**Infection Prevention and Control**

*A Quick Reference Guide for Care Homes in Wales (2018)*

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**Purpose and Summary of Document:**
This Quick Reference Guide provides Infection Prevention and Control advice for all Care Homes in Wales.

**Superseding Public Health Wales Infection Prevention and Control Guidance for Care Homes (2016 v.1d).**
Part 1

Preface
Public Health Wales Infection Prevention and Control (IP&C) Guidelines for Care Homes in Wales were first produced by Health Protection Nurses in 2007 and subsequently reviewed in 2014 and 2016.

A Task and Finish (T&F) Group was convened in 2018 to review these guidelines with the ultimate aim of ensuring that those involved with the provision of care in all Care Homes in Wales had access to consistent, up-to-date and standardised policies/guidelines to support their IP&C practices.


The NIPCM, which was produced by Health Protection Scotland (HPS), is now hosted on the Public Health Wales website. It has been adopted for use by all healthcare organisations in Wales and is based on systematic reviews of the literature and policies from Health Protection Scotland. In all other care settings, which support health and social care integration, the NIPCM is considered best practice. Should anyone experience trouble in accessing the NIPCM via the above PHW website, then please use the following HPS website: http://www.nipcm.scot.nhs.uk/

We therefore hope that our move towards using a modernised and condensed ‘Quick Reference Guide’ for IP&C in all Care Homes in Wales will continue to:

- Contribute to consistent and current standardised practice for IP&C and therefore Healthcare Associated Infection (HCAI) reduction
- Lead to harm reduction
- Improve the quality of care for Care Home residents
- Eliminate out-of-date guidance and practice
- Provide free-of-charge access to e-learning modules on IP&C

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**Introduction**

The prevention and control of infection is fundamental to the provision of a safe environment for residents, visitors and staff in a Care Home.

Historically, IP&C was seen as the domain of a specialist infection control team, usually in hospitals. However, in recent years IP&C has become **everyone’s business** with a shift towards a culture of **zero tolerance, where one avoidable infection is considered one too many**. The following Welsh Government website provides a framework of actions for healthcare organisations in Wales – ‘Commitment to Purpose: Eliminating preventable healthcare associated infections (HCAIs)’:


The Care Home manager or their delegated person is responsible for ensuring that appropriate IP&C guidelines are readily available, understood by all members of their staff and be part of their everyday practice in their Care Home. Information on the responsibilities for adoption and implementation of IP&C guidelines for Care Homes can be downloaded from the following NIPCM website:


In addition, the manager should ensure that all their Care Home staff know that they can contact the **Health Protection (All Wales Acute Response) Team of Public Health Wales on 0300 003 0032** for advice and guidance on all matters relating to IP&C and communicable disease control both within and outside of office hours.

Advice on food hygiene and Diarrhoea and Vomiting (D&V) outbreaks can also be sought from your local County Council’s Environmental Health Department.

In addition, NHS Direct Wales has excellent general information on specific infections/diseases and are contactable on 0845 46 47 or by accessing their website:

[https://www.nhsdirect.wales.nhs.uk/encyclopaedia/default.aspx](https://www.nhsdirect.wales.nhs.uk/encyclopaedia/default.aspx)
Part 2

The Chain of Infection

Micro-organisms (germs) can be found in and on the person’s body (e.g. skin, mouth, intestinal tract) and are referred to as the body’s normal flora. Some however can cause infection if they find their way into other areas of the body. An example of this is where micro-organisms normally found in the bowel e.g. *E. coli* can enter the bladder and potentially cause urinary infection. This is referred to as **Endogenous** or **self-infection**.

Normal skin flora is also known as ‘resident’ skin flora and is continuously present on the skin to protect the host (person) from being ‘invaded’ by other micro-organisms that may be more harmful to health. Resident skin flora rarely cause infection but can do so when the skin, one of the body’s main defense systems, becomes breached or broken, for example during general surgery (operation). Resident skin flora is difficult to remove by normal hand hygiene techniques, although their numbers will be reduced by this process.

Other micro-organisms that are easily transferred onto a person’s skin from contact with other staff, residents or from the environment are known as ‘transient’ organisms. As these are not resident on the person’s skin they can be readily removed or destroyed by thorough hand hygiene. If the microorganism causing an infection is acquired from another person or from the environment this is referred to as **exogenous** or **cross infection**.

In order for infection to spread (cross-infection) it has to do so in several stages - a term often referred to as the **Chain of Infection**. Cross infection can be prevented by breaking any of the links in the following **Chain of Infection (Diagram 1)**.

**Diagram 1 – Chain of Infection**
The **Infectious Agent** is the micro-organism (germ), such as bacteria (e.g. MRSA), virus (e.g. flu), parasite (e.g. head lice), or fungi (e.g. thrush) which has the ability to cause disease/infection.

The **Reservoir of Infection** may be people, the environment or equipment. The human body is the most common reservoir for micro-organisms.

The **Portal of Exit** is the way the micro-organism leaves the reservoir. For example, in the case of a person with flu, the portal of exit would be through coughing and sneezing from the respiratory tract (airway).

The **Mode of Transmission** describes how micro-organisms are spread from one person or place to another. This could be via someone’s hands, on an object, or through the air. Modes of transmission (spread) include:

- **Contact:**
  - Direct contact (person-to-person), often by contaminated hands
  - Indirect contact (food, water, inanimate objects, the environment)
- **Airborne**
- **Inoculation** (e.g. needle-stick injuries)
- **Trans-placental** (from mother to baby during pregnancy)
- **Ingestion** (eating and/or drinking)
- **Sexual intercourse**

The **Portal of Entry** describes how the micro-organism enters another person. An example of this would be a virus e.g. flu being breathed in; or Hepatitis B being accidentally injected in from a needle-stick injury.

The **Susceptible Host** is the person who is vulnerable to infection and basically includes all residents, staff and visitors. Risk factors include:

- **Age** (the very young and very old are more vulnerable to infections)
- **Immune status**
- **Physical well-being**
- **Psychological well-being**
- **Hygiene**
- **Underlying or chronic diseases or medical conditions** e.g. diabetes, chronic chest and heart problems or cancer
- **Other existing infections**
- **Invasive devices** e.g. urinary catheter
- **Medical therapies** e.g. cancer chemotherapy or high dose steroids
Basic Infection Prevention and Control Risk Assessment

All staff in a Care Home should routinely undertake a basic Infection Prevention and Control Risk Assessment (IPCRA) for their residents in day-to-day practice.

The following is an example (responses in italic font) of a basic IPCRA that staff can adopt:

- Does the resident have symptoms suggestive of an infection? = Yes, *the resident was complaining that their wound was red, hot and painful to touch.*
- Has a specimen been taken? = Yes, *the General Practitioner (GP) was called and decided to take a wound swab before prescribing a course of antibiotics.*
- Has a germ been reported by the laboratory? *Yes, the laboratory has informed the GP that there is Staphylococcus aureus (bacteria) in the wound.*
- Where is the germ? = *In a wound. Although Staphylococcus aureus is usually found on the skin it can get into underlying tissue if the skin is broken where it can cause infections e.g. pimples, impetigo, boils and abscesses. It can also cause more serious infections like pneumonia, meningitis, and sepsis.*
- How is the germ transmitted? = *Mainly by direct contact with the infected wound, but it can also spread by using contaminated equipment i.e. equipment that is not cleaned in between each resident use. Wound dressing packs should always be single-use disposable packs.*
- What can become contaminated? = *It will mainly be the dressing that will become contaminated because it is covering the wound. If there is no dressing then clothing, bedding, environment and other people can become contaminated/infected.*
- How can you prevent contamination? = *By adopting exemplary Standard Infection Prevention and Control Precautions (SIPCPs). Always keep open wounds covered with a suitable dressing. Isolating the resident because they have Staphylococcus aureus is not indicated.*

The Health Protection (All Wales Acute Response) Team can always be contacted on 0300 003 0032 to provide assistance in undertaking individual infection prevention and control risk assessments.
Part 3

Standard Infection Prevention and Control Precautions

Standard Infection Prevention and Control Precautions (SIPCPs), are to be used by all staff in the Care Home at all times, for all residents whether infection is known to be present or not. This will ensure the safety of residents, staff and visitors in the care environment. The following SIPCPs, are available in Chapter 1 of NIPCM website (http://www.wales.nhs.uk/sitesplus/888/page/95001) and are the basic IP&C measures necessary to reduce the risk of transmission of infectious agents from both recognised and unrecognised sources of infection in the Care Home:

- Patient/Resident Placement
- Hand Hygiene
- Personal Protective Equipment (PPE)
- Management of Care Equipment
- Control of the Environment
- Safe Handling/Management of Soiled Linen
- Management of blood and Body Fluid Spillages
- Safe Handling/Disposal of Waste
- Occupational exposure Management (including sharps safety)

Transmission Based Precautions

In some situations, SIPCPs may be insufficient to prevent the spread of infectious agents and additional Transmission Based Precautions (TBP) will be required.

Although information on TBP is available in Chapter 2 of NIPCM website (http://www.wales.nhs.uk/sitesplus/888/page/95064), appropriate advice on the necessary precautions can also be sought from the Health Protection (All Wales Acute Response) Team on 0300 003 0032.
User’s Guide to using the NIPCM website
Please find below a guide on how to effectively use the NIPCM website.

Click the following link to access the main NIPCM website: http://www.wales.nhs.uk/sitesplus/888/page/95007

Appendices
To find specific information, such as the following, you will need to access the relevant Appendices within the NIPCM:

- Decontamination of Equipment – Appendix 7
- Last Offices for residents with an infectious disease – Appendix 12
- Laundry and Linen – Appendix 8
- Management of blood and body fluid spillages – Appendix 9
To access these, click on the Appendices arrow from the main page (indicated by yellow arrow).

Then, the following drop down menu appears. Click on the Appendix you need and again scroll down for the information.

**A-Z Pathogens**

The word pathogen means an organism (or germ) that can cause disease. Information on incubation period and transmission route for various pathogens e.g. chicken-pox, head lice, MRSA etc can be found on the A-Z Pathogens within the NIPCM. To access these, click again on the following link to access the main NIPCM website page:

http://www.wales.nhs.uk/sitesplus/888/page/95007
Then, click on A-Z Pathogens.

Then select the first letter of the pathogen you want information on from the alphabetical list e.g. M for MRSA etc.

Then click on MRSA and scroll down to find more information on that pathogen.
All Wales Specific Guidance and Policies

To access all-Wales and English documents and websites, currently active within Welsh healthcare, click the following link to access the main NIPCM website: http://www.wales.nhs.uk/sitesplus/888/page/95007

Click on Chapter 1 – Standard Infection Control Precautions (SICPs).

Click on the pink hyperlink – All Wales Specific Guidance & Policies.

A list of guidance and policies will appear. Scroll through and select the required document by clicking on the website link.
Part 4

Healthcare Associated Infection (HCAI) Guidance Set (Compendium)

The Compendium contains a list of all current national policy, guidance and supporting materials on HCAI, produced in Wales by Public Health Wales, Welsh Government, and other stakeholders. This includes any additional HCAI guidance developed within the UK or internationally by other agencies that is applicable or helpful for use within Welsh NHS and other care services. This guidance set aims to provide NHS Wales and other care staff with an overview of all up to date guidance from the aforementioned organisations and is updated every 3 months to reflect any new guidance published:

http://www.wales.nhs.uk/sitesplus/888/page/95109

All Wales-Specific Guidance and Policies

Links to All-Wales Specific Guidance and Policies currently active within Welsh healthcare, for example Aseptic Non-Touch Technique (ANTT), Cleaning and Decontamination, Waste Management is available from:

http://www.wales.nhs.uk/sitesplus/888/page/95064#wales

IP&C patient and public information leaflets

Various IP&C patient and public information leaflets are available to download on http://www.wales.nhs.uk/sitesplus/888/page/95504

Outbreak Management

Outbreaks of Diarrhoea and/or Vomiting (D and/or V); and Flu can affect a large number of residents and staff causing significant disruption to the Care Home setting with potential for spread of infection into the wider community. The definition of an outbreak is “an incident in which two or more people experiencing a similar illness are linked in time or place”. Care Home staff are asked to inform their local County Council Environmental Health Team as soon as they suspect an outbreak i.e. two or more cases of D and/or V; and the Health Protection (All Wales Acute Response) Team on 0300 00 300 32 as soon as they suspect an outbreak of Flu. This enables prompt investigation and implementation of appropriate actions to prevent further spread.

$To find the contact details of your local council Environmental Health
Team, enter your postcode into the following website:
https://www.gov.uk/find-local-council

Specific guidance on the Influenza (flu) Campaign and managing flu outbreaks in Care Homes is available on:

Specific guidance on managing norovirus outbreaks in Care Homes is also available on the A-Z Pathogens (click on Norovirus) of the All Wales Specific Guidance and Policies:
http://www.wales.nhs.uk/sitesplus/888/page/95064#wales or on the Health Protection Scotland A-Z Pathogens (click on Norovirus):
http://www.nipcm.scot.nhs.uk/a-z-pathogens/#n

Winter Preparedness

Every winter thousands of people fall ill and many die because of exposure to cold weather, flu and other respiratory infections. Those most at-risk include older people, very young children and those with conditions like heart and lung disease. PHW are currently in the process of producing a Winter Preparedness Pack for Care Homes.

National Point Prevalence Survey of Healthcare Associated Infections, Device usage and Antimicrobial use in Long-Term Care Facilities 2017 - HALT 3 Wales

HALT-3 was a voluntary survey of healthcare-associated infections (HCAIs) and antimicrobial use in long-term care facilities (LTCFs) across Wales during Autumn 2017, and provided insight into the burden of HCAIs and antimicrobial use in LTCFs. The survey also evaluated the current support network and surveillance programmes for LTCFs in relation to IP&C and antibiotic prescribing, recommending areas for intervention:
http://www.wales.nhs.uk/sitesplus/documents/888/Wales%202017%20HALT3%20PPS%20of%20LTCFs%20Report%20FINAL.pdf

Root Cause Analysis

Similar to the NHS, Care Home managers may wish to consider adopting the ‘Root Cause Analysis (RCA) using five whys’ available from the following NHS Improvement as an investigative tool for IP&C quality and service improvement: https://improvement.nhs.uk/resources/root-cause-analysis-using-five-whys/
Repeatedly asking the question ‘why?’ five times (use five as a general rule of thumb), will allow those involved in care provision to quickly identify the source/cause of an IP&C issue or problem, focus resources in the correct areas and ensure tackling the true root cause of the problem and not just its symptoms, thereby improving the quality of care service delivery by reducing the risk of recurrence.

**Multi Drug Resistant Organisms (MDRO) and Antibiotic Resistance**

Multidrug-resistant organisms (MDROs), including meticillin-resistant *Staphylococcus aureus* (MRSA), vancomycin-resistant enterococci (VRE), Carbapenemase-producing Organisms (CPO) and certain Gram-negative bacilli (GNB) have important infection prevention and control implications and are recognised as a major Public Health threat.


An MDRO and CPO information leaflet are available from the following website: [http://www.wales.nhs.uk/sitesplus/888/page/95504](http://www.wales.nhs.uk/sitesplus/888/page/95504)

PHW have developed a webpage with further information to support the identification, screening requirements and subsequent management of MDROs in the acute and non-acute healthcare setting. Follow this link: [http://howis.wales.nhs.uk/sitesplus/888/page/72809](http://howis.wales.nhs.uk/sitesplus/888/page/72809)

Antibiotics are important medicines used to treat infections caused by bacteria. Bacteria however can become ‘antibiotic resistant’ which means that the antibiotic is no longer effective at treating serious bacterial infections. The more often antibiotics are used, the more likely it is that bacteria will become resistant to it. Some bacteria that cause infections in hospitals and care homes, such as meticillin-resistant *Staphylococcus aureus* (MRSA), are resistant to several antibiotics. It is therefore important to only use antibiotics when appropriate and to ensure the complete the course, as prescribed. Further information is available from:

Immunisation/Vaccination of Residents and Staff
Immunisation saves lives. General information on immunisation can be accessed via the following Vaccine Preventable Disease Programme website on http://www.wales.nhs.uk/sitesplus/888/page/43510 OR the ‘Green Book’ https://www.gov.uk/government/collections/immunisation-against-infectious-disease-the-green-book whilst specific immunisation information is available, as follows:

The routine immunisation schedule in Wales:

Occupational Health
Information on the provision of occupational health immunisation can be downloaded from http://nww.immunisation.wales.nhs.uk/occupational-immunisation

Flu Vaccination for [adult] Care Home Staff – Since Autumn 2018 all [adult] Care Home staff will be eligible to receive free NHS flu vaccination via community pharmacies*, under the Welsh Health Circular (2018) 036 - Flu Vaccination for residential care and nursing homes staff in 2018-19:

* A poster to display for staff vaccination is available from: http://www.wales.nhs.uk/sitesplus/documents/888/180802%20Free%20Flu%20Vaccine%20Care%20Staff%2003.pdf

If staff/resident are in doubt about whether or not to be vaccinated against flu then they should be encouraged to watch real life stories of individuals, such as Louise, who was badly affected by flu: http://www.wales.nhs.uk/sitesplus/888/page/96850#video; and the impact a flu outbreak can have on a Care Home: https://m.youtube.com/watch?v=cyrYR1z-oRI

Flu Champion(s)
Similar to hospitals, Care Homes are encouraged to have a ‘Beat Flu Champion’ i.e. a person who is committed to and will encourage the uptake of the annual flu vaccine for both resident and staff. Flu
campaign resources are available from:  
http://www.wales.nhs.uk/sitesplus/888/page/96846

**Recommended Period to Keep Individuals Away from Settings because of Common Infections (Exclusion Period)**  
Specific information on how long a resident should be isolated for or a member of staff kept off work for is often referred to in national guidance as ‘exclusion’ period. This is basically the period of time a person is considered infectious to others and needs to be kept away from vulnerable individuals to prevent cross infection. The ‘exclusion’ periods for the various micro-organisms can be accessed via the A-Z Pathogen list on NIPCM: [http://www.wales.nhs.uk/sitesplus/888/page/95007](http://www.wales.nhs.uk/sitesplus/888/page/95007) OR [http://www.nipcm.scot.nhs.uk/a-z-pathogens/](http://www.nipcm.scot.nhs.uk/a-z-pathogens/). In addition, a table on the recommended period to isolate a resident or keep a member of staff off work for is available to download from:

http://www.wales.nhs.uk/sitesplus/888/page/95507

**Resident Pets/Pet Visitors**  
Although pets can enhance the quality of life for a person, there is always the possibility of catching an infection from them (a term often referred to as zoonosis), particularly if the person’s immunity is reduced through age, illness or therapy. Before embarking on having a resident pet/pet visitor in the Care Home, seek advice from your local council’s Animal Welfare Team, local vet, or one of the many animal charities, for example Pets As Therapy: [https://petsastherapy.org/what-we-do/faqs-2/](https://petsastherapy.org/what-we-do/faqs-2/), RSPCA: [https://www.rspca.org.uk/home](https://www.rspca.org.uk/home), PDSA: [https://www.pdsa.org.uk/](https://www.pdsa.org.uk/) or Blue Cross: [https://www.bluecross.org.uk/pet-advice](https://www.bluecross.org.uk/pet-advice)

**Quality Improvement Tools**  
IP&C Quality Improvement (Audit) Tools are available for use in Care Homes to measure baseline compliance (using evidence-based criteria) with standards to identify any improvement work necessary to prevent/reduce the risk of infection. Please contact the Health Protection (All Wales Acute Response) Team on 0300 003 0032 for advice on how to obtain these audit tools.

An audit tool for Care Homes: Environmental Cleanliness is also available to download from the following IPC CQC website:  
https://www.infectionpreventioncontrol.co.uk/resources/audit-tool-environmental-cleanliness-for-care-homes/
**Home Hygiene - Prevention of infection at home and in everyday life: a learning and training resource**

The Infection Prevention Society and the International Scientific Forum on Home Hygiene have undertaken a revision of their joint training/self-learning resource, which has been in widespread use since 2003. This resource is now available directly from the following IPS website: [https://www.ips.uk.net/files/5015/3744/9024/Home_Hygiene_-_Prevention_of_infection_at_home_and_in_everyday_life_a_learning_and_training_resource.pdf](https://www.ips.uk.net/files/5015/3744/9024/Home_Hygiene_-_Prevention_of_infection_at_home_and_in_everyday_life_a_learning_and_training_resource.pdf)

The International Scientific Forum on Home Hygiene has also produced the following Report that sets out the issues that need to be addressed and the actions which need to be taken to achieve hygiene behaviour changes in home and everyday life: [https://www.ifh-homehygiene.org/sites/default/files/publications/IFH%20White%20Paper-10-18.pdf](https://www.ifh-homehygiene.org/sites/default/files/publications/IFH%20White%20Paper-10-18.pdf) or click on the link on the following website (Compendium of HCAI Guidance): [http://www.wales.nhs.uk/sitesplus/888/page/95109](http://www.wales.nhs.uk/sitesplus/888/page/95109)

**Hydration:**

A fundamental care need for care home residents is ensuring that they consume enough fluids every day to keep them well hydrated. The University of West London has produced the following practical resource pack, which brings together strategies aimed at optimising the hydration of older people residing in care homes:


In addition, the Healthcare Associated Infection and Antimicrobial Resistance and Prescribing Programme (HARP) has produced a decision aid for suspected urinary tract infection (UTI) in older and frail people in Long Term Care Homes, which is available to download on the following IP&C Toolkits and Resources website: [http://www.wales.nhs.uk/sitesplus/888/page/95109](http://www.wales.nhs.uk/sitesplus/888/page/95109)
Education and Learning

Everyone involved in the provision of care in a Care Home should be educated and possess an understanding of the measures required to improve IP&C.

Care Home Managers can register their staff for E-learning free of charge on the following website: [http://learning.wales.nhs.uk/](http://learning.wales.nhs.uk/)

If you are working within the public sector in Wales, you will need to use the following website to self-register: [https://learning.wales.nhs.uk/login/index.php](https://learning.wales.nhs.uk/login/index.php)

The training available includes the following:

- **IP&C Level 1** (Click on Health & Safety; Core Skills Training Framework). This module discusses how all staff can contribute to the prevention and control of infection. The module can be used for induction of all staff in the Care Home. It is intended to be undertaken every three years.

- **IP&C Level 2** (Click on Health & Safety; Core Skills Training Framework). This module aims to ensure all clinical/healthcare staff
are aware of their personal responsibilities towards the prevention and control of infection and is to be undertaken on an annual basis.

- FluOne – This module provides basic information on flu for all staff (Click on Occupational Knowledge and Skills; Immunisation and Vaccination)
- FluTwo – This module provides information on flu for staff trained to immunise/vaccinate. (Click on Occupational Knowledge and Skills; Immunisation and Vaccination)
- Aseptic Non Touch Technique (ANTT) (Click on Health & Safety; Patient Care Tab) – ANTT has been mandated by Welsh Government for use across all NHS healthcare organisation in Wales and also recommended for use any care setting. ANTT is designed to promote the essential elements of aseptic technique to prevent contamination susceptible sites. All healthcare staff should be trained in ANTT if performing asepsis in managing acute wounds such e.g. surgical wounds, recent trauma, burns, scalds and also for chronic wounds. It should also be used when inserting or caring for invasive devices e.g. indwelling urinary catheters, PEG tubes, tracheostomy, performing phlebotomy etc. The ANTT framework actively promote the essential ‘Actions for Safe Aseptic Technique’. For further information, posters and resources follow this link: http://howis.wales.nhs.uk/sitesplus/888/page/64404

If you experience problems with self-registering, please contact the help-desk via elearning@wales.nhs.uk or 01443848636.

And lastly, don’t forget if you cannot find the specific guidance you are looking for on any of the above website, then please contact the Health Protection (All Wales Acute Response) Team on 0300 003 0032 for assistance.