

Improving Ventilation to Prevent COVID-19 Transmission

COVID-19 spreads from person to person through the air. This means that fresh, clean air is an essential part of keeping safe. This is important throughout the **WHOLE HOSPITAL**, including areas for patients *without* COVID and places where staff meet to eat and rest.

Follow these 10 steps to improve the ventilation in your facility

1) OUTSIDE IS SAFEST

The safest way to minimise COVID-19 transmission is by being outside. Where possible, screening and assessment of patients should take place outside. Waiting areas should also be outside. If using a covering to protect from the weather, leave the sides open.



2) OPEN WINDOWS

Keep windows open at all times. Where possible, open the windows on opposite walls to improve air flow through the room.



3) AVOID OVERCROWDING

The more people in a room, the higher the risk. Avoid overcrowding anywhere in the hospital. Ensure everyone is wearing a mask.



4) SET EXTRACTOR FANS TO BLOW OUTWARDS

The extractor fan in a room with patients in should be set to blow outwards not inwards and should be left switched on at all times (check the direction of air flow with a piece of tissue).



5) UNBLOCK AIR VENTS

Many hospitals have been designed to promote the flow of fresh air. Make sure these features are not blocked off or taped shut.

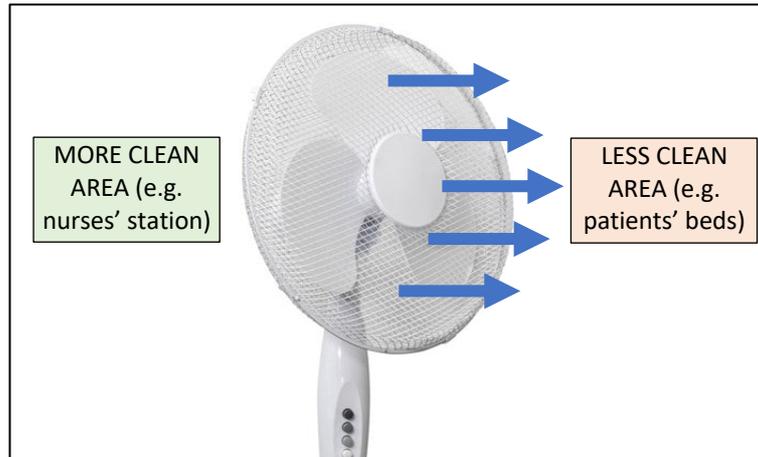


6) USE FANS CAREFULLY

If fans are needed to cool a room, it is important to ensure that the room already has a good supply of fresh air from open windows and doors.



Always ensure that a fan is blowing from a *more clean* area to a *less clean* area.



It is also important to make sure that fans are positioned carefully so they do not blow infected air from one person to another.



In buildings where there is a poor flow of fresh air, placing a fan in front of an open window blowing outwards can promote airflow.

7) CAUTION WITH AIR CONDITIONING

The air conditioning units shown in the picture do not provide fresh air. Instead, they recirculate old, potentially infectious air. They are NOT a substitute for making sure rooms have plenty of fresh air. There is also risk that they will blow infection from one person to another.

It is safe to use these in single rooms that are **only** used for COVID patients, or in a ward where **all** of the patients have COVID, but to make the environment safer when staff enter, the windows should be kept open **in addition** to having the air-conditioning switched on.



8) USE OPEN VEHICLES FOR TRANSPORT

When transporting patients, keep windows open or preferably use an open vehicle.



9) STAFF ROOMS

Rooms where hospital staff gather to rest and eat are risky because people remove their facemasks. These areas should be kept well ventilated to prevent infection passing from one person to another. Avoid overcrowding by placing a strict limit on the number of people who can enter at the same time and wear masks when not eating.



10) OPTIMISE MECHANICAL VENTILATION

Some new hospital buildings have in-built mechanical ventilation systems. These are different to the air conditioning units mentioned earlier because they can bring in fresh air from the outside. These should be set by your facilities manager or an experienced engineer to make them as COVID-safe as possible, following the latest COVID guidance from CIBSE (www.cibse.org/coronavirus-covid-19), ASHRAE (www.ashrae.org/technical-resources/resources) or REHVA (www.rehva.eu/activities/covid-19-guidance).

