COVID 19 Advisory 8

Preface; I received an email from the General Medical Council *on 2nd April, giving notice that they had reinstated my Licence to Practice (unbidden), 10 years after it had lapsed. My name would go forward if I did not respond.*

Our Covid Advisory 7 *helped me think about this unsettling experience. Recalling the GMC words '...above all, we need doctors to apply their professional judgement...', I have written to the GMC to exempt myself from this call-up.*

Jane & I sat down on Saturday morning 4th April to attend the

Association of Anaesthetists Webinar 4 COVID 19 : dilemmas 4th April 2020

The Chairman opened by saying "We have been bombarded* by National and Local Guidelines, but we remain resolute!"

The first Speaker was Dr Tim Cook from Bath who remarked wryly that his special interest in PPE was suddenly an interesting topic! As Anaesthetists, we are in the front line, and see the most sick patients. His first slide showed two photos of Dr Li Wen-Liang, in Health and during his fatal illness. I suddenly thought of an earlier Hero – 'Tank Man' in Tiananmen Square, 1989. Dr Cook reported that in the early days in Wuhan **one third** of patients with COVID 19 **were healthcare workers.** PPE was not greatly used at the start*. As the use of PPE increased the severity of infections in healthcare workers declined over a measured period. COVID 19 is spread by droplets, direct and lingering on surfaces. These are still the predominant vector (e g window sills, bedsides). When making choices about PPE he spoke of AGP's (Aerosol Generating Procedures). Your risk is proportional to droplet intensity 2, and AGP's are very high risk. He offered the take home message that one should understand the modes of transmission and remember that gloves and aprons are disposable 3.

He presented several recent (2nd April) updates by Public Health England regarding PPE

- The transmission of COVID 19 is thought to occur mainly through respiratory droplets generated by coughing and sneezing and through contact with contaminated surfaces. The predominant modes of transmission are *assumed(* **my italics***)* to be droplet and contact
- The incidence of COVID 19 varies across the UK, the risk is not uniform and elements of the updated guidance are intended for interpretation and application dependant on local assessment of risk
- Ultimately, where staff consider there is a risk to themselves a or the individuals they are caring for they should wear a fluid repellent surgical mask with or without eye protection as determined by the individual staff member for the episode of care or single session(*see opening COVID statements)
- FFP3 masks purchased from Builders' Merchants are now acceptable

You can see how conflicted many NHS workers must feel when guidelines and updates seem to lack consistency.

The second presentation was given by Dr.Sarah Armstrong, an Obstetric Anaesthetist, who revealed the particular challenges of managing COVID infected, near term, pregnant women. Their

Caesarean Sections at Frimley Park Hospital are streamed through two theatres, one clear and one COVID positive. They are mindful of recent advice from the Royal College of Anaesthetists that consideration be given to conserving hospital stocks of Propofol , the standard drug to settle a ventilated patient, by inviting the use of ' old favourites', like thiopentone (Pentothal), to induce a general anaesthetic. If Patient Controlled Analgesia (PCA) requires one to one nursing, an alternative should be chosen.

We learned that there is no evidence that spinal or epidural injections place COVID positive patients at greater risk of Central Nervous System infection through viraemia – virus in the blood. In a British Journal of Anaesthesia 2020 paper (in press)*4, from Wuhan, they report 49 mildly symptomatic COVID19 patients undergoing caesarean section under spinal anaesthetic. Seven Anaesthetists wore level 1 PPE and 37 wore level3 PPE. Four of 7 anaesthetists (57%) using level1, but only one of 37 (2.7%) using level3 protection, developed COVID 19 themselves.

Dr. Helgi Johannsson, Consultant Anaesthetist from Imperial College Healthcare, declared himself to be a keen user of social media and urged the exercise of caution. China is not connected to our Social Media so we are denied that fruitful exchange. He noted that COVID 19 has really **raised the profile of Anaesthetists and PPE!** At first, he had felt uncomfortable at the proposed public Thursday 8pm expressions of thanks to NHS workers. He was strangely moved by it. However he felt somewhat underserving, considering how secure was his own employment.

Mr. Robert Wheeler, Paediatric Surgeon and Director of the Department of Clinical Law, at University Hospital Southampton, spoke to us about clinical decision making in Pandemic conditions.

- Clinical prediction of longevity or quality of life in any one case has not proved possible. Southampton Hospital simplifies this issue by applying the **first come, first served** principle for available ventilators

- The decision to withdraw ventilator support (leading to end of life) requires an independent second Consultant opinion. On each occasion an Ethics Council of 4 members, drawn from the larger University Ethics Committee of 40 members, makes itself available for discussion. All reasonable steps must still be taken to achieve a dignified, fear - free death.

- As for any ***War Footing*** the professional promise each other never to leave any comrade on the field. All staff are to be saved.

Mr Robin Tobin, Partner, Kennedy's Solicitors, Cambridge, emphasised Duty of Care. Detailed record keeping is vital. He spoke of the

- Bolam test – if a Doctor acts in line with majority medical opinion, the action can be regarded as reasonable

- Bolitho test – giving due weight to the specific conditions 'on the ground'

- Montgomery test – the reasonable patient can expect to be fully informed about treatment options, benefits and risks

- "the Rescuer" – who may be seen as acting for the benefit of Society and who may even be regarded as "Heroic" (**Social Action, Responsibility and Heroism Act 2015**, refers).

These principles apply equally to non COVID 19 patients**. We can expect** delayed elective surgery, remote examination by telephone and the Suspension of screening and blood testing. Trusts need to develop a framework to explain the consequences of COVID 19 – including restricted travel abroad for treatment! **Negligence claims are inevitable** and will primarily be against the Trust. He told us not to worry about it. Be sure **to record everything said, done and the context,** because **any Judicial review** will be 3 years down the line!

Postscript. 6th April 2020

Three weeks ago 2 Engineers contacted me. Barry Brooks asked if I had news of novel ideas for ventilator manufacture and my former neighbour(remember MHRA – the Medicines and Healthcare products Regulatory Agency?) wanted specialist advice about new build ventilators. His Cambridge design firm had a proposal from Oxford. Two weeks ago the Oxford Vice Chancellor's Alumni letter (Covid 19 Advisory 7) gave me a glimpse of a ventilator project, the OXVENT. The photo showed a well known design – which we saw on the new Draeger anaesthetic workstation (January 27th). The ventilator principle is a 'Bag in Bottle'. In the **Oxvent** the patient airway, breathing tube and 'bag' could be disposable and the simple mechanical bellows would be re-usable. Today's newspaper ,tells the story! 5,6

The Times article shows the power of Twitter in overcoming barriers in a crisis. **To paraphrase**, on Monday 16th March an Associate Professor of Engineering Science rang his Professor colleague in the Nuffield Department of Anaesthetics in Oxford. A 30 strong Skype brain storming with King's College, London followed, resulting in a practical proposal. They agreed that the key elements an immediately manufactured ventilator were - 1. A very simple design 2. Very few parts, and 3. Component parts already in the NHS and not much sought after.

This would mean less supply line competition and better Regulatory prospects. It began on Monday 16th. Despite enlisting powerful friends, a call back did not come until Friday when they were sent an MHRA! 'Unnecessarily demanding' said Prof Farmery!

Deadline was Saturday 19.00 and templates for submission were received at 18.40. The Submission was necessarily hurried! On Sunday a Cabinet Office Skype session was followed by silence. On Tuesday, Andrew Farmery's wife texted the Times correspondent Christine Patterson. After talking to the Prof she posted a thread on Twitter which, she reports 'went viral' (an ironic term in this present crisis). There were 7,000 retweets, Emails to PM's Office, contact by Hedge funders, Crowdfunders and a large Swedish car maker offered help. On 24th March they were told they were through to the next round!! By Friday 4th April, they had been 'allocated Smith and Nephew' and were meeting them in Hull. Today, the 6th April they expect to be undertaking a booked MHRA testing.

All this took three weeks! Is that quick, or slow. We will know better when it goes into service.

Dr. David R Hughes **President IESF GB** **6th April 2020**

Slides Intro 1; Droplets. Covid 19 spread AGPs.2; Covid 19. Relating PPE to virus load; 3.

Qi Zhong et al, Wuhan University Hospital, British Journal of Anaesthesia 2020 in press. 4.

The Times Monday 6th April 2020; 5. Bedside prototype ventilator and manikin; 6