Coronavirus COVID-19 Public Health Advice

COVID-19 Outbreak Management in Acute Hospitals
27th November 2020

HSE Antimicrobial Resistance and Infection Control (AMRIC) Team

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What we will talk about today

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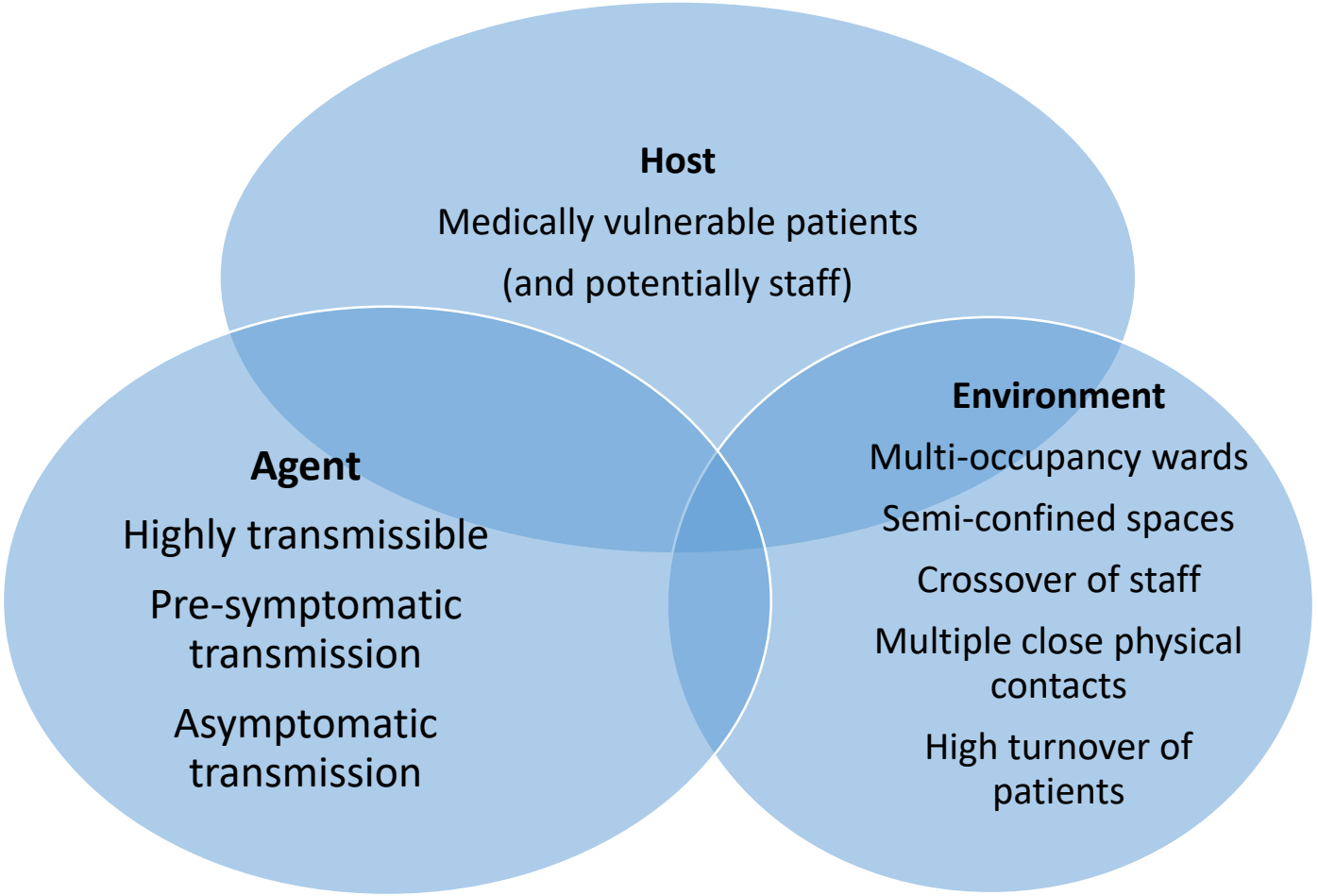
- Transmission in hospitals
- Approaches to minimise hospital transmission
- Challenges and considerations from Public Health perspective
- Prevention and management of COVID-19 outbreaks
- Note of guidance in development to support responsibilities for co-ordination of hospital outbreaks
- Queries received from hospitals
- Staff perspective in managing outbreaks
- Chat box queries

COVID-19 : the acute hospital is a very high risk setting



Hospital outbreaks and community transmission

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Some organisms become **resident** in hospitals (Carbapenemase Producing Enterobacterales (CPE))

Some are **non residents** but get introduced from the community from time to time (Norovirus)

COVID-19 is non resident

How does it get in ?
In people (patients, staff, visitors)

The more of it there is in the community the more likely it is to get in

What is the single most effective way to prevent and outbreak ?

The best way to prevent outbreaks

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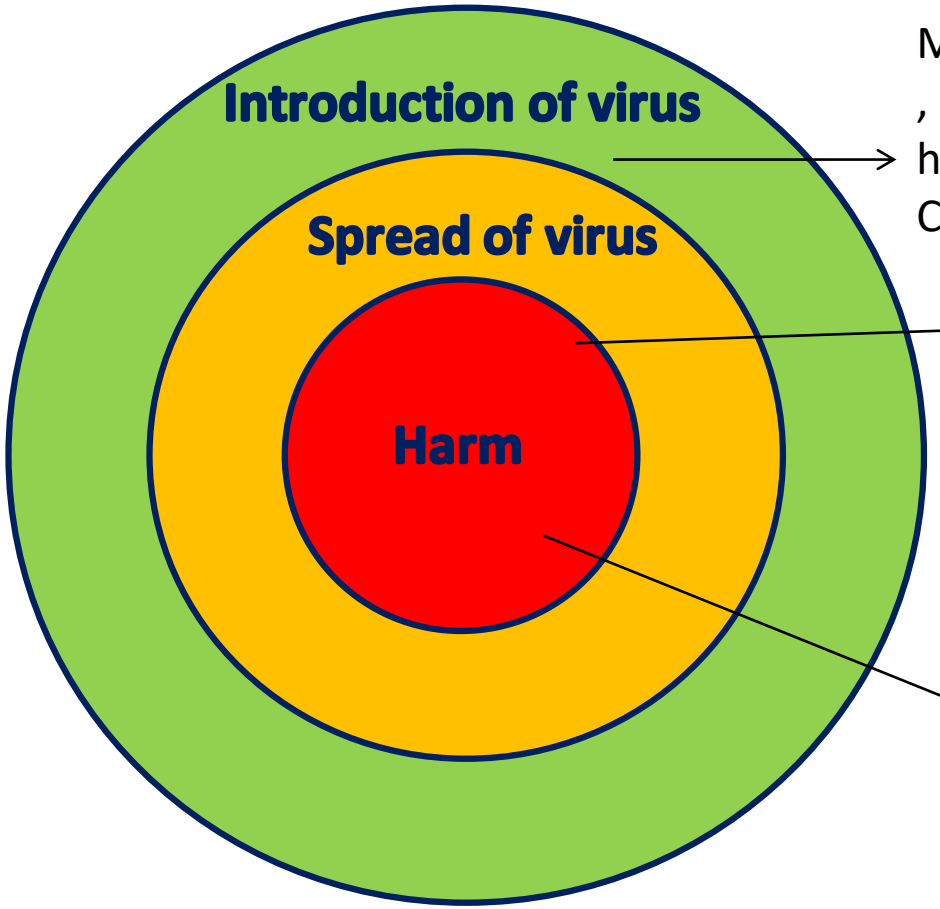
Note – it is of course not possible to stop people with COVID-19 infection entering places that provide care for them – the key the is to recognize promptly that they have COVID-19 and put in place the extra measures.



Making sure as much as practical that staff , patients and visitors entering the hospital do not have COVID-19 and are not COVID-19 contacts

Hand hygiene, physical distancing, respiratory etiquette wearing surgical face mask, clean environment, monitoring of staff and service users, preparedness plan

Early detection of outbreaks and implementation of standard , contact and droplet precautions

Introductions do not need to lead to outbreaks

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What is our experience of hospital acquired cases?

- Very infrequent when community transmission is low

- Progressively more common as the rate of infection in the community increased

- Some hospitals experiencing very significant problems while others have thus far have had few or no cases

- Likely causes of variation
- virus transmission in the local community
- chance events
- hospitals operational processes and facilities

Current trends from the data

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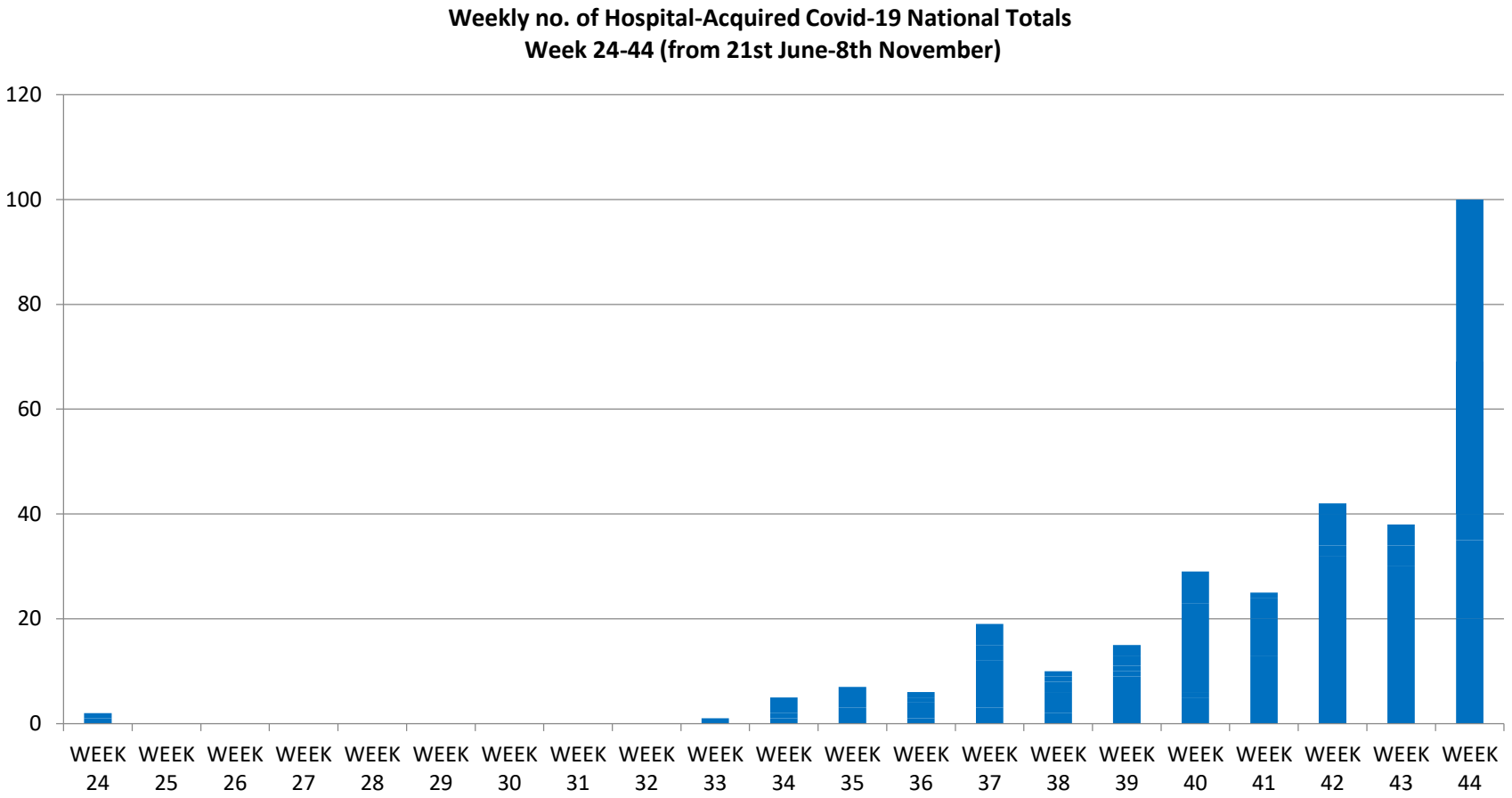

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Hospitals managing outbreaks have identified a number of themes

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Virus often spreads rapidly once introduced

Involves patients and staff

Introduction usually staff or by patients (usually people with un-recognised COVID-19)

Similar experience to WHO July 9th (Scientific brief) found hospital transmission when contact and droplet precautions were appropriately used is very uncommon

Infection and Amplification

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Staff members are at significant risk of infection when caring for undetected infectious patients

Amplification

Transmission between staff associated with interaction between staff

Staff interaction outside the workplace

Key Points From What We Have Seen

- **Preventing it Get Started - Patients**
- Identification of patients on admission who are infectious for COVID-19
- **High Risk Stream**
- How strong is the clinical assessment for hight risk?
- What is the process for lifting contact and droplet precautions from high risk?

- **Low Risk Stream**
- Testing the low risk stream and how fast
- Are there any additional precautions practical for the low risk stream

Key Points From What We Have Seen

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- **Preventing it - staff**
- Do not come to work if you have symptoms of viral resp tract infection
- Do not come to work even if you are told you don't need a test (until 48hrs after symptoms resolve)
- Do not come to work even if you have a not-detected test (until 48hrs after symptoms resolve)
- **Declaration of fitness for work possible?** (protecting patients and colleagues)

- **Go home if you become symptomatic**
- Remind colleagues to go home if they are symptomatic
- **The role and methods for staff testing**
- Method of sample collection (nasopharyngeal swab or deep nasal swab)
- Method of laboratory testing (PCR or antigen)

Reducing Risk of Spread – Staff

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- **Trying not to be human (Constant vigilance)**

- Standard precautions all patients all times
- Transmission based precautions when required
- Collegiate precautions (how we behave between ourselves)
- Patient-patient precautions

- Care in the clinical space

- Care in the non clinical space (the ward station and the tea room)

- Care in the community outside of work

Reducing Risk of Spread – Patients

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Encourage to

- Stay in your own bedspace as much as you can
- Do not share items with other patients
- Clean your hands whenever you use the bathroom
- Wear a mask outside of the bedspace (if you can)
- Wear a mask in the bedspace when an healthcare worker is in the bed space

- **Especially until the first result comes back not detected**
- **Also what can be done about less internal transfer?**

Picking it up early and reacting fast

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- **Monitor for hospital acquired cases**
- Ask yourself with every patient could this be COVID-19?
- Can you do once or twice a day documented check for new onset COVID-19 symptoms
- Very low threshold for identifying suspect cases (Contact/Droplet/Test)

Picking it up early and reacting fast

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- **Hospital acquired patient case (case definition)**
- **Hospital acquired staff case – very difficult to determine**

- Ask who could they have given the virus to (Contact Tracing previous 2 days)
- Ask who could they have got it from (previous 7 days)
- Report to BIU and NIMS
- Extensive early testing of patients and staff (there are often more infections that are apparent and people on the ward who are not identified as contacts may be infected or infectious)
- **If you recognise one HA patient case there is a strong chance there are more**

Trying to sustain each other

- **Outbreaks are frightening**
- **Very high pressure situations**
- **The longer they go on the more frayed everyone becomes (inside and outside the hospital)**

- Try to be clear on what needs to be done and who is doing it
- Communication, support and calm will usually get us there faster

- All outbreaks end

COVID-19 has brought new challenges to outbreak management

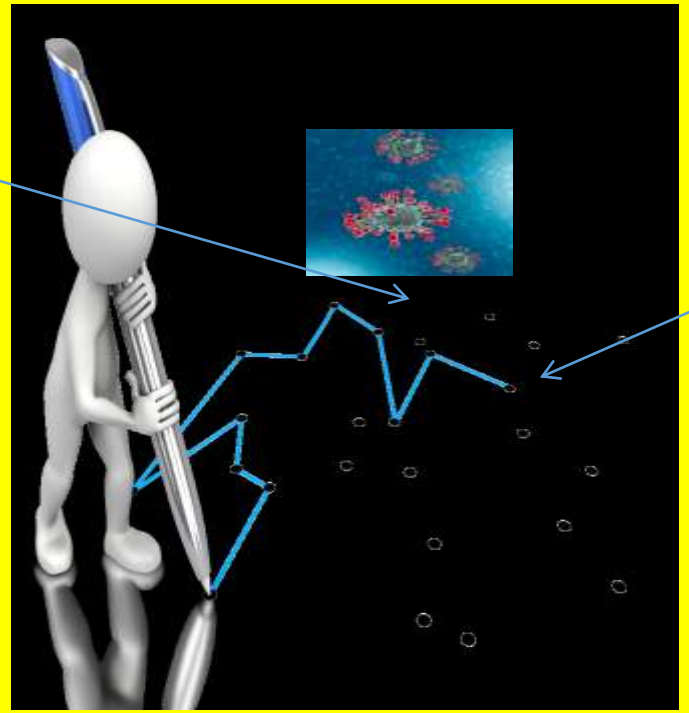
In-patients

Patients discharged

Patients

Attending ED

OPD



Staff

Work exposure

Contact outside work

Contact tracing is key:

Who the case might have given it to – go back 24/48 hours depending on symptoms

Who the case might have gotten it from - source of infection - setting where people got exposed- go back at least 7 days

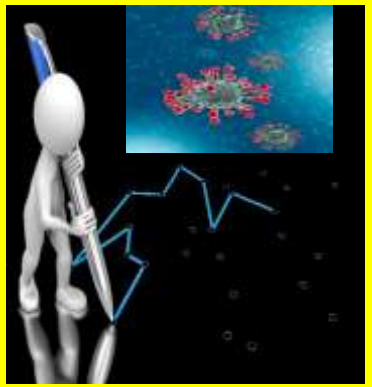
Joining the dots where did staff and patient exposure emerge

Infection prevention and Control team

Occupational Health

Public Health

Ward Staff and Managers



Some key issues to detect suspected COVID and minimise transmission

- Source identification (going back 7 days) is needed to prevent onward transmission in hospital- currently 28 hours is undertaken
- Structure approach to standardise questions for improved source identification- very important in single cases before outbreak escalates
- Identify who will be responsible for doing this
- Discharged patients who become symptomatic that need follow up to identify their source of infection

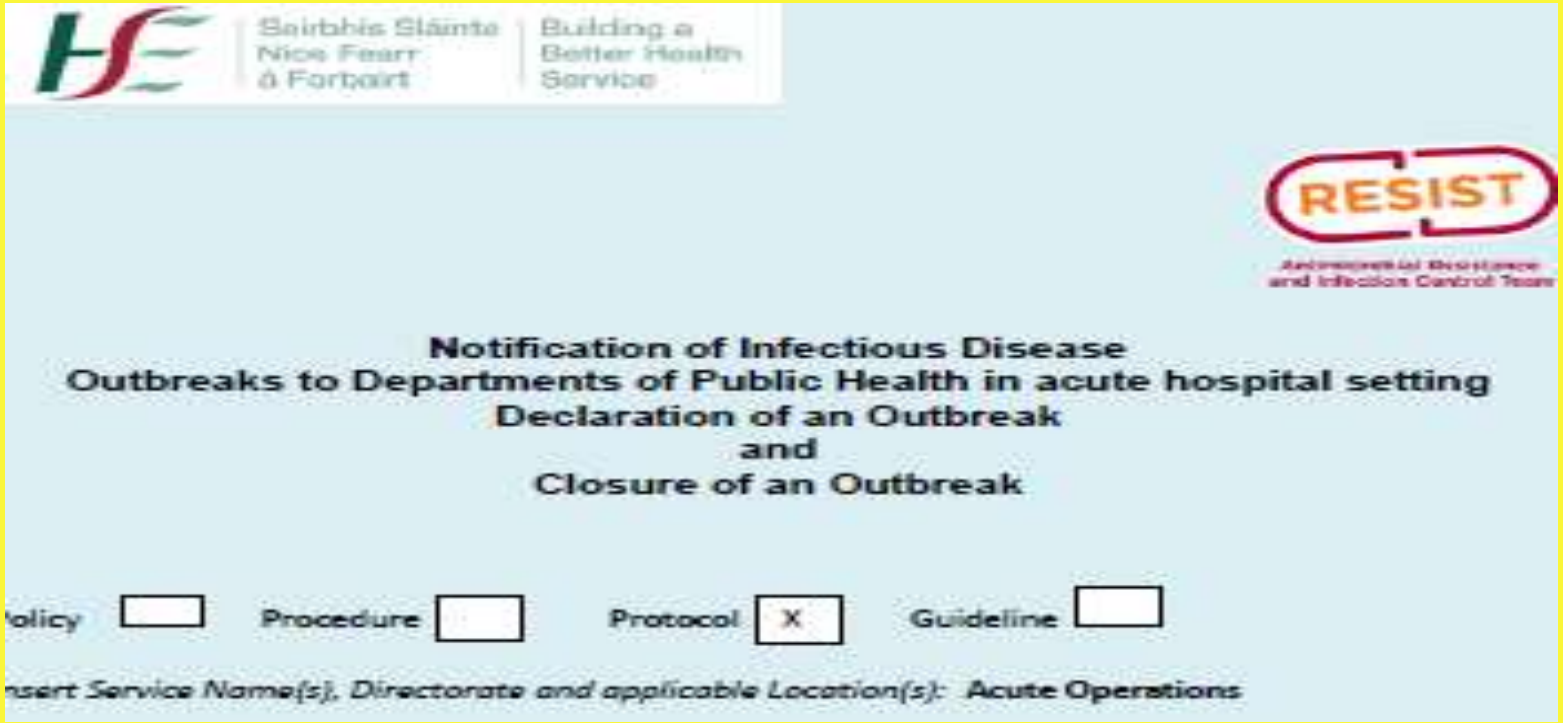
Key questions that need to be asked???

- Where was person exposed to virus
- Who else was exposed in same setting (what setting and when)?
- Are they followed up and isolated if in-patient contacts ?
- People become infected may transmit onwards
- If not picked up on contact tracing -internal transmission continues

Key questions that need to be asked???

- Was staff member most likely exposed to virus in hospital or where in community?
- If you have an IPC software system can you use this to help you
- Difficult challenges to be addressed
- Asymptomatic transmission/pre-symptomatic/minimally symptomatic transmission makes hospital wide outbreaks more difficult to manage because contact sources are not clearly identified

Notification of Outbreak to Public health is important – see attached link



https://www.hse.ie/eng/about/who/healthwellbeing/our-priority-programmes/hcai/resources/general/noid-declaration-and-closure-of-an-outbreak-acutes

Outbreak Control meetings should join the dots further and institute a plan

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Chaired by CEO/GM
Occupational health
IPCT
Public Health
Head of department
You must have up to date data (information for action)
Overview
How many new patient HA cases each day
How many new staff cases each day
Granularity
How many cases on each ward ?
Joined up information from all sources

Query re: timely testing of patients coming to the hospital

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Q. Should additional precautions be in place for all patients (emergency presentations) until patient testing is reported as not detected ?

Q. Testing of all adult patients for admission on or as soon after presentation as possible is now advised

Testing of elective patients – in the 3 days before admission /major procedure

While waiting for results is cohort or single room possible ?
And at all times

- Physical distancing when possible (including from other patients)
- Standard precautions including hand hygiene
- Wearing surgical face mask when distance can't be maintained

Query received

ED Concern:
EDs are streaming patients to high risk and low risk COVID-19 (there is no non-risk area)

These zones have numerous other nomenclatures –

Could be standardise nomenclature so that there is a single approach, thus reducing the risk of confusion

How to balance demand for isolation for COVID with all the other demands

Should we aim for suspected infection /other ED services?

Queries received re ventilation within in-patient settings

Are there recommended options of systems to assist with ventilation in the wards as we cannot open windows to improve natural ventilation and believe this to be an issue in transmission

We have tried portable HEPA filtered ventilation but the devices are extremely noisy

we have no way of knowing the HEPA filters are effective. Is there any supportive means to air sample in wards where there is natural ventilation only

A view from staff member

"A senior manager asked me how I was, looking at his exhausted face, I answered OK and how are you?

Later I thought about how I really am

From mid January to now, I feel like the fabled frog in hot water wondering how hot the water will get before I jump out"

View from an IPC staff member:

"Reflecting on the past 9 months, it has been utterly relentless:

January to March: Preparing for 1st wave

March to April: Outbreak staff and patients including patients deaths from hospital acquired infection – nightmare

May to August: Assist all services to get back to some level of service – induct and support new team members – holiday??

September: Prepare for 2nd wave

October: 2nd wave – more staff and patients affected – a nightmare again

November: HIQA visit preparation – necessary but yet another meeting with staff looking to us for direction and support

Throughout it all, keep an eye on MDROs and C difficile, write reports, PPPGs etc etc etc

Our team's workload is no different to others throughout the country and the world, but this week I'm bone tired and really not OK

That said, I get up, say a prayer for a vaccine and go to work – the phone rings and I answer, *Infection control, how can I help? "*

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Online resources and links - preparedness

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Online resources and links

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www.hpsc.ie is the central hub for nationally approved infection control guidance relating to COVID19. It contains a wealth of infection control guidance and resources for caring for people in their own home. You should familiarise yourself with the relevant guidance.

All guidance has been approved by the COVID-19 National Public Health Emergency Team (Expert Advisory Group) or the HSE Heath Protection and Surveillance Centre.

The critical guidance for all staff delivering care in a person's home is:

COVID-19 Infection Prevention and Control Guidance for Health and Social Care Workers who Visit Homes to Deliver Healthcare

Online resources and links

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Online training programmes are available on www.hseland.ie This resource is accessible to any service public or private once they have registered online.

The key infection control resources on this site include videos to demonstrate:

- How to perform hand hygiene using soap and water
- How to perform hand hygiene using alcohol based rub
- Breaking the chain of infection – an online infection control course (with a knowledge test)
- How to put on an take off PPE in a community setting (with a knowledge test)
- How to put on and take off PPE in an acute hospital setting (with a knowledge test)

Online resources and links

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There are additional videos on HPSC relating to putting on and taking off the new coverall type PPE and masks with loops. Also included are scenarios for managing patients in a GP clinic area that are useful for other settings

https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/videoresources/

Webinars: there are a number of education webinars on infection control and reducing the risk of transmission of COVID19 in health services.

https://bit.ly/34YccbT

Online resources and links

Coronavirus COVID-19 Public Health Advice

There are additional videos on HPSC relating to putting on and taking off the new coverall type PPE and masks with loops. Also included are scenarios for managing patients in a GP clinic area that are useful for primary care settings

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Online resources and links

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There is a considerable amount of online information for clients, 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/

Online resources and links

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Some samples of online posters available for download – use this link
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