in 1986.

Baroness Julia Cumberlege, then a Conservative politician, came up with the plan after investigating England's community nursing services. What she found was 'simply dreadful', she recalled in the House of Lords almost two decades later.

Patients were left in pain because highly qualified nurses were unable to change the duration and strength of their medication, she said – going on to recount the familiar tale of nurses standing outside doctors' rooms waiting for prescriptions to be signed.

'They had actually written the prescription but had to wait for a doctor's signature,' Baroness

Further information

NMC (2024) Becoming a Prescriber. **tinyurl.com/NMC-becoming-a-prescriber**

‘There is no area of acute care where nurse prescribing could not work’

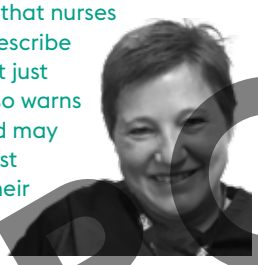
Karin Gerber (pictured), a critical care outreach lead at Royal Berkshire NHS Foundation Trust

In 2010, Karin Gerber became one of her trust’s first two nurse prescribers. But it took nearly a year for her to justify why they should prescribe, Ms Gerber recalls.

‘There were lots of barriers, but as we progressed and more people started prescribing, they realised that nurses are pretty safe prescribers,’ she says.

The trust has about 140 nurse prescribers who work in the pain team, critical care, emergency medicine, palliative care and cover clinical nurse specialists who run clinics. The scope of each person’s prescribing is set out in their job description. Ms Gerber adds. ‘Colorectal care is quite niche and the nurses who work in that area probably have a narrow scope, whereas my scope, as a critical care and outreach nurse, is pretty broad.’

There is no area of acute care where nurse prescribing could not work, she says. But adds that nurses must remember that training to prescribe should be about service need – not just because they want to do it. She also warns that nurses who decide to self-fund may run into difficulty because their trust might not support them through their training or cover their insurance afterwards so they can prescribe.



Cumberlege said. ‘That seemed pretty humiliating.’

In her community nursing review, she recommended that district nurses and health visitors be allowed to prescribe from a list of limited products after appropriate training. This put the wheels in motion for what are now known as community practitioner nurse prescribers, who can prescribe dressings, appliances, pharmacy and general sale drugs and 13 prescription-only medicines from the Nurse Prescribers’ Formulary – with training now part of community specialist practitioner courses.

Laws allowing this limited community nurse prescribing role first came into force in 1998. Nurses were given independent prescribing rights in 2006, and it was not until 2012 that some controlled drugs were added.

Despite initial concerns from doctors about patient safety, nurses have proved to be safe prescribers, says Mr Griffiths. ‘We find that nurses are able to prescribe safely, they do work within their competence and they maintain patient safety as an absolute priority,’ he says.

Mr Griffiths says he is proud of and thankful to the community nurses who pioneered prescribing ‘excellently, responsibly and safely’ with the support of their GP colleagues.

Barriers to prescribing

Yet, despite nurses’ professionalism in prescribing, barriers persist. This is the case not only for nurse prescribers but for non-medical prescribers in general – who now include pharmacists, physiotherapists, podiatrists, optometrists, therapeutic radiographers and paramedics.

Some surveys show up to 50% of those who undergo training do not use it in practice, says Judith Edwards, lead author of a BMJ Open study that looked at nurse, pharmacist and physiotherapist independent prescribing in primary care.

According to Dr Edwards, a key reason for this is that organisations are failing to lead on it, which is a problem, she says, because successful implementation requires organisational level strategy.

‘Often, a nurse wants to do the training for genuine reasons to improve patient care and complete care episodes, so it may come from their idea rather than a strategic idea that comes from management,’ she says.

This is likely to be why some non-medical prescribers go through the training, get the qualification and don’t use it, adds Dr Edwards, who is a research fellow in the school of health sciences at the University of Surrey.

Dr Edwards says implementation has a trajectory with four stages – preparation, training, transition and sustainment – that each have their own requirements for success. These include things such as the organisation being prepared to support training, choosing the right practitioners to undergo training, nurturing their confidence and competence once qualified, and ensuring sustainability through initiatives such as role development.

As nurses’ roles continue to evolve to improve patient care, could prescribing ever become a part of nursing education? It is a thorny question – and

Confidence and collaboration are crucial for successful prescribing

Faye Johnson (pictured), a general practice nurse in Brighton

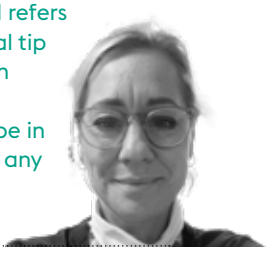
‘I love prescribing, it is the best course I have ever done,’ says general practice nurse Faye Johnson of the independent prescribing course she undertook seven years ago.

She had been a general practice nurse for 12 years before asking her GP bosses if she could do the course. She had already completed post-registration training in several chronic disease areas, such as diabetes, respiratory and contraception care, which is what she mainly prescribes for now.

Ms Johnson believes having this experience was important because she already understood the drugs involved, when and why they were prescribed, and how patients responded to them. This gave her confidence from the start – although it took a few months for the paperwork to be done to allow her to prescribe.

‘If you are a nervous nurse then prescribing probably isn’t for you. You’ve got to feel competent in what you are doing,’ she says. ‘Confidence in prescribing comes with seeing patients, seeing what drugs people are on and how the drugs work.’

If she does not feel comfortable prescribing a medication, such as controlled drugs, she does not do it, and refers the patient to the GP. Her final tip is to always get the patient on board with their medications. ‘I say to them: “We’ve got to be in a collaborative relationship – any problems give me a ring.”.’



one that was raised in 2018 when the NMC used the phrase 'prescribing ready at the point of registration' alongside new standards for preregistration education.

Challenging conversations

The wording suggested to many that newly qualified nurses would be able to prescribe. The idea does not sit well with many senior nurses, including Val Ness, who carried out the nurse antibiotic prescribing research.

'A lot of the confidence nurses get when prescribing is developed over a period of time, so for them to have just qualified and begin prescribing, they would have to deal with some challenging conversations with patients and it would be difficult,' she says.

There is also a matter of logistics, adds Dr Ness, who heads the department of nursing and community health at Glasgow Caledonian University (GCU). For example, how would undergraduate courses cover prescribing as well as everything else, and who would supervise students in practice, she asks. 'We just don't have the resources to be able to do it.'

The NMC later clarified that 'prescribing ready at the point of registration' meant being competent enough to undertake independent prescribing training after a year of working as a registered nurse, rather than the three years it previously recommended.

In line with this, its standards are designed to increase nurses' knowledge and skills in pharmacology, pharmacokinetics, polypharmacy and safe care for people on prescribed medicines, says NMC assistant director of professional practice Anne Trotter, allowing nurses to 'progress seamlessly towards prescribing practice where needed'.

But, for now at least, independent prescribing training is still largely undertaken by senior practitioners – and numbers have exploded, says Royal Devon University Healthcare NHS Foundation Trust non-medical prescribing lead Sally Gilborson.

'We used to have 20-30 people going through the course in our trust each year and now we have about 80 or 90,' she says.

Dr Ness has seen the same thing. There is now a waiting list for GCU's independent non-medical prescribing course, which offers 200 places a year.

It is hard to know exactly why demand has increased, says Ms Gilborson, but she cites the rise in numbers of advanced clinical practitioners – a key part of the NHS Long-Term Plan's aim to transform service delivery – as one likely reason.

Nursing associates

'This is the whole thing about non-medical prescribing,' she says. 'It's about making the best use of the resources we have, how we run our services most effectively, speed up treatment for patients and make sure they get timely access to medicines.'

This is exactly how nurse prescribing was always meant to roll out, adds Mr Griffiths, who predicts more nurses will take on prescribing as more nursing associates come into the workforce.

'Nursing has developed massively in the past 30 years,' says Mr Griffiths, who now works as a medicines optimisation nurse at the Royal United Hospitals Bath.

'When I started nursing, we were limited in what we could do. In some places we weren't able to do ECGs – that is now a task healthcare assistants do.

'Roles have changed completely and the professions have moved on and it is important as they move on that you are given the tools to do the job. Prescribing has been a fantastic tool, which we have been able to use to develop our profession and the care that we give to patients. It has changed nursing.'

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Nurses were given independent prescribing rights in 2006, with the ability to prescribe some controlled drugs being added in 2012

Tips for nurses who want to prescribe

- **Be professionally ready** Have you worked for one year? Do you have the clinical assessment and diagnostic skills needed to undertake the training?
- **Training opportunities** Get in contact with your organisation's prescribing lead. Ask about funding and identify which two independent prescribers (doctor, nurse or allied health professional) could act as your assessor and supervisor
- **Business case** Be clear about how nurse prescribing will improve care for your patients
- **Reality check** Consider how your workplace will manage the demands of the course, such as study days and time for clinical supervision

Tips collated from interviews with non-medical prescribing lead Sally Gilborson and independent prescriber Karin Gerber

An update on injection techniques in diabetes care

Patients who administer regular injections to manage diabetes should be encouraged to follow best practice

By Jo Hartley
health journalist

With rising numbers of patients with type 2 diabetes being prescribed insulin and the growing use of glucagon-like peptide-1 receptor agonists (GLP-1 RAs), primary care nurses are increasingly managing injectable treatments as part of diabetes care. GLP-1 RAs and insulin for type 2 diabetes usually come as disposable pre-filled pen injectors designed to be self-administered either once or twice a day, or weekly.

It is important for nurses to teach patients how to self-inject from the point they are prescribed the medication, says Theresa Smyth, honorary visiting professor in diabetes care at Birmingham City University and a diabetes nurse consultant.

'It's rare I actually do an injection,' Professor Smyth says. 'We try to make sure people do the injections themselves – especially the first one, as you don't want people to think it didn't hurt just because you gave it to them.'

However, nurses could be required to administer injections in primary, community and residential care if the patient has a disability or a mental health condition that means they cannot self-administer, she adds.

10-step self-injection guide for patients

1. Wash hands with warm water and soap, and dry thoroughly
2. Remove pen cap – roll cloudy insulin ten times between palms
3. Invert the pen gently ten times until milky appearance disappears
4. Select a new needle, peel off paper seal and apply needle
5. Screw on needle and pull off protective cap
6. To test the insulin pen is working, carry out an 'air shot' before every injection: hold it with needle pointing upwards, select two units on the dose button, fully depress the dose button and watch to see if insulin appears at the needle tip (if this is not seen repeat these steps until you do). Test 'air shots' are only needed with every new GLP-1 RAs pen, not before every injection
7. Dial the required dose
8. Fully insert needle into skin at 90°, press dose button until the dose is fully injected
9. For insulin, count to ten before removing needle to ensure the full dose is administered
10. Safely remove the needle and dispose of in a sharps bin

Source: Theresa Smyth and Trend UK (2018)

How should injections be given?

Injection Technique Matters (ITM) guidance says medications should be administered to the skin into the subcutaneous fat layer using a 4mm needle. Injections should be given into either the abdomen, outer aspect of the thighs, back of the arms or buttocks. For insulin, the needle should be left in situ for a count of ten before being withdrawn.

If a patient is slim, injections can be administered into a lifted skin fold, which should be released after the needle is withdrawn, the guidance says. This prevents giving an intramuscular injection.

It is safe to administer insulin into the abdomen in the first trimester of pregnancy, but either side of the abdomen or another area should be used in later trimesters. GLP-1 RAs are not recommended during pregnancy, according to the RCN.

Injections should be administered into clean skin with clean hands. Alcohol wipes are not recommended as alcohol causes the skin to contract and can make the injection more painful and harden the skin. The injection site must also be continually rotated to avoid lipohypertrophy.

Best practice involves dividing each area – the abdomen, thighs, back of the arms and buttocks – into smaller subsections and rotating injections between them on a weekly basis.


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When administering injections into the same subsection, the injection site should be moved in a clockwise or anti-clockwise direction – getting closer to the next subsection with each injection and making sure every injection is at least a finger's breadth away from the last one.

Needles must be disposed of in an approved healthcare waste sharps container immediately after every injection.

What are the signs of poor injection technique?

Repeatedly injecting into the same small area can cause lipohypertrophy – a thickened, rubbery area of fatty tissue that develops in the subcutaneous layer – which can result in poor drug absorption, says independent nurse consultant in diabetes Debbie Hicks, who co-authored the ITM guidance and is director of Trend Diabetes.

Lipohypertrophy is a common problem, Ms Hicks says, adding that research suggests it affects about 50% of patients who inject insulin. 'Lipohypertrophy can be avoided by using a good rotation system, a new needle every time and using the right length of needle,' she adds.

Ms Hicks advises nurses to review patients' injection sites for signs of lipohypertrophy annually, using water-soluble gel and fingertip palpation. Additional checks should be performed if patients on insulin are having hypoglycaemic or hyperglycaemic episodes or if HbA1c levels are not lowered with GLP-1 RAs.

Patients should also be encouraged to check themselves for 'lumpy bumpy areas' in the shower or bath and be educated to ask for their injection sites to be checked, Ms Hicks says. Other issues may include bleeding and bruising at the injection site, notes the ITM guidance. There is no evidence this has a negative effect on blood glucose levels, but it could be a sign of poor self-injection technique. Patients should be advised to apply gentle pressure for a few minutes to stop the bleeding, but not to rub the area.

If nurses are concerned about poor self-injection technique, they should observe the patient assembling the pen, attaching the needle, dialling the dose, performing an 'air shot' and giving the injection themselves.

How can nurses ensure patients are psychologically ready for self-injection?

To mitigate fears over self-injection, Professor Smyth says she always shows patients the injector pens before they need to use them.

'Patients imagine a long needle. So showing them the pen and the 4mm sized needles and how small they are eliminates that fear. Once the needle goes through the skin, they realise it doesn't hurt like they thought it was going to,' she says.

Nurses can also use distraction therapies, stories, imagery or devices – including an injection port that means the skin is not punctured with every injection, according to ITM guidance.

What can nurses do to ensure safety when injecting patients?

According to the RCN's sharps safety guide, employers must provide nurses who administer diabetes injections with safety engineered needle devices to prevent needle stick injuries. They are also legally obliged to provide training, information and instruction 'when new technology such as safer needle devices or new procedures are introduced'.

'Before a nurse gives any injection, they should be shown how to give it,' Ms Hicks confirms. 'If you haven't had appropriate training for using safety engineered needle devices, they won't work.'

Not only can nurses injure themselves, they can also 'cause patient harm, because how do you know if the patient actually got the full dose of insulin?' she says. Nurses can check their competencies against the NHS competency framework for blood glucose monitoring and subcutaneous insulin administration.

Further information

East London NHS Foundation Trust (2022) Competency Framework and Workbook: Blood Glucose Monitoring and Subcutaneous Insulin Administration. **tinyurl.com/ELNHS-blood-glucose**

Frid A, Kreugal G, Grassi G et al (2016) New insulin delivery recommendations. Mayo Clinic Proceedings. 91, 9, 1231-1255. doi.org/10.1016/j.mayocp.2016.06.010

RCN (2022) Starting Injectable Treatments in Adults with Type 2 Diabetes. **tinyurl.com/RCN-injectable-treatments**

RCN (2023) Sharps Safety. **tinyurl.com/RCN-safe-sharps**

Trend Diabetes (2018) Injection Technique Matters – Best Practice in Diabetes Care. **tinyurl.com/TD-injection-technique**

How to improve inclusive care for transgender people

The steps you can take to tackle the health inequalities faced by trans people

By Kathy Oxtoby
health journalist

This is an abridged version of an article at **rcni.com/trans-inclusive-care**

There are more than 250,000 transgender people in the UK, according to data from the 2021 census, the first to collect information on gender identity. However, many trans and non-binary people are struggling to receive the healthcare they need.

A 2023 GP patient survey by the University of Cambridge found that trans and non-binary adults report more negative experiences of interpersonal communication and involvement in decision-making related to treatment, and lower levels of confidence or trust.

The National LGBT Survey by the government's Equalities Office in 2018 found that many of the 108,000 lesbian, gay, bisexual and transgender (LGBT) respondents found it difficult to access healthcare services, particularly gender identity clinics. The results showed that many had experienced inappropriate questioning from healthcare staff, while some felt their specific needs were ignored or not taken into account when accessing healthcare. The survey also found that 38% of respondents reported a negative experience of healthcare services because of their gender identity.

Senior clinical nurse specialist Laura Garner works as a lead nurse/non-medical prescriber at the Nottingham Centre for Transgender Health, which employs 13 nurses.

She says a lot of trans patients report negative experiences in healthcare and this deters them from attending healthcare settings, such as GP practices and emergency departments.

'This means they miss out on essential care and preventive care and treatment,' Ms Garner says.

Anxiety and depression

Long waiting lists for transgender health services can also negatively affect people's health and well-being, she says. Gender services care for people with gender incongruence. 'This is where an individual's gender identity doesn't align with the sex they were assigned at birth,' says Ms Garner.

Gender incongruence can be accompanied by gender dysphoria, a term the NHS defines as 'a sense of unease that a person may have because of a mismatch between their biological sex and their gender identity'.

This sense of unease or dissatisfaction may be so intense it can lead to depression and anxiety and have a harmful impact on daily life, states the NHS. Studies show transgender people are at increased risk for various negative mental health outcomes compared with people whose gender identity corresponds with the sex they were assigned at birth.

'If people do get someone's name or pronouns wrong, they should acknowledge this, apologise and then move on with the rest of the care'

Laura Garner, senior clinical nurse specialist and lead nurse/non-medical prescriber, Nottingham Centre for Transgender Health

'We know there are higher rates of anxiety and depression in transgender and gender diverse individuals, and higher rates of self-harm, suicidal thoughts and attempts,' says Ms Garner.

Transgender people are also at risk of social isolation.

'It can be a daily struggle for some people to go out,' says sexual health nurse Polly Zipperlen, who also works as a gender nurse specialist for Hywel Dda University Health Board, as part of a team that supports patients across west Wales.

She says they may worry about being misgendered, experience verbal and/or physical abuse and may be experiencing post-traumatic stress as a result of that abuse. This social isolation can also affect patients physically, with a lack of sunlight resulting in vitamin D deficiency, she says.

Trans and non-binary adults are also more likely than the general population to experience long-term health conditions, including dementia and learning disabilities, and to be autistic, research by the University of

Inclusive healthcare: communication tips

- **Clarify pronouns** Using wrong pronouns can be triggering, causing anxiety and frustration. Find out what the person prefers to be used
- **Don't repeatedly apologise if you use the wrong pronoun** Apologise, make a note of it and then move on
- **Encourage trans patients to talk** about their experiences – it helps improve understanding
- **Be a proactive listener** rather than asking lots of questions that may be irrelevant to the individual's healthcare

Source: Jay Thomas


John Houlihan

Cambridge has found. And transgender individuals are often overlooked when it comes to national cancer screening programmes.

When caring for any patient, nurses want to make them comfortable, and to have a good therapeutic relationship, says Ms Garner.

'There is a desire to "get it right" and provide appropriate care. But sometimes there are gaps in their knowledge,' she says, adding that healthcare staff are often worried about 'getting things wrong' when it comes to trans patients' names and pronouns.

Consistent communication

'If people do get someone's name or pronouns wrong, they should acknowledge this, apologise and then move on with the rest of the care,' she says. Nurses offering up their own pronouns, such as on identity badges or email sign-offs makes a real difference when caring for trans patients, as it lets them know they are in a safe space, she says.

As with any patient, healthcare professionals need to communicate consistently and in a manner appropriate to the individual, using non-judgemental language, says Ms Zipperlen.

Some patients with gender incongruence may also be neurodivergent. 'Care needs to be taken to engage with how they like to communicate, such as being aware they might not feel comfortable with direct eye contact,' says Ms Zipperlen.

Healthcare professionals need to be aware that trans patients 'may struggle when talking about certain parts of the body, and to be sensitive and respectful of this', says Ms Garner. She sees many trans men who struggle to say words such as 'breast' and 'periods', for example – 'for them it's a major source of dysphoria,' she says – and advises healthcare staff to be sensitive to this by asking individuals how they prefer to name their body parts and adapting their language accordingly.

Healthcare professionals should also be 'mindful' of trans patients' confidentiality to make sure they feel comfortable and safe, she says.

When providing care for trans patients, services themselves have room for improvement.

Healthcare staff can ask individuals how they prefer to name their body parts and adapt their language accordingly

Further information

NHS Wales (2023) First Gender Nurse Specialist Appointed. **tinyurl.com/NHSW-gender-nurse-specialist**

Public Health England (2019) PHE Screening: Addressing Inequalities in LGBT Cancer Screening Coverage. **tinyurl.com/PHE-lgbt-cancer-screening**

University of Cambridge (2023) GP Survey Reveals Health and Healthcare Inequalities of Trans and Non-Binary Adults. **tinyurl.com/UOC-research-trans-health**

Ms Garner says with preventive screening for example, individual's NHS numbers are linked to a gender marker given at birth that may not correspond to their health needs now.

'These systems aren't keeping up with what people need,' she says. And systems should also be updated to include people's preferred names, which may be different from their birth names.'

Education and training

Through education and training, nurses can also be better equipped to challenge discrimination, when they see it in their service or team.

'Nurses have a duty to advocate for all patients and challenge any discrimination they see or hear,' says Ms Garner. 'It's also important to note that discrimination doesn't necessarily have to be overt – it can be microaggressions that build up, affect people, and make them feel discriminated against.'

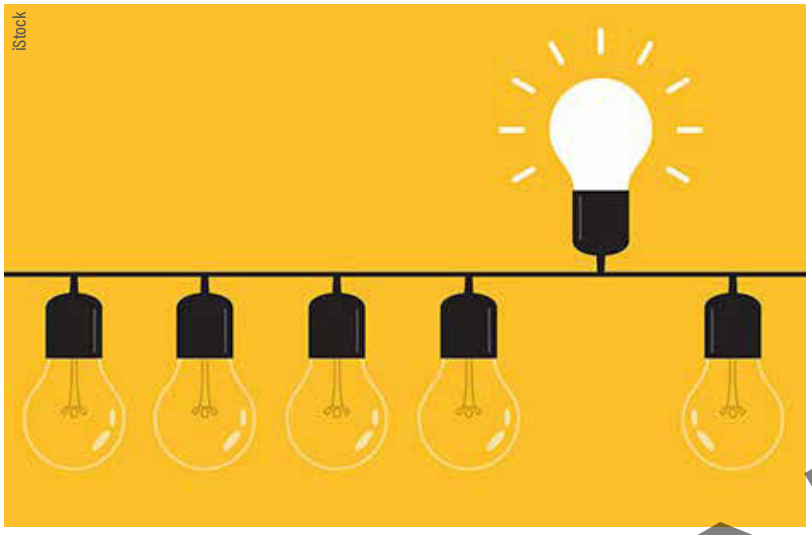
Nurses need to make clear that this discrimination 'isn't acceptable, and to establish where they need some education around this'. And any discrimination should be escalated in terms of education and performance management, she says.

Ms Garner would like nurses to reflect on their own practice in terms of creating an inclusive care environment.

'Nurses should be committed to being informed, compassionate and proactive in improving environments, resources, and staff knowledge,' she says. 'And really be an advocate for inclusivity and improving patient experience – because it does make such a difference.'

As with any patient, caring for a trans patient is about the basics of nursing – dignity, respect and privacy – says Ms Zipperlen. 'And we need to treat people with love and kindness.'

If you know someone we should interview or profile email ***clare.lomas@rcni.com****, call 020 8872 3161 or* 𝕏*@rcni_clarelomas*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How to make your vision of an innovation happen

We find out from nurses who have turned their innovative ideas into fully fledged businesses and social enterprises

By Yvonne Covell
health journalist

As an advanced nurse practitioner in a general practice in a small Yorkshire community, Helen O'Connell was aware that many people coming to the surgery were not in need of medical treatment.

'Whether they were hungry, lonely or, for example, struggling to cope with their teenager's mental health issues, I would say that for 20% of our patients, the need was more for what we would call social prescribing,' she says.

Ms O'Connell wanted to do something practical to help, so decided to set up a food bank. 'Talking to people who came to use the food bank made me realise people don't know where to go to seek help when something goes wrong in their lives – that's how I formed the idea for social prescribing website Treacle.me.'

Tips for getting your idea going

- Start writing things down
- Value your skills and experience
- Be bold
- Attend trade fairs and exhibitions
- Try not to worry about other people stealing your idea
- Surround yourself with people who believe in you
- Research training courses

This is an abridged version of an article at **rcni.com/nursing-innovation**

Treacle.me is a free and easy to use social prescribing directory that gathers together information about small local groups – as well as national help and support – into one site.

'I spoke to a web designer who lived in the village, who told me it would cost £1,000 to create the kind of website I was after,' says Ms O'Connell, a finalist in the community and general practice nursing category at the 2023 RCN Nursing Awards for creating Treacle.me.

Initial funding

'Some years ago, a patient had left the practice some money in their will, to be spent for the good of the community,' she says. 'At the next practice meeting, I said: "I've got an idea for a website, and could I have £1,000 from the fund for it?". Everyone at the meeting liked the idea, and the fact the work was going to someone in the village, and said yes. It was the spring of 2020, I had the £1,000 and I was off. I spent two to three months working with the web designer to create the site,' adds Ms O'Connell.

'There are so many small enterprises helping people in different ways, but they don't have the money to promote themselves, so they were very happy to be on the website. I wanted it to be super-easy to log on and find help.'

> **'It's a myth that you need to have lots of money to get started – it's better to do things bit by bit and use the resources that you have around you'**
> *Neomi Bennett, inventor of compression stocking fitting aid*

Other nurse-innovators funded initial startups themselves, as well as researching and applying for grants.

RCN Nurse of the Year 2020 Ana Waddington won the award for her work founding YourStance, an initiative in which healthcare professionals teach life-saving skills to young people at risk of serious violence in London.

She says finding funding was the biggest obstacle she had to overcome in the early days. 'For two years, I did everything with my own funding and donated items. I became exhausted by it,' says Ms Waddington.

'I then successfully applied for a grant from Barts Charity, which helped me to build the foundations of the organisation.'

Mental health nurse Matty Caine set up mental health support centre First Person Project in 2019.

'I worked as an independent nurse for a while to raise the money to put into practice my vision for a people-powered mental health centre in Liverpool, which I was later able to set up and fund as a social enterprise,' he says.

'I had lots of ideas, straight from when I was at university, but I was always told things couldn't be done a different way,' says Mr Caine.

'It was only when I'd gained more experience and reached a senior level that I had the confidence to innovate.'

'If you've spotted a gap, you know the context and you've thought through the pros and cons, don't let go of it'

Matty Cain, mental health nurse and founder of First Person Project

He says tenacity and determination are key, alongside a belief in yourself and your idea.

'Don't stop asking: "Are we as efficient as possible?". You have to have the courage to be disliked, to be misunderstood when you come up with ideas for doing things differently,' he says.

Ms O'Connell agrees: 'Don't let someone tell you it can't be done,' she says.

All the nurse entrepreneurs we spoke to say they used their transferable nursing skills when getting their initiatives off the ground – alongside learning along the way, both on-the-job and through taking courses.

'I had to learn the business administration side of things, often by trial and error,' says Ms O'Connell. 'I worked out we needed to be registered with Companies House as a community interest company with directors. I opened a social enterprise bank account with the bank that seemed the easiest to deal with at the time.

Step-by-step process

'I now employ three people part-time to keep the website up to date,' she says. 'That leaves me to do what I'm good at – going out to talk to people.'

Ms Waddington agrees that it is about knowing what your skills are, and then finding people who have skills to complement yours.

'I am not skilled at grant writing but my co-director is amazing at it and has experience of grant applications. She is focused on applying for funding, and is the reason we are surviving financially.'

For Ms O'Connell, expanding the reach of Treacle.me has been a step-by-step process. 'We are part of a GP super-partnership, who offered to pay me half a day a week to expand Treacle.me to a wider area,' she says.

'As time went on, I spotted some opportunities to advertise, even without a budget, to raise awareness.

'Since getting Treacle.me up and running, it has been a continuing journey of facing new challenges and trying to get the idea taken up at a larger level. I had a significant two-year NHS investment to cover the Bradford District and Craven area, but that is due to run out in April this year, so our future is uncertain.

'The most rewarding thing I've experienced is the positive feedback from so many different types of people – social workers, teachers, job centre staff – all of whom come into contact with people who need help and use the website.

'I also have such positive messages from the public – that's what I live and breathe for.'

Further information

First Person Project. **www.firstpersonprojectcic.co.uk**

Florence Nightingale Foundation. **www.florence-nightingale-foundation.org.uk**

Treacle Me. **www.treacle.me**

YourStance. **www.yourstance.org**

Go for it: my advice to anyone with an idea to develop

Neomi Bennett (pictured) won the innovations category at the 2019 RCN Nursing Awards for inventing Neo-Slip, designed to help people put on compression stockings.

'I came up with the idea when I was a nursing student on placement and saw patients struggling to put on their compression stockings,' says Ms Bennett.

'I knew these stockings were potentially life-saving for them, but they just couldn't manage them. I remember visiting one couple in their home and they were using the stockings as curtain ties because they couldn't get them on.

Do things bit by bit

'I was studying at Kingston University at the time, and my lecturers were really enthusiastic about the idea, which helped.

'I even had business meetings at the university as I was getting the product off the ground.

'It's a myth that you need to have lots of money to get started – it's better to do things bit by bit and use the resources that you have around you.

'I also had some financial support from the Florence Nightingale Foundation.

Getting in to the NHS supply chain

'There were lots of obstacles along the way, and it took a lot of determination to get the product out to patients.

Getting into the NHS supply chain is difficult – they do a huge amount of due diligence, so that everyone can have confidence in the products the NHS use.

'Feedback from real patients was invaluable. I remember when we were trailing an early design, one gentleman said: "Neomi, we need to have a handle on the tip – it gets stuck". I went back to the manufacturer and we added a loop at the top of the Neo-Slip.

'Our hope is to scale up in the future. We have just won a large-scale NHS contract and plan to increase our promotional efforts.

'My advice to nurses who are thinking of starting something would definitely be to go for it. There are so many opportunities for innovating.'

Why you should read this article:

- To be aware that suboptimal uptake of cervical screening is an important public health challenge
- To recognise the barriers that prevent some women from attending cervical screening
- To understand how general practice nurses can use Beattie's model of health promotion to encourage women to attend cervical screening

Overcoming barriers to cervical screening using Beattie's model of health promotion

Edel Harley and Jacqueline Harley

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Abstract

Cervical cancer is one of the most common types of cancer diagnosed in women in developed nations. Routine cervical screening can lower the risk of cervical cancer and its associated morbidity and mortality. Early diagnosis through screening provides the optimal opportunity for cancer prevention and treatment. Despite the widespread promotion of the benefits of cervical screening, there remain several barriers that prevent women from attending for screening. This article identifies the demographic, socioeconomic, emotional and practical barriers that can hinder the uptake of cervical screening. By drawing on health promotion theory, specifically the application of Beattie's model of health promotion, it details various strategies that general practice nurses can use to promote cervical screening uptake.

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Keywords

cancer, cervical cancer, clinical, community, general practice, health promotion, practice nurses, public health

CERVICAL CANCER is one of the most common cancers diagnosed in women in developed nations. Worldwide, cervical cancer is the fourth most common cancer in women, with an estimated 570,000 women diagnosed and 311,000 reported deaths in 2018 (World Health Organization (WHO) 2023a). In the UK, it is the 14th most common cancer in women, with statistics from 2017-2019 indicating that 853 women died from the disease during this period (Cancer Research UK 2023). Reed et al (2021) estimated that one in 142 women is diagnosed with cervical cancer each year, with sexually active women aged between 30 years and 45 years being the main group affected. Its incidence is reported to be highest among those living in socially deprived areas (Douglas et al 2016).

Screening is a fundamental strategy used in cancer detection and management. Screening is defined as a process that enables the detection of physical conditions before symptoms appear, which promotes early diagnosis and subsequent treatment (Nash 2022). Routine screening can reduce the risk of cervical cancer and associated mortality (Peirson et al 2013, Landy et al 2016). Since the implementation of formal screening programmes more than 30 years ago, the incidence and mortality rates for cervical cancer in high-income nations have more than halved, with further reductions predicted as a result of the human papillomavirus (HPV) vaccination programme (Cohen et al 2019).

The US National Cancer Institute (2023) stated that screening tests can reduce the

incidence of cancer deaths by detecting precancerous lesions or by diagnosing cancer at a treatable stage. As a result, most developed countries advocate screening for cervical cancer at specific ages and points in a woman's life. All women in the UK aged between 25 years and 64 years are invited for cervical screening every three to five years, depending on their geographical location and age (Table 1) (Cancer Research UK 2022). Between 2021 and 2022, 3.5 million women aged between 25 years and 64 years were screened for cervical cancer in England (NHS England 2023).

Barriers to cervical screening uptake

Despite the availability of screening, the UK's morbidity and mortality rate from cervical cancer remains high, with approximately 3,200 new cases annually (Cancer Research UK 2023). The lack of early detection that results from women not attending for screening is often cited as a factor that affects the ongoing prevalence of cervical cancer (Young et al 2018, Westwood and Lavery 2021). Since attendance at cervical screening is not compulsory among the eligible groups in the UK, engagement in this can vary. Despite improvements in screening availability, it is estimated that 4.6 million women are still unscreened or behind with cervical screening in England (NHS England 2023).

The critical importance of routine cervical screening has resulted in many studies seeking to determine the reasons that impede its uptake. Several barriers have been identified, many of which are complex and to some extent overlapping. These are classified as demographic, socioeconomic, emotional and practical barriers (Box 1).

Demographic barriers

Several studies have indicated an association between cervical screening uptake and demographics. Evidence shows that engagement with cervical screening can be influenced by age, ethnicity and relationship status (Marlow et al 2017, Judah et al 2022, King and Busolo 2022).

Drawing on survey data, Marlow et al (2017) examined the prevalence of cervical cancer screening non-participation among 793 women in the UK. Results indicated that age was significantly correlated with non-participation rates. Women aged 34 years and over were less likely to be unaware of screening compared with those aged between 25 years and 34 years. In addition, compared with those in the youngest group, older women were found to have lower screening intention rates with those aged between 55 years and 64 years more likely to have decided not to be screened.

In a Canadian literature review, non-participation in cervical screening and suboptimal uptake rates were prevalent among women from ethnic and cultural minority communities, including Hispanic and Vietnamese-Asian women (King and Busolo 2022). Compared with heterosexual women, those from sexual minorities (defined as women having differing sexual identities, orientations or practices than most of society) were screened less often (King and Busolo 2022).

Data from a UK population survey of 500 women that examined cervical screening beliefs indicated that higher screening uptake rates were reported among women who were married or in a civil partnership. In contrast, rates were lower among single women (Judah et al 2022).

Socioeconomic barriers

Socioeconomic status can have a significant effect on cervical screening uptake. A systematic review by Murfin et al (2020) showed a positive association between education and income with uptake of cervical screening and HPV vaccination. The small-scale review, which included ten peer-reviewed, cross-sectional studies published between 2006 and 2018, explored the influence of socioeconomic factors, namely education, income and occupation among eligible women and girls in the UK, US, Spain, Germany and Norway. Results indicated a significant positive relationship between higher levels of education and preventive strategies compared with lower education levels. Less educated mothers were found to be not as likely to initiate the vaccine for their daughters. Despite only being measured in two studies, occupation was not found to be statistically significant. Nevertheless, higher-income households were more likely to participate in screening and vaccination (Murfin et al 2020).

In a meta-analytical review of 39 qualitative studies published between 1988 and 2015,

Key points

- Cervical cancer is the 14th most common cancer in women nationwide and the fourth most common cancer in women worldwide
- Various demographic, socioeconomic, emotional and practical barriers can affect cervical screening uptake
- Cervical screening uptake can be improved through strategies that include health persuasion techniques, legislative action, personal counselling and community development
- General practice nurses can promote cervical screening uptake by working collaboratively with women to improve their knowledge and capabilities, providing information and increasing public awareness

Table 1. NHS cervical screening intervals by age and country in the UK

Age (years)	England	Scotland	Wales	Northern Ireland
25-49	Every three years	Every five years	Every five years	Every three years
50-64	Every five years			Every five years
>65	Available on request or if at least one previous test was abnormal			

(Cancer Research UK 2022)

Online archive
For related information, visit **primaryhealthcare.com** and search using the keywords

Chorley et al (2017) observed that for most women, their decision to participate in cervical screening was related to beliefs about its relevance and value. The importance of screening was influenced by the women's attitudes to the causes of cervical cancer, their life stage, current health status and family history. When assessing the value of screening and the consequences of cervical cancer, three common perspectives were held by women: those who believed that it had value and enabled cervical cancer to be diagnosed early; those who viewed cervical screening as unimportant; and those who were unsure and lacked an opinion about its value. The latter were predominantly from black, Asian and minority ethnic backgrounds or lower socioeconomic groups (Chorley et al 2017).

Emotional barriers

Various emotional barriers can influence women's participation in cervical screening. Cervical screening procedures are intimate, with many women feeling embarrassed and vulnerable (Bennett et al 2018). In a small-scale quantitative survey of UK women's attitudes to cervical screening, embarrassment was cited as one of the most common reasons preventing attendance. Women's embarrassment related to the procedure as a whole, the appearance of their bodies and exposing their private body parts for examination (Wilding et al 2020).

Other negative emotions such as anxiety are also challenges to cervical screening uptake. In a systematic review which explored the barriers and facilitators to attendance for cervical screening in European Union member states, Stuart and D'Lima (2022) found that several women described the experience as degrading, violating and recalled feelings of helplessness during the procedure.

Fear is a significant emotional barrier that prevents women from attending screening and can include fear of pain or a visceral fear of abnormal screening results. A thematic analysis by Adunlin et al (2019) reviewed 180 studies published between 1990 and 2016 to investigate breast and cervical screening uptake among US immigrants. The analysis identified that fear of screening was multifactorial, but found that a fear of discomfort from testing and the diagnostic outcome were the main reasons that impeded uptake (Adunlin et al 2019).

Finally, screening uptake can be affected by previous experiences of trauma, such as sexual abuse, sexual assault or rape (Cadman et al 2012). Madden et al (2022) suggested that women who have experienced sexual assault are less likely to attend for screening due to its parallels with the assault, including perceived loss of control and power disparity. The intimacy and physical sensations involved in the examination can be particularly stressful for women who have been sexually assaulted.

Box 1. Summary of the main barriers to cervical screening uptake

Demographic barriers
- Aged between 25 years and 34 years
- Ethnic and cultural minority communities
- Sexual minority groups
- Single relationship status

Socioeconomic barriers
- Lower socioeconomic status
- Basic levels of education
- Lower income
- Migrant status

Emotional barriers
- Fear
- Embarrassment
- Vulnerability
- Anxiety
- Trauma

Practical barriers
- Lack of time
- Competing commitments
- Challenges accessing appointments
- Inconvenient appointment times

(Cadman et al 2012, Chorley et al 2017, Hope et al 2017, Marlow et al 2017, Bennett et al 2018, Adunlin et al 2019, Murfin et al 2020, Wilding et al 2020, O'Connor et al 2021, King and Busolo 2022, Judah et al 2022, Madden et al 2022, Stuart and D'Lima 2022)

Practical barriers

Practical barriers that can deter cervical screening uptake include lack of time, competing commitments and challenges accessing appointments and inconvenient appointment times (Wilding et al 2020). Women are less likely to attend screening when the inconvenience of a lengthy procedure requires them to take time away from other responsibilities. Hope et al (2017) recommended that every effort must be made to encourage women to participate in screening by improving access to appointments and increasing flexibility so that they can schedule appointments at a time that suits them. Providing women with the ability to choose who will perform the procedure – that is, a GP or general practice nurse – should also be considered when attempting to increase uptake (O'Connor et al 2021).

Role of the general practice nurse in promoting cervical screening

Patients' trust in healthcare professionals is central to effective clinical practice. The Code: Professional Standards of Practice and

Behaviour for Nurses, Midwives and Nursing Associates (Nursing and Midwifery Council 2018) states that the promotion of trust is at the core of the profession and that registrants must act in the best interests of people at all times. Trust is paramount to the nurse-patient relationship and central to person-centred care and treatment outcomes (Pratt et al 2021). A meta-analysis by Birkhäuer et al (2017) explored the interplay between trust and health outcomes, finding that higher levels of patient trust in healthcare professionals were positively correlated with increased uptake of healthy behaviours and patient satisfaction. When patients had higher trust in healthcare professionals, they reported more beneficial health behaviours, fewer symptoms, a higher quality of life and higher treatment satisfaction (Birkhäuer et al 2017). This reinforces the value of the nurse-patient relationship in effective health-promotion practice.

In the primary care setting, the general practice nurse (GPN) is fundamental in driving forward cancer screening programmes. The GPN functions autonomously as part of a multidisciplinary team that includes GPs and pharmacists to provide care and treatment across a patient's life trajectory (Clifford et al 2021). According to Butler (2022), the role of the GPN is multifaceted, highly skilled and critical for ensuring the smooth operation of general practice. The GPN is responsible for improving health outcomes, providing clinical expertise, promoting patient self-management and working collaboratively with other health and social care professionals. The main responsibilities and capabilities expected of the GPN are shown in Table 2.

Women's health promotion and disease management is one of the main responsibilities of the GPN (Holmes et al 2014). The GPN is an important resource for promoting and facilitating the uptake of HPV testing, HPV vaccination and cervical or cytological screening through the provision of accurate, accessible and up-to-date information (Kessler 2017), counselling, direction and providing reminders (Li et al 2020). In this way, the interventions undertaken by the GPN can increase public knowledge and awareness of cervical cancer, with Patel et al (2017) suggesting that this could improve screening and HPV vaccination uptake rates, determine early diagnosis and contribute to reducing morbidity and mortality.

Beattie's model of health promotion

The WHO (1986) Ottawa Charter defined health promotion as 'the process of enabling people to increase control over, and to improve, their health'. Taking a five-pronged approach, the charter proposed that health promotion entails: building healthy public policy; creating supportive environments; strengthening community actions; developing personal skills; and reorienting health services (WHO 1986). Health promotion is achieved by working in partnership with individuals and groups to protect and promote their health, by mediating with communities and by tailoring individual and social actions to support health plans and objectives (WHO 2023b).

Health promotion models are used as frameworks to guide and encourage best practice in healthcare, to develop strategies of care and to engage healthcare professionals, scientists, governments and the public in health promotion and ill-health prevention with regards to cancer prevention. Tannahill (2008) proposed that health promotion should focus on multiple aspects rather than just one aspect. Beattie's (1982, 1991) model of health promotion supports this perspective. The relational nature of Beattie's model offers a valuable framework for examining the current and potential contributions of primary care providers in relation to cancer prevention, which can be applied to the nurse's role in cancer prevention (McIlfatrick et al 2014).

Beattie's (1982, 1991) model (Figure 1) acknowledges the complexities of health promotion by dividing it into four quadrants of activity:

» Health persuasion techniques.

Table 2. Main responsibilities and capabilities of the general practice nurse

Domain	Capabilities
Personalised collaborative working and health promotion	» Communication and consultation skills » Practising holistically to personalise care and promote public and personal health » Working with colleagues and in teams » Maintaining an ethical approach and fitness to practice
Assessment, investigations and diagnosis	» Information gathering and interpretation » Clinical examination and procedural skills » Making a diagnosis
Condition management and treatment	» Clinical management » Managing medical complexity » Prescribing treatment » Administering medicines » Pharmacotherapy
Leadership and management, education and research	» Leadership, management and organisation » Education and development » Research and evidence-based practice » Strategic management

(Adapted from Health Education England et al 2021)

» Legislative action for health.
» Personal counselling for health.
» Community development for health.

Using either an authoritative 'top-down' expert approach or a negotiated 'bottom-up' person-centred approach, Beattie's (1982, 1991) model characterises health-related actions as occurring either at the individual or collective level (Figure 1).

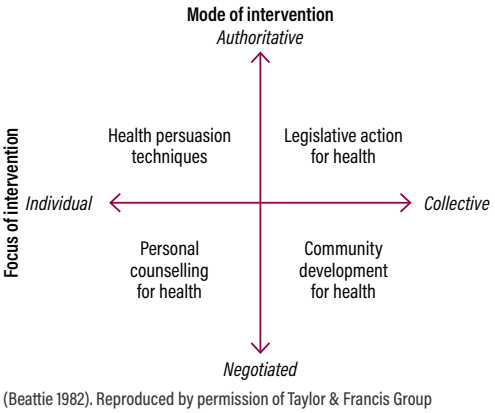
By adopting Beattie's (1982, 1991) model – in particular the health persuasion techniques and personal counselling quadrants – the GPN can overcome some of the barriers that prevent cervical screening uptake and can support cervical screening health promotion activities. Table 3 shows how Beattie's model can be applied to cervical screening uptake interventions.

Health persuasion techniques

The health persuasion techniques quadrant of Beattie's (1982, 1991) model entails targeting individuals led by healthcare professionals. In general practice health persuasion techniques can include educational and invitational interventions, such as the provision of screening information leaflets that raise awareness of the importance and value of screening. The first steps to an early cancer diagnosis are being aware of symptoms and seeking medical attention (National Institute for Health and Care Excellence 2021).

Another technique that the GPN can adopt to prompt screening uptake is to send personalised invitation letters and messages inviting women to attend for screening. In a Cochrane review that examined the interventions targeted at women to promote cervical screening uptake, invitations to attend screening were one of the most effective methods used to increase participation rates (Staley et al 2021). Personalised invitations appeared to be more successful than standard invitation letters, while those with a fixed appointment to attend, rather than an open invitation, had a greater success rate.

Figure 1. Beattie's model of health promotion



(Beattie 1982). Reproduced by permission of Taylor & Francis Group

Legislative action for health

The legislative action for health quadrant of Beattie's (1982, 1991) model is exercised through a top-down approach by governments and healthcare professionals (Naidoo and Wills 2016). Strategies and interventions aimed at increasing the adoption of health promotion policies and guidelines are established, together with advice and recommendations that aim to protect communities. Due to their position as trusted professionals and their presence at the forefront of communities (Morris et al 2022), embedding the GPN into local and national strategies for health education and information dissemination can increase the reach and effect of communication about the significance of cervical screening uptake.

The unique position of the GPN means that they can be effective in driving forward national campaigns for cervical screening through understanding uptake patterns, taking advantage of health promotion opportunities and delivering a skilled, compassionate screening service (Pearce 2021). Legislative action is successful when it empowers women to take control over their health and well-being, encourages them to attend for screening, provides reassurance and supports them to overcome the barriers that deter their attendance.

Personal counselling for health

Personal counselling for health can be achieved by the GPN supporting women to develop and achieve their health goals. Through negotiation, the GPN adopts a personal collaborative approach that seeks to empower women, rather than an expert approach that tells them how to change their health-related behaviours. Personal counselling is typically undertaken on a one-to-one basis and focuses on the woman's individual requirements. To further increase symptom awareness and understanding about cancer, its perceived threat and the importance of early diagnosis, nurse-led counselling and education supports the delivery of information relating to cancer symptoms, risk factors and screening techniques (Li et al 2020).

The GPN serves as a mediator to discuss and negotiate the needs of women, which ultimately informs the decision-making process and helps maximise their health and well-being. The relationship between the nurse and patient can be enhanced in an environment where discussions take place, information

is exchanged, potential barriers to screening are identified and questions are answered. By adopting a person-centred approach, as described by McCormack and McCance (2017), the GPN can raise awareness of symptoms, promote knowledge about cervical cancer and encourage early detection. This knowledge could encourage timely health-seeking behaviour, access to cervical screening services and early cancer diagnosis.

Community development for health

The community development for health quadrant of Beattie's (1982, 1991) model is similar to personal counselling. While it is negotiated and seeks to improve knowledge, awareness and capabilities, instead of the emphasis being on individuals this approach targets groups and communities. The goal is to improve health outcomes by bringing together groups of people who share similar health concerns or have had comparable experiences. Through a cluster of interventions, the community development approach enables community stakeholders – such as primary care representatives, community cancer champions and public health engagement leaders – to 'find a voice' and drive forward processes and action plans that campaign for changes in health circumstances. Examples of community representatives of cervical cancer in the UK include charitable organisations such as Cancer Research UK, Jo's Cervical Cancer Trust and Marie Curie. Additionally, high-profile projects that adopt the community development approach include cervical cancer prevention campaigns. While these groups, organisations and campaigns may each have their own purpose, collectively they share the common goal of promoting cancer awareness, increasing participation in screening and saving lives.

Traditionally, general practice teams are likely to focus on adopting health persuasion and personal counselling approaches that are based on working with individuals and families (Hogg and Hanley 2008). However, the GPN can still progress community development opportunities. The coronavirus disease 2019 (COVID-19) pandemic demonstrated the value of having efficient, sustainable and accountable public, private and third sector health and social care systems that are supported by a sufficient supply of nurses (Royal College of Nursing 2023). The role of the GPN in community development can increase the reach and effect of messages about the importance of cervical screening uptake by identifying potential groups, developing and sustaining community partnerships, collaborating with community agencies and cascading information through these channels (Elliott et al 2014). Moreover, given their expertise, the GPN can identify screening needs as well as communicate and disseminate health screening-related information with community partners to reach disadvantaged communities, such as those with lower socioeconomic status and migrants.

Conclusion

The uptake of routine cervical screening continues to be a public health issue. Despite widespread evidence supporting the benefits of cervical screening and early detection of cancer, various demographic, socioeconomic, emotional and practical barriers remain that may hinder women's participation in screening programmes. Overcoming these barriers is instrumental to the success of cervical screening programmes.

Table 3. Applying Beattie's model of health promotion to cervical screening uptake interventions

Health promotion quadrant	Objective	Focus of intervention	Type of intervention
Health persuasion techniques	To protect women by reducing the risk of cervical cancer and encourage a healthy lifestyle including screening uptake	Interventions are directed at women, and led by professionals including the general practice nurse (GPN)	» Provision of expert advice » Provision of timely, up-to-date and evidence-based cervical cancer information
Legislative action for health	To safeguard communities by facilitating access to cervical screening programmes	Interventions are directed at communities, and led by professionals including the GPN	» Policy and strategy development and implementation » Regional and national monitoring of cervical screening uptake
Personal counselling for health	To empower women to take control of their health by accessing cervical screening	Interventions are women-led, and facilitated by professionals including the GPN	» Counselling on a one-to-one basis » Focused on personal development, including confidence and self-belief » Ensuring privacy and dignity » Provision of education » Provision of accessible screening times and locations
Community development for health	To empower community groups to recognise what they have in common and how cervical screening, directly and/or indirectly, influences their lives	Interventions are community-led, and facilitated by professionals including the GPN	» Provision of knowledge and education to enhance group empowerment and development » Focused on group development including giving community groups a voice

(Adapted from Naidoo and Wills 2016)

Nurses working in general practice are in a prime position to raise cervical cancer awareness. GPNs have opportunities to educate and encourage women to change their health-related behaviours. The application of Beattie's (1982, 1991) model of health promotion is a useful framework that can guide health-related interventions specific for overcoming barriers to cervical screening uptake. This can be achieved through a bottom-up negotiated approach that incorporates personal counselling and community development interventions, together with a top-down authoritative approach that includes health persuasion and legislative actions.

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PEER-REVIEWED

Why you should read this article:

- To explore the use and uptake of video group consultations (VGCs) by UK general practice staff during the COVID-19 pandemic
- To enhance your awareness of the potential use of VGCs in your clinical setting
- To recognise that the use of VGCs is dependent on funding, organisational support, general practice priorities and understanding of the model

Use of video group consultations by general practice staff during the COVID-19 pandemic

Eleanor Scott, Laura Swaithes, Gwenllian Wynne-Jones et al

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Abstract

Background: Video group consultations (VGCs) are one approach to delivering care using a virtual platform for a group of patients with the same or similar health conditions. However, little is known about the use and uptake of VGCs in the UK.

Aim: To describe the use and uptake of VGCs by UK general practice staff during the coronavirus disease 2019 pandemic.

Method: A cross-sectional design using an online questionnaire. Data analysis adopted the principles of content analysis and demographic data were analysed descriptively.

Findings: A total of 36 participants completed the questionnaire across nine UK regions and representing 36 general practices. A lack of standardisation regarding the use and uptake of VGCs across UK general practices was identified, hindering implementation, scale-up and delivery.

Conclusion: While the VGC model looks promising, further research is needed to demonstrate its use and uptake, developing a more robust evidence base for implementation.

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Keywords

community, coronavirus, Covid-19, general practice, practice nurses, primary care, research, research methods, surveys

Background

Over the past decade, the NHS and primary care general practice have experienced several challenges. Policies such as the Five Year Forward View (NHS England (NHSE) 2014) and General Practice Forward View (NHSE 2016) proposed new and more efficient models of integrative and collaborative care, meaning that practices have greater control over funding and service design (NHSE 2016). The NHS Long Term Plan (NHSE 2019) attempted to further establish novel ways of working with the development of primary care networks and integrated care systems, which have combined services and expanded primary care roles to increase accessibility for local populations (NHSE 2019).

These newer ways of working extended to the use of group consultations in general practice, meaning that clinicians can consult with multiple patients with the same or similar medical condition at once (Ramdas and Darzi 2017). Group consultations are effective in delivering patient education and health promotion (Wadsworth et al 2019, Papoutsi et al 2022). Although this approach has been used in primary care, there is limited evidence to prove its efficacy in practice or address the growing

challenges with increased populations, backlog and disease severity (National Institute for Health and Care Research 2016).

In 2020, general practice services had to restructure due to the coronavirus disease 2019 (COVID-19) pandemic stimulating a digital shift. COVID-19 had a significant effect on the ways in which healthcare services were run, with the need to reduce footfall in general practice settings (Greenhalgh et al 2020). While digital transformations had been slow over the previous 20 years, the NHS had to quickly adopt a digital approach to care (Birrell et al 2020, Greenhalgh et al 2020). Face-to-face consultations were reduced to stop the transmission of COVID-19, and alternative methods of care delivery were used, including online consultations by video or telephone.

The initiation of video group consultations (VGCs) was one response to the COVID-19 pandemic and a potential way of future-proofing primary care services from further challenges (Papoutsi and Shaw 2021). However, due to the novelty of the approach, many practices were reluctant to test or adopt VGCs, with a clear disparity in engagement (Clarke et al 2020). Understanding why and how some practices choose to offer VGCs will generate the development of a robust evidence base and support understanding of implementation of VGCs in practice.

Video group consultations

VGCs, also known as virtual group clinics or video-shared medical appointments, are an alternative model of consultation, offering clinicians a way to deliver the same standard of patient care using a virtual environment and a group consultation model (Birrell et al 2020). VGCs differ from face-to-face group consultations as they are conducted using a virtual platform.

VGCs are still relatively new in the UK and demonstrate a small evidence base globally due to their novelty (Papoutsi and Shaw 2021). During the COVID-19 pandemic, training providers rapidly initiated VGCs training for staff. However, the implementation, delivery and effect of VGCs have not yet been fully evaluated because of the enforced and increased pace of newer ways of working.

Aim

To describe the use and uptake of VGCs by UK general practice staff during the COVID-19 pandemic. The associated study question was: 'What is the use and uptake of VGCs by healthcare professionals in UK primary care general practice?'

Method

Design

A cross-sectional design using an online questionnaire was adopted. Cross-sectional studies follow a transverse design, where a sample of participants are analysed at a specific point in time (Peat 2002). A questionnaire also captures a variety of data using closed and open-ended questions, producing both descriptive statistics and qualitative data.

The STROBE (Strengthening the Reporting of Observational Studies in Epidemiology) checklist (von Elm et al 2007) was used to ensure accurate and comprehensible reporting, to facilitate both critical appraisal and interpretation of results.

Sample

Participants were selected based on their exposure status, with the researchers targeting a population relevant to the study question (Wang and Cheng 2020); that is all clinical and non-clinical staff who used or had previously used VGCs in their primary care general practice. Any clinical and non-clinical participants who were not working in primary care general practice were excluded.

Three sampling methods, purposive, random and snowball, were used to identify a broad range of individuals and practices using VGCs, varying geographical locations and professions (Roy et al 2020).

Purposive sampling was achieved by using the FutureNHS (future.nhs.uk) collaboration platform to identify individuals who had been involved in routine VGCs and met the eligibility requirements for the study. Purposive sampling was used to ensure that the collection of data was relevant and pertinent to those using VGCs in general practice.

Random sampling was achieved using social media platforms (Facebook and Twitter) with the ability to reach a large audience through virtual networks. Participants were able to include themselves in the study if they met the eligibility requirements determined by a tick-box system. Once this was completed, electronic consent to take part in the study was obtained and participants were able to access the questionnaire. Without confirming eligibility and gaining consent, the questionnaire was unable to be completed.

Snowball sampling was used to capture a larger audience through professional networks.

Sampling continued until the period of recruitment ended and no further participants were identified.

Data collection tool

An initial questionnaire was devised and piloted by a stakeholder advisory group and informed by systematic scoping searches. This informed the development of the final questionnaire. To ensure the questions in the final questionnaire were relevant not only to the study topic but also to the participants, questions were tailored dependent on the answers previously provided in the initial pilot questionnaire. A mixture of quantitative and qualitative questions was asked.

The final questionnaire was available to access for two months (November 2021–January 2022) through Microsoft Forms, an online survey creator. The questionnaire consisted of six broad areas:

- Participant demographics (quantitative).
- Participant professional roles (qualitative and/or quantitative).
- Practice demographics (quantitative).
- The use of VGCs (qualitative and/or quantitative).
- Enablers and barriers to the use of VGCs (qualitative and/or quantitative).
- Training requirements (qualitative and/or quantitative).

Data analysis

Data analysis was conducted by the first author (ES), supported by the study team (AF, LS, GW-J). All data were analysed anonymously.

Inductive content analysis was used to analyse qualitative data, by analysing manifest and descriptive content to develop categories, resulting in themes (Elo and Kyngäs 2008, Graneheim et al 2017, Lindgren et al 2020).

Demographic data were analysed descriptively and used in combination with the themes to provide a context for interpretation and discussion.

Ethical considerations

Ethical approval was obtained from the research ethics committee, faculty of medicine and health sciences at Keele University (ref 2022-0312-315). All data were anonymised to ensure confidentiality.

Findings

Participant and practice demographics

The total number of questionnaires distributed was unknown due to the sampling methods used and the anonymity of the data and analysis. However, due to the limited evidence on VGCs, it was considered valuable to analyse the responses that were received and therefore the response rate was not a primary consideration. After exclusions and incomplete questionnaires (n=2), 36 participants, representing 36 general practices, completed the questionnaire across nine regions of the UK. Table 1 outlines the participants and

Table 1. Participant and practice demographics (n=36)

Variable	Number
Gender	
Female	28
Male	7
Prefer not to say	1
Age group (years)	
18-24	1
25-34	5
35-44	12
45-54	10
55-64	8
Professional role	
GP	16
GPN	5
ACP/ANP	7
AHP	2
Practice manager	1
Social prescriber	3
Other roles (non-clinical)	
Health coach	1
Digital coordinator	1
Practice location (region)	
North east England	2
North west England	6
Yorkshire and the Humber	3
West Midlands	5
East of England	3
London	7
South east England	7
South west England	2
Scotland	1
Practice size (thousands)	
0-2,000	1
2,000-5,000	4
5,000-10,000	4
10,000-15,000	12
15,000-20,000	7
20,000-25,000	3
>25,000	5

GPN=general practice nurse; ACP=advanced clinical practitioner; ANP=advanced nurse practitioner; AHP=allied health professional

Implications for practice

- The novelty of video group consultations (VGCs) across primary care general practice means that there is a need to address their value in theory and practice
- Studying the use and uptake of VGCs can help to provide an insight into how VGCs are defined, delivered and described
- Future research will help to develop a greater understanding of the use and uptake of VGCs, aiding more coherent delivery and implementation of this model across the UK

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practice demographics. Each participant was assigned a number which is used in this article alongside their job type when using direct quotes below.

Themes

Four themes were identified from the questionnaire data:

- Definition and use of VGCs.
- Staff and patient motivations for using VGCs.
- Workload and practice priorities.
- Using pre-existing and new networks to sustain VGCs.

Definition and use of video group consultations

Understanding how VGCs were defined was central to the use of the approach, determining its purpose and scope in practice. The terms 'video group consultation' (*n*=22) or 'video group clinic' (*n*=12) were reported most by the participants. Educational therapy (*n*=5), support group (*n*=6) and group therapy (*n*=1) were also reported as features of VGCs, yet also became a defining characteristic for some participants. Shared medical appointment (*n*=1) was not chosen as a widely used definition for VGCs.

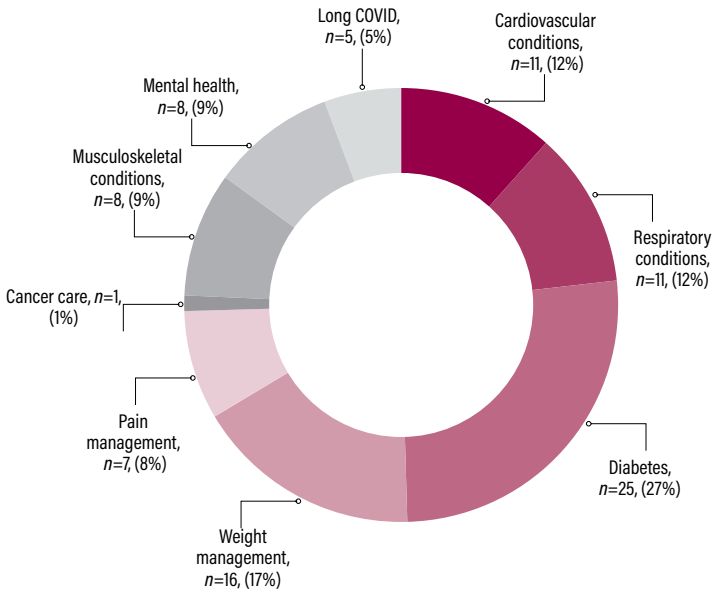
Participants were asked, 'How would you define how you use VGCs in your practice?' The most frequently reported definitions of use was for long-term condition reviews (*n*=25), detailing several conditions, including diabetes (*n*=4) and cancer (*n*=1). Terms such as 'management' (*n*=2) and 'chronic disease' (*n*=1) were also identified in relation to long-term condition reviews.

The principles of 'group support' and 'health promotion' were also used to define the use of VGCs. Group support included 'providing discussion' (P19_GP), 'interactive questioning' (P19_GP), 'another method of connecting' (P15_GP) and 'experience sharing' (P34_GP). One participant defined a VGC as 'an online group that enables discussion among a group of patients with similar health issues' (P14_general practice nurse (GPN)). Health promotion included goal setting (*n*=1), coaching (*n*=2), promoting health (*n*=1) and providing information (*n*=9). Lifestyle medicine (*n*=8) was also viewed as an aspect of health promotion as a means of lifestyle advice (*n*=4), for example for patients with rheumatoid arthritis (*n*=1), weight management (*n*=1), cognitive behavioural therapy in menopause groups (*n*=1), postnatal care (*n*=1) and mental health (*n*=1). One participant defined VCGs as 'providing information on a dietary approach to diabetes plus supporting patients if they chose to follow that plan in de-medicating' (P31_GP).

The scope and role of VGCs extended to the management of conditions, mostly identified as type 1 and type 2 diabetes (*n*=25, 27%) and weight management (*n*=16, 17%) (Figure 1). However, support for the use of VGCs in various patient groups was usually dependent on organisational and practice support in that 'practice is keen to support cohorts such as those with pre-diabetes, mental health so we have explored using VGCs to offer targeted support to these individuals' (P30_social prescriber).

Participants were asked, 'Do you manage any other conditions through VGCs?' Two main categories were identified related to health prevention (*n*=10) or health promotion (*n*=2). Health prevention included conditions such as diabetes, including pre-diabetes and newly diagnosed diabetes (*n*=3); men's health and women's health, including menopause (*n*=4); cancer (*n*=1); dementia (*n*=1) and postnatal care (*n*=1). Conditions and/or activities related to health promotion included exercise classes (*n*=1), with the aim of disease prevention (*n*=1). However, one participant described how the topics included in VGCs was determined by the patients themselves, stating: 'we allow patients to leave a message requesting a topic they want group clinics to cover, and we will offer group clinics in any area requested by the patient' (P01_GP).

Figure 1. Conditions managed using video group consultations (*n*=92)*



*Participants were able to choose more than one condition in their response, totalling 92 responses and therefore there were more than 36 responses

Staff and patient motivations for using video group consultations

Participants talked about their motivations and their perceptions of patient motivations for the use and uptake of VGCs in practice. Of the participants, 27 (75%) currently used VGCs, while nine (25%) had previously used the approach and stopped. Participants were asked, 'If you have previously used VGCs and stopped, why have you stopped?' Two reported that VGCs were not continued if a 'specific programme ended' (P23_social prescriber) or 'the health coach who was providing the facilitator role moved away' (P33_GP).

Uptake of VGCs was therefore dependent on staff and perceived patient motivations. In terms of staff uptake of VGCs, 'challenging doubters' (P21_advanced clinical practitioner/advanced nurse practitioner (ACP/ANP)) was an issue, with some participants citing difficulties in 'changing perceptions of group consultations' (P21_ACP/ANP) and 'reluctance of certain clinicians to engage' (P28_GP). One participant identified that reluctance to change was grounded in individuals 'being stubborn' (P03_ACP/ANP) and the belief that 'most people working in primary care already have the necessary skills' (P06_GP).

Participants described several attributes that staff would require to use VGCs (Box1). These attributes ultimately helped in 'believing in the model' (P03_ACP/ANP) and 'confidence in getting the change project up and running' (P04_GP).

Box 1. Attributes that staff needed to use video group consultations

- 'Determination' (P12_GPN)
- 'Enthusiasm' (P14_GPN)
- 'Personal interest' (P18_GP)
- 'Desire to be more digital' (P15_GP)
- 'Confidence to have discussions with a group of people' (P03_ACP/ANP)
- 'Empathy' (P09_HC)
- 'Patience' (P09_HC)
- 'Approachability' (P32_PM)
- 'Adaptability' (P12_GPN)
- 'Personable' (P20_AHP)
- 'Engaging' (P20_AHP)
- 'Emotional intelligence' (P20_AHP)
- 'Thinking outside the box' (P27_NC)
- 'The ability to motivate and inspire' (P20_AHP)
- 'Time management' (P20_AHP)
- 'Problem solving' (P27_NC)
- 'Good consultation skills' (P03_ACP/ANP)
- 'A sense of humour' (P21_ACP/ANP)

GPN=general practice nurse; ACP=advanced clinical practitioner; ANP=advanced nurse practitioner; HC=health coach; PM=practice manager; AHP=allied health professional; NC=non-clinical (a grouping together of roles named as non-clinical, including health coach and digital coordinator)

Several training needs were also identified by participants and deemed important for staff motivation to use VCGs, mostly related to facilitation skills, including the ability to facilitate a group session, and manage group dynamics and challenging circumstances. One participant stated that the delivery of VGCs was dependent on 'someone who understands the tech and can act as a master of ceremonies' (P19_GP). However, facilitation skills (n=32) were also considered more broadly, in terms of presentation skills (n=3), IT skills (n=6), digital literacy (n=2), coaching skills (n=3), group management skills (n=11), communication skills (n=5), administration skills (n=1) and a variety of content to ensure adaptability (n=1). Five participants listed the need for facilitator training and increased 'IT literacy for when things go wrong' (P08_GPN). However, another argued that 'time needs to be given so clinicians can understand the benefits' (P28_GP) and therefore make sense of the skills and training needed to deliver a VGC.

Despite this, participants perceived that patient motivation was key to the use and uptake of VGCs, with one stating 'our local population was "Zoomed" out [an expression of overuse of virtual platforms including Zoom] and haven't taken up the opportunity for VGCs as enthusiastically as they took up the invitation for face-to-face GCs' (P31_GP). Attendance by patients was therefore identified as a major issue, with one participant stating 'we will often recruit eight or so patients but none will attend after multiple reminders' (P09_health coach).

Participants also perceived patients' use of technology as central to suboptimal uptake. It was perceived that the 'older population rejecting the idea of "new-found" tech' (P05_GPN) related to a high VGC 'did not attend' rate. One participant stated, 'while most patients have access to a compatible device, many lack confidence in technological ability and declined or came into difficulties joining or during the VGC' (P20_allied health professional (AHP)). Participants (n=32) identified the patient age group most commonly using VGCs were those aged between 40 and 50 years.

Some participants related perceived suboptimal patient uptake to access issues, rather than motivation, identifying that 'patients frequently declined on the basis of availability' (P20_AHP) because 'only one VGC date was confirmed at a time with no

indication of the next' (P20_AHP). However, 'some patients are pro VGCs, as they see it is a time saver' (P36_social prescriber).

Other perceptions related suboptimal patient uptake to the choice of face-to-face or VGC. There was a perception among participants that when given the choice between face-to-face consultations or VGC, patients preferred face to face, with one participant stating 'we are planning to run a pre-diabetic VGC but are debating this in-person rather than tech as our patients appear to prefer in-person options' (P30_social prescriber).

In addition, perceived patient uptake of VGCs was dependent on preference for a group versus an individual approach, as one participant noted that it was 'slow starting to get the numbers for our group consultations as still offering 1:1' (P10_ACP/ANP), while others noted that 'some love and some prefer individual input' (P08_GPN) and 'others prefer in-person, as they like the companionship of others' (P34_GP). Uptake was therefore dependent on targeting the appropriate patient population and acceptance of a new consultation model.

Workload and practice priorities

Workload and practice priorities were key to the set-up and delivery of the VGCs approach. The lack of facilitation and support were the main reasons why practices stopped delivering VGCs, including clinical support (*n*=1); technological support (*n*=1); administrative support, such as preparation of resources (*n*=2); time intensity (*n*=1); additional workload (*n*=1); and lack of capacity (*n*=1). One participant stated that 'they [VGCs] are time intensive for small turnout in terms of prep of resources, tech support, two clinicians presenting and someone on the chat box' (P30_social prescriber).

The time taken to deliver each VGC was identified as between 60 and 90 minutes (*n*=24, 67%), predominantly involving either four to six patients (*n*=14, 39%) or six to eight patients (*n*=13, 36%). Therefore, 'having the time to build these sessions' (P27_non-clinical) was paramount because 'once foundations are in place some sessions can run on self-referrals, reducing admin processes' (P21_non-clinical). However, one participant stated that this relied on 'having more people to help than just one person doing it' (P07_GPN).

Participants were asked, 'What other factors have played a role in the set-up of VGCs?' Although participants did not have to answer this question, 26 did. More than half of responses (*n*=14/26, 54%) related to organisational and practice support, including practice and/or group support (*n*=3), administrative support during and in the initial work-up (*n*=3), support from GPs (*n*=1) and commissioning investment (*n*=4).

Participants were also asked, 'Did your practice already deliver group consultations before offering VGCs?' Of the participants, 22 (61%) responded 'no', 13 (36%) answered 'yes' and one (3%) responded 'not sure'. Successful workforce planning was therefore identified as crucial (*n*=18), due to the unestablished nature of the VGC model and the associated workload required to get the approach 'up and running'. Planning (*n*=3), time (*n*=4), availability and scheduling (*n*=7), training (*n*=2), and administrative support (*n*=2) were all factors that the participants stated could contribute to the ability to provide VGCs as an alternative model of consultation. However, 'a lack of investment in staff who are able to do the VGC' (P14_GPN) meant that participants noted issues with the viability of the approach, stating '[I] wish I had more protected time' (P32_practice manager), that there was 'no time for planning recall of patients' (P03_ACP/ANP) and that there were challenges with 'getting certain members of the practice on board' (P04_GP). One participant also identified that 'staff training and availability is a huge challenge, as is getting allocated time for VGCs within the clinical day' (P33_GP).

Training was identified as key to the use and uptake of the VGC approach, with most participants being involved in formal training sessions (*n*=24, 67%). Formal training (*n*=22), including the need for ongoing support and accreditation (*n*=2), was identified as a necessary requirement for the delivery of VGCs. However, one participant stated that VGCs 'can be easily done without the training too' (P35_GP), while another stated that 'the best training is to "just do it"'(P31_GP).

Participants provided more than one answer to the question on barriers to the use of VGCs with the total number of responses reaching 100. The use of technology was identified as the second largest barrier to the use of VGCs (*n*=22/100, 22%).

Microsoft Teams was identified as the most favoured platform to deliver VGCs (*n*=28, 78%). However, one participant stated that 'the technology [is] still not mature enough' (P15_GP) to deal with newer ways of working, ultimately leading to a lack of confidence in systems such as the digital platforms used to host VGCs.

Using pre-existing and new networks to sustain video group consultations

The lack of sustainability when using VGCs was reported as a challenge. One participant described 'primary care being "stuck in a rut"' as practices were 'too busy to innovate', 'GDPR [General Data Protection Regulation] stifling innovation' and a 'lack of funding to do things differently' (P01_GP). Another participant described sustainability as dependent on a 'culture shift' (P28_GP). The sustainability of VGCs was also seen as being dependent on organisational support, with participants stating that 'we were commissioned to provide the service for a primary care network' (P31_GP), and with some practices having 'CCG [clinical commissioning group] locally commissioned services incentivising group consultation delivery' (P33_GP).

Participants who managed to sustain VGCs identified the need to use pre-existing and new networks. Techniques such as liaising with other practices and using experts already running VGCs were echoed across participants' responses as a way of 'showing how others are run' (P07_GP). This also included the need to use a formal VGC training provider and incorporate established consultation models such as a long-term condition review or lifestyle medicine template into any VGCs.

When implementing VGCs, participants also described the benefits of 'training in delivery' (P11_ACP/ANP), stating that 'it was useful to have the training of flow' (P35_GP), and that 'training on the technical side was very helpful' (P30_social prescriber) alongside 'on-going support/accreditation' (P01_GP). Participants further identified the need for whole-team 'buy-in' rather than having an individual champion to initiate, deliver and sustain the VGC approach, due to the associated workload.

Discussion

To the authors' knowledge this is the first cross-sectional survey of UK general practice staff to explore the use and uptake of VGCs in primary care. Each finding exemplifies issues related to both the use and uptake of the approach. Of the four identified themes, definition relates to ways in which VGCs are being defined in practice and how this affects the uptake of the approach. The theme of staff and patient motivations describes both the use and uptake of the VGC approach, dependent on how it was understood in practice. Workload and practice priorities referred primarily to the uptake of the VGC approach, but indirectly affected how it is used. The theme of using pre-existing and new networks to sustain VGCs identified descriptions regarding the uptake of the approach.

Only participants who had used or previously used VGCs in primary care were included, due to the small prevalence of use across the UK. Excluding participants who had not delivered or set up VGCs meant that the data were focused on the study aim. The use of content analysis was well suited to the open-ended nature of the questions because it allowed for the fluidity of participant responses within the domains of the research question and aided pragmatic application in healthcare (Elo and Kyngäs 2008, Krippendorff 2018).

The study findings demonstrate a unique contribution to knowledge of VGCs, whereby the overlapping findings reflect the complicated nature of embedding complex interventions into practice. Normalisation process theory (NPT) focuses on the active work people and groups 'do', capturing the process of strategic change involved in sustaining an intervention, and aiding a greater understanding of how concepts are operationalised, engaged with, reflected on and evaluated in the 'real world' (May et al 2016, 2018). Therefore, the authors used NPT to aid discussion of the data, recognising the complexity of healthcare systems and the dynamics of implementing complex interventions, and focusing on four key constructs: coherence, cognitive participation, collective action and reflexive monitoring (May et al 2018, Saunders et al 2022). NPT was used as a method of understanding the ways in which 'complex interventions' such as VGCs can be embedded into practice.

New discussion themes were matched and discussed and related to the four constructs of NPT, to make sense of a diverse range of findings, as follows 'Understanding the role of VGCs' (coherence), 'Achieving practice and patient buy-in' (cognitive participation), 'Operationalising a new consultation model' (collective action) and 'Evaluating complex interventions' (reflexive monitoring) (Figure 2) (May et al 2018).

'Coherence' involves staff developing both an individual association and shared understanding of an approach such as VGCs, which enables practices to adopt a pragmatic and comprehensible intervention (May et al 2018). While participants described the varied use of VGCs, most defined the primary use as being for long-term condition reviews. This establishes the fluidity of what is a 'consultation' in general practice, distinct

from group support or educational therapy. Therefore, the lack of standardisation and shared definition (for example, in the way that a long-term condition was defined) influences how VGCs are translated, understood and worked in practice, affecting the VGC's viability as an alternative model of consultation.

This study also identified the importance of achieving practice and patient buy-in, aligning with the 'cognitive participation' construct of NPT, describing the work behind initiating new practices and the motivations for driving it forward, considering the involvement of others. It is therefore important to consider the effect of patients, alongside staff, in terms of the use and uptake of VGCs in future research studies.

In addition, participants described the operationalisation of VGCs in practice, in terms of practice commitment, workload, technology and training, reflecting the need for 'collective action' surrounding the implementation of new interventions into everyday practice. Definition regarding role and scope therefore affects how VGCs can be operationalised into practice.

Furthermore, it is important to note that a lack of evaluation aimed at sustaining the use of VGCs reflects the current position of primary care and the barriers associated with embedding complex interventions, which coincides with the construct of 'reflexive monitoring'. The effects of COVID-19 have meant that while there are many case studies reporting on the use of the VGC approach, strong evidence-based research is limited. The need to provide an evidence base for future use of VGCs in primary care general practice will promote the implementation of such complex interventions.

One consideration of the fluidity of this complex intervention cannot be encompassed by NPT alone. Papoutsi et al (2022) reiterated the need for the characterisation of VGCs, providing definitions for different remote group-based care formats, including clinical, educational, informational and mixed. The findings of Papoutsi et al (2022) are synonymous with this study, in which definition and the term 'consultation' are characterised dependent on practice needs, organisational capacity and training provider priorities. In addition, Papoutsi et al's (2022) categorisation resonates with the work of Swaithes et al (2021) who demonstrated a varied use and definition of the face-to-face group consultation model, and therefore may allude to the transferability of findings across both face-to-face and virtual settings.

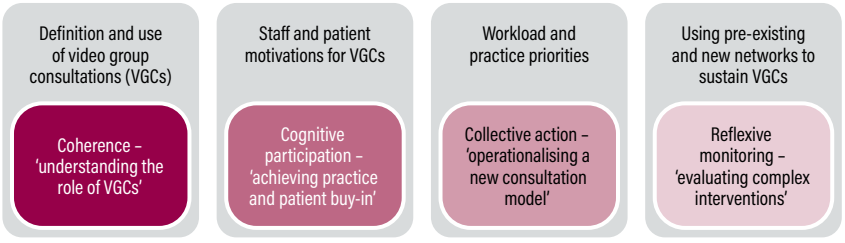
Limitations

Limitations include the small sample size (n=36). It is evident that while there is some use for VGCs in general practice settings, uptake is not on a broad scale. Although UK practices which have undertaken VGC training were targeted by the researchers, the use and uptake of the approach is dependent on a number of factors, including funding, organisational support, practice priorities and understanding of the model itself (Papoutsi et al 2022), therefore affecting the consistency of participation in VGCs. However, the spread of participants across nine regions of the UK reduced bias.

The risks of using social media when conducting a study, such as not producing a representative sample of the population, were discussed dependent on where the questionnaire was posted or distributed. There may have been a greater response in particular regions by using social media, for example in areas where clinicians shared information with other clinicians in their practice. The use of both professional social media sites and the researchers' social media accounts helped to ensure participants did not develop an 'echo chamber' (Cinelli et al 2021) of knowledge regarding study participation; that is, an environment whereby a person only encounters knowledge, beliefs or opinions which coincide with their own. The virtual nature of the study sampling also attempted to mitigate the constraints of COVID-19 restrictions on recruitment.

Further consideration of the external context and pressures facing general practice at the time of data collection – mainly COVID-19 and the restrictions that came with adapting to a newer way of working – may also have resulted in a smaller sample population. Studies completed at a similar point in time exploring the experiences of virtual consultations also had low response rates across community settings, including general practice (Ackerman et al 2020, Proulx-Cabana et al 2021).

Figure 2. Schematic representation of study themes matched to the four constructs of normalisation process theory



In addition, this study focused distinctly on VGC methods, and did not examine the contribution of face-to-face group consultations, which may have increased uptake. The sample also meant that only the views of staff were captured, and patient motivations were discussed in relation to staff perceptions. The cross-sectional nature of the study also meant that this data set only captured one point in time, limiting the generalisability of the findings.

Conclusion

This study has explored the use and uptake of VGCs by UK general practice staff during the COVID-19 pandemic. Findings demonstrated complexities regarding the use and uptake of VGCs, due to fluidity of definition, a lack of standardisation and issues regarding operationalisation in practice. Further research is yet to be conducted to better understand the role of VGCs in UK general practice.

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Why you should read this article:

- To understand why exacerbations of chronic obstructive pulmonary disease occur
- To familiarise yourself with the year-round patient management of chronic obstructive pulmonary disease
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Chronic obstructive pulmonary disease: reducing the risk of winter exacerbations

Sian Jones-Barry and Karen Vennard

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Abstract

In winter, exacerbations of chronic obstructive pulmonary disease (COPD) are frequent. These exacerbations are associated with increased hospital admissions, morbidity and mortality. Reducing the risk of winter exacerbations of COPD is crucial for alleviating pressures on health services and can be achieved by providing optimal year-round patient management. Identifying, reviewing and assessing patients at risk of COPD exacerbations well ahead of the winter season helps put in place preventive interventions such as checking inhaler technique, educating patients to recognise exacerbations and promoting self-management. This article highlights risk factors for COPD exacerbations, describes how to undertake a comprehensive review of a patient with COPD, and discusses interventions that community and primary care nurses can deliver to reduce the risk of winter exacerbations.

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Keywords

cardiorespiratory, clinical, chronic obstructive pulmonary disease, lung diseases, patients, patient assessment, professional, respiratory, self-care

Aims and intended learning outcomes

This article aims to explain what nurses working in community and primary care can do to reduce the risk of exacerbations in patients with chronic obstructive pulmonary disease (COPD) and therefore reduce winter pressures on health services. After reading this article and completing the time out activities you should be able to:

- List the risk factors for COPD exacerbations.
- Discuss the elements of a comprehensive review of a patient with COPD.
- Detail preventive interventions in COPD management.
- Explain the importance for patients of taking ownership of their condition and its management.
- Describe the role of community and primary care nurses in reducing the risk of COPD exacerbations.

TIME OUT 1

How would you go about obtaining a list of patients in your local area who are at high risk of COPD exacerbations? Who needs to be involved in identifying, reviewing and managing those patients?

Introduction

Lung disease has been called 'the hidden driver of NHS winter pressure' (British Lung Foundation 2017) and winter pressures have become a regular occurrence in health services, fuelled among other factors by a seasonal increase in the number of people

experiencing acute respiratory conditions and exacerbations of chronic respiratory conditions (British Thoracic Society 2021). Reducing exacerbations of chronic respiratory conditions in winter would contribute to reducing demand on already stretched health services.

COPD is an umbrella term for lung conditions that cause breathing difficulties due to airway and/or alveolar abnormalities – for example, long-term inflammation of the airways in chronic bronchitis or damage to the air sacs in the lungs in emphysema (NHS 2019a). COPD is treatable and preventable but its worldwide prevalence, which is already considerable, is projected to increase because populations are ageing and because they continue to be exposed to smoking, air pollutants and respiratory infections (Global Initiative for Chronic Obstructive Lung Disease 2023a).

In countries such as the UK, exacerbations of COPD are extremely common in winter, when people are exposed to cold, damp weather and viral and bacterial respiratory pathogens. COPD exacerbations are often caused by respiratory pathogens, typically viruses (25%), bacteria (26%) or a combination of the two (27%). In the remaining cases there is no ascertainable cause (Celli et al 2004). Influenza and bronchitis can prompt an acute deterioration of COPD symptoms (The Lancet Respiratory Medicine 2018), which can in turn lead to increased numbers of calls to GPs, out-of-hours services and ambulance services as well as increased numbers of hospital admissions.

During the coronavirus disease 2019 (COVID-19) pandemic, most people with COPD would have been isolating, so COPD exacerbations decreased (Alqahtani et al 2021). However, at the time of writing the protective measures warranted during the pandemic such as self-isolation and social distancing were no longer in place, making it likely that COPD exacerbations would rise back to pre-pandemic levels.

Before the COVID-19 pandemic, the British Lung Foundation (2017) stressed that because lung disease was not prioritised, service improvements were often made locally by a few committed healthcare professionals, which meant there were wide variations in service provision between geographical areas and between healthcare settings within one area. Another challenge for lung services has been the shortage of specialist staff such as respiratory nurse specialists, which means that patients with lung conditions may be managed by staff with limited expertise in respiratory care (British Thoracic Society 2021). In its 2019 Long Term Plan, the NHS pledged to 'do more to detect respiratory difficulties earlier', acknowledging that lung conditions – including lung cancer – cost society around £9.9 billion each year and that respiratory disease, which affects one in five people in England, is the third-largest cause of death (NHS 2019b).

To reduce the risk of winter exacerbations of COPD, the first step is to identify patients who are at risk of COPD exacerbations. This starts in general practices, where administrative staff are usually tasked with drawing up a list of patients with COPD – a task practice nurses may also be involved in. These patients may or may not be housebound. If patients are not housebound, they are invited to attend their general practice for an assessment by a GP or more commonly a general practice nurse. If patients are housebound, information is relayed to community teams, who can then visit and assess patients at home. Ideally, there should be a joint strategy between community and primary care services, with an established pathway whereby general practices identify at-risk patients and relay the information to district nursing, frailty, long-term conditions and local authority teams.

This article outlines the risk factors for COPD exacerbations, describes how to undertake a comprehensive review of patients with COPD and discusses interventions that nurses working in community and primary care can deliver to help prevent – or reduce the risk of – COPD exacerbations.

TIME OUT 2

What are the essential steps of an optimal COPD management strategy? Use your own knowledge base to write down these steps, then check them against the All Wales COPD Management and Prescribing Guideline. You can access this online at awttc.nhs.wales/files/guidelines-and-pils/all-wales-copd-management-and-prescribing-guideline-pdf

Risk factors for exacerbations

As explained by The Academy of Medical Sciences (2020) in its advice on how to prepare for the winter of 2020-21 – which was expected to be particularly challenging for health services – it is critical to identify patients most at risk of exacerbations of existing conditions and attempt to reduce that risk, particularly in the case of conditions where an exacerbation is likely to necessitate an admission to hospital. Identifying the most at-risk patients should be a priority in the post-COVID era, especially in view of the long waiting lists of patients who

Key points

- Chronic obstructive pulmonary disease (COPD) is an umbrella term for lung conditions that cause breathing difficulties due to airway and/or alveolar abnormalities
- Winter is a challenging time of year for people with COPD, who often experience an exacerbation of their condition, notably because of exposure to respiratory pathogens
- To establish each patient's risk of COPD exacerbations, a comprehensive review that includes an assessment of their current symptoms is required
- The mainstay of treatment for COPD is smoking cessation, pharmacological treatment with inhalers and tablets, and pulmonary rehabilitation
- In COPD, as in any long-term condition, it is crucial that patients take ownership of their condition and its management

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need to be seen for respiratory conditions (Primary Care Respiratory Society (PCRS) 2021). Services need to focus on patients with the greatest need, ensuring they have priority access to face-to-face appointments, spirometry, diagnosis, and treatment and referral if needed.

All patients with COPD are at risk of exacerbations, but that risk can be stratified to determine those most at risk. According to Ställberg et al (2021), a history of exacerbations is the most important predictor of future exacerbations. Risk factors for COPD exacerbations include having experienced a severe exacerbation in the past 180 days and the total number of severe exacerbations experienced in the past – the higher their number, the higher the risk (Ställberg et al 2021).

Patients' risk of COPD exacerbations can be assessed by investigating their history of exacerbations as well as a range of other risk factors (Box 1).

Comprehensive patient review

To establish each patient's risk of COPD exacerbations, a comprehensive review that includes an assessment of their current symptoms is required. Box 2 details the elements that such a review should incorporate.

While each review must be individualised and take account of the person's specific circumstances, it can be helpful for healthcare professionals to use a formalised COPD patient review document. Completing each item on the document ensures no element of the review is forgotten and helps administrative staff at the GP surgery to update the electronic patient record.

If any of the following red-flag symptoms (All Wales Medicines Strategy Group 2021) are noted during the review, the patient must be urgently referred to secondary care:

- Persistent cough in a smoker.
- Haemoptysis (coughing-up blood).
- Chest pain.
- Unexplained weight loss.
- Finger clubbing in a smoker.

Interventions for reducing the risk of exacerbations

Reducing the risk of winter exacerbations of COPD is achieved by providing optimal year-round management of COPD. The mainstay of treatment for COPD is smoking cessation (for those who smoke), pharmacological treatment with inhalers and tablets, and pulmonary rehabilitation (NHS 2019c). According to Tashkin (2016), the integrated management of COPD starts with smoking cessation and vaccination (pneumococcal, influenza and COVID-19) and progresses to inhaler therapy. A full discussion of the treatment and management of COPD is beyond the scope of this article, which will now focus on interventions that community and primary care nurses can deliver to prevent exacerbations – or at least reduce their risk.

Smoking cessation

The harmful effects of smoking on the respiratory system have been extensively described – see for example United States Department of Health and Human Services (2014) and Leung et al (2015). In England, approximately 25,000 people die each year from COPD and around 86% of these deaths are caused by smoking (Public Health England 2015). Smoking also increases the risk of cancer, not only lung cancer but also mouth, nose, throat, stomach and bowel cancer as well as acute myeloid leukaemia (American Cancer Society 2014). In patients with COPD who smoke, the benefits of inhaled therapy are lessened because smoking interferes with the way inhaled therapy works (Shimoda et al 2016).

Smoking cessation is therefore a fundamental aspect of COPD management. In mild-to-moderate COPD, smoking cessation reduces the risk of disease progression as well as the risk of cancer and cardiovascular disease. In severe COPD, smoking cessation reduces total mortality (Wu and Sin 2011). Encouraging smoking cessation is the most effective intervention for slowing down the progression of disease and is one of the most cost-effective interventions in COPD (Andelius 2022). Nurses' contribution consists of taking a history of smoking, checking the patient's current smoking status and reinforcing smoking cessation advice if required. Nurses can also refer patients for smoking cessation therapy.

Vaccination

In England, during the winter of 2016-17 less than half of patients with long-term lung conditions had received an influenza vaccine (Public Health England 2017). Improving the uptake of influenza and pneumococcal vaccines in high-risk groups is crucial to reduce cases of respiratory infections and consequently the risk of COPD exacerbations (The Lancet Respiratory Medicine 2018). In its guideline on COPD diagnosis and management in adults, the National Institute for Health and Care Excellence (NICE) (2019) recommends offering

pneumococcal vaccination and an annual influenza vaccination to all people with COPD. Since the COVID-19 pandemic, the vaccines that patients with COPD are advised to take also encompass COVID-19 vaccines (Public Health Wales 2022). An important nursing role is to check whether patients have received a pneumococcal vaccination and the annual influenza vaccine as well as any COVID-19 vaccines and boosters, and if not to support them to do so.

Inhaler technique

Short-acting and long-acting bronchodilator inhalers are the first-line pharmacological treatment for COPD, sometimes complemented by corticosteroid inhalers (NHS 2019c). NICE (2019) specifies that inhalers should only be prescribed after the patient has been shown how to use them and only if the healthcare professional is confident that the patient will be able to use them properly. However, up to 90% of people do not use their inhaler properly, which means that their lungs do not receive the prescribed dose of medicine (Chrystyn et al 2017).

There are three types of inhalers: dry powder inhalers (DPIs), metered-dose inhalers (MDIs) and soft mist inhalers (SMIs) (Gerald and Dhand 2022). MDIs can be used with spacers and/or chambers. A spacer reduces the deposition of medicine in the mouth and throat, thereby decreasing the amount of medicine absorbed via the gastrointestinal tract and lowering the risk of adverse effects such as oral thrush. A chamber traps and holds the medicine in a one-way valve so that the patient can inhale it over several seconds. If the patient does not use a chamber, precise timing and coordination between releasing the medicine (actuation) and inhaling it will be crucial (Allergy and Asthma Network 2023).

One of the roles of nurses is to check that patients are using the correct inhaler technique. Patients' inhaler technique should be regularly assessed, particularly if their condition is not under control and whenever there is a change of device, medicine and/or dose. One crucial point patients need to be taught is how to time and coordinate actuation and inhalation. Nurses also need to check whether patients have been prescribed the most appropriate type of inhaler, whether they could benefit from using a spacer and/or chamber with their MDI, and whether they are using spacers and/or chambers correctly.

Assessing inhaler technique can prevent unnecessary dose increases or additional treatments and is considered good practice (Maricoto et al 2019). In a meta-analysis, Maricoto et al (2019) showed that inhaler technique education for older people with COPD or asthma could reduce their risk of exacerbations. Demonstrating the correct technique using a placebo inhaler and providing written information about correct

Box 1. Risk factors for exacerbations of chronic obstructive pulmonary disease (COPD)

- History of COPD exacerbations – including having experienced a severe exacerbation in the past 180 days and the total number of severe exacerbations experienced in the past
- Presence of bronchiectasis
- Presence of interstitial lung disease
- Patient receiving oxygen therapy
- Patient taking oral prednisolone
- Patient overusing short-acting bronchodilator
- Patient using nebuliser
- Patient taking antibiotics
- Patient has not received influenza, pneumococcal and coronavirus disease 2019 vaccines
- Patient currently a smoker
- Patient has required two or more courses of oral corticosteroids and/or antibiotics in the past 12 months
- Patient has been seen by the ambulance service, has attended an emergency department, has had contact with out-of-hours services and/or has been admitted to an acute hospital in the past 12 months
- Patient has a score ≥4 on the Medical Research Council (MRC) Dyspnoea Scale (MRC 2022)
- Patient has signs and symptoms of depression

(Adapted from Global Initiative for Chronic Obstructive Lung Disease 2023b)

Box 2. Comprehensive review of a patient with chronic obstructive pulmonary disease (COPD)

Document
- The number of exacerbations since the last assessment or in the past 12 months
- The courses of antibiotics and/or oral corticosteroids since the last assessment or in the past 12 months
- Any hospital admission for respiratory illness since the last assessment or in the past 12 months

Measure
- Vital signs, especially oxygen saturations and respiratory rate
- Severity of COPD using a handheld spirometer

Assess
- Breathlessness using the Medical Research Council (MRC) Dyspnoea Scale (MRC 2022)
- Other respiratory symptoms, notably cough, chest tightness and wheeze
- The effects of COPD on the patient's life using the COPD Assessment Test (CAT) (Jones et al 2009)
- Anxiety and depression using the Hospital Anxiety and Depression Scale (HADS) (Zigmond and Snaith 1983)

Check
- The presence of sputum and its colour and consistency
- The patient's vaccination status – influenza, pneumococcal and coronavirus disease 2019 vaccines

Review
- Current pharmacological management, including inhaler technique and adherence to oxygen therapy
- Current non-pharmacological management, including smoking cessation and pulmonary rehabilitation
- Current self-management, updating the patient's self-management plan or developing one as required

(Adapted from Primary Care Respiratory Society 2012)

inhaler use both appeared to be effective (Maricoto et al 2019). The UK Inhaler Group, set up in 2014 to promote the correct use of inhalers, has published an Inhaler Standards and Competency Document that healthcare professionals can use to demonstrate competency in prescribing inhaled medicines and teaching the correct inhaler technique (UK Inhaler Group 2016).

Nebuliser technique

In certain patient groups – for example, patients with very low inspiratory flow rates – nebulisers are preferred to dry-powder inhalers and MDIs (Global Initiative for Chronic Obstructive Lung Disease 2023b). Nebulisers are easy to use and do not require manual dexterity, manual strength or coordination between actuation and inhalation. However, their use involves a longer preparation process so it takes longer to deliver the inhaled therapy; not all inhaled medicines are available for nebulisers; and the device must be cleaned daily to avoid recurrent infections. Another role of nurses is to check whether patients who are using an inhaler could benefit from changing to a nebuliser – and vice versa. In patients who use a nebuliser, nurses should check that patients are competent and trained in its use, that the device is kept clean and regularly serviced, that the mask and tubing are changed frequently and that the filter is changed after each exacerbation (Asthma and Lung UK 2021).

Oxygen therapy

If COPD causes a low level of oxygen in the blood, patients may be advised to have oxygen therapy at home (NHS 2019c). Oxygen therapy can be optimised by checking that patients are adhering to their prescribed amount of daily oxygen, that the mask and/or nasal cannula are changed every month and that the oxygen concentrator is adequately maintained (Baywater Healthcare 2023).

Rescue medicines

Some patients with COPD receive a prescription for rescue medicines – antibiotics and/or oral corticosteroids – for self-treatment at home if they experience a deterioration of their condition. However, prescribing rescue medicines involves certain risks: the incorrect use or the overuse of antibiotics fuels antimicrobial resistance, while taking three or more corticosteroid courses per year increases the risk of adrenal suppression, osteoporotic fractures, diabetes, pneumonia, psychosis, thinning skin and cataracts (PCRS 2016). It is therefore crucial that patients who receive a rescue medicine pack are also given information and education on how to recognise a deterioration and how to respond promptly with the appropriate strategies (NICE 2019). Patients need to be aware that they may not need to take both antibiotics and corticosteroids (PCRS 2016). Patients also need to know their baselines (in terms of sputum colour and volume when well; breathlessness level when well; usual frequency of cough; whether or not wheeze is present when well), which can be linked to what they are normally able to achieve in terms of activities of daily living, and then used to assess whether there is a deterioration in their condition. Patients should start taking oral corticosteroids if they experience breathlessness that interferes with their activities of daily living. They should start taking antibiotics if their sputum changes colour over a 48-hour period (NICE 2019).

TIME OUT 3

How would you explain pulmonary rehabilitation to a patient with COPD? For inspiration, visit the Asthma and Lung UK website pages on pulmonary rehabilitation at **www.blf.org.uk/support-for-you/keep-active/pulmonary-rehabilitation**

Activity

As the condition of people with COPD deteriorates, they experience increasing breathlessness during activities and consequently stop those activities. Being less active means the lung muscles become weaker and require more oxygen to work efficiently. This in turn makes people feel breathless and develop a fear of activities that make them breathless, which they will tend to avoid even more. This is known as the cycle of inactivity, a downward spiral that takes a significant toll on people's quality of life as they become less mobile, more dependent on others, and ultimately housebound and bedbound (Asthma and Lung UK 2020a). Encouraging patients to keep active is an important aspect of COPD management. This involves explaining the benefits of performing activities of daily living as well as some forms of exercise.

Pulmonary rehabilitation

Pulmonary rehabilitation is a programme of tailored exercise usually lasting eight weeks with two sessions a week. It is facilitated by NHS staff such as physiotherapists, nurses and occupational therapists and combines exercise support with education on COPD management. Patients are made aware that it

is alright to become breathless and are taught energy conservation techniques, breathing techniques and positions to support lung function when they feel breathless (Asthma and Lung UK 2020b). To be eligible for pulmonary rehabilitation, patients usually need to score ≥3 on the Medical Research Council (MRC) Dyspnoea Scale (MRC 2022). The role of community and primary care nurses is to signpost patients to, or refer them for, pulmonary rehabilitation.

TIME OUT 4

What are the important components of a healthy diet in patients with COPD? What advice can you give patients who experience breathlessness with regards to eating? Find out more online by reading the advice of the COPD Foundation (**www.copdfoundation.org/learn-more/i-am-a-person-with-copd/nutrition-for-someone-with-copd.aspx**)

Nutrition

People with COPD use ten times more calories to breathe than people without the condition (Stuart 2021), so it is important that they eat well, which will contribute to maintaining optimal energy levels, keeping lung muscles strong and reducing infections (Stuart 2021). The NHS (2019a) advises that people with COPD should eat high-protein and high-calorie foods to prevent weight loss. Nurses' role includes asking and advising patients about diet as well as regularly measuring their weight. If a patient is losing weight, nurses can use the Malnutrition Universal Screening Tool (MUST) to assess the risk of malnutrition (British Association for Parenteral and Enteral Nutrition 2011). Referral to a dietitian may be needed and, following the dietitian's assessment, nurses will need to check that the patient is adhering to their nutrition plan, which may include supplements.

Managing comorbidities

According to Donaldson and Wedzicha (2014), decisions regarding whether patients with a chronic respiratory condition should be admitted to hospital depend not only on the severity of their condition but also on the presence of comorbidities. Over 70% of people with COPD have more than two other long-term conditions and over 10% have more than six other long-term conditions (Rodman 2021).

The common factor between COPD and most comorbidities is chronic systemic inflammation. COPD can be a direct cause of pulmonary artery disease and malnutrition, while other common comorbidities of COPD have no evident pathophysiological relationship with the condition (Cavaillès et al 2013). Gastroesophageal reflux can aggravate the symptoms of a persistent productive cough and therefore lengthen COPD exacerbations (Ingebrigtsen et al 2015). Depression, which tends to reduce levels of physical activity (Ingebrigtsen et al 2015), is common in patients with COPD and puts them at significantly higher risk of exacerbations than those who do not have depression (Yohannes and Alexopoulos 2014).

COPD management must therefore incorporate the management of any comorbidities, the role of nurses being to screen patients for comorbidities and refer them for treatment and support as needed. Early screening for depression – for which the Hospital Anxiety and Depression Scale (HADS) (Zigmond and Snaith 1983) can be used – will help identify patients at high risk of depression (Jennings et al 2009). If a patient shows signs and symptoms of depression, providing they agree to it, nurses can inform their GP, through whom they will be able to access support including referral to mental health services.

TIME OUT 5

Think about a patient with COPD you have recently reviewed. What issues did you identify? Was the patient at risk of exacerbations? Did the patient have a self-management plan in place? If not, how did you go about developing one?

Self-management plan

In COPD, as in any long-term condition, it is crucial that patients take ownership of their condition and its management (Health Service Executive 2023). COPD management must therefore involve the coproduction, with the patient and their family and carers, of a self-management plan. A self-management plan will help the patient to feel 'in charge', increase their confidence in managing their condition and support their independence (Berns 2016).

An optimal COPD self-management plan will prompt and motivate the patient to:

- Adhere to their drug regimen, use the correct technique for their inhaler or nebuliser and look after their device.
- Understand how to detect an exacerbation, when to use rescue medicines and when to seek advice.
- Practise energy conservation and breathing techniques.
- Keep active and regularly exercise.
- Follow a healthy diet.
- Stop smoking (if they smoke).

The self-management plan can be developed as a formal written document or alternatively using a mobile phone app such as one of the respiratory self-management apps available in Wales (The Institute of Clinical Science and Technology 2020). The self-management plan will contain all the relevant information, including the patient's medicine regimen, advice on how to detect an exacerbation, what actions to take in case of an exacerbation and who to contact in an emergency. Patients should be advised to use their self-management plan to document exacerbations and the measures taken in response. Healthcare organisations often have pre-formatted documents for COPD self-management, but these may need to be tailored to suit each individual patient.

Conclusion

Winter is a challenging time of year for people with COPD, who often experience an exacerbation of their condition, notably because of exposure to respiratory pathogens. Reviewing and assessing patients at risk of COPD exacerbations well ahead of the winter will assist nurses to implement preventive interventions. Nurses working in community and primary care have an important role in delivering preventive interventions, such as reinforcing smoking cessation advice, checking patients' vaccination status, teaching correct inhaler technique, educating patients to recognise exacerbations and referring them for pulmonary rehabilitation. It is crucial that patients take ownership of their condition and its management, and community and primary care nurses can support this through the coproduction of a self-management plan.

TIME OUT 6

Identify how reducing the risk of winter exacerbations of chronic obstructive pulmonary disease applies to your practice and the requirements of your regulatory body

TIME OUT 7

Now that you have completed the article, reflect on your practice in this area and consider writing a reflective account. See: **rcni.com/reflective-account**

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COPD exacerbations

TEST YOUR KNOWLEDGE BY COMPLETING THIS MULTIPLE-CHOICE QUIZ

1. What is chronic obstructive pulmonary disorder (COPD)?

a) An umbrella term for lung conditions that cause breathing difficulties due specifically to alveolar abnormalities, such as damage to the air sacs in the lungs ☐
b) An umbrella term for lung conditions that cause breathing difficulties due to airway and/or alveolar abnormalities ☐
c) An umbrella term for lung conditions that cause breathing difficulties due long-term inflammation of the airways ☐
d) An umbrella term for lung conditions caused by bacterial respiratory pathogens ☐

2. What are COPD exacerbations often caused by?

a) In most cases of COPD exacerbation there is no ascertainable cause ☐
b) COPD exacerbations are often caused by winter pressures on health services ☐
c) COPD exacerbations are often caused by respiratory pathogens ☐
d) COPD exacerbations are often caused by human enteroviruses ☐

3. Which of the following statements is accurate?

a) A history of COPD exacerbations is a poor predictor of future exacerbations ☐
b) Risk factors for COPD exacerbations include the total number of severe exacerbations experienced in the past – the lower their number, the higher the risk ☐
c) All people with COPD are at risk of exacerbations, but that risk can be stratified to determine which are most at risk ☐
d) Most patients with COPD are not at risk of exacerbations ☐

4. What score on the Medical Research Council Dyspnoea Scale is a risk factor for COPD exacerbations?

a) ≥4 ☐
b) ≥1 ☐
c) ≤4 ☐
d) ≥3 ☐

5. Which of the following is not a red-flag symptom that, in patients with COPD, warrants urgent referral to secondary care?

a) Persistent cough in a smoker ☐
b) Haemoptysis ☐
c) Unexplained weight loss ☐
d) Pallor ☐

6. What is the mainstay of treatment for COPD?

a) Smoking cessation (for those who smoke) ☐
b) Pharmacological treatment with inhalers and tablets ☐
c) Pulmonary rehabilitation ☐
d) All of the above ☐

7. In the UK, which vaccines should be offered to patients with COPD?

a) Annual influenza vaccine only ☐
b) Pneumococcal vaccination only ☐
c) COVID-19 vaccines and boosters only ☐
d) Pneumococcal vaccination, annual influenza vaccine and COVID-19 vaccines and boosters ☐

8. Which of the following is true of nebulisers?

a) Nebulisers are difficult to use and require manual dexterity ☐
b) Nebulisers do not require coordination between actuation and inhalation ☐
c) The use of nebulisers involves shorter preparation so the inhaled therapy is delivered more quickly ☐
d) All inhaled medicines are available for nebulisers ☐

9. Which of the following statements is inaccurate?

a) The common factor between COPD and most comorbidities is depression ☐
b) COPD can be a direct cause of pulmonary artery disease and malnutrition ☐
c) Gastroesophageal reflux can lengthen COPD exacerbations ☐
d) Depression is common in patients with COPD ☐

10. An optimal COPD self-management plan will motivate patients to:

a) Use the correct inhaler or nebuliser technique ☐
b) Understand how to detect an exacerbation and when to use rescue medicines ☐
c) Practise energy conservation and breathing techniques ☐
d) All of the above ☐

How to complete this assessment

This multiple-choice quiz will help you test your knowledge. It comprises ten multiple choice questions broadly linked to the previous article. There is one correct answer to each question.

You can read the article before answering the questions or attempt the questions first, then read the article and see if you would answer them differently.

You may want to write a reflective account. Visit rcni.com/reflective-account

Go online to complete this multiple-choice quiz and you can save it to your RCNi portfolio to help meet your revalidation requirements. Go to **rcni.com/cpd/test-your-knowledge**

This multiple-choice quiz was compiled by Anne-Claire Bouzanne

The answers to this quiz are:

1. b 2. c 3. c 4. a 5. d 6. d
7. d 8. b 9. a 10. d

This activity has taken me ___ minutes/hours to complete. Now that I have read this article and completed this assessment, I think my knowledge is:

Excellent ☐ Good ☐ Satisfactory ☐ Unsatisfactory ☐ Poor ☐

As a result of this I intend to: _____

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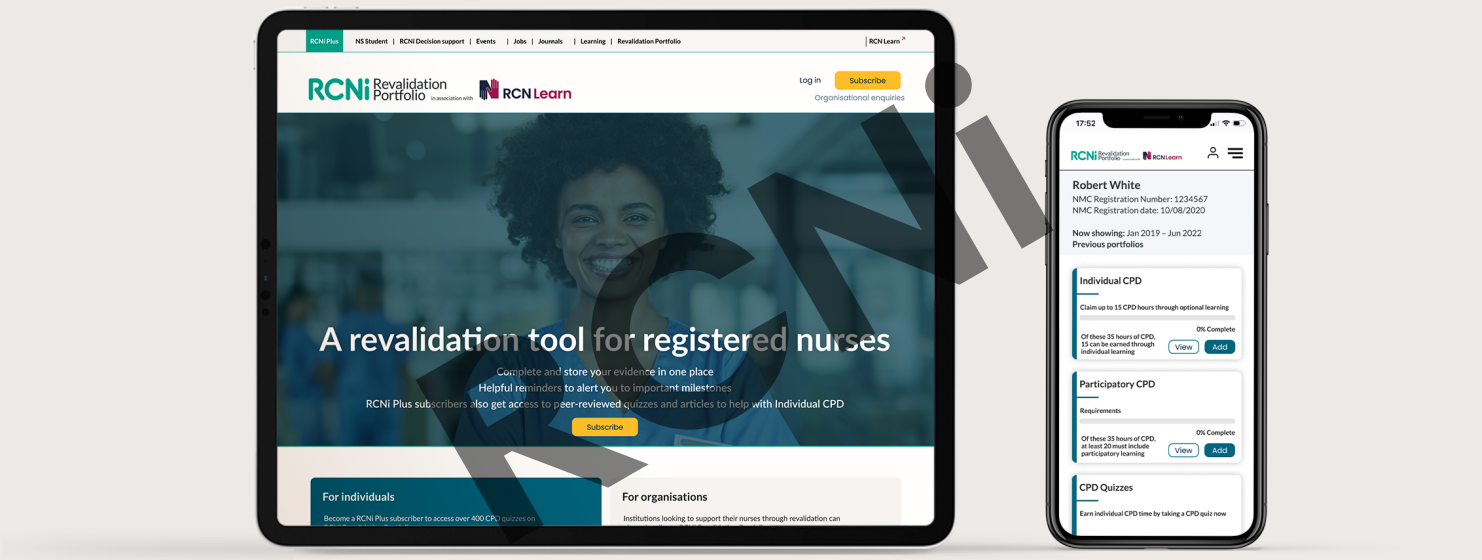

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