As of 02.03.2020 there have been 89 856 cases of Covid-19 infection reported with 3069 deaths. The comparable figures in last week’s update (on 25.02.2020) were 79 746 and 2628.

The containment measures put in place in China now seem to be having a positive effect with a sustained fall in the rate of new cases. There were 202 new cases on 01.03.2020.

However there are now reported cases in 72 countries and territories (compared to 37 on 25.02.2020 update).

The worst affected are South Korea (4335 cases, 999 new cases), Italy (1704 cases, 3 new cases) and Iran (1501 cases, 523 new cases).
In terms of ranking the severity of the outbreak in each country, CDC uses the following classification and potential travel restrictions and self-isolation recommendations are based on this risk assessment, which is maintained under constant review.

1. Widespread sustained (on-going) transmission and restrictions on entry to certain countries
2. Widespread sustained (on-going) transmission
3. Sustained (on-going) community transmission
4. Limited community transmission

Case Fatality Rates (CFR)

In view of the current increasing level of concern in the UK I did want to discuss the issue this week and put it into perspective.

Currently the WHO estimates a CFR of 1-2% but it is vital to put this into a proper framework.

At present, it is tempting to estimate the case fatality rate by dividing the number of known deaths by the number of confirmed cases. The resulting number, however, does not represent the true case fatality rate and might be off by orders of magnitude.

A precise estimate of the case fatality rate is therefore impossible at present.

The figures from China were rates for diagnosed cases following presentation with clinical symptoms.

However, more recent work from Imperial College suggests a much larger number of asymptomatic or only very mild cases. Results from mass screenings of returning or repatriated populations suggested only 1 in 19 people infected are being tested. This is represented in the graphic below courtesy of Imperial and the BBC.
CFR's from China reported rate of **2.8% for men** and **1.7% for women**. However, smoking rates may play a significant contributory factor here – in China **50% of men smoke** as opposed to only **2% of women**.

**However, age certainly appears to be a significant factor associated with death from the Covid-19 virus. The table below shows the experience to date.**

<table>
<thead>
<tr>
<th>AGE</th>
<th>DEATH RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>80+ years old</td>
<td>14.8%</td>
</tr>
<tr>
<td>70-79 years old</td>
<td>8.0%</td>
</tr>
<tr>
<td>60-69 years old</td>
<td>3.6%</td>
</tr>
<tr>
<td>50-59 years old</td>
<td>1.3%</td>
</tr>
<tr>
<td>40-49 years old</td>
<td>0.4%</td>
</tr>
<tr>
<td>30-39 years old</td>
<td>0.2%</td>
</tr>
<tr>
<td>20-29 years old</td>
<td>0.2%</td>
</tr>
<tr>
<td>10-19 years old</td>
<td>0.2%</td>
</tr>
<tr>
<td>0-9 years old</td>
<td>No fatalities</td>
</tr>
</tbody>
</table>

**The other major factor to consider is pre-existing disease which leads to higher death rates.**

The main ones to consider are again shown below.

<table>
<thead>
<tr>
<th>PRE-EXISTING CONDITION</th>
<th>DEATH RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular disease</td>
<td>10.5%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>7.3%</td>
</tr>
<tr>
<td>Chronic respiratory disease</td>
<td>6.3%</td>
</tr>
<tr>
<td>Hypertension</td>
<td>6.0%</td>
</tr>
<tr>
<td>Cancer</td>
<td>5.6%</td>
</tr>
<tr>
<td>No pre-existing conditions</td>
<td>0.9%</td>
</tr>
</tbody>
</table>
Global Travel Advice

This remains essentially unchanged from the previous update.

CDC has put a Level 3 Warning Alert on China, Iran, South Korea and parts of Italy.

This advises to avoid all but essential travel.

In addition the USA has barred entry to travellers from China and Iran.

Japan has a Level 2 Alert advising older adults and those with chronic conditions to consider postponing travel.

Hong Kong has a Level 1 Alert with travellers recommended to observe normal precautions.

UK Specific Advice

As of 0900 on 02.03.2020 a total of 13,525 people have been tested in the UK, of which 13,485 were confirmed negative and 40 positive. The comparable figures from last week’s update were 6536 tested and 6527 were negative with 9 positive.

Based on the advice of the UK Chief Medical Officers, the threat level is currently maintained at moderate. The Health Protection (Coronavirus) Regulations were put in place on 10.02.2020 allow greater powers in such areas as quarantining returning individuals.

The advice for returning travellers to the UK remains unchanged from the last update.

I have been asked if it is possible to have private testing for Covid-19. The answer to this is a clear and unambiguous no. It is vital that all testing is done by the NHS and Public Health England in order that case numbers can be tracked and contact tracing and isolation can be followed through.

Diagnosis is performed with a combination of nasal and oral swabs. There have already been significant improvements in the quality and speed of the diagnostic tests.
The absolute cornerstone of protection remains good hand hygiene by means of frequent thorough washing (for **at least 20 seconds**) or the use of hand sanitisers if there are no washing facilities available. The sanitiser should contain **60-95% alcohol** to be effective.

Virtually all domestic disinfectants are effective at destroying the virus on surfaces.

Personally I have no intention in seeking to provide myself with face masks.

I would endorse the advice on NHS 111 as follows:

> Face masks play a very important role in places like hospitals, but there is very little evidence of widespread benefit for members of the public.

The average person touches their face 23 times an hour and face masks can help to suppress this unconscious action. They also reduce droplet transmission to others.

**Treatment**

At present there is no effective antiviral treatment for Covid-19 although multiple clinical trials are underway. A range of different vaccines is being researched. Antiviral drugs are also in clinical trials – remdesivir is currently undergoing a full trial with 761 patients in Wuhan hospitals. Other antivirals such as galidesivir and monoclonal antibody therapy are also being evaluated. In addition pre-existing HIV therapies and drugs such as chloroquine are being assessed for their effectiveness against Covid-19.

It should be stressed that despite these efforts both thorough evaluation and any subsequent manufacturing and supply do take time so there is no panacea around the corner.

Until then, the mainstay of treatment for mild cases is maintaining fluid intake and using over the counter medications such as paracetamol.

In-patient cases will receive treatment appropriate to their clinical status and this may require ventilation in the more critical patients.

*If you have any specific or business related concerns, or simply want to talk to one of our clinicians please do not hesitate to contact the Health Management Occupational Health and Support line on 01273 555666. Our clinical team will be pleased to assist.*