COVID-19 Infection Prevention and Control Guidance for schools and Education Settings

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Presented by the HSE National Infection Prevention and Control Team

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What we will talk about

• Background to COVID-19 and transmission
• Incubation and infectivity periods
• New variants
• Testing
• Key Infection Prevention and control measures in schools
• Managing a positive COVID-19 situation in school
• Vaccination
• Chat box queries and discussion
A way of thinking about controlling COVID-19 in the school setting

Making sure as much as practical that everyone coming into the building does not have COVID-19 symptoms and is not a COVID-19 contact

Hand hygiene, keep your distance, respiratory etiquette wearing mask, clean environment, awareness and monitoring of staff and pupils,

Preparedness plan

Early detection of cases and outbreaks
Emergence of new variant strains of COVID-19 and on-going community transmission has created huge anxiety and uncertainty for everyone.
A Reminder about Viruses

Viruses can’t survive outside our body for long so they have to get into the cells in our bodies to multiply

Respiratory viruses spread faster when people come together

They're very tiny, and when they get inside your body they can cause infections and illness (but the effect depends on the virus and the person)
Different virus cases: colds, chicken pox, measles and flu

Our bodies then fight the infection by producing antibodies and special cells

Antibiotics don't work on viruses
Vaccines are very important in preventing virus infection (e.g. flu, mumps and now COVID-19)
Transmission of COVID-19

Spread of COVID-19 is a lot like other respiratory Virus
Everyone scatters tiny particles of liquid when they talk, laugh, sneeze or cough

The particles are in a range of sizes – larger ones call droplets and smaller ones called aerosols
(bit likes sand grains, pebbles and stones)

Droplets generally travel and short distance before landing
Aerosols can stay in the air and spread throughout the room (a bit like fine sand)

If someone has infection there can be virus in the droplets and aerosols
Aerosols are very important for some virus – measles /chickenpox
Droplets are very important for some virus – COVID-19 / Influenza
Aerosols can be important in some settings even for virus that mostly spreads by droplet
COVID-19 Transmission including the new variants

Direct spread: respiratory droplets from coughing or sneezing

Indirect contact - contaminated surfaces (can survive on some surfaces for up to 72 hours)

Contaminated hands (not cleaned) touch eyes/face or mouth

What do we know about spread of COVID-19 by aerosols?
The lipid coat of the virus can be removed by alcohol hand rub, soap, detergent and household disinfectants.

Infection happens if virus spikes stick to the lining of the respiratory tract (inside the mouth, nose or in the eye) in a person who is not immune.

The virus does not go through the skin.
Key points on COVID-19 new variant strains

Risk of introduction of more new variants from other countries is now driving more restrictions on international travel right across the world

The variants seem to spread in the same way
Mainly droplet and contact spread

Airborne spread is a concern in some situations and may be more of a problem with some new variants

The precautions we have been recommending all along appear to work against the new variants of the virus

But very important to try to keep to them all the time (very hard to do all the time)
COVID-19 – Risk of Spread

- Close contact with someone shedding the virus who is coughing /sneezing or speaking and droplets drop in mouth/nose/eyes

- When hand touch surfaces or objects someone with the virus on it

- If you touch you nose/eyes/mouth before you clean your hands thoroughly by either hand washing or cleaned with alcohol hand gel
Symptoms and period of infection

- The time between catching the virus and getting symptoms is most often five to six days but can be very short (1 day) or long (up to 14 days).
- People are most likely to spread virus in the early stages when they become symptomatic.
- Infection can also spread from people a day or two before symptoms develop.
- Some people have very mild symptoms or no symptoms (don't consider themselves unwell).
- By 10 days from symptoms onset most people are not shedding the virus.
- Severe Illness is more common in older people and people with some long-term illness than in children and adults in good health.
- Common symptoms include high temperature, cough, shortness of breath and loss of taste and smell.
COVID-19 in children V adults

Our understanding of the role of children in the spread of COVID-19 has rapidly changed over the last year. Initially, in the absence of clear evidence, it was assumed that children would significantly contribute to viral transmission, especially in school settings.

Evidence from several studies suggests that children and adolescents may be less commonly infected with COVID-19 than adults.

Similar to adults with COVID-19 infections, children can spread the virus to others when they don’t have symptoms or have mild, non-specific symptoms.

Compared with adults, children and adolescents who have COVID-19 are more commonly asymptomatic (never develop symptoms) or have mild, non-specific symptoms. In addition, children are less likely to develop severe illness or die from COVID-19.

The biological mechanisms underlying children’s decreased susceptibility to COVID-19 are unclear; proposed mechanisms include decreased expression of ACE2 receptors in the respiratory tract (ACE receptors are used by the virus to gain access to cells) and age-related differences in immune response to COVID-19.
Most recent figures on COVID-19 cases in children

Ireland: COVID-19 cases in children week 48 2020 to week 11 2021

Despite the return of many children and teenagers to school, case numbers have not increased significantly.

March 1:
- Junior & Senior infants
- 1st & 2nd classes
- Special education schools
- 6th year

March 8:
- Early childhood care & Education pre-school programme reopened

March 15:
- 3rd, 4th, 5th & 6th classes
- 8th year

Number of confirmed cases

2020
2021

0-4 yrs
5-12 yrs
13-18 yrs
Positivity rate remains low across all school and childcare facilities

Ireland: COVID-19 cases & positivity rates in pre-school, primary & secondary school aged children

Number of confirmed COVID-19 cases reported per week in pre-school, primary and secondary school aged children relative to total number of confirmed COVID-19 cases across age groups.

The below chart shows the tests & cases detected by facility type. The positivity rate remains low across all the facility types.
Testing for COVID-19

Types of tests
PCR tests
Antigen tests

Many tests are very good at finding people who are infectious

No test is perfect

A test is about what you could find on the day the sample was taken

You could have not virus detected on Monday and virus detected on Tuesday or Wednesday

No test can prove for definite that a person is not infected

Whatever the test result is keep your guard up and watch for symptoms
Preparedness advice

• Ensure all staff have undertaken awareness training around COVID-19

• Ensure all staff are aware of the following:
  - Hand hygiene & respiratory etiquette
  - Appropriate choice and use of PPE when needed
  - Public health measures around wearing masks and physical distancing
  - Importance of not attending school when unwell with symptoms or a contact

• Ensure supplies are available including:
  - Alcohol-based hand rub (ABHR)
  - Personal protective equipment
  - Cleaning materials
  - Clear signage and traffic flow arrangements for pupils and staff
A way of thinking about controlling COVID-19 in the school setting

- Making sure as much as practical that everyone coming into the building does not have COVID-19 symptoms and is not a COVID-19 contact.
- Hand hygiene, keep your distance, respiratory etiquette, wearing mask, clean environment, awareness and monitoring of staff and pupils.
- Preparedness plan.
- Early detection of cases and outbreaks.
Keeping the virus out

Take all practical measures to ensure people with COVID-19 symptoms don't attend the school setting

• Promote awareness to staff and families on symptoms with posters and messages
• Advise staff not to attend work and self isolate if unwell or identified as a contact of COVID-19
• Advise parents not to send their children if they or other household members have suspected or confirmed COVID
• On site temperature checking or checking temperature at home is not required as fever is not always present
• Follow government advice on travel and restriction of movement
• Promote good hand hygiene and respiratory etiquettes with posters and reminders in the facility
Promote good hand hygiene and respiratory etiquettes with posters and reminders in the facility.
Hand Hygiene and PPE

Hand Hygiene always comes first—before gloves or any PPE. Gloves should not be used as a routine.

Alcohol hand gels should be accessible in safe locations. Access to a hand wash sink and disposable paper towel is recommended.

You can overdo hand hygiene—damaged skin is counterproductive. Face covering that covers the nose and mouth adequately—avoid fidgeting with the face covering when in place.

As per normal practice in any facility, staff should wear disposable gloves and plastic aprons when there is a risk of coming into contact with any body fluids (such as blood or body fluids). Remember to clean the hands immediately after removing mask.
Posters available to download on HPSC website on the following link
https://www.hpsc.ie/a-z/microbiologyantimicrobialresistance/infectioncontrolandhaid/posters/
COVID-19 outbreaks may be commonly associated with crowded indoor spaces. Poor ventilation may increase the risk of transmission in such settings.

Open windows and doors to provide natural ventilation where possible in classrooms and staff areas in line with security and comfort.

Nothing is gained by having everyone perished.

Query received:

What about use of Carbon Dioxide monitors?
Cleaning equipment and environment

Regular detergent products may be used for routine cleaning of equipment and environment.

Disinfect only when necessary in addition to cleaning where COVID or any transmissible infection, contamination from blood and body fluids has occurred.

Queries received

How often should we clean the area where students sit including desk and equipment?

Should we use the new technologies including foggers and air scrubbing devices?
Families to be aware of the following before attending school:

• Hand Hygiene
• Social distancing
• Mixing outside of school
• Face coverings for secondary school class
• Pupils with symptoms to remain at home
• Household members with symptoms – to remain at home
• Close contacts to remain at home

Keeping the virus out- Communication is key
Key communication messages to prevent COVID spread during school attendance

Movement of pupils
During class:
- Primary school pupils in pods
- Secondary school wearing face masks in classroom

Outside of class (before/after class, lunch breaks, transport collection)

Staff
Social distancing and face covering:
- During class
- Outside of class including break times
Abstention when ill with symptoms
Ann is in senior infants and has a runny nose today but is otherwise well, should Ann be excluded from attending school?

Isolation guide for children available on [https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/algorithms/](https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/algorithms/)

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<th></th>
<th>A child with a runny nose or other minor signs of illness and ‘off-form’, no fever of 38.0°C or higher, no cough, no difficulty breathing AND NO contact with an ill person or recent travel to another country</th>
<th>You should keep your child home from school or childcare for 48 hours. Monitor your child’s illness for any signs of getting worse, or for any new signs of illness. If their illness is not worsening, and there are no new signs of illness AND your child does not need paracetamol or ibuprofen to feel better, then your child can return to school or childcare.</th>
<th>No restrictions</th>
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<tr>
<td>9</td>
<td>A child with a runny nose, not ill, in good form, good energy and normal appetite, no fever, not requiring paracetamol, ibuprofen or any other medicine for fever</td>
<td>Your child can go to school or creche.</td>
<td>No restrictions</td>
</tr>
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</table>
What to do if a student/pupil displays symptoms while in school?

Bring to the designated isolation area and open window a bit in facility if possible
Contact parent guardian to arrange collection of pupil
Staff member should remain with or nearby the pupil until collected (hand hygiene face covering and social distance from pupil where possible)
Clean and disinfect contact surfaces after pupil leaves the facility

Query
Q. Does the staff member attending the pupil need to restrict movement / go home?
Q. Is there further action needed in the class the pupil was attending?

Discussion on the queries above are available on the audio recording using the following link:
https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/infectionpreventionandcontrolguidance/webinarresourcesforipc/
COVID-19 Vaccine
3 vaccines currently in use in Ireland

The Pfizer-BioNTech mRNA COVID-19 vaccine licensed and in use

The Moderna® COVID-19 vaccine licensed and in use

The AstraZeneca® COVID-19 Vaccine licensed and in use

Vaccine Janssen (Johnson and Johnson) vaccine authorised for use on the 11th of March 2021 and not yet available in Ireland

No vaccine licensed for those under 16 years
The vaccine to date is showing positive benefits

Ireland: Hospitalisations for over 65 vs under 65 and the vaccine effect

Over 65 vs under 65 hospital admissions as a % of their respective maximum number of hospital admissions

Key Note
- We see a sharper drop in hospitalisations for the over 65 approximately 3-4 weeks after vaccination of nursing home residents begin.
Chat box queries

Discussion on all queries received are available on the webinar recording on the following link

https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/infectionpreventionandcontrolguidance/webinarresourcesforipc/
Thank you for your engagement

Enjoy the Easter break