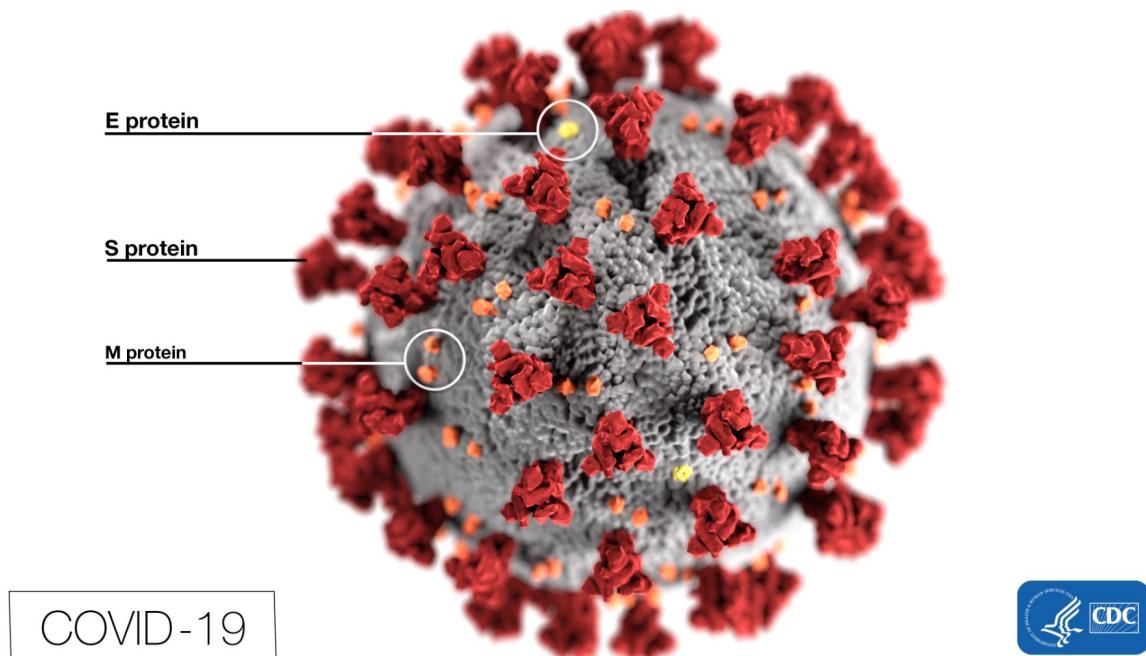


VIRAL NEWS – James Cook Critical Care Covid-19 Updates from Around the Internet

Volume 2 – 12th March 2020



KEY RESOURCES:

Public Health England:

Coronavirus tracker:

<https://www.arcgis.com/apps/opsdashboard/index.html#/f94c3c90da5b4e9f9a0b19484dd4bb14> (desktop version)

<https://www.arcgis.com/apps/opsdashboard/index.html#/ae5dda8f86814ae99dde905d2a9070ae> (mobile version)

Coronavirus Infection Prevention: <https://www.gov.uk/government/publications/wuhan-novel-coronavirus-infection-prevention-and-control>

Coronavirus Case Definition and initial management – can change rapidly:

<https://www.gov.uk/government/publications/wuhan-novel-coronavirus-initial-investigation-of-possible-cases/investigation-and-initial-clinical-management-of-possible-cases-of-wuhan-novel-coronavirus-wn-cov-infection>

Lung Ultrasound

Early evidence is that lung ultrasound is the investigation of choice in Covid-19

No trips to CT

No fruitless CXRs

We have extra portable machines on order.

If you want to learn it, we will try to get rapid workshops off the ground – get in touch alexander.scott2@nhs.net and I will get working along with others – Andy Hyde is ready and willing to teach!

In the meantime, have a look at this from Ashley Miller, one of the leaders of UK Critical Care Ultrasound: <https://academic.oup.com/bjaed/article/16/2/39/2897763>

For those already skilled: Preliminary findings here

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3544750

Butterfly IQ's images of Covid-19 lungs here (scroll down):

<https://www.butterflynetwork.com/covid-19>

Research

Interesting papers from around t'web.

Thanks Tim Meek for the JAMA Insights Paper on Caring for Critically Ill Patients with Covid-19 <https://jamanetwork.com/journals/jama/fullarticle/2762996>

Key points:

- Median Age – 60
- 40% have comorbid conditions – meaning 60% don't
- Milder illness in children
- Perinatal exposure much riskier
- Mild in pregnancy

Once again: DRY DRY DRY. 30 ml/kg of fluid as per the Surviving Sepsis Guidelines will be a potentially devastating event.

The major point – **prepare for the surge**. Which is what you’re doing reading this newsletter.

Prognosis:

A big Lancet-published study of prognosis in Covid-19 has been published:
<https://www.thelancet.com/pb-assets/Lancet/pdfs/S014067362305663.pdf>

Key points:

- The biggest risk factors for a poor outcome are:
 - Age – odds ratio of 1.1 per year increase
 - SOFA – Score: See below
 - D-dimer greater than 1 microgram per litre.

SOFA Score – It May Become Relevant

The SOFA Score – Sequential Organ Failure Assessment – is a prognostic and research tool not used much in the UK, although beloved of ECMO centres.

It gives a cumulative score for monitoring progression of critical illness and severity.

Calculator here: <https://www.mdcalc.com/sequential-organ-failure-assessment-sofa-score>

SOFA score	0	1	2	3	4
Respiration					
PaO ₂ /FIO ₂ (mmHg) (kPa)	> 400 > 5.3)	301–400 (4.1–5.3)	201–300 (2.8–4.0)	101–200 (1.4–2.7)	≤ 100 ≤ 1.3)
Coagulation					
Platelets (x10 ³ /mm ³)	> 150	101–150	51–100	21–50	≤ 20
Liver					
Bilirubin (mg/dl) (μmol/l)	< 1.2 < 20)	1.2–1.9 (20–32)	2.0–5.9 (33–101)	6.0–11.9 (102–204)	≥ 12.0 ≥ 204)
Cardiovascular					
Hypotension	No hypotension	MAP < 70 mmHg	Dopamine ≤ 5 or dobutamine (any dose)*	Dopamine > 5	Dopamine > 15
Central nervous system					
Glasgow coma score	15	13–14	10–12	6–9	< 6
Renal					
Creatinine (mg/dl) (μmol/l) or urine output	< 1.2 < 110)	1.2–1.9 (110–170)	2.0–3.4 (171–299)	3.5–4.9 (300–440)	> 5.0 > 440) < 500 ml/day < 200 ml/day

* adrenergic agents administered for at least 1 h (doses given are in μg/kg/min)

Hot from Our Friends at the GMC

General Medical Council

There has been lots of very understandable concern about what happens with regulation when people are cross-covering, cross-skilling and generally working out of their comfort zone.

The guidance from the GMC is here: <https://www.gmc-uk.org/news/news-archive/coronavirus-information-and-advice/our-guidance-for-doctors>

Key Points:

- “If the situation worsens, it’s likely that doctors will work outside their **normal field of practice**. This may include providing care to patients with coronavirus, or patients with other conditions.”
- Temporary registration might be possible for certain groups.
- Medical students and FY1s are not the first target for that

They also took part in the joint statement from all the statutory regulators here: <https://www.gmc-uk.org/news/news-archive/how-we-will-continue-to-regulate-in-light-of-novel-coronavirus>

I would draw your attention to:

“Due consideration will be given to healthcare professionals who are using their skills under difficult circumstances due to lack of personnel and overwhelming demand in a major epidemic. This may include working outside their usual scope of practice.”