

**Imperial College  
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# COVID 19

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## **Chronology:**

**China: 1<sup>st</sup> Case Reported on 31<sup>st</sup> of December 2019**

**WHO: Technical Guidance Note 10<sup>th</sup> Jan 2020**

***Warning countries of “Risk of Human to Human transmission***

**WHO: Tweet 14<sup>th</sup> January**

***“Preliminary investigations conducted by the CHINESE AUTHORITIES have found NO clear evidence of Human to Human Transmission of the virus”***

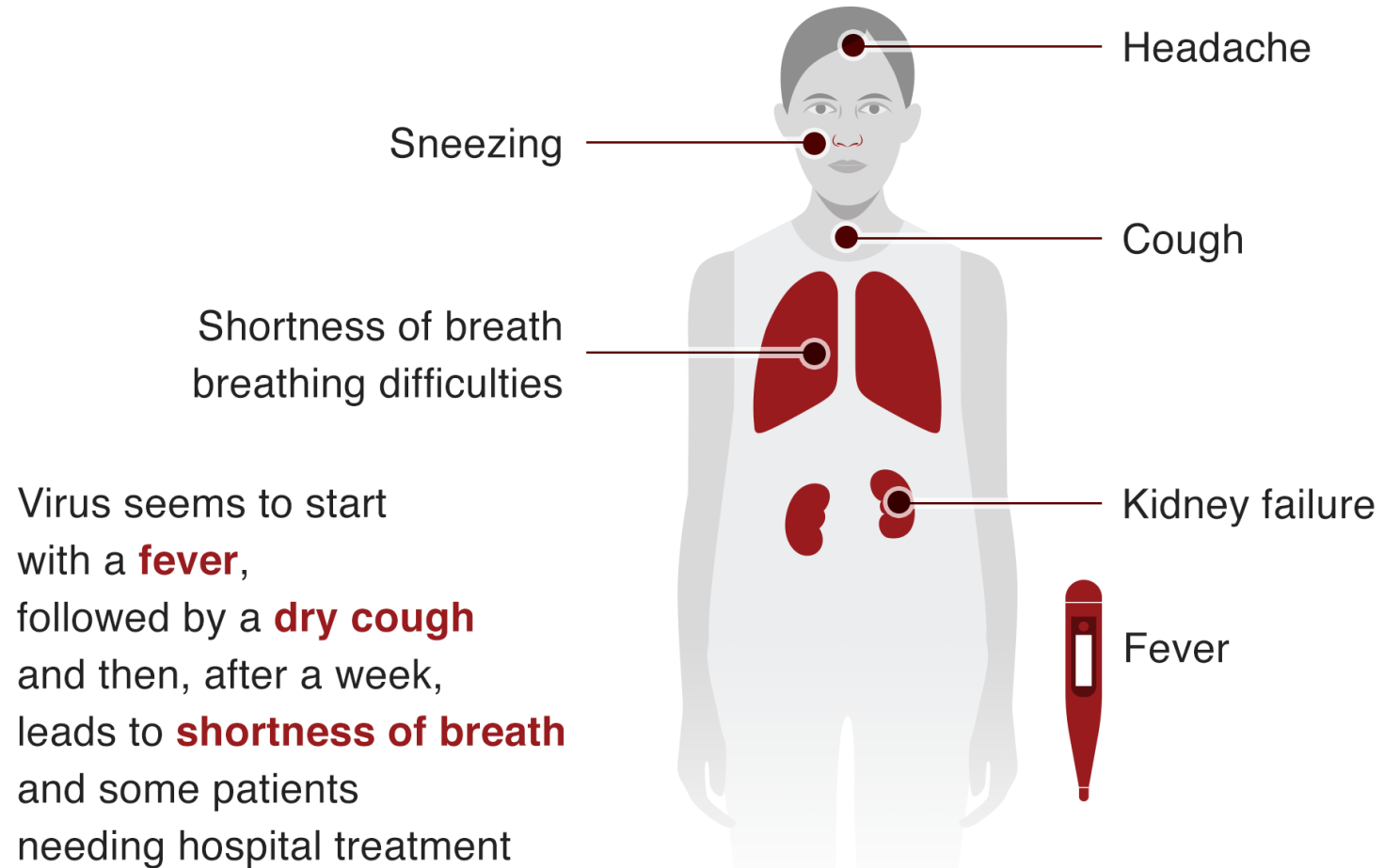
**WHO: 23<sup>rd</sup> January: Official Report Warning of Human to Human transmission higher than seasonal Flu**

**WHO: 30<sup>th</sup> Jan, declared the disease as *Public Health Emergency***

**WHO: 19<sup>th</sup> Feb: named SARS-2 Virus as *COVID-19***

**WHO: 11<sup>th</sup> March: Declared *PANDEMIC* (over 60 countries reported Cases)**

# COVID-19 Symptoms




## Novel coronavirus

Coronaviruses are viruses that **circulate among animals** but some of them are also known to affect humans.

The 2019 novel coronavirus was identified in China at the end of 2019 and is a new strain that has not previously been **seen in humans**.

## Symptoms

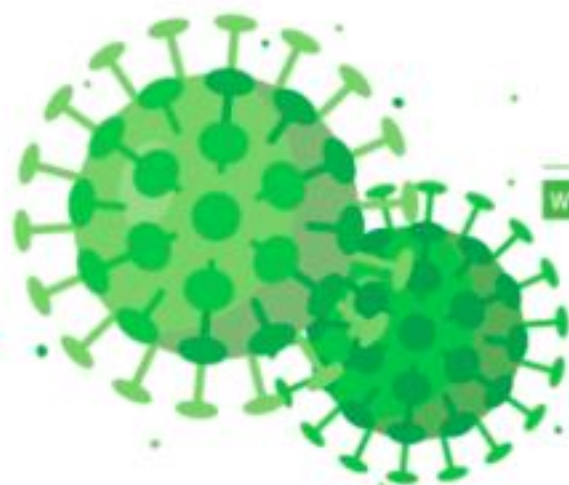
 FEVER

 COUGH

 DIFFICULTY BREATHING

 MUSCLE PAIN

 TIREDNESS



## Prevention

### When visiting affected areas

Avoid contact with sick people



Wash your hands with soap and water



If you develop cough, use a medical face mask



Wherever you travel apply general hygiene rules

## Transmission

VIA RESPIRATORY DROPLETS

**2-14** days  
estimated incubation period



This graphic is based on guidance from Public Health England and Health Protection Scotland to prepare primary care practices in the UK. It has been updated to reflect new UK government advice to the public announced on 16 March 2020



Person with one or more of:  
**New continuous cough**  
**Fever  $\geq 37.8^{\circ}$**

**Remote consultation**  
Aim to triage all patients online or by phone

**Patient identified in GP surgery**

**Assess whether clinically stable**  
Initial data indicate that patients display symptoms with approximately these proportions of severity, with elderly people and those with underlying health problems more affected:

<b>80%</b> No or mild symptoms	<b>15%</b> Severe disease	<b>5%</b> Critically unwell
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Follow local protocols for further assessment and possible hospital admission

**Call 999**  
Inform operator that patient may have covid-19

Patients with mild symptoms should be identified at reception, and asked to return home and self isolate

Acutely unwell patients should be isolated, and assessed while using standard PPE (see bottom right)

**Patients requiring hospitalisation**  
Suspect covid-19 in any seriously ill patients with influenza-like illness, ARDS\*, or pneumonia

**Preparing the GP surgery in advance**  
Advise patients with a cough or fever to avoid attending in person, via:  
**Reception staff** **Automated phone systems**  
**Prominent posters** **SMS message systems**  
**Warning notice on online booking systems**

**Isolation room**  
**Located away from waiting areas and other consultation rooms**  
**Without carpeted floors or soft furnishing**  
**Close to separate toilet facility**

Turn off air conditioning  
Close door  
Open window

If possible, do not enter room, reassure and update patient by telephone. If tolerated, patient to wear fluid-resistant surgical mask

Dispose of all waste in a clinical waste bag

Clean and disinfect hard surfaces and reusable care equipment after patient leaves. Cleaners should wear appropriate personal protective equipment

**Self isolation**  
Patients do not need to contact NHS 111 to go into self-isolation. If symptoms worsen during home isolation or are no better after 7 days, they should contact NHS 111 online. For a medical emergency, they should dial 999

Anyone displaying coronavirus symptoms should stay at home for 7 days from when the symptoms first appeared

If anyone displaying coronavirus symptoms lives with others, all asymptomatic members of the household should stay at home for 14 days

Choose a well ventilated room, and keep away from other household members not displaying symptoms

Do not invite visitors

Groceries or medication should be dropped off on the doorstep by friends, family, or delivery drivers

Double bag waste and put it aside for at least 72 hours, before putting it in usual household waste bin

UK government advice on self isolation is available at: <http://bit.ly/ukgovisol>

**Personal protective equipment (PPE) in primary care**

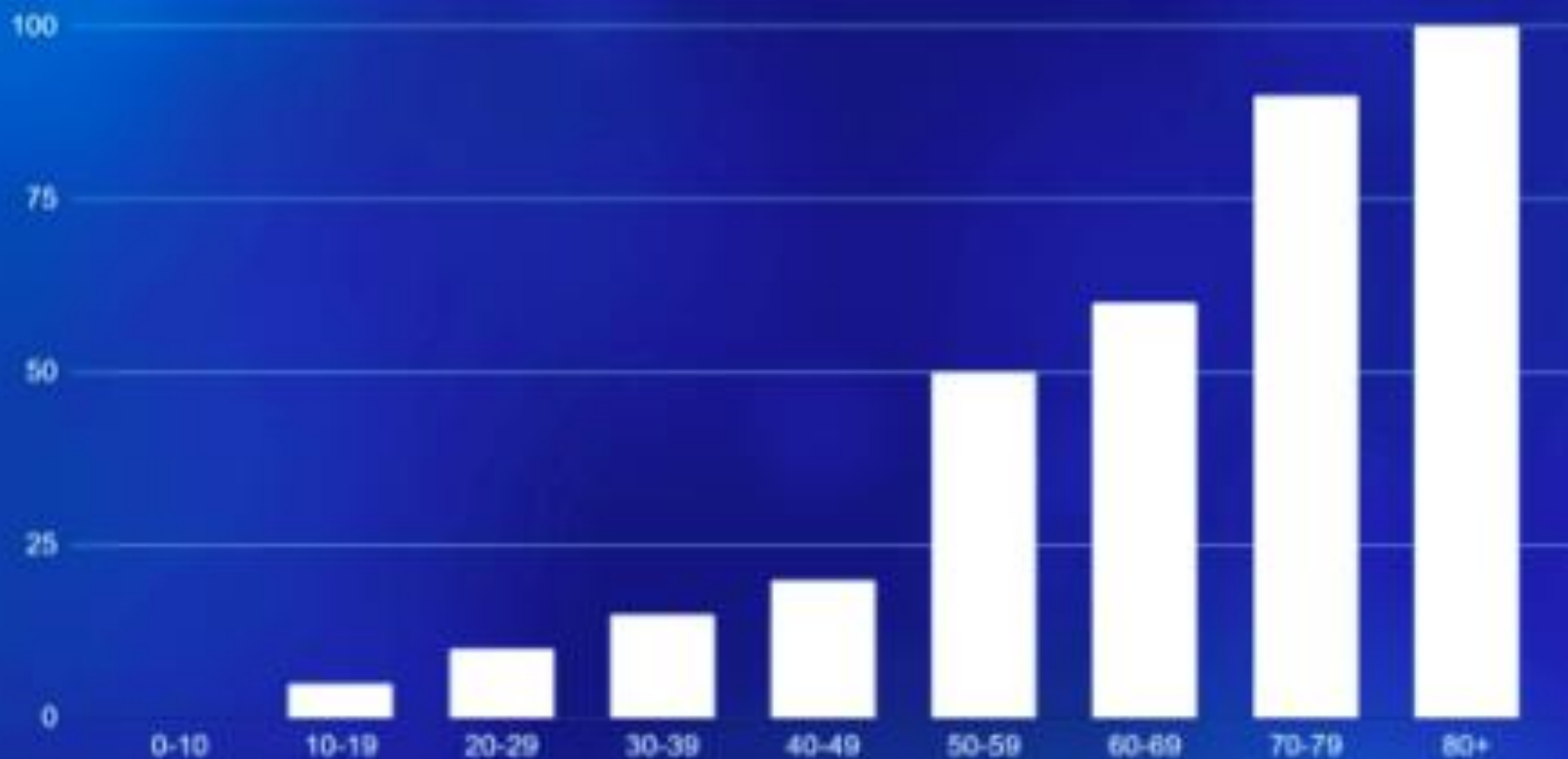
For any direct patient care (within 2 meters) or for collection of nasopharyngeal swab(s), use standard PPE

**Goggles or visor\***  
**Fluid-resistant surgical mask (Type IIR)**  
**Gloves**  
**Apron**

**Dispose of PPE as clinical waste after use**

\* ARDS = acute respiratory distress syndrome

# MORTALITY RATE BY AGE



# Coronavirus guidance

Advice for people who think they may have coronavirus

- Step one**  Do not go to a GP surgery, pharmacy or hospital
- Step two**  Contact NHS 111
- Step three**  You may be asked to self-isolate
- Step four**  Your details may be passed to local health protection teams
- Step five**  You may then be tested for the virus
- Step six**  A doctor or nurse will give you advice on what to do next

# What should I do to prevent catching and spreading the virus?



**Wash hands frequently** with soap and water or use a sanitiser gel



Catch coughs and sneezes with **disposable tissues**



**Throw away used tissues**  
(then wash hands)



If you don't have a tissue **use your sleeve**



**Avoid touching your eyes, nose and mouth with unwashed hands**



**Avoid close contact with people who are unwell**



## What is the difference between the tests?

**Swab test** (diagnostic test)

**Blood test** (antibodies test)

Have I got it?

Have I had it?



How long do results take?

Days

Seconds

What is required?

Swab from nose  
or throat

Blood sample

What happens next?

Laboratory runs a  
polymerase chain reaction  
(PCR) test

Solution added  
to test device

How does it work?

Looks for coronavirus  
genetic material

Detects antibodies  
created by body  
to fight virus

What does a positive result mean?

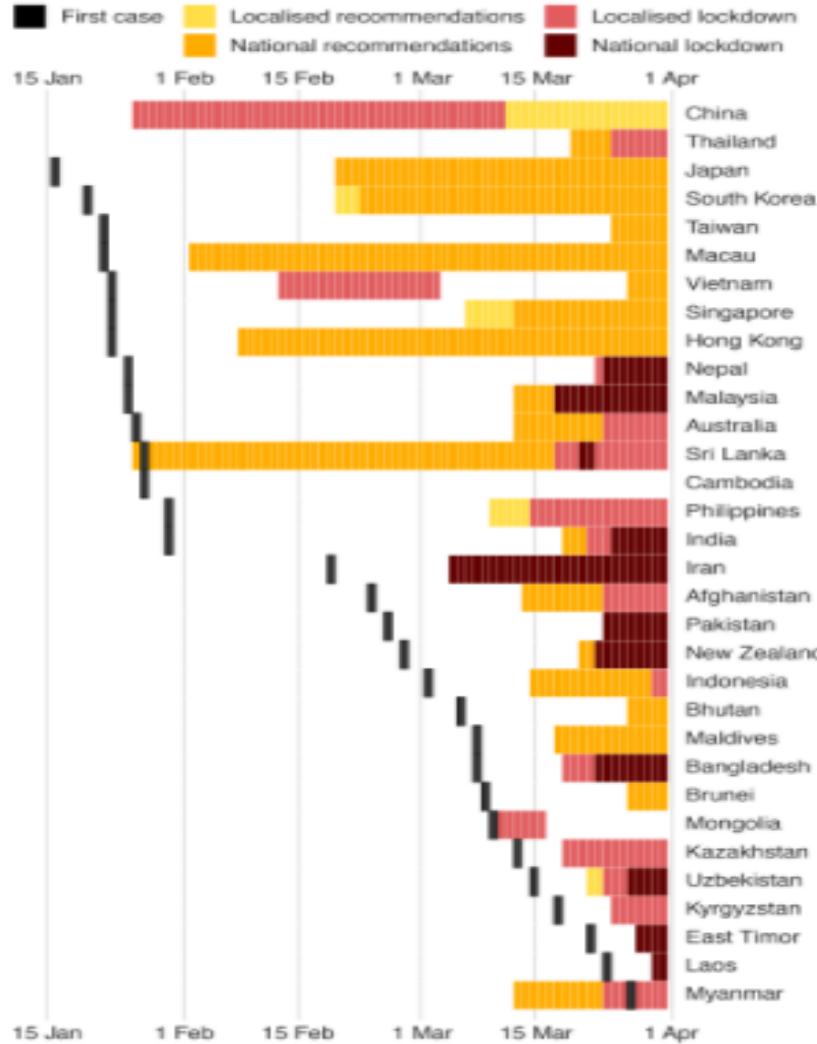
Patient has the virus

Patient has had the  
virus in the past

# Global Lockdown

## Asia, Australia and New Zealand in lockdown

Dates and severity of restricted internal movement by country



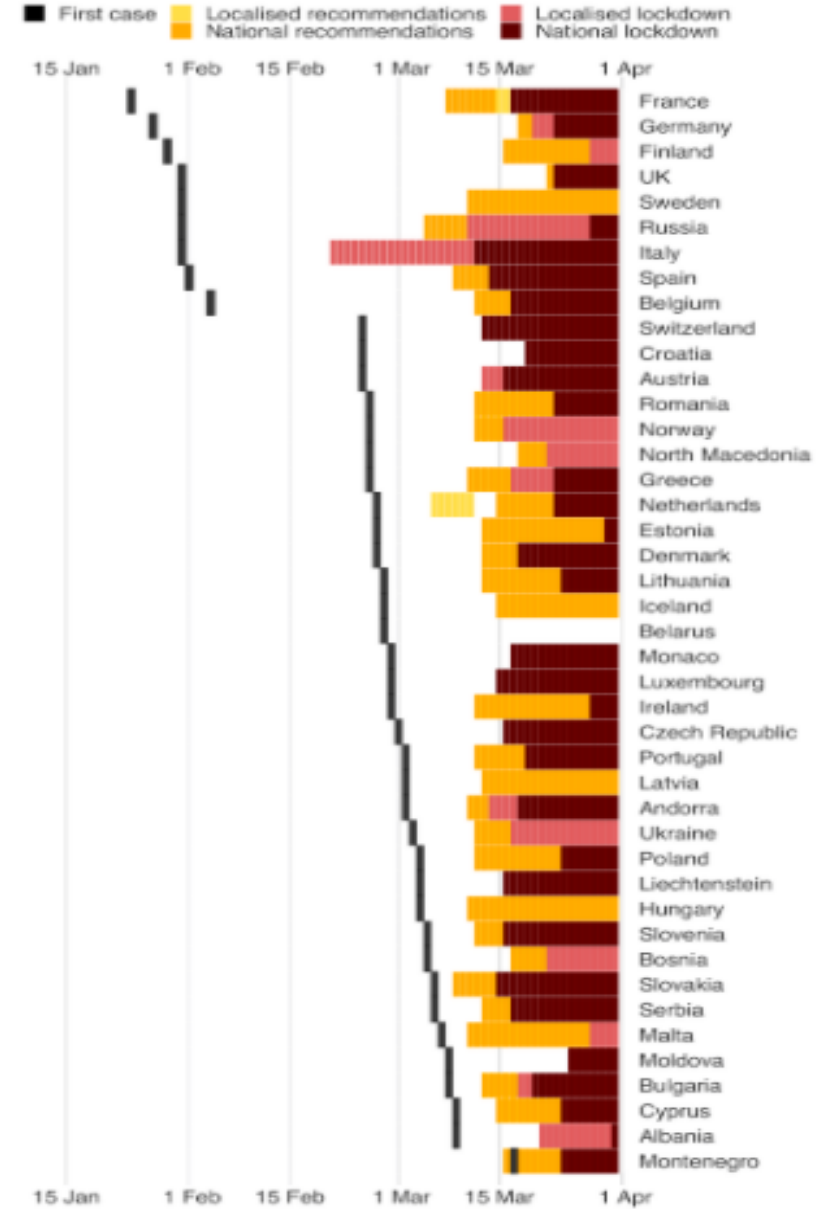
Note: China and Thailand confirmed their first cases prior to 15 January 2020

Source: Oxford COVID-19 Government Response Tracker, BBC Research



## European countries in lockdown

Dates and severity of restricted internal movement by country



Source: Oxford COVID-19 Government Response Tracker, BBC Research



# Global Lockdown

## Countries in the Americas in lockdown

Dates and severity of restricted internal movement by country



# Global Lockdown

## Sub-Saharan African countries in lockdown

Dates and severity of restricted internal movement by country

