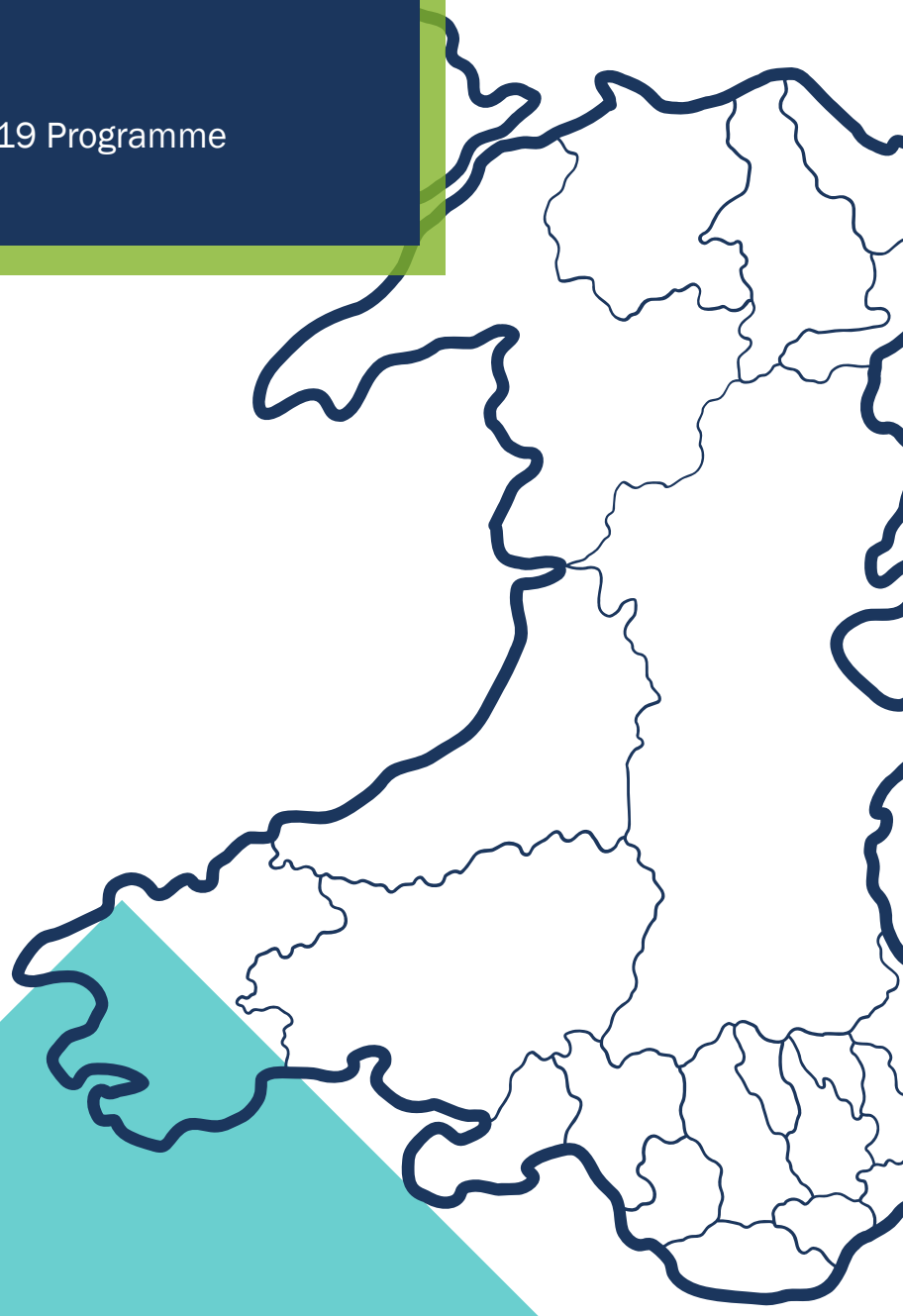
End of Programme Learning Report

National Nosocomial COVID-19 Programme



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1. Introduction

The National Nosocomial COVID-19 Programme (NNCP) wishes to extend its sincere condolences to those who lost loved ones after acquiring COVID-19 in healthcare settings. It has been an extremely difficult time for many families, carers and staff alike and the impact cannot be underestimated.

The purpose of the *End of Programme Learning Report* is to summarise the national learning that has emerged from nosocomial (healthcare-acquired) COVID-19 investigations and the wider programme of work. This report builds upon early learning themes identified in an *Interim Learning Report* which was published in March 2023.

It is important to recognise that the programme is not a nationally led investigation into nosocomial COVID-19 in Wales, nor does it seek to detract from the role of the UK COVID-19 Inquiry. The NNCP was established to support NHS Wales organisations undertake their duty to investigate patient safety incidents in a proportionate way - whilst reflecting the complexities of COVID-19 which caused unusually high numbers of incidents.

2. Background

In response to the pandemic, NHS Wales rapidly adapted and altered its operational focus to minimise the harmful impact of COVID-19 as far as possible, at a time of high levels of uncertainty and anxiety. It is widely acknowledged that NHS staff worked tirelessly through the most challenging period in the history of the NHS to maintain high standards of clinical care and minimise risk to patients. Despite best efforts, the requirement for the NHS to shift operational focus to respond to the pandemic severely disrupted routine healthcare activity.

On an international level, COVID-19 was a new and unpredictable infection of which little was known, beyond the fact it posed a serious threat to global population health.

Whilst infection prevention and control (IP&C) measures are routine practice for the NHS, the spread of COVID-19 in healthcare settings proved challenging, particularly at times when community prevalence was high, and hospitals had significantly high levels of patient complexity, demand and occupancy.

The scale of the pandemic meant that, despite being in a healthcare environment, patients in hospitals and other in-patient settings inevitably faced an increased risk of contracting nosocomial COVID-19. Whilst Health Care Acquired Infections (HCAIs) - now including COVID-19 - are a recognised risk in healthcare settings, developing our understanding of how to investigate matters of patient safety is important to help inform learning and improvement.

3. What is the National Nosocomial COVID-19 Programme?

The NNCP was established in April 2022 to support NHS Wales organisations to conduct proportionate investigations into patient safety incidents of nosocomial COVID-19, which occurred between March 2020 and April 2022. It is a collective membership of all NHS organisations across Wales, working together to implement as consistent an approach as feasible, to investigate nosocomial patient safety incidents.

Beyond the commitment by NHS Wales to investigate and answer as many questions as possible, the programme also provided an opportunity to consider how NHS Wales manages and undertakes patient safety investigations; particularly how service users, families and carers are supported and engaged in the process.

All NHS Wales organisations have a duty to manage and proportionately investigate patient safety incidents in line with the National Health Service (Concerns, Complaints and Redress Arrangements) (Wales) Regulations 2011 and NHS Wales The Duty of Candour Procedure (Wales) Regulations 2023.

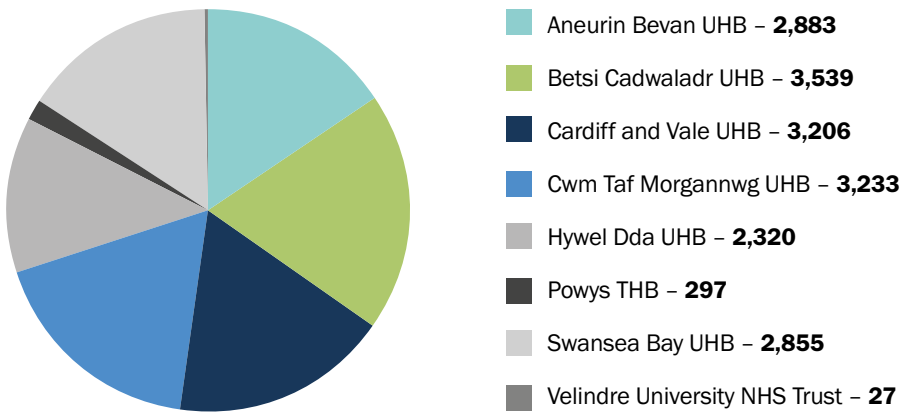
Patient safety incidents are any unintended or unexpected incident which could have or did lead to harm for one or more patients receiving NHS-funded care. HCAIs, including COVID-19, will in certain circumstances be considered a patient safety incident, depending on how and when the infection was acquired.

To assist NHS organisations investigating patient safety incidents of nosocomial COVID-19, a *National Framework for the Management of Patient Safety Incidents Following Nosocomial Transmission of COVID-19* was developed, to ensure as consistent an approach as feasible was followed and investigations were done once and done well.

Over the course of the two-year programme, the framework has supported NHS Wales organisations to assess and investigate a total of 18,360 cases of nosocomial COVID-19 where they met the definition of a patient safety incident.

Acknowledging the impact of COVID-19 on service users, families, carers and NHS Wales staff, the programme adopted a learning approach that seeks not to place blame but maximise the opportunity for learning and improvement.

Total number of nosocomial COVID-19 cases investigated by each health board/trust that occurred between March 2020 and April 2022



4. How has learning been identified?

Learning has been identified through various quantitative and qualitative methods including investigation findings, the experiences of people (service users, families, carers and NHS Wales staff), incidental findings, and through collaboration with internal and external partners. Learning has also emerged through organisational scrutiny panels, which are conducted independently of investigations.

Combined learning from across organisations has been collated into national themes to further support the identification of areas for improvement in the quality and safety of services, enhancing provision and people experience. Learning sources include:

- Set-up of the programme including preparatory work
- Test sample audit and subsequent impact assessment
- Investigations
- People's experiences (Service users, families, carers and NHS Wales staff)
- Wider feedback and stakeholder engagement

5. Learning from the programme

5.1 People's experiences

5.1.1 Bereavement support and care-after-death services

Access to high-quality bereavement and care-after-death support services can be extremely helpful in managing grief. When the NNCP was established, consideration was made about how service users - particularly the bereaved - would be supported. A differentiation in pathways for signposting, referrals to, and accessing bereavement support services was identified across NHS Wales organisations. Some NHS Wales organisations did not have dedicated services that offered support following a bereavement.

To help reduce variation in accessing bereavement support, a National Framework for the Delivery of Bereavement Care was launched in 2021. The framework highlighted the need for a consistent and equitable approach across Wales for accessing bereavement support. This has resulted in organisations now having dedicated bereavement support services.

NHS Wales recognised that support should be available for all families contacted as part of the programme and worked collaboratively with health boards and trusts to ensure bereavement support arrangements were in place for bereaved families when contacted. Learning has identified that this came too late for some families connected with the programme, and that the bereavement process for some families has been adversely impacted.

Key learning

Bereavement support services should be proactively offered to all families who are experiencing grief following the loss of a loved one. This is also an extremely important consideration as part of patient safety incident investigation processes.

Families should be proactively signposted to information about bereavement services at the earliest opportunity.

Good practice

The National Framework for the Delivery of Bereavement Care sets out how Wales can respond to those who are facing, or have experienced, a bereavement. It includes core principles, minimum bereavement care standards and a range of actions to support regional and local planning.

Work is taking place with local health boards and a number of partners to develop a national bereavement pathway for Wales, providing information and guidance to health boards, and everyone involved in bereavement support provision, to promote a consistent approach for accessing bereavement support across Wales.

A qualitative bereavement measure within the NHS Performance Management Framework with effect from 2023/24 relates to organisations' progress to embed the National Framework for the Delivery of Bereavement Care in Wales and the National Bereavement Care Pathway.

5.1.2 Supporting service users during an investigation process

Navigating and understanding the concerns process and knowing who to contact with a question is sometimes the difference between understanding and trusting the process, or dissatisfaction and lack of trust. In equal measure, listening to the experience of service users, families and carers is a fundamental principle of good concerns management, and key to ensuring learning opportunities are maximised.

Through contact relating to patient safety investigations, feedback has identified that service users, families and carers found it confusing knowing who to contact and how to discuss a concern or seek clarification on the progress of their case.

To improve this experience, organisations established a dedicated five-day single point of contact for service users, families and carers, when managing a concern.

In April 2023, the Duty of Candour was introduced in Wales as a legal requirement for NHS Wales organisations – requiring them to be open and transparent with patients and service users when they experience harm whilst receiving health care. NHS Wales organisations are required to talk to service users about incidents and involve them in the investigation process.

The duty builds upon Putting Things Right guidance, the process through which concerns and complains are investigated, providing an easy-to-access way of raising complaints and concerns. This was introduced to support the National Health Service (Concerns, Complaints and Redress Arrangements) (Wales) Regulations 2011.

Over the past 12 years, there have been significant changes in the way people live, work and access healthcare, including additional demands on the NHS in Wales. In 2024, Welsh Government has engaged in an open consultation in relation to the revision of Putting Things Right arrangements, the purpose of this is to place patients at the heart of the process and to ensure they feel listened to. The consultation closed in May and Welsh Government is evaluating the findings.

Key learning

Every service user, family and carer should have timely access to a dedicated and easy-to-access single point of contact to provide feedback, and raise questions, concerns or queries. This is particularly key for patients and families involved in the concerns process.

Supporting information should be available and easily accessible to assist families in understanding the sometimes-complicated language linked to the concerns process.

Good practice

To ensure the principles of the Duty of Candour were enabled for service users, families and carers, a set of minimum standards were established for how services should engage people. The provision supports a coordinated approach to handling queries about nosocomial COVID-19, with ease of access to address additional queries or broader concerns regarding nosocomial COVID-19.

The NNCP has engaged NHS Wales organisations to co-ordinate a pilot of one of the first national surveys that spans all health board and trust areas. Surveys have been developed to gather experiential feedback from patients, carers, and families who have been involved in the investigation process. The pilot which has been tested with a small sample size has demonstrated how CIVICA could have further value if applied to investigation processes more broadly.

5.1.3 Visiting restrictions

Visitors play an important part in a patient's recovery, with evidence continually highlighting the positive role visitors have on outcomes, such as shorter stays and faster recovery times for patients. It is recognised that families and carers are often best placed to observe deterioration and identify a loved one's needs.

Visiting restrictions are a method used in response to infectious outbreaks in healthcare settings. Restrictions during COVID-19 were introduced to help reduce transmission from community settings into hospital environments, and particularly to minimise the risk for vulnerable patient groups.

The programme identified, through service user, family and carer feedback, that visiting restrictions had many adverse effects on the physical and mental health of patients - especially those in the vulnerable groups that the restrictions were intended to safeguard, many of whom were not able to fully understand the decisions made. The limited alternative arrangements for making contact and communicating with loved ones, also negatively impacted the experience for many other service users, families and carers.

Investigations highlighted that families often relied on clinical teams and ward staff to connect with their loved ones. Whilst this communication in the main has been highlighted as positive, there are instances where communication was below the expected standards, especially the inability to make contact during busy periods.

Key learning

All services and wards should have named dedicated patient support teams and volunteers to support families and carers who may be finding it difficult to visit a loved one in hospital.

Future visiting guidance should pay particular reference to the role carers have as an important part of a patient's care team. Health boards and trusts are now further recognising this in scenarios where visiting restrictions need to be implemented.

Good practice

Organisations developed many innovative ways to minimise the impact of visiting restrictions, including virtual visiting via tablet devices, outdoor visiting and utilising ward-based patient support teams to bridge the gap. Organisations continue to use these methods to support contact.

Volunteers also played a key role in bridging the gap, particularly later in the pandemic. Many organisations have continued to strengthen these services and enhanced staff training.

Using learning from the pandemic and other patient experience measures, an NHS Wales People Experience Framework is being developed to support best practice in measuring experience and using insights to inform improvements.

Recognising the value of carers in patient care, revised national visiting guidance now advises that carers should not be classed as visitors and should have an individualised attendance plan with the appropriate clinical area.

With support of Improvement Cymru, the Institute for Healthcare Improvement and their own improvement functions as part of the Safe Care Collaborative, teams at two health boards have collaborated to pilot Call 4 Concern services. The patient safety initiative, which helps to address family/visitor concerns about patient deterioration, provides an extra level of vigilance and timely clinical review.

5.1.4 Communication with families and carers

The involvement of families and carers in patient care is incredibly important. Particularly when loved ones are extremely ill, families and carers can take great comfort in receiving frequent updates and communication from ward teams.

Staff strive to communicate with families and carers often and recognise the extensive value this has. However, in periods of sustained demand and workforce pressures, staff sometimes had to prioritise other patient clinical needs over communication.

It is also worth noting that communication was negatively impacted by visiting restrictions at times, as visiting often offers a useful opportunity to communicate with families and carers.

Through the investigation process, the programme has identified some evidence of poor experience regarding communication around patient updates including; ward movements, notification of positive COVID-19 tests, treatment and discharge planning.

Key learning

The strain placed on ward staff had a negative impact on capacity which had an adverse impact on communication with patients' families and carers.

Under periods of extreme pressure, Patient Advice and Liaison Service (PALS) teams and volunteers, where appropriate, can be effective to support communications whilst ward staff prioritise patient care needs.

Good practice

Patient Advice and Liaison Service (PALS) teams and volunteers had a positive impact on communication with families and carers in the later stages of the pandemic when IP&C restrictions were relaxed. Organisations are continuing to build on how PALS teams and volunteers can provide valuable support to patients and families.

Patient, family and carer feedback, in addition to patient records, have demonstrated examples of good communication which showed a great deal of compassion. This was notable particularly around discharge processes and end of life care.

A health board in Wales has recently embarked on a pilot of new digital communication technology that aims to improve communication with families and carers whilst their loved one is in hospital. The web-based application allows group messages to be sent out by ward staff, which may include updates to ward visiting times or notification of an outbreak on a ward. Personalised messages to individuals about a specific patient will also be a key feature.

5.2 Patient safety incidents and concerns

5.2.1 Patient safety incidents outside of NHS Wales settings

Patients often receive NHS-funded care in other settings, for example, their own homes, care homes, and facilities outside of Wales. Whilst NHS Wales organisations, under the Duty of Candour, have a responsibility to ensure any patient safety incidents that occur to their local population are reported to them, the requirement to undertake investigations can alter.

In applying the National Framework for the Management of Patient Safety Incidents Following Nosocomial Transmission of COVID-19, it has been identified that how the Regulations are applied in different parts of the health and social care system, as well as other sectors such as independent providers (private and public service), is variable and confusing.

Learning has identified that whilst the Regulations require an investigation for concerns relating to the transmission of COVID-19 during NHS-funded healthcare, there are a number of differences when care has been provided by a non-NHS organisation. For example, who undertakes the investigation, how the investigation is progressed, the requirement to compensate and how NHS Wales organisations who fund the care are notified.

The programme identified that the Regulations create variability and inequity for service users, families and carers who receive NHS-funded healthcare via another provider when a concern is raised. On the basis of the Regulations, the current programme does not extend to investigating all instances of nosocomial COVID-19 which occurred through an independent provider setting under NHS-funded care, including care homes.

Evidence from the experience of service users, families and carers connected to the programme to date, suggests they are not routinely informed of these differences.

Key learning

All policies and procedures relating to the management of patient safety incidents which occur during NHS-funded care should set expectations of the standards required across all care settings to minimise confusion for service users, families and carers who may be receiving care across multiple complex care pathways.

Good practice

The learning from applying the National Framework for the Management of Patient Safety Incidents Following Nosocomial Transmission of COVID-19 has been shared with social care colleagues. A good practice guide has been developed for non-NHS support services in other sectors to apply a more consistent and standardised approach to concerns in social care and care home settings.

5.2.2 Identification, reporting and investigation of Health Care Acquired Infections (HCAIs) as a patient safety incident

Learning from patient safety incidents is an important element to improve quality of care, and continually learn how to minimise the impact of HCAIs and the impact on patients.

Beyond the management of nosocomial COVID-19 as a patient safety incident, learning has identified that current arrangements within NHS Wales for the identification, reporting and investigation of all HCAIs that meet the definition of a patient safety incident are variable.

The programme also identified inconsistent approaches to the management and reporting of HCAIs across Wales and variations in the methodology used to investigate such incidents. It has also been established that the use of surveillance definitions in NHS Wales does not automatically indicate that a patient safety incident has occurred.

A new Health Care Acquired Infection Delivery Board has been established to further coordinate national approaches to learning and improvement across NHS Wales, reducing risks and enhancing practices. The National Policy on Patient Safety Incident Reporting and Management has also been updated to include COVID-19 in line with other HCAIs.

Key learning

All health-acquired infections need to be assessed against the requirement to report as a patient safety incident, in line with national incident policy, and an appropriate patient safety investigation needs to be initiated.

Good practice

As a result of this learning, the national policy on patient safety incident reporting has been updated to reflect new national reporting requirements for HCAIs, including the reporting of nosocomial COVID-19.

5.2.3 The application of Do Not Attempt Cardio-Pulmonary Resuscitation (DNACPR) decisions

DNACPR is designed to protect people from unnecessary suffering by receiving resuscitation that they do not want, that will not work, or where the harm outweighs the benefits. It is a key enabler in the promotion of a dignified death.

A common theme in the concerns raised by families and carers during the early part of the programme was the application of DNACPR decisions for patients who acquired COVID-19. Some of the themes in the concerns related to a view that there was a 'blanket approach' to applying the decision when somebody was diagnosed with COVID-19, and a lack of knowledge or consultation in the process of applying the decision.

Findings from investigations and other sources such as the Medical Examiners Service and mortality reviews have identified that there was a:

- Need to improve the description of patients' co-morbidities and their impact on the reason for a DNACPR being enacted
- Need to improve communication, especially around the rationale for DNACPR implementation and discussions with patients, families and carers
- Need to improve documentation related to discussions with patients, families and carers
- Need to improve the DNACPR document, particularly whether a decision should be reviewed if a patient's condition improves

Whilst a DNACPR decision does not strictly require consent from a next of kin or carer before application, unless the patient lacks capacity, learning from the investigations has recognised the importance of such communication, and the impact the management of this sensitive subject can have when managed well, and in these instances, not so well.

The analysis did not identify evidence or trends that DNACPR decisions had been placed inappropriately, or not in keeping with the current All Wales DNACPR Policy.

Key learning

Service users, families and carers place great value on good communication around the DNACPR process and need to be involved as much as possible in the decision-making process. Continued development and roll-out of an electronic advanced care planning document, is also seen as key to improvements which would support clinicians during the process and alleviate some of the potential issues around DNACPR documentation and broader communication.

Good practice

There is an NHS Wales Strategic Advance and Future Care Planning Group that includes representatives from NHS organisations. The group has agreed to strengthen the section in the policy relating to appropriate and timely communication with patients and families. This is seen as an important step to support clinicians to move beyond the formal process of DNACPR, providing helpful guidance and support in how, when and with whom to communicate to ensure understanding and minimise upset.

In 2023, the All Wales Competency Framework for Completion of DNACPR was published to support healthcare professionals who are involved in end of life care with patient conversations around DNACPR. This has been shared with health boards and trusts across Wales for implementation.

In line with the All Wales Learning from Mortality Review Framework, NHS Wales organisations have been undertaking local thematic reviews in relation to DNACPR, and a national thematic review has also been carried out. Thematic review is a process that helps organisations understand what happened in multiple cases that underwent further investigation, linked by specific common features, to learn from them and to make changes that will consequently lead to improvements in the safety and quality of service. Following the national thematic review, an action plan has been produced which highlights areas for improvement to be taken forward around topics such as understanding, awareness, communication, training and processes.

5.2.4 Clinical record keeping

Timely and accurate clinical record keeping is essential to communication between healthcare professionals, promoting patient safety, quality of care and effective continuity of care.

Clinical records serve as an important reminder of what care a patient has received, including diagnoses, procedures, consultations, actions and outcomes. They are a critical reference point for healthcare professionals involved in a patient's care to understand the patient's history and treatment plan. In the event the standard of care is ever queried, clinical records evidence the care that was delivered.

Throughout the pandemic it is widely acknowledged that healthcare services faced extreme system pressures which resulted in staff frequently needing to prioritise the immediate clinical needs of patients. As a result, clinical records sometimes did not meet the expected standards.

Investigations through the NNCP have identified legibility and accuracy as an area requiring improvement in some clinical records, often missing detail and rationale, or not recorded in a timely manner. This would likely have presented a challenge to clinical teams delivering care, and prolongs the investigation process into patient safety incidents. At times, poor record keeping can also be attributed to the fact staff were required to self-isolate at home at short notice without access to hard copy clinical notes.

Clinical record is integral to patient safety, investigations demonstrate clinical staff documented key care and treatment information in most cases reviewed. However, there was an absence of detail in some cases and limited information on family communication.

Key learning

For clinical records to be completed to a high standard, clinical staff need the time to focus their attention on record keeping. There may also be wider value in reaffirming to clinical staff the value in record keeping and how it supports the patient safety agenda and investigation processes.

Digital solutions for clinical record keeping support good practice, enhancing legibility and timely access to notes. Work underway by Digital Health and Care Wales and NHS Wales organisations to embed systems such as the online Welsh Nursing Care Record will enhance the quality of record keeping and improve patient safety.

Good practice

In many cases, the standard of clinical record keeping was good and demonstrated the high quality of care delivered, and notably the compassion showed by staff, despite being under unprecedented pressure. In the absence of visiting, many clinical records demonstrated how clinical staff were extremely attentive and went above and beyond to support patients and communicate with families. This was particularly evident around end-of-life care and with critically unwell patients.

Despite some improvements being required around legibility and accuracy of clinical record keeping, there were many excellent examples of clear and concise records, with detailed rationale and information on contact with families and carers.

The Welsh Nursing Care Record (WNCR) launched in April 2021, replacing paper adult inpatient nursing notes with a secure digital system and transforming the way nurses record, store and access information. These digital documents have a standardised nursing language, which improves accuracy and makes it easier to share information between settings. The WNCR is now live in all health boards across Wales and Velindre NHS Trust, and is being used across more than 300 wards. As of April 2024, nearly 13 million inpatient nursing notes have been captured in the system and nearly 21 million digital risk assessments have been completed.

5.2.5 Staffing and resource

One of the most significant challenges throughout the COVID-19 pandemic was maintaining staff provision to deliver safe, high-quality and timely care to patients. Increases in the number of patients in hospital and more severe illness, in conjunction with staff absence (commonly due to COVID-19 and/or the need to self-isolate), placed huge pressure on NHS workforces.

There are national standards in place for healthcare professionals across a number of disciplines and all health service bodies are required to maintain appropriate staffing provision to provide the best care possible to patients.

During the onset of the COVID-19 pandemic, typical ways of working were suspended or altered to ensure health boards and trusts could respond to the risks the pandemic presented.

Many NHS staff were redeployed to areas experiencing increased demand or depleted staffing levels. Many staff were also utilised to support with the vaccination programme and testing. Additionally, a number of hospital wards were repurposed to establish additional capacity based on patient need. The flexibility of staff going to work in different areas should not be underestimated.

Investigations have demonstrated how in periods of huge uncertainty and distress, staff left their familiar working environments in the interest of caring for patients. Despite variations in skill mix, competency and experience, staff rose to the challenge. Findings also highlight how the contributions of new graduates and Health Care Support Workers was instrumental in the delivery of patient care in such intense periods of pressure.

Prior to the pandemic, the NHS in Wales, and the wider UK, has faced challenges with staff recruitment and retention. Investigations reinforce how existing vacancy rates intensified workforce pressures during the pandemic. Health boards and trusts were extremely agile in reviewing capacity and demand and identifying where resource is best placed based on patient need.

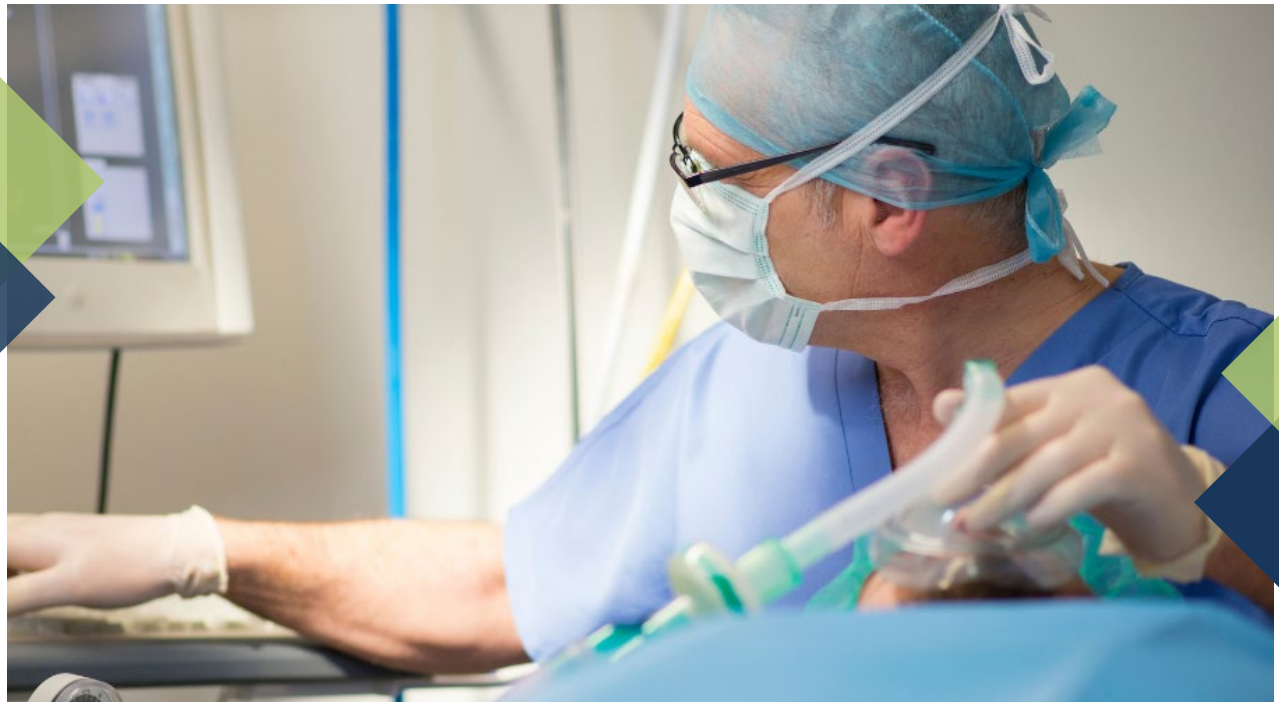
Health boards and trusts utilised agency staff where possible to cover absence and/or enhance resource. Findings suggest agency staff made an extremely valuable contribution as part of the NHS Wales workforce, however, working in unfamiliar environments with different systems and processes sometimes put additional pressure on both NHS employed and agency staff, subsequently impacting quality of care.

Despite best efforts, staffing levels were under significant strain, and at some points, NHS Wales organisations were not able to maintain safe staffing levels.

The unintended consequences of this in conjunction with wider workforce challenges were increased risks to patient safety and sub-optimal care. It should be noted that during these circumstances, it was a distressing time for patients, families, carers and healthcare professionals who constantly strive to uphold the highest standards of care.

‘A Healthier Wales: Our Workforce Strategy for Health and Social Care’ is a 10 year strategy launched by Health Education and Improvement Wales and Social Care Wales in October 2020 with an ambition of ‘A motivated and sustainable health and social care workforce’. The strategy is divided into three phases with work currently underway to develop the implementation plan for phase two. The long-term direction is to ensure there is a sustainable workforce for the future.

In addition, building on this strategic direction, Welsh Government implemented ‘The National Workforce Implementation Plan’ in January 2023, as a direct consequence of the pandemic where despite record staffing levels, healthcare workers were stretched to capacity. The plan highlights a number of actions that need to be progressed to address some of the most urgent pressures within the NHS, including recruitment and retention.



Key learning

There is extensive value in continuing work to enhance healthcare staffing provision. Recruitment and retention must continue to be a priority across NHS Wales for preparedness and resilience in a future pandemic scenario.

Good practice

NHS Wales staff were extremely agile throughout the pandemic, frequently working in unfamiliar environments in the interest of patient care and service delivery.

Health boards and trusts responded promptly to constantly shifting capacity and demand, in conjunction with quickly fluctuating resource levels. Many organisations responded with dedicated teams to monitor staffing levels and take quick action to maintain them. The way in which whole organisations worked together to utilise resource in the best place had a significant impact on maintaining safe delivery of care.

5.3 Infection prevention and control

5.3.1 Publication and distribution of guidance

National policy and guidance on IP&C are essential elements in supporting healthcare organisations to develop and implement local strategies which help to reduce the risk of infections. In response to the pandemic, the UK infection prevention and control guidance was coproduced across the UK's four nations and was published by the UK Health Security Agency (formerly Public Health England).

Due to the need to respond rapidly to the significant population health risk that COVID-19 posed, guidance updates were published frequently, at short notice and often out of normal business hours. The rapid increase in the prevalence of COVID-19 and the high demand on health and social care, in addition to the emergence of new evidence, made it necessary to update guidance on an almost weekly basis, sometimes more frequently.

NHS Wales staff experience has shown that the frequency in which the guidance was updated, created challenges for already stretched IP&C teams, who are responsible for leading the necessary changes for all HCAIs across often large and complex organisations. Naturally, it can take time to assess and disseminate guidance which requires organisations to make significant adjustments to care delivery. For example, changes to care pathways, guidance on PPE (personal protective equipment), and testing processes.

The expectation that guidance should be implemented immediately, once published, was a significant challenge during the pandemic, particularly given the level of resources required to ensure training, communication and application across large workforce numbers and settings. The implementation impacted staff who worked shifts and/or were off sick, making it difficult to keep pace with changes in guidance that related to their practice.

Whilst acknowledging updates to IP&C policy are critical, the NHS in Wales should consider how updates are distributed and communicated when an evidence base is rapidly evolving in a future pandemic scenario.

Key learning

NHS Wales organisations are encouraged to continue exploring and implementing digital communication methods that support timely and engaging communication with colleagues on updates to guidance.

5.3.2 Outbreak management

Testing is an important mechanism in the identification and prevention of infectious diseases, including COVID-19. Access to appropriate testing and the timely turnaround of test results are crucial to mitigating and preventing the onward spread of infectious diseases.

Increased demand for COVID-19 testing during the pandemic posed a significant challenge to the existing testing infrastructure, which still had to manage routine provisions such as blood tests for in-patients. Demand exceeding capacity and the inability to test rapidly for COVID-19 during periods of 2020, meant that testing was somewhat ineffective as a mechanism for reducing infections, until the supply of consumables met demand and testing capacity increased.

Due to the testing capacity challenges early in the pandemic, patients were discharged into other care settings or their own homes without the ability to rapidly test for COVID-19. This was in line with national guidance at the time, which did not advise that negative tests were required before transfer/admission into residential settings.

Further UK guidance, especially early in the pandemic, actively encouraged the discharge of patients from hospitals into care home settings, to free up hospital capacity in order to manage the anticipated demand for services.

Whilst a testing strategy produced by Welsh Government was launched on 15th July 2020, significant challenges in applying the policy existed due to limited access to the volume of consumable items required to undertake tests, and laboratory capacity to manage the extreme demand. Additional capacity beyond the existing infrastructure was achieved with the launch of the lighthouse laboratory (IP5), towards the end of August 2020, this meant it became easier and quicker to test patients and staff for COVID-19.

As well as testing, isolation plays an important part in preventing and controlling the spread of infections, especially in healthcare settings. Timely testing, along with the ability to isolate suspected or positive patients can aid in preventing onward transmission. It is important to note that isolation is one of several control measures and must be used in conjunction with other measures to be effective.

It should also be noted that isolation for infection purposes brings additional risks to patients with other care needs, particularly for older and vulnerable people, such as falls. Decisions to isolate patients for infectious purposes, even when isolation is available, should be considered in a holistic risk-balanced way that does not introduce the risk of additional harm.

An aged estate and limited isolation facilities (such as access to single rooms) meant that patients were often unable to be isolated, and cohorting was established to maintain operational flow through hospitals during extreme demand. The inability to isolate patients often meant that, in an attempt to reduce spread of infections, service users were subjected to multiple ward movements.

In line with UK guidance, the introduction of designated care pathways, which aimed to prevent onward transmission (as far as reasonably practicable), played a significant part in multiple ward movements - especially in older estates.

Experience from families and carers found that they were often not informed of these movements, which resulted in additional communication difficulties when seeking updates.

Key learning

Policies and processes should reflect mechanisms that result in limiting the number of patient moves, ensuring patients are in the right place at the right time.

Where patients are moved, families should receive proactive and timely communication on the location and rationale for the move.

Good practice

Organisations rapidly implemented increased point-of-care testing to support clinical care delivery and assist in more timely diagnosis and clinical decision-making. This supported improved daily epidemic control by reducing patient movements and achieving early detection for treatment plans to be put in place which assisted in the safe and timely transfer/ discharge of patients into alternative care settings where necessary.

During the pandemic, a health board implemented a patient safety initiative that has since been developed and shared as an example of good practice in forums across Wales. The framework and risk assessment supports clinical teams with guidance to aid decision-making processes for patients with suspected respiratory illnesses, notably COVID-19. The framework is used as a practical tool for new admissions and patient transfers – centred around keeping patients as safe as possible.

5.3.3 Discharge planning

The discharge planning process in healthcare requires a multi-disciplinary approach across health boards and trusts, local authorities and other care providers. Effective discharge planning is crucial to continuity of care as well as having patient safety benefits.

In hospital settings, despite IP&C provision, there is a constant infection risk due to a number of factors. Timely discharge can reduce infection risk (of HCAIs), as well as enhancing the recovery process and improving patient mobility. A planned targeted discharge date and time reduces a patient's length of stay, readmissions, pressures on hospital bed capacity, and services.

During the pandemic, significant volumes of patients were deemed 'medically fit' for discharge, but the discharge process was delayed due to challenges such as, care home closures due to outbreaks or inability to receive COVID-19 positive patients, vulnerable relatives at home, or delays in allocating packages of care. Many services that were considered 'non-essential' were also limited, reduced or ceased, which had a significant impact on patient flow.

Even though delay in discharge was not a 'new' issue during pandemic, it was worsened by the unprecedented pressure placed on the health and social care sectors.

Key learning

Patients who experienced delayed discharge were at an increased risk of deterioration and infection. It should be acknowledged that delayed discharges were arguably a symptom of unprecedented wider system pressures (secondary, primary and community care) including different ways of working, high levels of seriously ill patients, staffing pressures and limited patient movement due to IP&C precautions and national guidance regarding discharge arrangements and community support.

Good practice

Investigations have demonstrated a good multi-disciplinary approach to discharge planning between health boards, trusts, local authorities and other care providers, working collaboratively to discharge patients from hospital settings at the earliest opportunity.

The Safe Care Collaborative has been working with a health board to maximise the number of 'green days' for inpatients - those that positively contribute to patients' rehabilitation journey towards discharge. The project has focused on recognising the value of time for both staff and patients, maximising how the available skills are used for the benefit of patients 24 hours a day. The project has been well-received by staff, who are reporting positive feedback from patients and examples where patients are being discharged more quickly and with greater function as a result of the work.

5.3.4 Hospital environments

Ageing estates across health boards and trusts in Wales present a number of challenges in relation to both IP&C and patient experience. Since many of the hospitals and other healthcare settings across Wales were designed and built, IP&C and patient experience best practice have developed considerably.

Many healthcare settings have limited access to single rooms which means there is less opportunity to isolate patients. As a result, many patients were cohorted to reduce the spread of infection, which often meant patients experienced multiple ward movements.

Bed-spacing and ventilation were also a challenge in some areas which limited the ability to manage the risk of infection. There is room for improvement in the design of future healthcare settings – the pandemic and subsequent learning has highlighted the impact modern estate design, such as the availability of single rooms, can have on strengthening IP&C.

From a patient experience perspective, improved hospital environments provide a more comfortable and safer space to receive treatment. During the pandemic when visiting was reintroduced on a risk-based approach, some patients could not receive visitors due to limited space and the associated increased infection risk. Not receiving visitors had many adverse impacts on patients, as described in the previous 'visiting restrictions' section.

Key learning

An aging healthcare estate in Wales presents a number of challenges, especially around IP&C in a pandemic scenario. Where possible, health boards and trusts should continue make improvements that enhance IP&C measures and use learning from the pandemic to inform future hospital design.

Good practice

Excellent collaborative working between ward teams and IP&C colleagues enabled efficient cohorting of patients and movement based on emerging national guidance and risk assessment.

6. Closing remarks

The COVID-19 pandemic presented one of the most challenging periods in the history of the NHS, with far-reaching impacts. Conducting reviews of nosocomial patient safety incidents has been essential to provide as many answers as possible to patients, families and carers, in addition to identifying learning opportunities that will enhance future care delivery and experiences of healthcare.

National and local learning from investigations has demonstrated examples of sub-standard care and areas for significant improvement, as well as areas of best practice that show examples of adaptability and innovation.

Health boards and trusts in Wales have been sharing learning in a range of forums throughout the programme and learning will continue to be triangulated in the appropriate places to support improvements. Learning from investigations will have a significant impact on experiences, quality of services, and safety of patients and service users receiving care.

The NNCP extends its sincere thanks and gratitude to patients, families, carers and NHS Wales colleagues who have engaged with the programme and investigation process.

7. Additional information

Accessing support

People involved in the programme are encouraged to reach out to their designated health board/trust if they feel like they need a conversation about some of the findings.

Mental health and wellbeing support can be accessed 24/7 via the CALL Mental Health Listening Line, call 0800132737 or text “help” to 81066.

Information about grief and bereavement, and available support, can be found on the NHS 111 Wales bereavement web page.

Access to mental health and wellbeing support for NHS Wales staff is available through wellbeing services and occupational health in each health board/trust in the first instance. Additional mental health and wellbeing support can be accessed through the CALL Mental Health Listening Line.

Glossary of terms

Cohorting	Defines groups of people with shared characteristics from health data being placed together where demand exceeds capacity. In the context of this report, cohorting relates to suspected COVID-19 diagnosis and other health related issues.
Concern	A concern is any patient safety incident, or any expression of dissatisfaction raised by a member of the public and can be verbal or written.
Consumable items	Goods used by individuals and businesses that must be replaced regularly such as needles / swabs etc. In the context of this report, 'consumables' refers to items used for COVID-19 testing.
DNACPR	This refers to a specific process of discussion and documentation NOT to initiate future CPR (Cardio-Pulmonary Resuscitation) in the event of a future cardiac arrest and natural and anticipated dying event. A DNACPR decision does not have repercussions on any other element of treatment and care.
Independent providers	Services delivered by organisations that are not NHS Health Board/ Trust services. Examples include independent care providers such as care homes, local authority social services, charities and Third Sector organisations.
Nosocomial infections	Nosocomial infections, also referred to as 'healthcare-associated infections' (HAI), are infection(s) caught during the process of receiving health care, and where that infection was not present during the time of a person's admission to hospital or healthcare setting. They may occur in different areas of healthcare delivery, such as in hospitals, long-term care facilities, and ambulatory settings. The infection may also appear after discharge from a healthcare setting but are attributed to the time a person was in contact with the healthcare setting.
Patient safety incident	An unintended or unexpected incident which could have or did lead to harm for one or more patients receiving NHS-funded care.
PPE (Personal protective equipment)	Protective face coverings, clothing, helmets, goggles, or other garments, designed to protect the wearer from injury or infection.
Service users	Anybody using NHS Wales healthcare funded services.
Surveillance definitions	Surveillance of Health Care Acquired Infections refers to the monitoring and reporting of these events. Surveillance definitions are used to categorise these events as part of investigations.