RAMP Task 7 Symposium
Distance & Dilution

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RE-OCCUPATION CHALLENGES
3. Social distancing for workers

Objective:

Ensuring workers maintain social distancing guidelines (2m, or 1m with risk mitigation where 2m is not viable, is acceptable), wherever possible, including arriving at and departing from work, while in work and when travelling between sites.
How social distancing rules differ

China, Denmark, France, Hong Kong, Lithuania, Singapore

South Korea

Australia, Belgium, Germany, Greece, Italy, Netherlands, Portugal, Spain

US

Canada, UK

Note: Regional authorities can impose different guidelines in some countries.
Aerosol transmission occurs when small virus containing respiratory droplets evaporate to less than 5 micron diameter particles (droplet nuclei) and are carried by the air, where they are subsequently inhaled. This may be released from respiratory actions (breathing, talking, coughing etc) as well as through aerosol generating procedures in a hospital or dental environment. These particles principally transit infection over short distances but potentially could transmit over longer distances (<2m) too.
7. Risk of transmission depends on a number of factors. These have been set out in previous EMG papers [A,B,C], but the key factors are reiterated here for clarity:

- The highest risk for close-range transmission is when someone is face-to-face with an infectious person at a distance of 2m or less for a prolonged period. The risk increases with the amount of time spent in close proximity to the infectious person and with the reduction of distance. A calculation based on [3] suggests risk at 2m face-to-face is around 10 times lower than the risk at 1m. A new meta-analysis paper of reported transmission suggests that the risk of transmission at 2m separation is approximately half that at 1m, although this does not consider the orientation or the mode of transmission [4]. When people are side-to-side or behind one another risk is via aerosols and so is determined by the influence of ventilation; at 1m the exposure risks would be similar to 2m when face-to-face in an indoor environment.
Air Quality.

CURRENT
08/09/2020 15:56

Temp °C  | Humidity %  | CO2 ppm  | tVOC ppb | PM2.5 μg/m³
---|---|---|---|---
26.9 | 52.9 | 463 | 255 | 0.0

HISTORICAL (pinch to zoom)
ppm

CO2 ppm - 48 hrs

Average: 443  Max: 510  Min: 405
When outside air AND mixed air temp is within + or − 2°C of supply set point, then fan speed normal pressure control. When > 2°C + or − of supply set point, limit fan speed output to 80% max but step down 5% if either heating or cooling control valve % > 90% for 5mins and likewise if lower than 75% for 5mins then step up fan speed % by 5%, but always limited to 80%.
Space temperature set points to be overridden to **26C cooling set point** and **20C heating set point**. When outside air AND mixed air temp is + or − 1.5C of supply set point, then normal pressure control but close cooling/heat valve. When > 1.5C + or − of supply set point, limit fan speed to 50% max but step down 5% if either heating or cooling valve % > 90% for 5mins and likewise if lower than 75% for 5mins then step up fan speed % by 5%, but always limited to 80%.
Thank you.
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