

A “bubble” approach to Covid-19

A major aspect of **COVID-19** has been around the safe use of **PPE** and how that is affected by the types of patients and procedures we encounter. This has understandably been a source of concern for many, and one which we’ve found a little difficult to explain.

Thomas Bannister is an EM doc in Virchester who conceptualises this as the **Covid Bubble**:

What’s your Mindset?

Your role is to prevent onward transmission of the virus. To do this you must treat the individual patient. There is no ‘one size fits all’ solution.



What’s the context?

Infection results from viral contact with mucous membranes (eyes, nose, mouth). Spread is predominantly by contact with contaminated surfaces, or via respiratory droplets (2 meter radius around the patient). The virus can be aerosolised, but only by certain aerosol generating procedures (AGPs), such as CPR, or non-invasive ventilation.



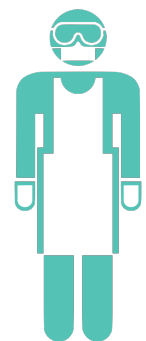
Contact precautions

Think about what you touch. If you touch a contaminated surface, you are contaminated. If you’re contaminated, anything you touch is contaminated. Don’t touch your eyes, nose or mouth. Hand washing is the main contact precaution. Regularly wash your hands with soap and water for at least 20 seconds.



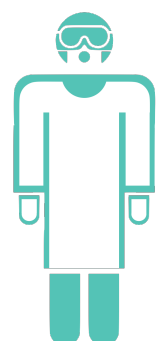
Droplet precautions

Wear “droplet PPE” – Fluid resistant surgical mask (FRSM), apron, gloves, eye protection.



Aerosol precautions

Only enter a room in which there has been aerosol generation if you absolutely have to. Wear “aerosol PPE” – Filtering Face Piece class 3 (FFP3)



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Dr Tom Bannister

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1 - CREATE A BUBBLE AROUND THE PATIENT

Everything that enters a 2m radius (the bubble) around the patient is considered contaminated

This should be disposed (PPE) of or appropriately cleaned (equipment or linen)

Anything that can not be disposed of (medical notes) or cleaned should not enter the bubble

Do not bring anything unnecessary in to the bubble (pen, ID badge, vocera/bleep)

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2 - STAY OUTSIDE THE BUBBLE

Anything that can be done at a distance to the patient should be as most of the spread will be from droplets or contact with contaminated surfaces within the bubble

Assess from the end of the bed

In most circumstances don't not use a stethoscope - get a CXR instead

Consider phoning the patient from outside the room to take the history

As fewer people as possible should enter the room & only when necessary

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3 - ENTER THE BUBBLE CONCIIOUSLY

Nobody should enter the bubble without knowing that they are doing so.

Anyone who may be exposed to a patient, sample or environment that is potentially contaminated should be notified in advance and should take appropriate precautions.

With colleagues: communicate; call ahead; write clearly on requests that the patient is ?Covid-19.

Don't ask the patient to do anything that will bring other people inside their bubble without appropriate PPE; for instance, going to a pharmacy, or getting a taxi.

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4 - STOP THE BUBBLE TOUCHING THE ENVIRONMENT

Everything inside the bubble is considered contaminated.

The bubble can move, to x-ray or ITU for instance, but it shouldn't touch the environment in transit.

Staff wearing PPE inside the bubble can push the patient's trolley but a “clean buddy” should open doors and ensure that the path is clear ahead.

?Covid-19 patients should not enter non-respiratory areas (such as non-Covid x-ray).

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5 - Samples leave the bubble in a bubble of their own

Nothing should leave the bubble without a bubble of its own.

Create a new bubble around any contaminated objects leaving the patient's bubble.

Double bag samples so the outside layer is clean.

Make sure whoever is handling or receiving the sample knows what it is and is able to “enter the bubble consciously”.



CLEAN BUDDY

THE BUBBLE

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6 - AEROSOLS BREAK THE BUBBLE!

Aerosol generating procedures (AGPs) break the bubble

The entire room should be considered contaminated

Everyone in the room should wear “aerosol PPE”

The air in the room will need to change over several times before the concentration of aerosolised virus drops to a safe level – this takes a minimum of 20 minutes

