Welcome

This is the 6th RESIST newsletter from the Antimicrobial Resistance and Infection Control Division of HPSC (AMRIC). We are behind with this edition as COVID-19 has been keeping us busy. This edition is focused on COVID-19 and if you would like further information check www.hpsc.ie or www.hse.ie for public information. Thanks for your comments and inputs, if you have any suggestions on content or want further information please contact us on hcai.amrteam@hse.ie

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Prof Martin Cormican, National Clinical Lead

This is the first RESIST newsletter of the COVID-19 era. The COVID-19 pandemic has transformed healthcare for patients and for healthcare workers. As well as seeing the impact of COVID-19 on patients we have seen many healthcare workers become infected.

Almost every one of us knows one or several colleagues who have had COVID-19. It is very encouraging to note the recent fall off in the number of people infected and the number of people dying with COVID-19. However we all expect to be living with COVID-19 and with the fear of COVID-19 for a long time. With all of this going on infection prevention and control (IPC) has never been so much on the mind of healthcare workers.

Everyone now knows that PPE stands for Personal Protective Equipment (PPE) and how important PPE is and how hard it can be to get in a pandemic. After a very difficult period some weeks ago the supply of PPE has improved a lot in recent weeks thanks to the tireless work of colleagues in HSE Procurement.

As our experience with COVID-19 has increased we have learned that it can wear many disguises and is easy to miss.

There is much better access to laboratory testing now. The tests are good but like all tests, they do not always detect the virus in every infected person. As the HSE now expands the services that were scaled back in March and April, Standard Precautions are more important than ever. Standard Precautions in all settings, with all patients/clients all the time is the foundation of Infection Prevention and Control. Key parts of Standard Precautions are hand hygiene, respiratory hygiene and cough etiquette and environmental cleaning. Identifying people with COVID-19 or other infections as quickly as possible and taking additional Transmission Based Precautions where required adds another important layer of protection for patients and for healthcare workers but this layer has to stand on the foundation of Standard Precautions.

If you scaled back your patient/contact during March and April and are now preparing for scaling back up in a world with COVID-19 this is the perfect time to review hand hygiene and the basics of Infection Prevention and Control at www.hse.ie/infectioncontrol and guidance is on www.hpsc.ie
Protecting yourself and the people you care for with good Infection Prevention Control Practice including use of PPE

There are many parts to good infection prevention and control (IPC) practice that together help to keep you and the people you care for safe from infection. The foundation of your safety and the safety of people you care for is Standard Precautions including hand hygiene (all people you care for all the time).

PPE is an important part of good IPC practice when caring for people with COVID-19 infection. The best-designed and engineered items of personal protective equipment (PPE) will only protect healthcare workers and the people they care for are used as part of a good overall IPC plan including hand hygiene and if they are donned and doffed and disposed of the right way.

The first critical aspect of wearing PPE is to only use PPE when you need it. If you can avoid the risk of infection by keeping your distance, that is always safer that depending on PPE.

When you need to use PPE make sure that every step is followed correctly when putting on the PPE as that make it easier to take off the PPE later on without contaminating yourself.

Some people tend to make PPE more complicated that hit needs to be with extra layers such as double gloves. Making PPE more complicated does not make you safer and it may increase the risk that you contaminate yourself when taking it off.

The HSE Antimicrobial Resistance and Infection Control team has developed 5 videos to demonstrate the putting on and taking off PPE:

1. Donning and doffing regular supply PPE in an acute setting
2. Donning and doffing regular supply PPE in a community setting
3. Donning and doffing new PPE (coveralls and goggles)
4. Donning and doffing surgical mask with loops
5. Donning and doffing FFP2 respiratory masks

The videos set out the:
- PPE required; alcohol hand rub, long sleeved disposable gown, eye goggles, surgical mask and gloves
- The correct order of putting on PPE:
  - Hand hygiene with alcohol hand rub
  - Gown first (tied behind or to the side to minimise risk of contamination)
  - Mask – tied to the top of the head for easy removal
  - Goggles – place over the straps of the mask
  - Gloves
All of the videos are accessible on www.hpsc.ie and healthservice.ie Videos 1 and 2 are also available on www.hseland.ie as two education modules.

Both modules have a knowledge test and require an 80% pass rate to achieve a certificate of completion. From 19 March to 9th May there were over 41,000 successful completions of the modules.

Familiarisation with practice of donning and doffing the various PPE is just one of several important parts of good practice for all health care staff who may be working with patients who have an infectious disease including COVID-19.

It is important that you are familiar with the PPE that is available to you. You do not want to have to use a new type of PPE in an emergency.

Safe removal of PPE is complicated especially if you are tired or in a hurry. Studies show many people make mistakes when taking off even basic items of PPE and the more complicated the PPE is the easier it is to make mistakes.

Contamination is more likely to occur when the technique used for doffing is not correct and when people leave out hand hygiene. It is useful to have another colleague present to check that you are doing this correctly.

Take some time to view the videos and familiarise yourself with the PPE equipment in your service.

Please see the new PPE posters and safe mask use and glove use posters at the end of this newsletter.

It is important to explain to and assist the person you are caring for when they need to perform hand hygiene or wear a mask.

If the person cared for is having an essential visitor, the visitor will also need support for hand hygiene and using PPE.

Finally, if you do make a mistake taking off PPE remember that as long as you keep your hands away from your face and perform hand hygiene immediately after you take off the PPE you can avoid most of the risk involved in any mistake you made.

You can listen to the PPE webinar (15th May) if you want more information on PPE.

This is an image of some of the new coveralls that are approved for use if gowns are not available.
Nursing over 100 years of Infection

Disease is powerful and it devastates communities, threatens global security and challenges modern healthcare services. The Covid-19 pandemic is a case in point. As Infection Prevention & Control leaders, we have two equally important responsibilities: solve the immediate problem and keep it from happening again.

When it comes to treating contagious and easily transmissible diseases—particularly at pandemic levels—healthcare providers are the first line of defence.

Some history books cite Florence Nightingale as the first nurse to link poor hygiene and sanitation to the spread of infectious diseases. Cholera and typhoid were rife during the 19th century, when living conditions of the poor were overcrowded.

When influenza struck in 1918 the impact on front line healthcare workers was devastating. With continued infection prevention and control practice and guidance with specialist advice from Infection Prevention and Control Professionals over the years there has been increased awareness.

This has contributed to prevention, early diagnosis and control of outbreak to reduce the risk of spreading the infection thereby protecting patients, employees, healthcare students and the public.

In the current pandemic to date a suite of COVID 19 Infection Prevention and Control Guidelines have been developed and are being updated frequently as the evidence evolves. The most recent updates are available on the www.hpsc.ie.

I would advise that you visit this website on a daily basis and keep yourself updated with the most current guidance. Although they exist, it is recognised that there are many operational challenges with implementation in such challenging times. We find ourselves in an evolving and changing situation.

As healthcare workers your efforts at strengthening our culture in relation to Infection Prevention and Control is a key factor in managing the COVID-19 pandemic.

IP&C recommended practices such as hand hygiene, social distancing and respiratory hygiene is the basis for providing safe care for all.

Each healthcare worker has a role in this. We are committed to our patients/residents, service users and families to deliver high-quality care in a safe environment. In a pandemic, all healthcare systems are challenged. Safety and taking care of our colleagues and ourselves is also critically important.

As National Director of Nursing HCAI/AMR and on behalf of the Antimicrobial Resistant Infection Control team, I would like to take this opportunity to acknowledge and thank you for all the work that all healthcare staff in particular Infection Prevention and Control teams have provided to date.

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In May 2020 the WHO will publish the first ever State of World Nursing report providing a technical description of the nursing workforce in Member States and describing how the nursing workforce can help deliver Universal Health Coverage and meet the Sustainable Development Goals.

**Things you didn’t know about nursing in Ireland in 2020**

90% of those studying nursing in Ireland are female

About 1,800 students begin to study nursing at undergrad or post-grad level every September. 90% of them are female, and 4% of new entrants are non-Irish.

Source: HEA Nursing Fact Sheet

In 2016, the largest occupation with a qualification in the area of health and welfare was nursing and midwives (accounting for 27.6% of workers).

Source: CSO

As of December 2019 less than 9.3% of the total nursing population is male


Irish nurses took part in the Easter Rising as part of the Citizen Army

During the Rising women were involved in the most dangerous areas, - carrying explosives, dispatches and ammunition. Some worked as nurses and cooks, although members of the Citizen Army were armed and a number of them took part in the fighting.

Elizabeth O’Farrell, an Irish nurse, is best known for delivering the surrender in the Easter Rising of 1916.

The first Infection Control Nurse in Ireland was appointed 45 years ago.

The history of Infection Control nursing in Ireland dates back to 1975 when the first “Infection Control Sister” Jane Strong was appointed in the Mater Hospital, Dublin. For more information on the history of infection prevention and control in Ireland see https://www.ipcireland.ie/history-of-infection-prevention-control-in-ireland/

**Nurses and Midwives account for nearly 50% of the global health workforce**

Investing in nurses and midwives is good value for money. The report of the UN High Level Commission on Health Employment and Economic Growth concluded that investments in education and job creation in the health and social sectors result in a triple return of improved health outcomes, global health security, and inclusive economic growth.

Source: WHO Factsheet

Nurses walk around 4/5 miles per 12 hour shift. For comparison, most people walk just 2/3 miles per 18 hour day. Source: University of Colorado, 2006 How_far_do_nurses_walk

Ireland has 535 Advanced Nurse Practitioners

Advanced Nurse Practitioners are educated to a Masters level and operate at the top of their licence, becoming senior decision makers in diagnosis and delivering care plans to patients. ANPs provide the skills and competencies required to treat patients from end to end, from prescribing to discharging.

Source: Dept of Health

The World Health Organization has designated 2020 as the International Year of the Nurse and the Midwife, to mark the 200th anniversary of Florence Nightingale’s birth.
The COVID-19 pandemic challenges every part of our healthcare system including the recognition and management of serious acute bacterial infection and effective delivery of antimicrobial stewardship.

**Guidance statements:**

1. Everyone needs to be careful that serious bacterial infections are not missed when all attention is focused on COVID-19. It is just as important as it has always been to consider (investigate and empirically treat) bacterial infection when assessing the febrile patient.

2. “Start smart then focus” principles apply in those who have commenced antibiotics:
   - Review the diagnosis and management plan as more clinical information becomes available and ideally at 48-72 hours, if there is no continued indication for an antibiotic it should be discontinued;
   - Ensure antibiotic duration is short as possible and as per guidance;
   - In those receiving IV antibiotics consider IV to oral switch daily.

3. COVID-19 is a viral infection; CRP is usually raised in COVID-19 and does not necessarily predict bacterial co-infection. Experience to date indicates that secondary bacterial infection is not common in people with COVID-19 infection.

4. Antimicrobial prescribing guidance in suspected or proven COVID-19 infection:
   - No purulent sputum and no evidence of pneumonia: Do not prescribe antibiotics for the treatment of secondary bacterial pneumonia.
   - Purulent sputum AND one of: Bronchitis/pneumonia (community-acquired CURB 0-2) OR if known underlying chronic lung disease where patient has history of secondary bacterial infection in winter months:
     - First line: Day 1: doxycycline 200 mg, then 100 mg once a day for 5 days in total
     - Alternative: amoxicillin 500 mg every eight hours for 5 days
   - or agents of choice as per local guidelines
   - Pneumonia (community CURB 3-5 or healthcare onset): in community consult [www.antibioticprescribing.ie](http://www.antibioticprescribing.ie) or in hospital consult local hospital guidelines
   - Ventilator associated pneumonia: consult local hospital guidelines and microbiology/infectious diseases and respiratory physicians as required

5. Antibiotics have unintended consequences for each person who takes them and so prudent use is vital. Inappropriate use may cause side effects for the person who takes them for example skin rash and *Clostridioides difficile* infection.
   - Frail elderly patients are at greater risk of complication and death from all infections. Although there may be a lower threshold for prescribing antibiotics, older patients are also at greater risk of harm from antibiotics.

6. Currently antivirals or agents with antiviral properties for COVID-19 remain experimental; use is restricted to people in hospital, and ideally as per a clinical trial. These agents should not be prescribed in the community for treatment or prophylaxis.

If you have any queries in relation to this article please contact Marie Philbin, AMRIC Chief Pharmacist marie.philbin1@hse.ie
The AMRIC team has developed a series of webinars to support colleagues who are providing care or managing care for people during this COVID-19 pandemic. The webinars provide guidance and information to staff across the system. The webinars are backed up by guidance documents at [www.hpsc.ie](http://www.hpsc.ie).

Some of the more recent webinar slide sets are accessible on [www.hpsc.ie](http://www.hpsc.ie) and you can listen back when you click on the webinar link and use the password listed.

**February 2020**
14th February AMRIC COVID-19 webinar to acute hospitals with Mary McKenna and Martin Cormican (189 participants).

**March 2020**
28th March COVID-19 webinar in collaboration with Siobhan Kennelly and Mary McKenna (580 residential care staff participated).

29th March COVID-19 webinar to acute hospitals with Mary McKenna and Martin Cormican (137 staff participated).

**April 2020**
3rd April COVID-19 webinar management of COVID-19 in RCFs with Mary McKenna and Martin Cormican (1,385 participant from RCFS/Community IPC and Public Health). This webinar is accessible [here](http://www.hpsc.ie).

3rd April COVID-19 webinar to acute hospitals with Mary McKenna and Martin Cormican (189 participants). Accessible [here](http://www.hpsc.ie).

16th April COVID-19 ICGP webinar with Martin Cormican, Nuala O’Connor and others.

22nd April COVID-19 webinar management of assessment hubs with Nuala O’Connor and panellist Mary McKenna / Q&As (192 GP participants).

**23rd April**
Management of COVID-19 webinar for GP practice – scheduled panellist. Mary McKenna. This webinar is accessible [here](http://www.hpsc.ie).

**24th April**
COVID-19 webinar and eLearning programme release for prevention and management of outbreaks in RCFs with Mary McKenna and Martin Cormican, (1368 participants). This webinar is accessible [here](http://www.hpsc.ie).

**27th April**
COVID-19 webinar on management of COVID-19 with national guidelines in Disability Residential services with Mary McKenna and Martin Cormican. This webinar is accessible [here](http://www.hpsc.ie).

**30th April**
COVID-19 webinar for staff working in assessment hubs with Mary McKenna and Martin Cormican, (2000 participants) This webinar is accessible [here](http://www.hpsc.ie).

**May 2020**
1st May COVID-19 webinar on guidance for staff delivering home care including public health nursing, Community AHPs and Home helps. This webinar is accessible [here](http://www.hpsc.ie).

8th May webinar and ELearning programme release for prevention and management of outbreaks in Acute Hospitals. (1300 participants ) This webinar is accessible [here](http://www.hpsc.ie).
Most people who develop COVID-19 recover at home and many of those who develop serious illness can recover with good supportive care. However at the moment there is no antiviral drug treatment that has been clearly shown to help people with serious COVID-19 recover. There are a number of drugs (investigational agents) that are being studied and that may be used in some circumstances. As more research is carried out and more experience is gained the hope is that a specific drug or drugs that treat the virus infection will be identified.

Version 3 of the Interim Guidance for the Use of Antiviral Therapy in the Clinical Management of Acute Respiratory Infection with SARS-CoV-2 (COVID-19) was published on 24/04/20. The updated guidance was developed using the latest available evidence. This latest version and future versions will be available at: https://hse.drsteevenslibrary.ie/Covid19V2/Pharmacy/medicinesmanagement

The use of investigational or off-label medicinal products to treat patients with confirmed COVID-19 remains at an experimental stage as the evidence of clinical efficacy is lacking. Of notable concern are the reported cardiac adverse events in COVID-19 patients associated with the use of these agents. For these reasons the use of these agents is restricted to hospitals only. These agents should not be prescribed in the community.

Major changes in version 3 of the guidance: Azithromycin has been removed as an agent of choice from the guideline due to its lack of proven clinical efficacy and safety concerns in COVID 19. It’s use in combination with hydroxychloroquine is not recommended in the context of COVID-19.

Additional criteria must be satisfied prior to the prescribing of an investigational agent

A brief summary of the guidance is as follows:

The criteria defining the use of investigational agents are as per the COVID respiratory scale developed by the Irish Thoracic Society.

Within the hospital the use of these investigational agents should be by clinical trial if available.

Within the hospital if an investigational agent (hydroxychloroquine or lopinavir/ritonavir) is considered outside of a clinical trial, this should be done on a case by case basis, in patients whose clinical condition is sufficiently severe to warrant investigational therapy, including:

- Shared decision making, with patient informed of possible benefits and side effects
- Collection of clinical outcome data, following guidance from COVID-19 core outcome sets (e.g. WHO Core Outcome Set, Appendix 3 of the guidance)
- Assessment of the patient as per guidance from the Irish Cardiac Society regarding long QT syndrome in Appendix 4 of the guidance.
The AMRIC team has added an additional leaflet to the RESIST suit of leaflets and materials.

This new hand hygiene leaflet is aimed at the public and it will be useful to services when services and clinics begin to return.

The leaflet is currently being printed and will be accessible to order from 1st June via www.healthpromotion.ie

Health service staff can set up a Professional Account if you require more than 200 copies.

Hand hygiene posters and respiratory posters are currently accessible for ordering on www.healthpromotion.ie

The cough posters are printed double sided with an Irish language version on the other side.
There are 7 new high resolution posters available to download from the COVID-19 infection prevention and control section of HPSC. The printers can be printed locally. For HSE hospital groups and community health services please check with your communications lead to check if they are being printed on a hospital group or regional basis. The 7 posters include:

1. Donning PPE
2. Doffing PPE
3. Guide to donning and doffing standard Personal Protective Equipment (PPE) in a social care setting
4. Donning a gown and PPE
5. Doffing a gown and PPE
6. Donning coveralls in the context of COVID-19
7. Doffing coveralls in the context of COVID-19

Online communications resources and links

There is a considerable amount of online information for service users, families, the public. All of this information is available on the HSE website and the link is listed below.

There are many pieces of translated materials, videos in Irish sign language and specific materials for patients who have intellectual disability or who have dementia.

Please familiarise yourself with the range of materials accessible here:

https://www.hse.ie/eng/services/news/newsfeatures/covid19-updates/partner-resources/
COVID-19 infection prevention and control guidance

Approximately 40 AMRIC COVID-19 Guidance documents have been developed and uploaded to www.HPSC.ie. These include a wide variety of guidance materials required and requested by providers and clinicians e.g. GPs, Pharmacists, Dentists, Residential Services etc. The guidance is updated regularly and you should always check that you are using the most recent version. Examples of guidance developed to support delivery of safe patient care include:

- Guidance on Aerosol generating Procedures
- Use of Personal Protective Equipment (PPE) in the management of suspected or confirmed COVID-19
- Interim Infection Prevention and Control Precautions for Possible or Confirmed COVID-19 in a Pandemic Setting
- Infection Prevention and Control Guidance including Outbreak Control in Residential Care Facilities (RCF) and Similar Units for pandemic COVID-19
- Infection Prevention and Control Guidance for COVID-19 Community Assessment Hubs
- Infection Prevention and Control Guidance for Healthcare and Social Care Workers who visit homes to deliver healthcare etc.

Infection Prevention and Control (IPC) and Personal Protective Equipment (PPE)

IPC involves many processes that together help to reduce the risk of infection to people cared for and to staff to the lowest practical level. Standard Precautions (all people you care for all the time) is the foundation of good IPC. One very important part of IPC is the use of PPE when required for both Standard Precautions and for the care of people known to have specific infections including COVID-19.

The AMRIC Team have been working to support colleagues in HSE procurement who are working flat out to manage a very challenging situation with respect to getting enough PPE and getting it to the people who need it most on time. The guiding principle is to make every effort to make sure the PPE issue is suitable for use and the priority for PPE is based on the risk associated with the person cared for (does the person cared for have COVID) and the risk related to the task being carried out.

Given the publicity around the challenges in getting enough PPE to healthcare workers who need it that many people in the community have worked independently to get supplies of PPE that they could donate to hospital and community healthcare services. The AMRIC Team are frequently asked to evaluate these donations for suitability for use.

Unfortunately the team has limited capacity and we are giving priority to support the large scale activity of HSE procurement. We do not have the capacity to perform evaluations on the many different donations that have been made to individual hospitals and community based healthcare facilities. Therefore if there is need for evaluation of donated PPE please seek to identify local or regional IPC advice rather than bring the item directly to the AMRIC Team.
From 22nd April, the HSE updated its **guidance on the use of surgical masks** in healthcare settings in the context of the COVID-19 pandemic. This follows a decision by NPHET based on advice from the Expert Advice Group. The HSE is now implementing this decision. This guidance superseded that contained in the PPE guidance issued on March 17, 2020. (Please note the March 17 guidance is still relevant in relation to the other PPE.)

The new guidance requires staff to wear surgical masks when providing care to patients if they are within 2m of a patient. This applies to all patients including those patients where there is no concern that the patient may have COVID-19. In addition surgical masks should be worn by all healthcare workers for all encounters with other healthcare workers in the workplace if they will be together for more than 15 minutes and if a distance of 2m cannot be maintained.

The change regarding the use of surgical masks is in addition to and not as a replacement for any of the other infection prevention and control precautions.

Mask use is one part of a whole package of infection prevention and control precautions. The most important precautions in all settings continues to be hand hygiene, respiratory hygiene, cough etiquette, regular cleaning and maintaining a safe distance whenever possible.

The HPSC has also issued **guidance** on the use of face coverings for the general public. This is in response to the NPHET announcement on Friday 15th May when the use of face coverings in certain circumstances. This information may be useful for staff who are working with or advising the public in relation to COVID-19.
A letter to a 1918 Spanish Flu pandemic victim (Bernie’s piece)

A letter from Bernie O’Reilly, Chair of Patients for Patient Safety Ireland, to her grandfather’s first wife who died in the Spanish flu pandemic in 1918. Bernie has been involved with the CPE public health emergency for some time as a patient voice.

Dear Ann,

It’s a beautiful Easter Sunday morning with birds singing as I write. Rain is forecast for later but the weather has been beautiful since early March.

We are all a bit nervous since Coronavirus COVID-19 changed how we live. From one case in China late last year it has spread worldwide in a few months. For the last two weeks we have been advised to stay at home and self-distance when we have to go out for essential needs. Today that curtailment has been extended for another three weeks and even after that life won’t be as it was for a long time. The virus spreads rapidly and there is no cure, most people survive but thousands are dying.

Our health services will be overburdened if too many are hospitalised at the same time so our best protection is not to catch it. Most businesses have closed and only workers in essential services are allowed to travel to work. Healthcare workers are risking their lives everyday with only protective clothing, hand hygiene and cough etiquette to shield them. It’s difficult for people to stay isolated as the uncertainty continues. Gardaí monitor the roads to discourage travel. Everyone over seventy and those with health issues are advised to stay in their homes cocooning.

You yourself experienced the effects of a similar virus which brings me to the purpose of this letter. I want to thank you for the wonderful gift you gave me as I know it cost you too much. I only became aware that you and Mary (Bernie’s grandmother) were best friends at the funeral of my Godmother. I got chatting to your cousin May and whilst I thought you died in childbirth in 1918, I now know it was from the Spanish Flu that killed you at the age of 21. What heartbreak you must have been living when you asked Mary to mind your new born son, his brother aged one and sister aged two. You picked your friend wisely; she was my granny and your bereaved husband my grandad. Your gift to me is life. My godmother was your daughter and like a second mum to me, my brothers and sisters. We loved her dearly.

When you got infected with the Spanish flu you did not have the benefit of all the good advice we have been given in this current emergency. Many Irish citizens can choose to comply and stay safe, avoid catching the virus and safeguard others from getting it. You would have loved that choice and the opportunity to live and watch your children grow. So, I hope people continue to make wise decisions and follow the advice for the good of everyone. Thank you for the perfect gift Ann. I will mind it, share it and always think of you and Mary.

Love, Bernie