



Appropriate PPE use in healthcare settings

HSE Antimicrobial Resistance and Infection Control (AMRIC) Team

Prof. Martin Cormican, HSE Clinical Lead (martin.cormican@hse.ie)

Mary McKenna Infection Prevention and Control Nursing Lead
(mary.mckenna@hse.ie)

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PPE & Infection Prevention and Control Overview

Please note – the PPE guidance for COVID -19 will be updated in line with resuming healthcare services activity to amended ways of working and will be made available on www.hpsc.ie. The following information is based on current PPE guidance as of 15th April 2020

First things First



Coronavirus
COVID-19
Public Health
Advice

Standard Precautions (especially hand hygiene)
with all patients
in all settings
all the time

COVID-19 Management

Contact and Droplet Precautions with all patients with clinical features of viral respiratory tract infection

Key elements of standard precautions



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Hand hygiene (WHO five moments & good technique)

Respiratory hygiene and cough etiquette

Environmental /equipment cleaning & appropriate disinfection

**Use of task appropriate PPE in contact with blood and body fluids
(other than sweat)**

Safe disposal of waste and laundry

Safe injection practices

Extended use of surgical masks for all healthcare settings



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A recent recommendation (22nd April) has been introduced on the routine use of surgical masks by healthcare workers in the context of pandemic COVID-19

Wearing masks may serve two purposes

- reduce the risk of droplet transmission of infection to the wearer
- To reduce the risk of droplet transmission of infection to others

Surgical masks should be worn by healthcare workers when providing care to patients within 2m of a patient, regardless of the COVID-19 status of the patient

Surgical masks should be worn by all healthcare workers for all encounters of 15 minutes or more, with other healthcare workers in the workplace where a distance of 2m cannot be maintained

[Note there is need for institutional risk assessment in some circumstances]

Hand Hygiene, respiratory etiquette and social distancing remain key to prevent COVID-19 transmission

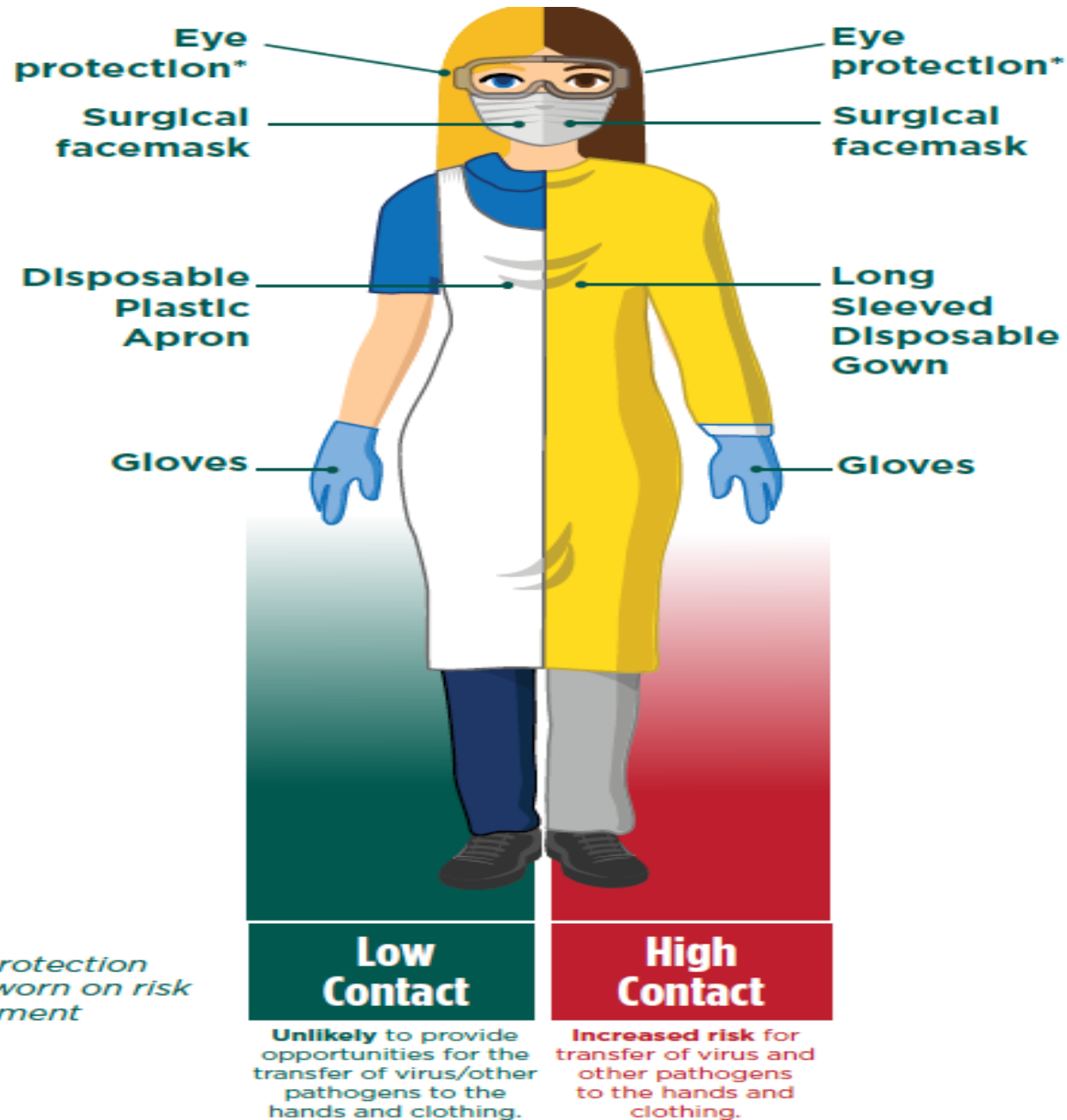


In relation to other healthcare workers 15 minutes refers to a single interaction that you anticipate is going to last for 15 minutes or more

Type of PPE to wear is based on risk assessment



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**Eye protection to be worn on risk assessment*

With thanks to Samantha Weston and James Fox, Creative & Midlands Partnership, NHS Foundation Trust.



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Types of PPE



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Single use disposable gloves to protect hands from contamination from blood/ body fluids including excretions

Disposable plastic apron – recommended to protect uniform /clothing from contamination when providing direct care or cleaning environment and equipment

Long sleeved gowns

Fluid long sleeved gowns are recommended when there is a risk of splashing from blood, body fluids including respiratory secretions

Non fluid resistant gowns require to have an apron worn over gowns to protect against splashing with blood/body fluids

Coveralls provide the same protection as gowns but can be difficult to doff properly without contaminating the HCW



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Types of PPE



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Eye protection is recommended when there is a risk of contamination to the eyes from splashes of blood/body fluids including respiratory secretions and include visor/goggles/face shield or surgical mask with integrated visor

Surgical face masks to protect the mouth and nose from blood/body fluid splashes including respiratory secretions (**and also to reduce potential shedding from you**)

- Must be donned properly to cover nose and mouth

- Shouldn't dangle around the neck or be pulled up and down or touched once in place

- Should be discarded once removed eg. for a drink or to answer telephone

Respirator mask (eg FFP2) recommended for aerosol generating procedures (AGPs) when caring for a patient with COVID-19

- Fit testing is required to ensure mask fits properly to the wearers face shape (less critical with duckbill style)

- Fit check is essential each time a respirator mask is worn to ensure there are no gaps between mask and face for unfiltered air to enter

Head coverings – theatre caps not required except for certain surgical procedures

Shoe coverings – no evidence of benefit – shoes should cover the foot and be wipeable



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PPE



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PPE is generally single use only.

In a pandemic situation limited access to PPE may mean taking pragmatic decisions to extend use of certain PPE while attending to a cohort of patients with COVID-19 in succession in a single period of clinical activity in a cohort area or isolated ward.

Reusable gowns and certain types of eye protection may be used in circumstances where there is a shortage in supply with an agreed process for usage and reprocessing with local infection control advise.

Basic principles to apply when using PPE



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PPE should always be used based on what is rationale and appropriate:

- The risk of exposure (e.g. type of activity)
- The transmission of the pathogen (e.g., contact, droplet or airborne)
- PPE is generally intended to protect the healthcare worker
- The **appropriate** use of PPE can also protect others

HCWs should undertake education and training on donning and doffing of PPE

Donning and doffing PPE should be performed in separate areas



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Areas for Donning PPE require

- Alcohol hand rub
- Chair to sit on
- PPE in appropriate sizes
- Waste bin for disposal of packaging
- A mirror to check PPE
- Signage on key steps in donning sequence
- Instructions to undertake fit check of a respirator mask

Before Donning PPE remember

Remove all jewellery including ear rings

Ensure staff are well-hydrated and have availed of toilet facilities

Tie hair neatly back away from the face

Perform hand hygiene and Don PPE

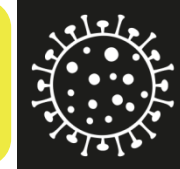
Make sure PPE is secure and comfortable

View video on how to don PPE on www.hpsc.ie



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Key points PPE – Low Contact examples



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The tasks being performed are **unlikely to provide opportunities** for the transfer of virus/other pathogens to the hands and clothing. Examples include:

- Initial clinical assessments
- Taking a respiratory swab
- Recording temperature
- Checking urinary drainage bag
- Inserting a peripheral IV cannula
- Administering IV fluids
- Helping to feed a patient

Type of PPE required

- Hand hygiene
- Disposable single use nitrile gloves
- Disposable plastic apron
- Surgical facemask
- Eye protection*

*Eye protection is required to be worn as part of standard infection control precautions when there is a risk of blood, body fluids, excretions or secretions splashing into the eyes

Individual risk assessment must be carried out before providing care to include whether patients are coughing

Key points on PPE High contact activities (examples)



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High contact patient care activities that **provide increased** risk for transfer of virus and other pathogens to the hands and clothing of healthcare workers.

Examples:

- Close contact for physical examination/physiotherapy
- Changing incontinence wear
- Assisting with toileting
- Device care or use
- Wound care
- Providing personal hygiene
- Bathing/showering
- Transferring a patient
- Care activities where splashes/sprays are anticipated

Examples of PPE

- Hand hygiene
- Disposable single use nitrile gloves
- Long sleeved gown
- Surgical facemask
- **Disposable** Eye protection*

*Eye protection is recommended as part of standard infection control precautions when there is a risk of blood, body fluids, excretions or secretions splashing into the eyes.

Individual risk assessment must be carried out before providing care. This assessment will need to include

- Whether patients are coughing
- The task you are about to perform



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Doffing PPE should be performed in separate area



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Doffing area should have:

- Clean chair to remove coverall
- Alcohol based hand rub
- Disinfectant wipes
- Bin
- Disposable gloves



How to put on and take off Personal Protective Equipment



View video on how to Doff PPE @www.hpsc.ie

Dispelling myths on PPE usage



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Gloved hands are not a substitute for hand hygiene

Gloves- not good practice to wear two pairs – in case outer pair gets contaminated (if gloves may be contaminated take them off, perform hand hygiene and put on a new pair)

DO NOT Wear gloves for several tasks

DO NOT Apply alcohol gel to gloves/washing gloves between tasks

DO NOT Use gloves for all tasks with all care activities

Nitrile gloves are preferred to latex because of risk of hypersensitivity reactions

Challenges with proper use of PPE



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Overuse of FFP2 mask (respirator)
(based on a perception that they are advantageous in all situations)

Mask too loose – touching face to reposition

Pulling up and down mask from the mouth during the period of wearing them
Supply

Failure to apply FFP2 properly and to fit check

Overuse of gowns
(based on a perception that that are advantageous in all situations)



Protective clothes and equipment for healthcare workers to prevent them catching coronavirus and other highly infectious diseases

<https://www.cochrane.org/CD011621/protective-clothes-and-equipment-healthcare-workers-prevent-them-catching-coronavirus-and-other>

- Researchers found low- to very low-certainty evidence that covering more parts of the body leads to better protection -but usually comes at the cost of more difficult donning or doffing and less user comfort, and may therefore even lead to more contamination.

Conclusion

Gowns may protect better against contamination than aprons (small patches: mean difference (MD) -10.28, 95% CI -14.77 to -5.79).

Verbeek JH, Rajamaki B, Ijaz S, Sauni R, Toomey E, Blackwood B, Tikka C, Ruotsalainen JH, Kilinc Balci FS

Activities in the home of someone who is suspected/ confirmed positive with COVID-19

Surgical Facemask recommended to be worn when within 2 metres of the person you are visiting

Home help- person's house

Person- independent/minimal assistance of 1

Task	PPE required					
	Hand Hygiene	Gloves	Facemask	Disposable Plastic Apron	Long sleeved gown	Eye Protection
Supervising person taking medication	X		X			
Assistance with eating food	X		X			
Supervising person to walk- minimal assistance	X	X	X	X		*
Assisting person to transfer to wheelchair	X	X	X	X		*
Assisting person to dress themselves	X	X	X	X		*

*Eye protection is recommended as part of standard infection control precautions when there is a risk of blood, body fluids, excretions or secretions splashing into the eyes. Individual risk assessment must be carried out before providing care. This assessment will need to include • Whether patients with possible COVID-19 are coughing.

Note: Face mask use recommended when within 2 m of the person

Please note current PPE guidance is being reviewed



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Residential care setting – Older Persons/ Mental Health/ Person with Intellectual Disability

Task			PPE required			
			Facemask	Disposable Plastic Apron	Long sleeved gown	Eye Protection
Examples	Hand Hygiene	Gloves				
One to one activities with a person e.g. crafts/ reading/ exercises	x		x			
Group activities with a small group- non contact activities	x		x			
Sitting with a person and having a conversation	x		x			

*Eye protection is recommended as part of standard infection control precautions when there is a risk of blood, body fluids, excretions or secretions splashing into the eyes. Individual risk assessment must be carried out before providing care. This assessment will need to include • Whether patients with possible COVID-19 are coughing



Note: Face mask use is recommended when within 2 m of the person



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Scenario: Caring for someone with COVID-19 in the home

Public Health Nurse/Community RGN/ Domiciliary Midwife

Task			PPE required			
Examples	Hand Hygiene	Gloves	Facemask	Disposable Plastic Apron	Long sleeved gown	Eye Protection
Performing a wound dressing	x	x	x		x	*
Physically supporting breastfeeding	x	x	x		x	*
Administering a medication	x	x	x	x		*
Providing verbal advice	x		x			
Physically holding a child/infant including weighing	x	x	x		x	*

*Eye protection is recommended as part of standard infection control precautions when there is a risk of blood, body fluids, excretions or secretions splashing into the eyes. Individual risk assessment must be carried out before providing care. This assessment will need to include • whether patients with possible COVID-19 are coughing.

Note: Face mask use when within 2 m of the person

Please note : these guidelines currently being updated



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- Dispensary/front of shop/office space staff
 - Masks ONLY if physical distance of >2m
 - No requirement for gloves, goggles or visors unless a requirement for handling hazardous substances in the normal course of work
- Aseptic unit staff
 - Masks ONLY if physical distance of >2m for >15minutes is not possible
 - Otherwise as per the requirements in the normal course of work
 - Clinical staff
 - As per the requirements discussed earlier for clinical areas



Online resources and links

Online resources and links



Coronavirus
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www.hpsc.ie is the central hub for nationally approved infection control guidance relating to COVID19. You should familiarise yourself with the relevant guidance.

All guidance has been approved by the COVID19 National Public Health Emergency Team (Expert Advisory Group) or the HSE Health 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

The critical guidance for all staff delivering care in a residential service is:
Interim Public Health and Infection Prevention Control [Guidelines](#) on the Prevention and Management of COVID-19 Cases and Outbreaks in Residential Care Facilities and Similar Units



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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 and 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)



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/>

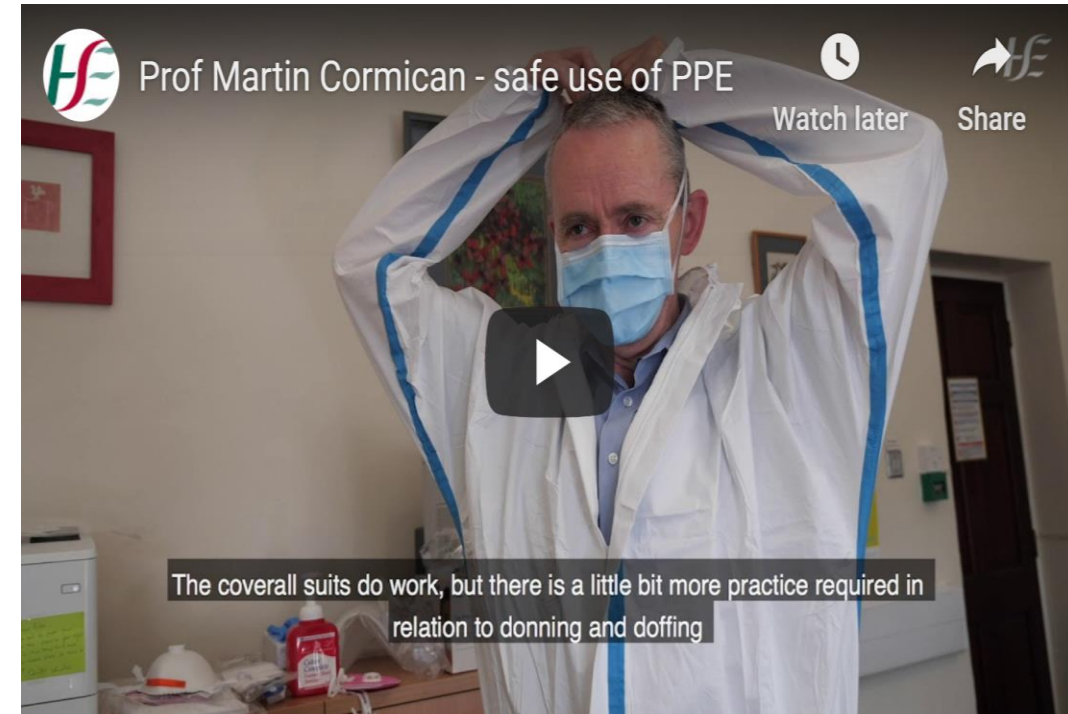
Webinars: there are a number of education webinars on infection control and reducing the risk of transmission of COVID19 in health services.

<https://bit.ly/34YccbT>



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

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





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/>



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

<https://www.hse.ie/eng/services/news/newsfeatures/covid19-updates/partner-resources/>

Coronavirus
COVID-19

Visitors

PROTECT YOUR LOVED ONES

Don't visit if you feel unwell with a cough, breathing difficulties, fever or shortness of breath.

Wash your hands well and often to avoid contamination	Cover your mouth and nose with a tissue or sleeve when coughing or sneezing and bin used tissue	Avoid touching eyes, nose, or mouth with unwashed hands	Clean and disinfect frequently touched objects and surfaces

For more information visit [hse.ie/coronavirus](https://www.hse.ie/coronavirus)

Cosain tú féin agus daoine eile ó thinneas

Nigh do lámha

- Tar éis casacht nó sraoth
- Nuair a bhíonn tú ag tabhairt aire do dhuine tinn
- Roimh agus tar éis bia a ullmhú
- Sula n-itheann tú
- Tar éis an leithreas
- Nuair atá do lámha salach
- Tar éis lámh a leagain ar ghearradh, spuaic nó créacht oscailte
- Is féidir cuimilteoir alcóil láimhe a úsáid mura bhfuil cuma shalach ar na lámha

RESIST www.hse.ie/handhygiene

COVER YOUR COUGH AND SNEEZE

STOP THE SPREAD OF GERMS THAT MAKE PEOPLE SICK

When you cough or sneeze **cover your nose and mouth with a tissue**

OR Cough or sneeze into your elbow, **not your hands.**

Throw away your tissue!

Clean your hands after coughing or sneezing.

THANKS!

Online resources and links



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<https://www.hse.ie/eng/services/news/newsfeatures/covid19-updates/partner-resources/>

es > [COVID-19 updates](#) > [Partner Resources](#)

Coronavirus (COVID-19) posters and resources

Use these posters, booklets and videos in workplaces and communities to raise awareness about preventing the spread of coronavirus.

These assets are available for download and printing.

You can also find [COVID-19 information that has been translated into various languages](#).

You can also find [COVID-19 Irish Sign Language \(ISL\) resources](#)

Booklets	+
Posters	+
Videos	+
Audio resources	+

This link will take you to the HSE website which contains links to translated COVID-19 materials, audio and video resources, posters and booklets



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