

Welcome

This is the second RESIST newsletter from the antimicrobial resistance and infection control (AMRIC) team. We will issue an update every quarter to keep you informed on new developments, guidelines, statistics and interesting articles. Thanks for your comments and inputs, if you have any suggestions on content or want further information please contact us on hcainational.lead@hse.ie

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World Hand Hygiene Day 5th May clean your hands – don't spread illness

Sunday the 5th of May marks the World Health Organisation's Hand Hygiene Day around the globe. On World Hand Hygiene Day we all need to remember that to protect our health we all need to clean our hands thoroughly.

Professor Martin Cormican, HSE National Lead for Antibiotic Resistance says, "Proper hand hygiene is such a critical issue for all of us both at home and in our health services. We are delighted that we are launching a new staff hand hygiene awareness programme (Resist) to mark World Hand Hygiene Day. The Resist programme is aimed at all healthcare workers and everyone who comes to the hospital, our patients and visitors. Our first sites for the new programme include Cavan General Hospital, Portiuncula Hospital, Ballinasloe, University Hospital Limerick and National Maternity Hospital."

Some infections found in hospitals can be very serious for our patients. We can all help reduce the spread of these infections if our healthcare workers, patients and visitors all make sure that their hands are clean.

We want our staff to take part in the new hand hygiene training and join the Superbug Resistance to fight infection. Our patients and visitors also play a big part in reducing the spread of infection

and following our advice on hand cleaning. There are things you can do as a healthcare worker to help your patients or visitors to protect themselves from picking up an infection or superbug while in or visiting hospital. Advise your patients and visitors:

- To clean their hands regularly and use the alcohol gel in the hospital. They should always do this after using the toilet and before eating
- To not share personal things with other patients – for example, phones, earphones and so on
- To keep away from other patients' beds
- Do not let anyone sit on their bed, and don't sit on other patient's beds
- That it's OK to remind staff to clean their hands – we welcome reminders
- That it's OK to tell a staff member if they see anything that is not clean

Be a part of the superbug resistance and help us to fight the spread of infection. If you are holding a hand hygiene event please let us know or if you would like a partner pack with social media & key messages please contact donna.mcnena@hse.ie

See hse.ie/handhygiene for helpful videos and information about good hand hygiene. Have a look at the [video](#) on proper hand washing. We often think we have washed our hands properly but have a look at this [short experiment](#) and you will be surprised.

HSE promoting hand hygiene in community health care Hygiene – a Train the Trainer programme for Community and primary healthcare staff

Proper hand hygiene done correctly and at the right time when delivering healthcare is widely reported as the single most important measure for preventing healthcare associated infections. Education of staff is mandatory on induction and at least once every 2 years after that.

The National Hand Hygiene Train the Trainer Programme has been introduced to improve standardised education and access to mandatory hand hygiene education. This is done by training healthcare workers from all disciplines and services to become local hand hygiene trainers specifically in community and primary healthcare settings.

Mary McKenna, IPCN Lead for the AMRIC division says, “progress to date has been enhanced by the engagement of the Chief Officers and their agreement to appoint a senior manager in each community area as a co-ordinator. We are delighted that so many people based in the community have received hand hygiene training. As of end of March 2019 more than 6,000 community staff have been trained. I want to thank everyone for their continued support.”



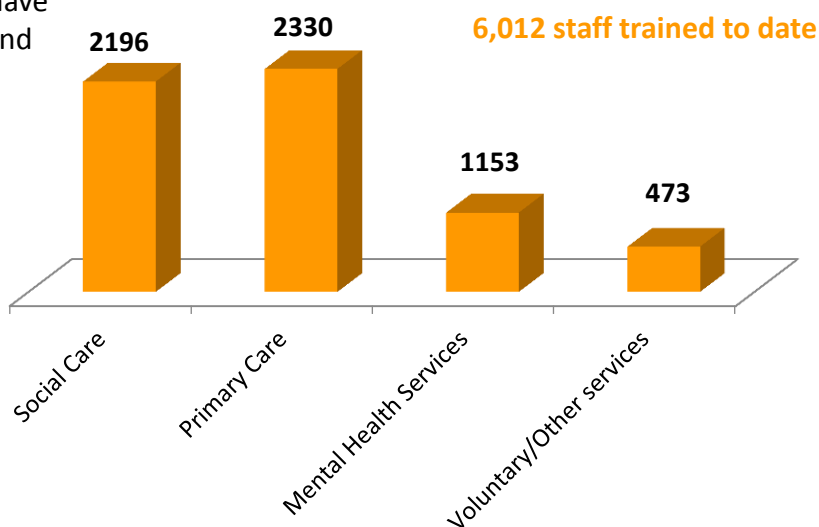
Mary McKenna, Lead IPCN AMRIC team

The hand hygiene co-ordinators liaise with the AMRIC national team and local community infection prevention and control nurses (where available) to support the nomination of trainers by heads of services who attend a one day training workshop locally.

41 Hand Hygiene Train the Trainer workshops have been delivered to date across the CHOs and a total of **611 local Hand Hygiene Trainers** have been recruited to deliver local hand hygiene education to their service.

Local management support in providing time for education to be delivered locally by hand hygiene trainers has influenced the success and sustainability of the programme.

Individual monthly data for each CHO is sent to the nominated Hand Hygiene Co-Ordinator in order to assist in local monitoring and actions based on local performance.



A total of 6012 staff across the CHOs to date have received mandatory hand hygiene training from the trainers who undertook the National hand Hygiene Train the Trainer Programme and reported the training they provided locally on the hand hygiene monitoring tool

Top 5 Myths: Diagnosis & Treatment of UTI's

DO YOU KNOW THE TRUTH?

Myths	Truth
<p>1 The urine is cloudy & smells bad. My patient has a UTI.</p>	<p>Urine colour & clarity or odour should not be used alone to diagnose or start antibiotic therapy.</p>
<p>2 The urine has bacteria present. My patient has a UTI or will progress to a UTI & should be treated.</p>	<p>Presence of bacteria in the urine without UTI symptoms is not an indication of UTI (possibility of contamination & asymptomatic bacteriuria).</p>
<p>3 The urine has positive leukocyte esterase or nitrates present. My patient should have a urine culture performed, has a UTI & needs antibiotics.</p>	<p>A urinalysis with positive leukocyte esterase, quantitative urine WBC counts or urine nitrates should not be used independently to support a diagnosis of UTI or start antibiotic therapy (possibility of contamination & asymptomatic bacteriuria). Some exceptions include: pregnancy & any urologic procedure with bleeding, such as urinary tract stenting.</p>
<p>4 Falls & acute altered mental status changes in elderly patient are usually caused by UTI.</p>	<p>Altered mental status & falls in the elderly are caused by many factors. Ask if there is other evidence of infection such as fever.</p>
<p>5 Bacteria in a catheterised urine sample should be diagnosed as a UTI.</p>	<p>Almost all patient with a long standing urinary catheter are colonised within 2 weeks of placement with 2–5 organisms. Treat only in the presence of signs and symptoms of infection.</p>

Thanks to Mary Eva Regan for this submission, Senior Pharmacist, Antimicrobials Pharmacy Department, Sligo University Hospital



Hospital acquired infection and antibiotic use in hospitals in Ireland - 2017 survey findings published

The Health Protection Surveillance Centre (HPSC) has published the 2017 Point Prevalence Survey (PPS) of Hospital-Acquired Infections and Antimicrobial Use. The full survey is available on the HPSC website [here](#). The study was coordinated by the HPSC in May 2017 and took place across 28 European countries.

The PPS was performed in 28 European countries and coordinated in Ireland by the HPSC. This was the second European PPS, with the first performed in 2012. The PPS provides a snapshot of HAI and AMU across participating hospitals on a single day.

During May 2017, 60 Irish hospitals (46 public and 14 private) volunteered to take part in the PPS. There were 10,333 patients included on 599 wards. Compared with 2012, the number of participating hospitals increased from 50 to 60, with 49 hospitals having performed both PPS. Public hospitals accounted for 87% (8,989) and private hospitals for 13% (1,344) of patients included in PPS 2017.

There were 678 active HAI in 10,333 patients. Of those, 41 had more than one active infection type. The most common infection types reported were: pneumonia, surgical site infection (wound infection), urinary tract infection, which includes infection of the bladder or kidneys, along with bloodstream infection.

At 6.1%, the HAI prevalence in Irish hospitals in May 2017 was higher than that reported in May 2012 (5.2%). Variation in the HAI prevalence was observed between the 60 participating hospitals in May 2017, but also within the 49 hospitals that participated in both PPS (May 2012 and 2017). Variation in HAI prevalence may be due to several factors: different types of hospital in Ireland, caring for different categories of patients, with increasingly complex care needs and in the setting of an ageing population. For these reasons, direct comparison of the results of individual hospitals is not recommended.

The PPS also looked at antimicrobial prescribing in Irish hospitals, with 39.7% of inpatients prescribed antimicrobials in May 2017, an increase from 34% reported in May 2012.

Dr Karen Burns, Consultant Clinical Microbiologist at the HPSC and national coordinator of the survey in Ireland says: “We welcome the publication of this second national survey of an important patient safety issue, which provides an updated snapshot of the burden of HAI and antimicrobial prescribing in Irish hospitals. While not all HAI can be prevented, there is definite scope to reduce their burden and impact on patients, along with optimising antimicrobial prescribing in our hospitals. I would like to thank the 60 hospitals that volunteered to participate and the hospital staff involved in collecting and analysing the data, as it was a very large piece of work, performed in addition to their usual duties.

The need to improve antimicrobial prescribing is greater than ever before, because there is growing evidence worldwide that bacteria are becoming more and more resistant to antimicrobials, in a setting where very few new types of antimicrobials have been brought to the marketplace. This means that many common antimicrobials no longer work to treat common infections. A very important example of this problem is the emergence and spread of the bacteria Carbapenemase-Producing *Enterobacteriales* (CPE), which was declared a public health emergency by the Minister for Health in October 2017.

Continued overleaf



2017 survey findings published (continued)

Antimicrobial use is a key driver of antimicrobial resistance, so it is very important that they are only used when they are absolutely necessary and that they are not used inappropriately.”

There are some welcomed improvements since the 2012 survey, particularly an increase in the number of hospitals that took part, from 50 to 60 and all hospitals received their local report in February 2018.

All participating hospitals reported having an infection prevention and control nurse (IPCN). This is progress from 2012, when one hospital reported having no IPCN and from a 2003 survey of IPCN resources in Ireland, when ten hospitals had no IPCN. The proportion of single patient rooms increased slightly between surveys, from 22% (2012) to 28% (2017).

For the hospitals that took part in both surveys to date, there was a reduction in the proportion of infections associated with indwelling devices; such as IV drips and urinary catheters. This was likely a reflection of local initiatives to improve care of these devices and improved staff hand hygiene practices.

An improvement in the proportion of antimicrobial prescriptions that were in accordance to the local guidelines was also observed. Improved care of medical devices, staff hand hygiene compliance and improved antimicrobial prescribing have been key targets of the HSE Clinical Programme for preventing healthcare infections and antimicrobial resistance since it was established in 2010.

By reducing the numbers of HAI, this can in turn result in fewer antimicrobials being required.



Key findings of the PPS 2017:

- ❖ Just over 1-in-20 inpatients of Irish hospitals experienced a HAI
- ❖ By age group, the highest prevalence of HAI was recorded for older patients; aged 50-64 years (8%) and 65-79 years (6.9%)
- ❖ HAI prevalence was highest in adult intensive care units (ICU) (24%), followed by surgical wards (9.1%). Psychiatric wards (1.6%) and obstetrics and gynaecology wards (1.8%) had the lowest HAI prevalence, as would be expected
- ❖ Patients with HAI were almost twice more likely to have undergone recent surgery than the overall group of 10,333 patients
- ❖ Invasive devices (catheters, drips and tubes) were more common in patients with HAI than patients who did not have HAI
- ❖ About four-in-ten inpatients of Irish hospitals were prescribed an antimicrobial (4,105 of the 10,333 patients surveyed).

AMRIC team integrates with HPSC



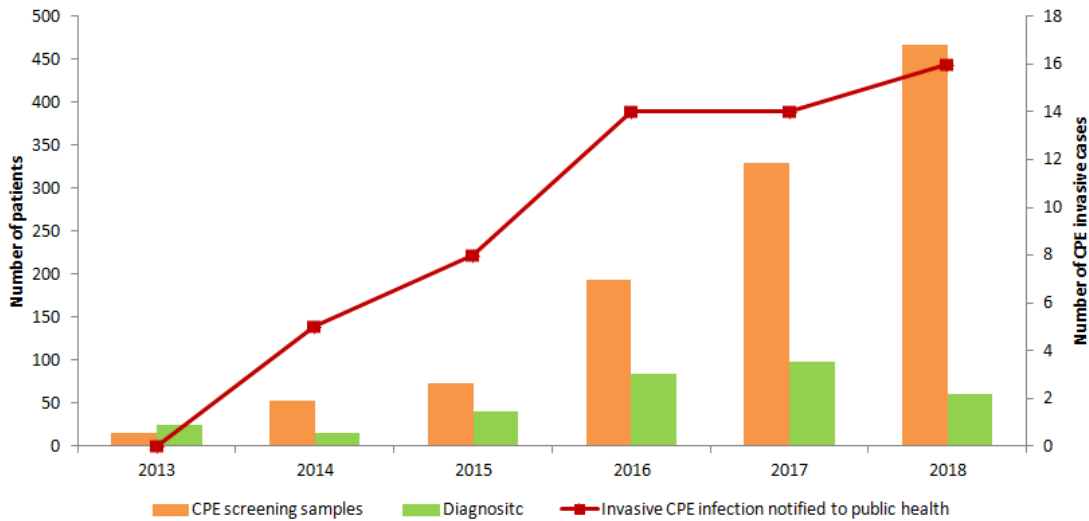
The Health Protection Surveillance Centre was established in 1999. At that time it was called the National Disease Surveillance Centre. For twenty years HPSC has played a leading role in surveillance of infectious disease and antimicrobial use in Ireland.

HPSC and the Antimicrobial Resistance and Infection Control Team have been working closely together since the AMRIC team was established. From April 1 2019 the AMRIC team has joined with colleagues in HPSC to form the Antimicrobial Resistance and Infection Control Division of the HPSC.

Dr Kevin Kelleher, Assistant National Director for Public Health and Director of HPSC said “ bringing the expertise of both national groups working in this area together as one team in the HPSC will help to strengthen the capacity of the HSE to improve our response to antimicrobial resistance and infection control”.

Controlling CPE – are we making progress?

Newly detected CPE patients by year in NCPERL by sample site and Invasive CPE infections notified to Public Health



The graph shows information about the CPE bacteria sent to the reference laboratory since 2013. The orange bar shows the number of CPE bacteria found on CPE screening samples. These samples are mostly swabs from the rectum. A positive test shows that at that time the person was carrying CPE but they did not have any illness related to CPE. The graph shows that the number of people found to be carrying CPE has increased every year since 2013.

CPE in a blood sample almost always means the person has a serious infection. The number of people with an invasive CPE infection each year is shown by the red line, In most of these cases the site of infection is blood stream. The number increased rapidly from 2013 to 2016 but the pace of increase has slowed down in the last couple of years. The green bars show the number of CPE newly detected from diagnostic samples. This means the CPE was first detected in samples like blood, urine, sputum or wound swabs. These people are much more likely to have CPE infection than the people counted in the orange bars. You can see the number of people with CPE first detected in diagnostic samples was higher in 2017 compared with 2018.

What does all this mean? We clearly still have a problem with spread of CPE. Most of this spread is happening in acute hospitals. There is however some sign to be hopeful that we are making progress. At least part of the reason for the increase in the orange bars is because we are now doing a lot more screening for CPE- twice as much screening as a year ago. This means that hospitals are more likely to know if someone has CPE early on and the hospital can take extra steps to reduce the risk of spread. The reduction in the size of the green bar and the levelling off in the red line also gives hope that the rate of spread of CPE and the harm CPE is doing to patients is coming under better control.

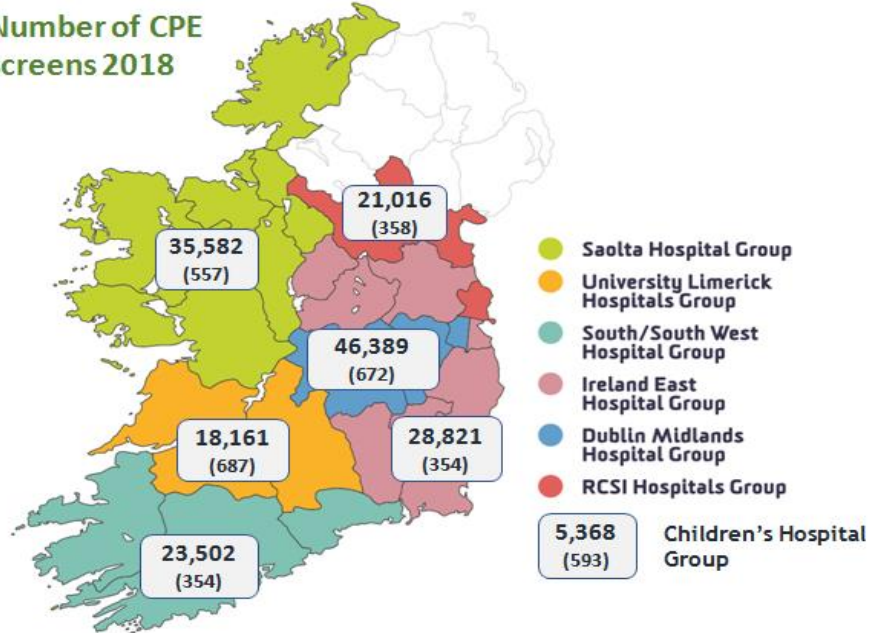
There is a long way to go and no room to drop our guard but there are some signs here that we are making real progress and there is still time to stop CPE going the same road we have travelled in the past with VRE and ESBL. It looks like we have slowed the ship down but we probably have not turned it around yet. The stakes in this work are high – we can see how high the stakes are by looking at the experience in Greece and in Italy where CPE blood stream infection has become much more common than it is in Ireland. The fact that we are still in with a chance to contain CPE is thanks to a huge effort from everyone managing and working across the healthcare system and to patients for putting up with the all the swabbing and isolation requirements.



CPE Screening stats for 2018

Number of CPE screens per hospital group & rate per 10,000 Bed Days Used for 2018. This figure is based on data collated by the HSE Business Information Unit (BIU). It is intended that it be updated quarterly and we will include 2019 Q1 data in our next edition.

Number of CPE screens 2018



(Information for National Children's Hospital, Tallaght aggregated with that TUH Adult Hospital therefore BDU for Children's section added to Dublin Midlands hospital group)

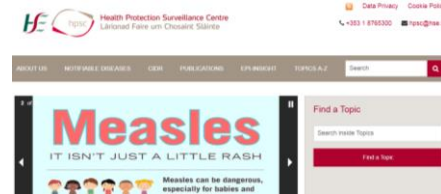
CPE and HCAI guidance issued since January 2019 www.hse.ie/infectioncontrol

1. [Procedure](#) on the use of Root Cause Analysis (RCA) for hospital acquired *Staphylococcus aureus* (SABSI) and *Clostridium difficile* infection (CDI)
2. [Community long term care](#) - notification of infectious disease outbreaks to Departments of Public Health, declaration of an outbreak and closure of an outbreak.
3. [Acute hospitals](#) - notification of infectious disease outbreaks to Departments of Public Health, declaration of an outbreak and closure of an outbreak.

Websites we like



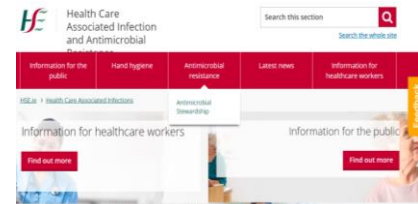
www.undertheweather.ie



<http://www.hpsc.ie/>



www.antibioticprescribing.ie



www.hse.ie/infectioncontrol

