



The Health Education and Research Trust
presents:

**COVID-19:
FOLLOWING THE REAL SCIENCE**

A series of days investigating various aspects
of COVID-19 and the pandemic response



COVID-19: Following the real science series:

Day 1: COVID-19 and the Immune System: An Evidence-Based Investigation

Day 2: Prevention and treatment of COVID-19 and all respiratory viruses – probably produced late 2024

Day 3: COVID-19 and the non-pharmaceutical pandemic measures (lockdown, masks, social distancing, school closures etc): did they work? – probably produced early 2025

To receive the free video links and information on guest speakers, please register at covidtherealscience@gmail.com



Day 1: COVID-19 and the Immune System: An Evidence-Based Investigation

Rachel Nicoll PhD

‘Following the science’? What does it even mean?



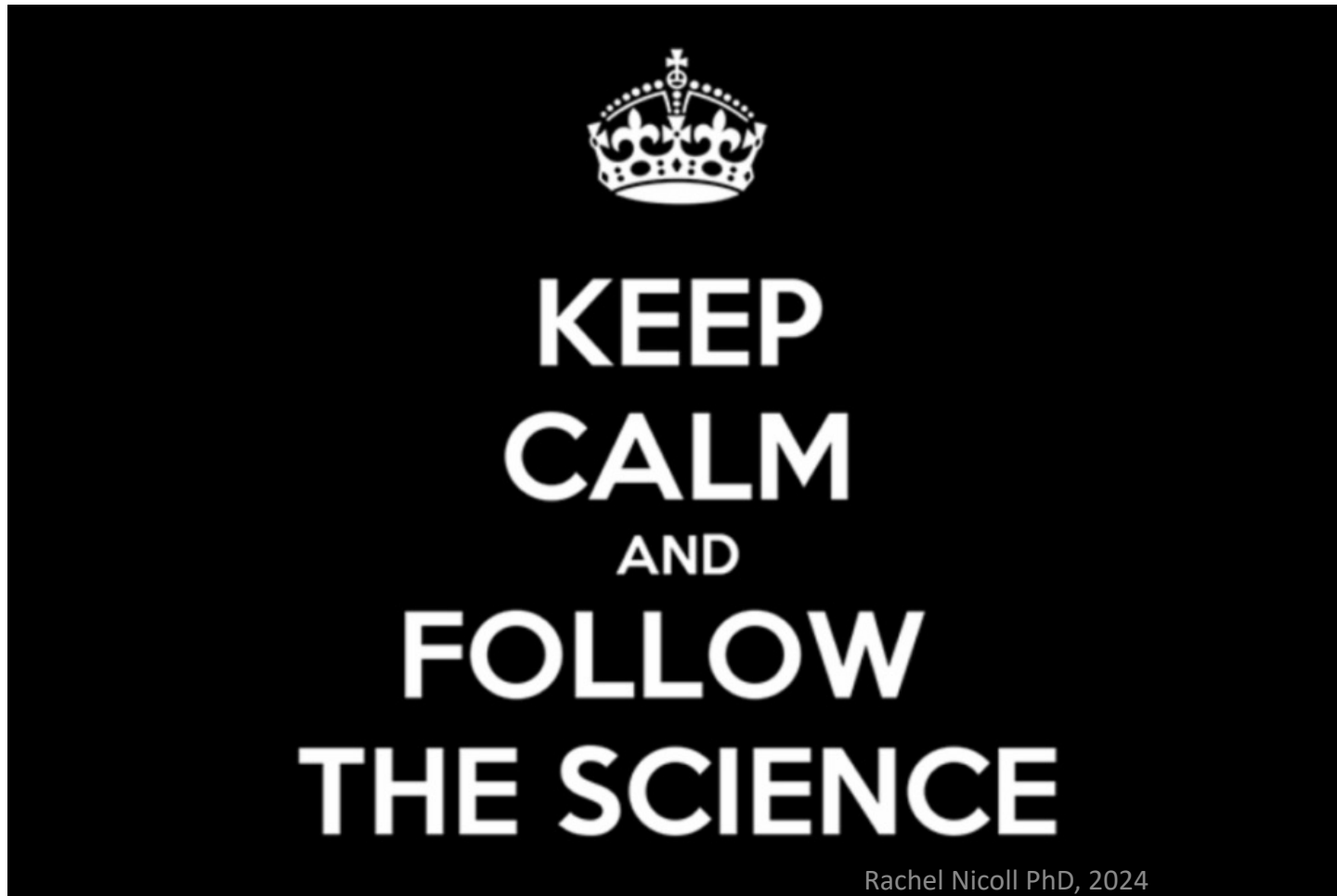
- Boris Johnson insisted that he was “following the science” as he instituted measures against COVID.
- It was a phrase used a lot back in 2020.
- But sadly, there was no science to support government actions, as I will show.

'The Science' became like a religion

- As **Danny Kruger, MP**, pointed out in his Afterword to 'The Accountability Deficit': 'During the pandemic we worshipped science – or to give it its proper name, the Science ...normal scientific processes were laid aside, and instead the clique of credentialled advisers at the top of Government acquired a total supremacy.'
- Ministers could 'use The Science to justify their decisions and excuse any bad results'.
- 'Government may be utterly bewildered but at least it can "follow the science", as in old days it heeded the flight of birds or the entrails of a chicken.'

(Kingsley M et al, The Accountability Deficit: How ministers and officials evaded accountability, misled the public and violated democracy during the pandemic. <https://www.amazon.co.uk>

'Following the science' became the COVID-era mantra



<https://www.medpagetoday.com/opinion/vinay-prasad/89856>

'Attacking the Science'



- This is a ridiculous statement for 2 reasons:
 - **Science is never settled**; it progresses by debate, argument and new discoveries.
 - Fauci's advice at the beginning of the pandemic was completely at variance with his advice later on. Yes, he may have changed his mind as more data became available but that just proves the point that science is never settled.
- Any scientist who claims to have a monopoly on the truth is dangerously deluded.

The science is never 'settled'

- It's a well known medical school story that lecturers would tell trainee doctors that after five years **half the things they had been taught would be shown to be wrong.**
- **The problem was that you didn't know which half!**
- But it demonstrates that science is not settled – it is dynamic and continually subject to change. Every scientist will eventually be proved wrong. This is the nature of science, continually evolving.
- We will still be debating the science of COVID-19 in 2124 and **everything that I am about to say may well be proved wrong.**
- 'Settled science' said the Sun went round the Earth until Galileo and Copernicus demonstrated that it did not. Both were lone voices and suffered for their beliefs.
- 'Settled science' said that typhoid was a miasmatic condition until John Snow conducted a controlled trial proving it was a water-borne disease.

Who actually understood the science?



- ‘...the problem wasn't that Johnson and his fellow Ministers couldn't understand the science.’
- ‘It's that the scientists couldn't understand the science.’
- ‘The COVID Enquiry questioning of the scientific advisors has shown ‘(a) pattern of advocacy, reversal and denial (which) was repeated throughout the course of the pandemic.’
- ‘During the course of the pandemic, the scientific advisers ‘were simply being asked to provide clear, accurate information on the behaviour of a lethal virus so that Ministers could make informed decisions on how best to protect the public. ‘And time and time...again they failed in that task.’
- ‘A more honest approach would have been to say “We got it completely wrong. We were telling Ministers we knew what was happening, but we didn't. We hadn't got a clue. We were basically making it up as we went along.”

(<https://www.dailymail.co.uk/news/article-12791731/No-wonder-Boris-bamboozled-experts-didnt-understand-Covid-science-writes-DAN-HODGES.html>)



Now, at the COVID Enquiry, we see all the denials and obfuscation by the 'clique of credentialled advisors'

MailOnline



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'There is no such thing as "the" science': Sir Patrick Vallance tells Covid Inquiry ministers were 'completely wrong' to hide behind the term 'following the science' during pandemic

- Sir Patrick Vallance, No10's former top scientist, kept a diary during pandemic
- He said he had 'no intention' of his notes 'ever seeing the light of day'

<https://www.dailymail.co.uk/health/article-12770011/Hes-looking-Matt-Sir-Patrick-Vallance-says-no-intention-bombshell-pandemic-notes-seeing-light-day-world-books-reflections-peoples-thoughts-Covid.html>

Rachel Nicoll PhD, 2024

- Vallance: “**The term 'following the science'**, wheeled out at Downing Street press briefings at the height of the pandemic and used to justify lockdown restrictions, **was taken to mean that the Government was 'slavishly' following advice**”.
- Vallance: “The repeated assertion undermined the importance of ministerial judgement, and the accountability of ministers for decisions.”
- **So it wasn't the advisors' advice at fault then. It was Ministers' fault for acting on it.**

But was ‘The Science’ the only valid way to proceed?

- As Sir Patrick Vallance himself said “Science by its definition is a moving body of knowledge that tries to overturn things by testing the whole time.”
(<https://www.dailymail.co.uk/health/article-12770011/Hes-looking-Matt-Sir-Patrick-Vallance-says-no-intention-bombshell-pandemic-notes-seeing-light-day-world-books-reflections-peoples-thoughts-Covid.html>)
- **“A lot of what people have come to regard as clear scientific consensus over the last year is nothing of the sort. The voices of scientists with different views have simply not been heard.”** (Dr John Lee, Retired Professor of Pathology)
- Doctors and scientists who tried to follow the real science were **vilified, sacked and cancelled** (Shir-Raz Y, et al. Censorship and Suppression of Covid-19 Heterodoxy: Tactics and Counter-Tactics. Minerva. 2022 Nov 1:1-27).



So what was the government doing? Not so much 'Following the Science' as 'Ignoring the Science'

- Respiratory viruses have existed for longer than humans, yet **the government and the scientific advisors treated COVID as if they had never seen a respiratory virus before.**
- **There is a wealth of knowledge already gained about respiratory viruses** in general and about coronaviruses in particular.
- As we shall see, no-one bothered to look back and see how other coronaviruses behaved. Time and again I will show that **lessons from the past were ignored.** And it was the UK population that suffered as a result.
- **The existing information on respiratory viruses would have got us through COVID-19 with little hysteria and minimal disruption to life or loss of life, as I will show.**
- Instead, **we instituted 'evidence free' (i.e. untried and unvalidated) pandemic measures.**
- **What the government followed was not science,** it was guesswork and 'following the crowd'. And it didn't work, as I will show on future days. **The true science was ignored.**

What was missing from the government's 'ignoring the science' approach?

- One thing the Government and their scientific advisers completely ignored was **our immune systems**.
- The mammalian immune system has refined itself over 285 billion years and has protected us from every micro-organism so far encountered. **We would be extinct by now if we didn't have an immune system.**
- So I am attempting to redress the balance today.
- But I will be covering a lot more in addition to the immune system.



What I am not covering

- Do viruses exist?
- Is the origin of the SARS-CoV-2 virus zoonotic transfer or lab leak?
- Is the virus genetically engineered?
- Even if the original strain of SARS-CoV-2 was not genetically engineered, was Omicron genetically engineered?
- Was it a 'plandemic' (i.e. a planned epidemic) or general ignorance and incompetence?

Focus of these presentations

- I am trying to pitch my talks on the one hand to doctors and scientists, who are well versed in the workings of the immune system, and on the other hand to the interested general public, as well as everyone in between.
- So although my slides are rather full, I am only lecturing the key points, which are highlighted in green.
- Please don't try to read the rest of the slide as we go along as I will lose you. As this is a video, you can pause the recording to read each slide more closely.
- You can also download the slides from the Health Education and Research Trust website (see next slide) and look at them again at your leisure.
- I have tried to break my talks down into bite-sized chunks for easy watching: the longest is 30 minutes but the shortest is 5 minutes. There is a Summary at the end of each presentation.



The Health Education and Research Trust website: www.hert.org.uk

- All my slides from Day 1 are on the website, with the relevant **scientific references at the end of each lecture** (although I do provide some as we go along): <https://hert.org.uk/resourcetype/covid-19/>
- I have also made available slides for **more in-depth lectures on viruses and the immune system.**
- The HERT website is a free resource for anyone who wants to know more about health issues and it contains all my slides from Mitochondria Day and Long COVID Day, as well as other lectures and papers.

Important caveat

- I'm going to be showing that COVID severity and the numbers who died from COVID were not as bad as the government led us to believe.
- **But I'm not trying to minimise the seriousness of COVID for those who had COVID severely. Or for the family and friends of those who died.**
- But we should bear in mind that **every winter is a bad winter for the NHS**, with scenes of patients on trolleys in A&E and ambulances backed up outside and unable to respond to new 999 calls.
- **And influenza is responsible for large quantities of deaths every winter.**
- Here are some examples from 2017 and 2018.

NHS in crisis: 2017

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Leak shows full extent of NHS winter crisis

10 January 2017



By Dr Faye Kirkland and Nick Triggle
BBC News

Record numbers of patients are facing long waits in A&Es as documents leaked to the BBC show the full extent of the winter crisis in the NHS in England.

Nearly a quarter of patients waited longer than four hours in A&E last week, with just one hospital hitting its target.

And huge numbers also faced long waits for a bed when A&E staff admitted them into hospital as emergency cases.

There were more than 18,000 patients in A&E for more than four hours last week.

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This article is more than 6 years old

NHS crisis: 20 hospitals declare black alert as patient safety no longer assured

Cancer operations were cancelled and a birthing centre closed last week as hospitals declared top level alert to cope with overcrowding



People waiting on trolleys, yesterday evening, in the A & E department at the Royal Glamorgan

NHS in crisis: 2018

NHS: up to 100,000 had to wait 30 minutes in ambulance this winter

Latest figures show almost a quarter of those had to wait at least an hour before being seen



Last week ambulance crews had to wait outside A&Es in England 12,559 times. Photograph: David Sillitoe/The Guardian

Up to 100,000 patients this winter have had to wait in the back of an ambulance for at least 30 minutes because of A&E overcrowding, NHS figures have revealed.

In all 104,987 patients brought to hospitals in England have been stuck inside an ambulance, or in parts of hospitals including corridors, for upwards of half an hour.

<https://www.theguardian.com/society/2018/jan/18/nhs-crisis-wait-30-minutes-ambulance-winter>

Record levels of hospital patients waiting on trolleys, NHS think tank warns

Tens of thousands of patients forced to wait for hours after being admitted to hospital

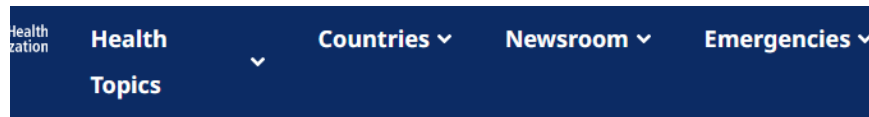
Thursday 08 March 2018 01:36 GMT • Comments



1,043 patients waited more than 12 hours from a decision to admit until their admission on to a ward in January (Getty)

<https://www.independent.co.uk/news/uk/home-news/nhs-hospital-patients-wait-corridor-trolley-stretcher-a8245091.html>

Respiratory virus deaths: 2017



Up to 650 000 people die of respiratory diseases linked to seasonal flu each year

13 December 2017 | News release | GENEVA | Reading time: 2 min (495 words)

Up to 650 000 deaths annually are associated with respiratory diseases from seasonal influenza, according to new estimates by the United States Centers for Disease Control and Prevention (US-CDC), the World Health Organization and global health partners.

This marks an increase on the previous global estimate of 250 000 – 500 000, which dates from over ten years ago and covered all influenza-related deaths, including cardiovascular disease or diabetes. The new figures of 290 000 – 650 000 deaths are based on more recent data from a larger, more diverse group of countries, including lower middle income countries, and exclude deaths from non-respiratory diseases.

<https://www.who.int/news/item/13-12-2017-up-to-650-000-people-die-of-respiratory-diseases-linked-to-seasonal-flu-each-year>



Health

UK 'in grip of worst flu season since 2011'

18 January 2018 • Comments



<https://www.bbc.co.uk/news/health-42725152>

Respiratory virus deaths: 2018

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● This article is more than 6 years old

Flu outbreak: UK deaths triple with GPs seeing major rise in patients

Although flu cases are higher than at any point since 2010/11, health officials say it is still not an epidemic



<https://www.theguardian.com/society/2018/jan/18/flu-outbreak-gps-under-huge-pressure-as-deaths-soar-to-120>

Excess winter deaths in England and Wales highest since 1976

Call for more NHS resources as elderly people and women among most vulnerable



❄️ Snow in Derbyshire last December. The temperatures last winter are thought to have been partly to blame for the excess deaths. Photograph: Joe Giddens/PA

There were 50,100 excess deaths in England and Wales last winter, when there was a prolonged spell of extreme cold, making it the highest number since 1976, figures have shown.

<https://www.theguardian.com/society/2018/nov/30/excess-winter-deaths-in-england-and-wales-highest-since-1976>

Contents of Day 1

Part 1

- Pre-existing immunity
- The mathematical modelling
- Analysis of our immune response to COVID-19
- A closer look at severe COVID
- COVID deaths, including care homes
- The case of Sweden
- Herd immunity

Part 2

- Immune memory
- Reinfection and variants

Part 3

- Transmission: who and where?
- Asymptomatic transmission, including PCR testing, aggregation of presymptomatic with asymptomatic, the 'casedemic' and other factors
- Zero COVID