

CIRCADIAN



BAD BLOOD



Disrupting Big Pharma
Money makes the world go round...

Reframing Mask Wearing
And some myth busting about wearing masks

The BL Branding Debate
The lowdown on the showdown between QM and BL

FREE

ISSUE 7





Photo by Harris Nageswaran



anxious?
overwhelmed?
can't sleep?

talk to
nightline

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A note from the editor

Welcome back to our new issue of Circadian! The last few weeks saw our BL identity being dealt a devastating blow and we were unexpectedly renamed. Is our identity now more cohesive with the rest of QM? Who can say. It's certainly been the topic of much heated discussion. In this issue you'll find perspectives on our identity and a run-down on what went down in the epic show-down that was the QM vs BL debate. You'll also find more areas where discontent has been rife, from mask-wearing to deceitful drug companies, it seems awfully difficult to ignore all the

Bad Blood.

Rebecca X



My dog's face when he realises Mummy's putting him on a diet

Disrupting Big Pharma

by Rachel Lee



Photo by Unsplash

Several years ago, the price of Daraprim, a drug routinely used to treat life-threatening parasitic infections like toxoplasmosis, surged by over 5000% percent overnight. Daraprim, also known by its generic name pyrimethamine, was acquired by Martin Shkreli and his US-based company Turing Pharmaceuticals in 2015; in just one night, Turing increased the price of one Daraprim tablet from \$13.50 USD to \$750 USD.

In the UK, where we are fortunate to have the equitable care of the NHS, this luckily had minimal effect on individuals. By contrast, many people in the US rely on private insurance or pay out-of-pocket for medical care, meaning the price hike had a direct and immediate impact on patients' abilities to purchase Daraprim. For millions of people, what was once an accessible life-saving drug listed on the WHO's List of Essential Medicines became an exclusive medication most are unable to afford.

The rise of big pharma

Across the world, the term "big pharma" has grown

to become synonymous with the image of large, greedy, menacing pharmaceutical companies. Companies that pour more money into advertising and marketing than the actual research and development of medications. Companies that price drugs with excessive markups, forcing patients to pay excessive sums of money for drugs they need to survive.

The costs of many drugs, from generic medications treating hypertension and diabetes to novel therapies for hepatitis C and cancer, have spiked in recent years. As a result, an estimated 18 million Americans - or 7% of the adult population - report being unable to afford their prescribed medications. Many of these people turn to lower-cost medications, alternative therapies, buy the drugs from other countries, or simply don't take the drugs at all. It is clear that dramatic increases in drug prices have massive implications on the health of millions of people.

The Mark Cuban Cost Plus Drug Company

What started as a simple cold email in US entrepreneur Mark Cuban's inbox is now a social disruptor challenging the entire pharmaceutical industry.

Partly motivated by the outrageous scandal surrounding “pharma bro” Martin Shkreli, the Mark Cuban Cost Plus Drug Company MCCPDC is a US-based digital pharmacy that was launched in January 2022. The company aims to be “radically transparent” in its drug prices and offers low-cost versions of 100 of the most commonly prescribed generic drugs. These top 100 generic drugs make up about half of all generic prescription drugs sold. In the words of their website, the company has “cut out the pharmacy middlemen and negotiate directly with manufacturers to get the best possible price”.

“We started Mark Cuban Cost Plus Drug Company because every American should have access to safe, affordable medicines.” - Mark Cuban

Alex Oshmyansky, the founder and CEO of the (MCCPDC), is a practicing physician who pitched the idea to Mark Cuban a few years ago. Mark Cuban, the namesake and a key investor of the digital pharmacy, is an American billionaire entrepreneur, owner of the National Basketball Association (NBA) team Dallas Mavericks, and a television personality starring as one of the main ‘shark’ investors on the American series Shark Tank, the US equivalent to Dragon’s Den. Working together, Alex and Mark are taking the pharmaceutical industry by storm. With plans to build their own 22,000 square foot drug manufacturing facility in Dallas, Texas, the potential to lower costs further and create even more affordable generic drugs could have incredible implications on public health in the USA.

So how does the online pharmacy work? US-based patients with a medical prescription can order their medications online via their website. The MCCPDC prices drugs transparently at 15% above their manufacturing costs, the price needed to enable the company to keep running. Each order charges a further \$3 to pay the pharmacists the company works with and \$5 for shipping. Although customers pay out-of-pocket for their medications, the prices still typically work out to be less than insurance plans.

The bottom line

In early 2022, Martin Shkreli was fined \$64.6 and barred from the pharmaceutical industry for life. The State of California is working to establish its own generic drug label to lower costs of medications. President of the United States Joseph Biden announced plans to tackle the outrageous prescription medication costs through his Build Back Better Bill.

The bottom line is that extortionate drug prices and the greed of the pharmaceutical industry are costing millions of dollars and - more importantly - millions of lives every year. The MCCPDC, alongside all the other urgent federal actions being taken to combat increasing drug costs, will enable millions of people to access medications they would otherwise be unable to afford. While the journey won’t be easy, MCCPDC promises to “disrupt and disable big pharma.” I don’t know about you, but I am optimistic and hopeful for what this company will do.

Examples of some of the medications sold by the MCCPDC

Drug Name	Retail Price	Mark Cuban Cost Plus Drug Company Price	Savings
Amoxicillin/Clavulanate (generic for augmentin)	\$85.77	\$12.00	Save \$73.77
Colchicine (generic for colcrys)	\$176.23	\$8.70	Save 167.53
Diclofenac sodium (generic for Solaraze)	\$853.20	\$51.25	Save \$801.95
Imatinib (generic for Gleevec)	\$2,502.50	\$17.10	Save \$2,485.40
Methotrexate (generic for Trexall)	\$86.39	£13.80	Save \$72.59
Vancomycin (generic for Vancocin HCl)	\$679.04	\$32.10	Save \$646.94

Urgency, discontent, and innovation

How the Aducanumab drug approval calls for novel perspectives of Alzheimer's Disease pathogenesis

By Maria Riscado Ramos

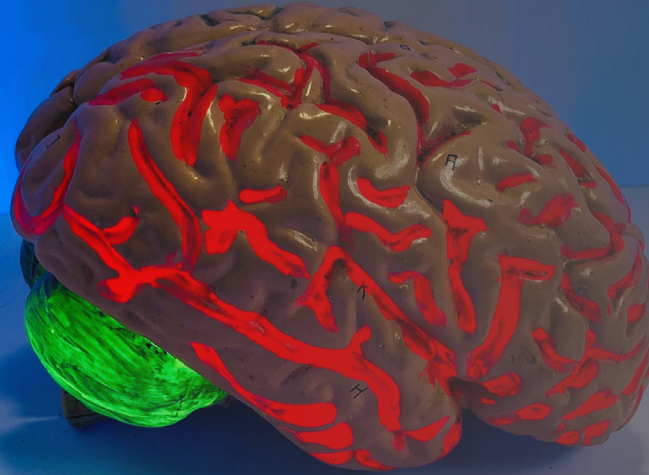


Photo by Unsplash

10th of June 2021. Dr Aaron Kesselheim, a member of the FDA's Peripheral and Central Nervous System Drugs Advisory Committee resigns over the agency's controversial accelerated approval of Biogen's drug Aducanumab. He is the third member of the panel to resign since the approval of the Alzheimer's drug 3 days ago.

For years, the development of a drug targeting neurodegenerative progression seemed impossible. However, in 2015, Biogen Inc. seemed to have achieved exactly that; a drug designed to clear amyloid plaques and reduce tau deposits in the brain of Alzheimer's disease patients (AD). It was sensational.

In August 2015, two phase III clinical trials were initiated. But two years and several dosage increases later, both studies were terminated as the result of a futility analysis. Shockingly, three months later, Biogen stated that subsequent trials provided proof of sufficient clinical efficacy to pursue a new drug approval application.

Advertising is a powerful tool; the proof in question was obtained from data from two new high-dose trials, with only one of them showing significant effects on several clinical outcomes. The advisory committee found that when pooled, the evidence did not convincingly show that the drug could slow cognitive decline in the early stages of AD. Furthermore, it was concluded that the

drug could cause potentially serious side effects like brain edema and haemorrhage. Alongside one undecided expert, ten committee members voted against approval.

7 months later, in a shocking turn of events, the FDA issued a press release informing of the accelerated approval for the prescription of Aducanumab in AD treatment. The agency expressed that the green-light decision was based on the drug's reduction of amyloid plaques as an indication of clinical efficiency. The announcement concerned the committee experts, as following their verdict, agency officials had informed them that biomarker indicators wouldn't be used as a justification for a go-ahead. "Accelerated approval is not supposed to be the backup that you use when your clinical trial data are not good enough for regular approval", expressed Dr. Kesselheim.

Was the fact that the drug could potentially slow AD progression by targeting amyloid plaques enough to overlook the side effects and grant approval, for the sake of possible patient benefit?

These senile plaques have been considered an underlying cause of AD for a while now, but as a multifactorial and multimodal disease, targeting amyloid deposits would remain insufficient to produce a large clinical effect. As pointed out by Dr. David Knopman in his resignation email; "The small benefits of Aducanumab pose a real challenge for justifying the large investment in time and

effort on the part of the patient and family, as well as the health care system”.

Considering the aspects beyond the established disease hallmarks provides new strategies to approach treatment. A major recognised risk factor of AD is diet-induced obesity, as abnormal glucose metabolism leads to the increased production of reactive oxygen species (ROS). These free radicals induce the oxidative degradation of lipids that ultimately causes the neuronal damage and cell death thought to contribute to AD progression. Variations in the amino acid sequence (isoforms) of Apolipoprotein E have also been identified as AD risk factors, as the protein's role in delivering cholesterol and complex lipids to neurons for membrane maintenance, neurogenesis, and repair can be disrupted by changes to its structure.

However, all the theories and associated factors surrounding the origin of Alzheimer's disease are just that, theories. As seen with Aducanumab, even pharmacological therapies targeting the most settled hypotheses fail to reverse neurodegeneration and cognitive decline.

But what if Alzheimer's were avoidable? Experts have started to consider clinical solutions striving away from targeting the disease hallmarks. They are choosing to focus instead on the use of biomarkers to enable early diagnosis during the premature stages of AD symptomatology, referred to as mild cognitive impairment (MCI).

A range of volatile organic compounds (VOCs), the by-products of normal metabolic activity, can be used as specific markers of disease. In 2020, Tiele and colleagues found acetone to be one of the crucial VOCs for exhaled breath sample characterisation of patients exhibiting MCI symptoms. Supplementary acetone is usually produced from fat stores when glucose is unavailable, which is the case in early AD stages, where specific cerebral regions experience reductions in brain glucose metabolism.

Emam and colleagues have found further associations between exhaled VOCs and risk factors of AD. They identified butylated hydroxytoluene, pivalic acid, and 2,3-dimethylheptane sensors to be sensitive to the breath of rats with genetically mutated APOE4 when kept on a high-sugar-high-fat diet.

The significant VOCs differences enables characterisation between patients and controls, shedding new hope into the detection of a prodromal stage of AD, before the irreversible neurodegeneration cascade starts. Perhaps in the avoidance of progression we are able to find a way to eradicate this debilitating, fatal disease.

Sources:

Lovelace Jr., B. (2021). Third member of prestigious FDA panel resigns over approval of Biogen's Alzheimer's drug. CNBC. From <https://www.cnbc.com/2021/06/10/third-member-of-prestigious-fda-panel-resigns-over-approval-of-biogens-alzheimers-drug.html#:~:text=A%20third%20member%20of%20a,Dr.>

Belluck, P., & Robbins, R. (2021). Three F.D.A. Advisers Resign Over Agency's Approval of Alzheimer's Drug. Nytimes.com. From <https://www.nytimes.com/2021/06/10/health/aduhelm-fda-resign-alzheimers.html>.

Mahase, E. (2021). Three FDA advisory panel members resign over approval of Alzheimer's drug. BMJ, n1503. <https://doi.org/10.1136/bmj.n1503>

Knopman, D., & Perlmutter, J. (2021). Prescribing Aducanumab in the Face of Meager Efficacy and Real Risks. Neurology, 97(11), 545-547. <https://doi.org/10.1212/wnl.0000000000012452>

Tiele, A., Wicaksono, A., Daulton, E., Ifeachor, E., Eyre, V., Clarke, S., Timings, L., Pearson, S., Covington, J. A., & Li, X. (2020). Breath-based non-invasive diagnosis of Alzheimer's disease: a pilot study. Journal of breath research, 14(2), 026003. <https://doi.org/10.1088/1752-7163/ab6016>

Emam, S., Nasrollahpour, M., Colarusso, B., Cai, X., Grant, S., Kulkarni, P., Ekenseair, A., Gharagouzloo, C., Ferris, C. F., & Sun, N. X. (2020). Detection of presymptomatic Alzheimer's disease through breath biomarkers. Alzheimer's & dementia (Amsterdam, Netherlands), 12(1), e12088. <https://doi.org/10.1002/dad2.12088>



What's in a name?

By Harris Nageswaran
Photos by Harris Nageswaran

The BL identity crisis

What should it matter what a medical school is called? This is a question I've been forced to ask myself recently - in the face of the forced rebrand of our medical school - and I've had to conclude that ideally, it seems as if it shouldn't matter. A name shouldn't change the quality of the teaching, or the standard of the facilities, or the enthusiasm of the student body. And yet, we all know names do matter; billions are spent on marketing, branding and advertising every year - all in the pursuit of attaching some meaning to a name. Closer to home, thinking about the name of an old school friend or family member can bring back a flood of memories and emotions. All, apparently from a name.

As a student, I've grown rather fond of the name of my medical school: Barts and The London School of Medicine and Dentistry. I must admit when I first started I thought very little about it, but within weeks, if not days, it became clear that that name was rather special. It connected me, as an 18 year-old fresh out of sixth form, to some of the titans of medicine in whose footsteps I was now walking. Names like

Percivall Pott, Elizabeth Garrett-Anderson, Joseph Rothblat and William Harvey, people who had shaped modern medicine (and indeed society), were somehow no longer these unattainable figures, but people who had started their journey at the beginning as I was now. It may sound trivial, but to me as a first-year student, it felt as if I could really do anything in medicine - all from that name.

As you probably know, Barts and The London School of Medicine and Dentistry was formed by the merger of the Medical College of St Bartholomews Hospital (the oldest hospital on the same site in the country) and The London Hospital Medical College (the oldest medical college in the country) in 1995 following the recommendations of the Tomlinson Report in 1992. At the same time, this new combined entity merged with Queen Mary and Westfield College to create the larger, more diversified university it is today. As a student, I found myself having not just one identity to be proud of, but two; Barts and The London as my medical school, and Queen Mary as my university.

Despite what the University would have you believe, it

is possible to have two identities, and over the years these names have come to mean different things to me; Barts and The London reminds me of the student community - connecting me to my fellow students who I spend most of my time around. From those I bump into in The Griff Inn, to those I rehearsed with into the late hours of the night in Laird Hall trying to put on a half-presentable pant; it's an identity that is owned by no-one, shaped as much by students raising money for charities through bake sales, or representing BL in competitive fixtures, as it is by anyone involved in BLSA Board trying to improve student experience. That is perhaps what makes it such a powerful idea; it remains incorruptible by any one person and their actions; taking in only that which makes it stronger.

Queen Mary on the other hand, came to represent the institution I studied at; the physical facilities, the area, the resources, and unfortunately, the University leadership. My relationship with this identity has gone up and down as the University changes around me; up when we were able to persuade the University to improve lighting outside the Garrod Building, and then down again as they failed to invest in more student space as student numbers continued to climb up. More recently, it has been impossible to ignore the relationship QMUL leadership has with its students; from the lack of response to the #SaveOurBL campaign 3 years ago, to their insistence on not furloughing student-staff during the pandemic – there could not be a clearer pattern of disregard for student voice as has been shown by QMUL leadership these last few years. Despite this -



and I truly mean despite this - overall I enjoy studying where I study and Queen Mary became an identity I was proud to have to my name.

In the last few years however, we've found ourselves in a position where the University is insistent on pitting one identity against the other; attempting to make students believe that one cannot live while the other survives. Nothing could be further from the truth, and ironically this ill-advised strategy has only done more damage to the Queen Mary identity for students; tarring it as a brand of bulldozing, incompetence and simply not listening.



There is simply nothing to be gained by the University by attacking an identity students have taken to be their own and co-created into something they can be proud of; only considerable loss. This seems to be a lesson that QMUL has struggled to learn; it's said that every time Queen Mary leadership attempts an (inevitably poorly executed) plan to erase the identity of Barts and The London School of Medicine and Dentistry, they put their own cause back by 3 years. By my own count, in the last few years alone, they've put themselves back by at least 9 years - maybe 12.

I truly believe there is a place for both a Barts and The London identity, and Queen Mary identity for students studying here; indeed it's something that most students would embrace readily. No one comes to a university not ready to be proud of where they study, that comes only after considerable and repeated bad experiences. QMUL can spend millions on student experience and branding exercises and yet would inevitably fail to recreate what makes Barts and The London special. After all, facilities and resources can be paid for and built anywhere, but a name? That's something harder to make up.

A short history of QMUL attacking Barts and The London

I'm no stranger to rebranding, after all if you study long enough here you'll probably experience 2 or 3 during your time here with no problem. The first big change that I recall was the insistence of the University that all materials must have both the QMUL logo and the BLSMD logo; prior to this, the BLSMD logo (already with it's Queen Mary 'Q') was deemed sufficient. Then, what seemed just a few months later, the University proudly showed off their new logo for BLSMD which looked like a tackier version of the QM logo with some space underneath and the words Barts and The London typed up.

The #SaveOurBL campaign was shortly launched, aimed at pushing back at this low-effort, aesthetically unpleasing branding that QMUL had designed. It very quickly reached thousands of signatures, but - perhaps no shock - was ignored by senior leadership. At the same time (and arguably because of our campaign), QMUL inserted a new clause into the block grant funding for student groups, targeting BL groups. As a result we were forced to change some by-laws, opening BL student groups to all students at QMUL for the first time.

More recently, the logo that QM had fought so hard for was dropped, with signage changing across Whitechapel, West Smithfield, Charterhouse Square and Malta to remove traces of Barts and The London, and only say

QMUL. Similarly changes to the website removed any mention of the words 'Barts and The London School of Medicine and Dentistry'. This brings us to where we are now, with the latest and largest campaign 'We Are BL'. As of print, the campaign's petition has received over 15,000 signatures, and has been reported nationally by multiple media outlets.

A Queen Mary University of London spokesperson said:

"Queen Mary University continually promotes its proud history and heritage, at the heart of which are our four founding institutions (St Bartholomew's Hospital Medical College, London Hospital Medical College, Westfield College and Queen Mary College) who all shared the same vision of improving the health and opportunities of the less privileged members of society. As a multi-faculty University, with over 32,000 students, we continue to hold true to that vision today, opening the doors of opportunity through our world-leading research and education. A strong coherent identity is vital to enable us to operate seamlessly as one organisation, breakdown current silos to ensure all education and research remains world-leading, and to underpin strong collaborative working with others to achieve shared goals. Across our University community, we have made considerable progress in consolidating and strengthening our clear identity as a leading Russell Group University over the last few years. We are now exploring avenues in order to complete this work to ensure no possible confusion for students, partners and the public."



increased prescription charges: two sides of a coin

By Zainab Khan

Since 1995, free prescription charges have been available for both men and women, relative to the State Pension Age (SPA) of 60 or over. Justified by the fact that after the age of 60, individuals were no longer working and thus the cost of potential prescription would have a greater personal economic impact compared to those who were still working. However, as the SPA increased to 66, the argument posed is that there are a larger proportion of individuals over the age of 60, who are economically active and can thus contribute to prescription charges. But is the reasoning as clear cut as it initially seems?

There are various factors to take into consideration when evaluating the fairness of this change. £600 million of revenue annually are generated for NHS England, an undeniably large fund that covers NHS costs. The significance of such revenue is demonstrated when the price of drugs are also taken into consideration. At the end of the 2020/21 year, the cost of dispersed prescription items was £9.61 billion in England, an increase of 3.49% (£9.28 billion) from 2019/20 according to the Office for Statistics Regulation (OSR). Yet the volume of drugs dispersed reduced between 2019/20 and 2020/21 reduced by 1.9%, suggesting that increased cost had been driven by drug companies. A prominent example would be pharma firms- Accord- UK and Advanz Pharma being fined £260 million by the government in 2021 for increasing the price of hydrocortisone tablets by 10.000%. According to the Competition and Markets Authority, one pack of tablets, originally costing less than £1 for the NHS had increased to £80.

Pre-paid checks (PPCs) are available to those who require frequent prescriptions but do not meet the requirements to exempt themselves from charges. With PPCs, individuals save money if they need 11+ items in 1 year, either via a 3-month certificate (£30.25) or 12-month certificate (£108.10). However, some argue that this is not enough. The Prescription Charges Coalition points out that the cost of prescription charges and the rate at which it increases far outweighs the rate at which wages increase.

Concerns also arise for those with long term health issues that cannot be covered by exemption or PCCs. For example, asthma, where sufferers may be less inclined to use their inhalers at critical times to ration the medicine. Neurodegenerative diseases which progress over long periods of time are also not covered, for example Parkinson's Disease.

Income gap between men and women may also play a profound impact on whether individuals can afford medicines, where women will be disproportionately affected compared to men. Statistically speaking, women are also more likely to take more sick days, possibly impacting their wages and thus ability to afford prescriptions. Race and age are just as significant. Long-term health conditions are more likely to occur in minority ethnic populations. Such populations are also found to be in lower socio-economic positions, which may possibly further contribute to increased rates of long-term health conditions. In terms of age, the older an individual becomes, the less inclined they are to work an average 9-5 shift, again impacting their income. Studies have shown this is predominant in the age range of 52 to 69 years.

It is understandable that increased NHS costs must be met. However, it is also clear to see that a proposed change in prescription charges can impact a large population of vulnerable individuals with a diverse range of health issues. As life expectancy continues to rise and presumably the SPA in accordance, the question must also be asked, where will the limit be on prescription charges and related health care costs for individuals in the future?

Resources:

[Aligning the upper age for NHS prescription charge exemptions with the State Pension age - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/news/aligning-the-upper-age-for-nhs-prescription-charge-exemptions-with-the-state-pension-age)

[State Pension age timetable - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/state-pension-age-timetable)

[PCA England \(nhsbsa-opendata.s3.eu-west-2.amazonaws.com\)](https://www.amazonaws.com/nhsbsa-opendata/s3.eu-west-2)

[CMA finds drug companies overcharged NHS - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/news/cma-finds-drug-companies-overcharged-nhs)

Has COVID changed the way we think about a good death?

By Nabihah Rahman

The death of a loved one, whether it's a close friend, partner, parent, child, or other relative, can be overwhelming and difficult at any time. But during a pandemic, which has already impacted all other aspects of life, it can be even more difficult to navigate for plenty of reasons. For many, COVID-19 has compelled us to come face-to-face with our own mortality and contemplate what a 'good death' would look like to any individual.

The notion of what constitutes a 'good death' varies between people and is often influenced by one's social, cultural and religious beliefs. Within healthcare, it usually encompasses the whole end-of-life phase: from before the patient's passing; to the time of a patient's death; to the funeral arrangement; and finally to the post-funeral bereavement follow-up. Under normal circumstances and across most communities, a 'good death' involves: dying with dignity; without prolonged pain or before one's time; accompanied by loved; in familiar surroundings; with the preferred ritual procedures; and finally respecting the patient's preferred type of corpse disposal (e.g. burial/cremation).

At the time of writing, the total number of registered deaths due to COVID-19 was 160,824 (up to 24th of September 2021) in the UK. (GOV.UK, 2021) Between the 12th February and 24th September 2021, the number of COVID-19 deaths was lowest in those aged ≤ 15 (57 deaths) and highest in those aged $75 \geq$ (17202 deaths) (Figure 1). (Office-for-National-Statistics, 2021)

Deaths
Number of deaths involving the coronavirus (COVID-19) by age group, England, registered week ending 24 September 2021

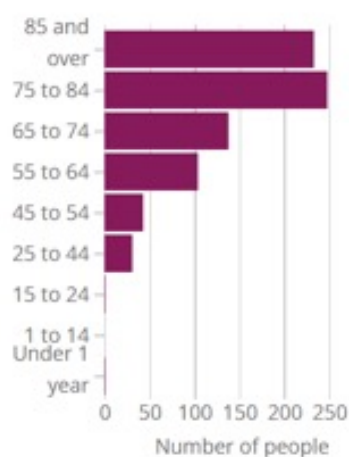


Figure 1

These statistics showcase how devastating the effect of COVID-19 was, with it claiming the lives of so many, irrespective of age. Over the course of the pandemic, the media kept the public updated on the number of COVID-19 deaths and tended to highlight the particularly grievous deaths of very young victims - often describing their lives as having been 'cut short', whilst the prime minister himself had expressed that people would 'lose loved ones before their time'. As a society, we are drawn to believe this widespread narrative, grieve these deaths, and are reminded that, in this respect, COVID-19 is causing many tragic deaths as opposed to 'good' ones.

Within the UK, the introduction of the Coronavirus Act 2020 enabled national/local authorities to decide between burial or cremation in the 'most extreme situations', which resulted in concerns raised regarding the prospect of 'enforced cremation'. In order to minimise the risk of spreading the virus (due to the body still being a site of contagion), this meant that direct cremations were recommended to be carried out in some places. A qualitative study by Simpson et al. used rapid ethnographic methods to examine the main concerns, regarding death within the context of COVID-19, of both faith and non-faith communities across the UK. Within that study, it was clear that cremation was unacceptable to some Jewish, Christian and Muslim communities and even some people of no-faith expressed similar sentiments with particular preference to burial instead. From this perspective, COVID-19 has caused certain communities' steadfast belief in what they consider the ideal corpse disposal method, fitting of their version of a 'good death'.

Though it is tempting to think of a 'good death' only in terms of how a person dies, from a social, religious or cultural standpoint, the way in which a person's death is marked, is another way of dictating the value of a person's death. This usually means holding memorial gatherings that celebrate the deceased's life and allow their recently bereaved a chance to mourn their loss in the presence of others. COVID-19 restrictions during various tiers and periods over the course of the pandemic have meant that normal funeral services could not go ahead and were instead subject to strict legal regulations including: limits to the number of people attending; limited mixing of people from different households; people being required to self-quaran-

tine even if they were close family members to the deceased; and not being allowed to be held in a private dwelling. Social distancing and the required public use of facemasks even meant that those who were in attendance at such services were not allowed to partake in normal practices of emotional/social support behaviours (e.g. reassuring touches, hugging, embracing or seeing full facial expressions of sympathy). The absence of these formal and informal rituals may significantly burden the wellbeing and health of the bereaved. Though many communities tend to hold large funerals, smaller funerals can be viewed in a positive light as being 'intimate' ceremonies for some groups. Moreover, the introduction of live-streaming the service to those who were not allowed to attend in-person did attempt to address some of the issues that COVID-19 had brought about (e.g. increasing the number of people commemorating the life of the deceased). There also exists the option of post-dating the funeral service in order to do right by their (the deceased's) memory when restrictions are eased- though this choice can understandably seem too delayed for some. COVID-19 has for the most part, negatively affected the impact of what these funeral services help to do in: commemorating the lives that the deceased have led; acknowledging their legacy; and enabling mourners an appropriate outlet for their grief; which all contribute to the idea that COVID-19 has, in this respect, not changed the importance of holding typical funeral services in order for a death to be marked as 'good'.

It is worth noting that before the pandemic there existed less popularised narratives around dying alone that did not necessarily equate to being 'bad'. For examples, in the USA, though suicide is often considered the 'ultimate lonely death', in some traditional Japanese cultures, suicide is considered 'honourable' and 'altruistic'. In a different light, some people do choose to enforce a kind of 'social death' of their own (time of self-imposed social isolation) preceding their imminent biological death. In 2013, The National Bereavement Survey (VOICES) found that 81% of patients in England undergoing end of life care preferred to die at home, and it has been a key policy driver to encourage/facilitate this practice wherever medically possible. (Joint-Strategic-Needs-Assessment, 2015) However, due to the infectious nature of the virus and government restrictions relating to: national lockdowns, and social distancing; it has meant that many people have been dying of COVID-19 (and non-COVID-19 related circumstances) in social desolation and in hospitals/ Intensive Care Units (ICUs). In this regard, COVID-19 is seen to be causing what most people consider the opposite of a 'good death'. This master narrative

is being challenged in some cases, for instance with Erin K. Willer who eulogises the death of her friend, Katherine, in her autoethnography. She outlines her 'reframing' of what 'lonely dying' means in its relation to a 'good death' when Katherine dies from COVID-19 alone in the ICU. She discusses how people's grief and shame over COVID-19 fatalities are exacerbated by this 'good death' master narrative which stigmatises the circumstances of these deaths as inherently 'bad'. She concludes that being 'present' with the dying person is not limited to being physically at their bedside but includes being continually informed of the patient's condition, being aware of their needs, and conveying compassion and empathy even if that is via technology. A paper by Wang et al. highlighted some measures that could be implemented to tackle this concern including: live video-conferencing sessions to allow patients to see and converse with their loved ones; sending pre-recorded messages (e.g. audio recordings, letters, etc.) from loved ones to patients; and loved one's being allowed to leave 'comfort objects' (e.g. treasured items) with patients which can serve as a linking/bonding object between them and possibly a substitute for their constant physical presence. Through the implementation of these measures, the more traditional mind-set of what constitutes 'a good death' can be made more inclusive of exceptional circumstances, such as the pandemic.

All in all, a pre-pandemic 'good death' is seen by the majority of people as one that: allows people to die in the company of loved ones, in familiar surroundings, with dignity; whilst their bodies undergo the preferred customary procedures and corpse disposal; as well as holding the appropriate funeral services. COVID-19 has impacted all of these aspects but influenced a few of them to change their meaning for some. Regarding the notion of dying 'before one's time', holding the appropriate funeral services, and to an extent the decision to cremate for some communities, the pre-pandemic views on a 'good death' for the majority remained unchanged. COVID-19 has also changed the meaning of what 'dying alone' means in its relation to achieving a 'good death' and highlighted how incredible the healthcare service providers were in facilitating this shift in perspective. Finally, it is important to acknowledge the grievous impact that COVID-19 has left on our society with the loss of so many loved ones, but also ensuring that we do right by their memory whilst acknowledging our efforts to create the best circumstances for their deaths, despite the difficulties we all faced during this pandemic.

A Rakes Progress

By Duncan Veasey



In my previous piece I described some of the experiences of being a student at Barts in 1970 taking 1st MB and my encounters with Professor Rotblat. The editor must be short of copy as she has invited a further instalment of witterings and bygone curiosities. At the end of the 1st MB year I returned to Clarke's fish and chips emporium on Southend seafront for the summer, basking in my achievement and being promoted from kitchen porter to frying chips... a white coat at last!

Before return for the dreaded two year 2nd MB course I had to purchase half a skeleton in a stout cardboard box...a slight female... and a huge number of books, some of which I actually read. I still have the formalin stained Cunninghams anatomy volumes. This was a tough course in anatomy, biochemistry, physiology and pharmacology with a huge amount of factual learning, most of which I have of course never utilized as a doctor. As I said last time, you have us to thank for getting considerable cuts agreed in this in 1976!

As an aside, I have little idea what life is like as a pre-clinical medical student now... if you even have such divisions.

I think the anatomy course alone could reasonably have taken two years. In my day (and I did promise I would not deploy that tiresome phrase of the elderly, old git but I just cannot help myself) it involved I think six students to a body, a full dissection of a cadaver over two years in a large, tiled swimming pool lab stinking of formalin, presided over by a curious elderly technician straight out of central casting for Frankenstein movies who would wander round with a large spray bottle of formalin and periodically lift a cover and squirt the corpses.

We were exhorted to respect the bodies with dark stories of students rusticated for playing conkers with human testicles and told no tissue could ever be removed from the lab. I recall on my 45 minute tube journey from Queens Park, where I had my first experience of flat sharing, looking down and seeing a

small piece of human fat on my shoe.

I cannot remember anybody fainting at the beginning but I still recall the sensation of immersing both my arms in a mixture of liquid fat and formaldehyde when we first had to turn over the body. (Here's a tip you young 'ens. Never do this with a hangover.)

We had regular viva exams which had to be passed and repeated if failed with a variety of anatomy demonstrators, some surgeons to be, some surgeons who hadn't quite been, all capable of ruining your day with a fail. Dr. Clarke, the Reader, a wee scotsman, charming but deadly, responding in his rich, Edinburgh brogue to his victim's answers for the name of random bits of tissue pointed at: "Yes... yes... yes. That's right.... No... no.... Laddie, ye're going doon!"

The professor was O J Lewis, a kiwi as dry as only a New Zealander can be... as dry as a great big dry thing in the middle of the Kalahari on an especially hot day... and deeply sinister. He once turned round in a lecture and covered half his face to demonstrate some cranial nerve whazzit and I nearly fainted in fear!

We were the first generation of medical students who did not have to have Latin O level and a few generations before us, the anatomy lectures had actually been given in Latin. (Me, I never 'ad the Latin for the judging... which for younger readers is a reference to the great Peter Cook. Look him up.)

I loved his lectures... OJ's not Cook's. Most didn't. He was another genius, outlining with no notes hugely complex embryology and neuroanatomical development in a vast series of unfolding 3D drawings made across three blackboards in multi-coloured chalks. (For younger readers a blackboard was a surface covered in special paint upon which those lecturing could make marks in chalk which could be easily removed with a duster.)

I am an artist and enjoyed the challenge of keeping up with this absolute tour de force but for those with poor drawing skills it must have been a

nightmare. And woe betide the young lady or gentleman who failed to complete their drawing in coloured pens before the duster of doom wiped out the chalk. You could never catch up if you fell by the wayside.

As with Professor Rotblat's, I kept these lecture notes for years too. (I suspect now students would just video these on a telephone.) Anyway, I had a sneaking regard for him and he passed me in my 2nd MB viva in which I... made him smile! Well, a kind of crooked, sardonic grimace over a sarcastic comment! (Here's another tip. You can get a long way in medicine with charm.)

The biochemistry was a huge course and, whilst I am a climate change skeptic, carbon certainly had a lot to answer for in our studies in 1971. All those formulae, rings, and cycles! Professor Crook was charming but I was dismayed to find Dr. Armstrong's enzyme kinetics was challenging with maths which I had hoped had disappeared forever in my studies with Professor Rotblat. I can recall little of the physiology course but pharmacology introduced huge numbers of drugs and side effects as a kind of fourth wave of facts.

So on we grafted and grafted for 2 years. Then came the exams. It is a curious thing but I have, and I have had this discussion with two old comrades recently, absolutely no recall at all for the written exams, where we took them, how they were and little recall for viva experiences. I cannot say whether this is beer holes in the hippocampus or some effect of cortisol flooding but I certainly remember getting the results.

We were lined up alphabetically in a long line at the back door of the chemistry lab in Charterhouse square. In you went individually to be given the news. The Wine Committee, of which I was a member, a body of students who ran the bar and entertainments, had set up a bar on the lawn with champagne cocktails for celebrations and commiserations. Those unlucky enough to have had inconsiderate ancestors who had not looked into research on the effects of surname ordering, could see our chums emerging from the front door, most elated, some slinking and stooped with the realization of a ruined summer and a last chance with the retake.



Photo by Harris Nageswaran

It took a very long time to get through all of us, seemingly several days, but joy unbounded! I passed and collapsed into the welcoming arms of several of the world's most lethal drinks. I will outline the social life and cultural changes in the seven years I spent at Barts in a further installment, Madame Editor allowing. This was a time of major changes. And then there is the clinical education of the time for the final three years which largely seemed to consist of bullying and public humiliation!

Here's a taster. The very first patient I had to examine the next year, resplendent in a white coat that didn't smell of chip fat, (me, not the patient), seemed quite well, but I just couldn't find a pulse and I had read the early parts of Hutchinson's how to do everything. What sort of trainee doctor cannot take a pulse? Anywhere! The patient didn't let on and I was finally rescued from my sweating anxiety by the SHO. How he laughed! That's right. One of Professor Lowther's Takayasu's disease exotica. Only at Barts. I have never seen another.



Turning to stone: how a rare disease patient's health and wellbeing is influenced within our society

By Zibad Javed

Submitted for The Student Voice Prize

Abstract

Living with a rare disease is challenging and a source of much frustration. This is partly owing to the complex care needs of rare disease patients but also owing to discrepancies in access to healthcare. This article describes my reflections into some of the components of intersectionality that can influence a rare disease patient's health and wellbeing. I have delved into the life of a patient living with fibrodysplasia ossificans progressiva (FOP), to whom I was introduced through the FOP Friends charity to explore the potential barriers she faces with a view to discuss how to minimise them. Pseudonyms are used throughout to protect anonymity.

Introduction

Fibrodysplasia ossificans progressiva (FOP) is a medical curiosity characterised by congenital malformation of the big toes [1]. Individuals undergo heterotopic ossification – the growth of bone where bone does not normally exist [1, 2]. This has an uncanny manifestation in FOP such that skeletal muscle and soft tissue transforms into bone following the slightest of injuries and mildest of illnesses [1, 2]. Although it can present in numerous ways, one thing common to all individuals affected by FOP is lifelong uncertainty concerning which of their joints will fuse, when, how and to what extent. This precariousness is often compounded by deep-rooted societal opinions relating to each member's qualities

and characteristics. Termed as intersectionality, this is a lens which recognises that 'health is shaped by a multi-dimensional overlapping of factors such as race, class, income, education, age, ability, sexual orientation, immigration status, ethnicity, indigeneity, and geography' [3]. In a world inadequately catered to the needs of those with disabilities, intersectionality plays a key role in targeting avoidable limitations on rare disease patients and restoring some of their independence. Thus, through this article, I aim to delve into the life of Rose, a 37-year-old woman living with FOP and explore notions to take forward in our practice of dealing with the rare and unknown.

What is FOP?

Caused by a mutation to the ACVR1 gene, FOP is incredibly uncommon, affecting just 4000 people across the globe (1 in 2 million) [4]. Heterotopic ossification is the abnormal process by which bone develops within skeletal muscle and soft tissue following significant injury or surgery [2]. This new bone growth brings with it an unwelcoming experience of decreased range of motion in the affected region, swelling and pain [5]. In FOP, this phenomenon occurs more aggressively with flares being triggered by very low impact accidents, effectively making FOP individuals 'allergic' to bumps. Attaining symptomatic relief and halting disease progression is yet another challenge by virtue of the inability to surgically resect the abnormal bone and limitations in approved medications [6]. With no current cure, parents are often told to enjoy their time with a child who may have a

considerably shortened life expectancy [7].

Rose's second skeleton: are two better than one?

Like most children born with FOP, Rose was born with short, crooked big toes. A TV programme prompted Rose's mum to visit the doctor following the development of several lumps and swellings. At age 12, after months of doctoral guesswork including prolonged chemotherapy and radiotherapy treatment for suspected aggressive fibromatosis, FOP was diagnosed.

It was only until she reached her late 20s that the reality of what FOP is at its worst had struck her. From this point on Rose underwent numerous episodes of bone growth that would occur either in response to illness or injury or entirely spontaneously. Joint fusion in FOP can occur at any angle, resulting in the possibility of arms and legs freezing whilst either entirely extended, flexed or anything in between. As each flare causes the fusion of yet another joint, it steals away bodily function.

The very limited number of rare disease cases inevitably restricts the number of medical professionals devoted to its research. Access to healthcare is undeniably impacted by the geographical location of resources. Rare disease patients can find themselves travelling long distances to attend appointments with several different medical professionals. As a result, they experience delays in accessing care along with fatigue, financial loss and disruption to school/work [8]. With FOP, this disparity has forced a small patient group to grow deeply interconnected on a global scale. Part of Rose's reassurance during the height of the pandemic was owing to an already well-established virtual network. Rose is in contact with a UK specialist as well as expert clinicians in America with whom she communicates any concerns, receiving a response within minutes. Thus, technology and telemedicine can serve to improve communication and coordinate patient care. By encouraging multidisciplinary working through virtual means, rare disease patients can obtain accessible points of contact and consistent support [8].

How do rare disease patients survive in society?

The wellbeing and life choices of people with disabilities can be considerably influenced by their level of education and financial support. In FOP, each flare of the

disease brings change, adaptation, and adjustment to a new phase. From fundraising for a stair lift to shifting into a bungalow and fighting for an electric wheelchair, Rose has implemented numerous changes to her lifestyle and home to retain some independence. These modifications have benefited Rose immensely by preventing her from being entirely bedridden. Although she depends on her family for most tasks, the independence she has attained from these adaptations serve a far momentous purpose in Rose's overall physical health and mental wellbeing. Whilst Rose has successfully fought for some of these amenities, she has had to raise funds and rely on family to purchase others. She also describes to me her frustration at several other patients who do not persist in their application for much needed facilities. A lack of familiarity of the effects of rare diseases amongst healthcare professionals combined with a rare disease patient's incomplete understanding of their disability rights can limit access to justifiable health services that their more familiar 'common' disease counterpart would perhaps not experience. Therefore, it is key to increase awareness amid both healthcare professionals and patients of disability rights in rare diseases to minimise discrepancies in gaining warranted resources and subsequently encouraging movement within society.

The scarcity of available knowledge and complex care needs of rare disease patients makes diagnosis and management difficult [9]. An uncomfortable experience for Rose included receiving a prescription of large tablets which she was unable to swallow due to the limited mobility of her chest. In conjunction with an impractical expectation to include an estimated 8,000 rare diseases into the medical curriculum this places medical professionals in a challenging position to provide holistic, patient-centred care without the armoury or ammunition to do so [9]. Thus, in many ways, accessing modern day healthcare for rare disease patients has been akin to medical care for the general population during the pandemic. Limited information, uncertainty, and an unpredictable and unforgiving illness. Nonetheless, the sheer number of people inflicted by the SARS-CoV-2 virus has prompted the rapid funding of research and continuous experimentation that has proved fruitful. However, the process of new drug development for FOP is often slow and poorly funded because of fewer cases of the disease worldwide.

What happened during the pandemic?

The pathophysiology of FOP means that any irritation to the body can induce a pro-inflammatory reaction which triggers bone growth, known as a flare. Undesirably, the flare itself places the body in an inflammatory state, leading to a troubling cascade of flare after flare. Hence, during the pandemic, FOP patients have found themselves conflicted in weighing the risks of obtaining the intramuscular COVID vaccination with being exposed to the virus. As a predominately respiratory illness, COVID-19 has the potential to cause severe and debilitating effects owing to the already restricted lung function of FOP patients. Moreover, where the use of non-invasive and invasive ventilation for the rest of the population poses limited issues; fusion of the spine, jaw and ribs make such oral trauma complicated and life-threatening for those with FOP [10]. Therefore, there are several aspects to consider when ensuring safe decision making and fair allocation of health resources because what may benefit the majority, may not be favourable for rare disease patients.

Conclusion

To conclude, the challenges surrounding living with a rare disease are all too often compounded by uncertainty and frustration. From Rose, I gathered a greater insight into a rare disease patient's perspective of interacting with society, with a specific focus on the resourcefulness of healthcare. This experience has highlighted to me the significance of adopting an open and inquisitive approach to all rare disease patients to facilitate the provision of personalised and holistic care, negating the need to have a detailed understanding of each rare ailment. Moreover, with the pandemic acting as a catalyst for telecommunication, technology can be used to bridge barriers and provide more coordinated care for rare disease patients. By recognising the existence of discrimination within marginalised groups, we can encourage equal opportunity for all those with disabilities, either common or rare.

References

1. Akesson, L. S. and Savarirayan, R. Fibrodysplasia Ossificans Progressiva. GeneReviews [Internet]. 2020. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK558090/> [Accessed 10th November 2021].
2. Shehab, D., Elgazzar, A. H., and Collier B. D. Heterotopic ossification. *J Nucl Med.* 2002;43(3):346-53.
3. National Collaborating Centre for Determinants of Health and National Collaborating Centre for Healthy Public Policy. Public Health Speaks: Intersectionality and health equity. Resource Library. Available from: <https://nccdh.ca/resources/entry/public-health-speaks-intersectionality-and-health-equity> [Accessed 10th November 2021].
4. Kamal, G., Gupta, A., Batla, S., and Gupta N. Anaesthetic management of a child with stone man syndrome: Look before you leap! *Indian J Anaesth.* 2017;61(3):266-268.
5. National Organization for Rare Disorders. Fibrodysplasia Ossificans Progressiva. Available from: <https://rarediseases.org/rare-diseases/fibrodysplasia-ossificans-progressiva/> [Accessed 10th November 2021].
6. Glaser, D. L. and Kaplan, F. S. Treatment considerations for the management of fibrodysplasia ossificans progressiva. *Clinical Reviews in Bone and Mineral Metabolism.* 2005;3:243-250. Available from: <https://doi.org/10.1385/BMM:3:3-4:243>.
7. Garde, D. Their tissue turns to bone. Their joints freeze in place. And, finally, their hopes for treatment may be realized. *Statnews.* Weblog. Available from: <https://www.statnews.com/2019/03/20/fibrodysplasia-ossificans-progressiva-fop-treatment/> [Accessed 10th November 2021].
8. Simpson, A., Bloom, L., Fulop, N. J., et al. How are patients with rare diseases and their carers in the UK impacted by the way care is coordinated? An exploratory qualitative interview study. *Orphanet Journal of Rare Diseases.* 2021;16,76. Available from: <https://doi.org/10.1186/s13023-020-01664-6>.
9. McMullan, J., Crowe, A. L., Bailie, C., et al. Improvements needed to support people living and working with a rare disease in Northern Ireland: current rare disease support perceived as inadequate. *Orphanet Journal of Rare Diseases.* 2020;15(315). Available from: <https://doi.org/10.1186/s13023-020-01559-6>.
10. Botman, E., Treurniet, S., Lubbers, W. D., et al. When Limb Surgery Has Become the Only Life-Saving Therapy in FOP: A Case Report and Systematic Review of the Literature. *Front Endocrinol.* 2020;11(570). Available from: doi: 10.3389/fendo.2020.00570.

Reframing Mask-Wearing in the Age of Covid-19

By Ga Kitada

I come from a country where masks are not seen as a restriction of personal freedoms, but more as a part of the social fabric. Having been born in Japan and lived there until age 10, I grew up with masks – I wore them outdoors every day during the hay fever season because it helped with my breathing and often on public transport during the winter to avoid catching a cold. For me, masks have always been a highly convenient and effective tool, NOT an inconvenience.

Masks as a restriction on personal freedoms

In 2022, masks and policies surrounding face coverings remain as contentious, if not more so than at the beginning of the Covid-19 pandemic. Libertarian arguments continue to portray masks (and other public health measures) as not only ineffective and inconvenient, but also as a restriction of personal freedoms.

An alarming aspect of the pandemic has been



Image by Unsplash

the adoption of such libertarian ideology by those in positions of power, including clinicians and academics in medicine and public health. I have seen countless clinicians care for clinically extremely vulnerable patients, totally unmasked or with nose over masks. Some academics also appear to be reluctant to challenge institutional policies on face coverings for fear of angering students and university management. Moreover, it greatly upsets me to see some of my fellow Barts medical students take off their masks the moment they leave hospital, entering shops and hopping on public transport totally unmasked. It feels incredibly jarring to me that we strive for “patient-centred care” and “health equity” in our day-to-day work but fail to act in ways which are patient-centred and protect the health of vulnerable people.

Covid and the boundaries between “personal” and “public” health

I am not saying that we should be living in perpetual lockdowns or restrictions, nor that we should be wearing masks everywhere, all the time. I also recognise that there is a small number of people for whom wearing masks is difficult, such as people living with certain disabilities.

But Covid is hardly “endemic” or “just like the flu” and continues to pose a substantial threat to clinically vulnerable people. Although the number of daily Covid cases appears to be winding down, this is more to do with the UK government cutting down on testing and scrapping legal requirements to self-isolate than the number of infections actually decreasing (The ZOE Covid Study continues to report ~200,000 daily cases at the time of writing). Moreover, this so-called “vulnerability” is common.

Even if you take just one condition, say diabetes, 4.9 million people are living with it in the UK – that’s 7.3% of the population! Added to the fact that Covid is not simply a respiratory illness causing pneumonia but a multi-system inflammatory disease leading to long-term morbidity and disability, the government’s “living with Covid” approach becomes a disturbing proxy for labelling the lives of vulnerable people as being less worthy or at worst, dispensable.

There is no such thing as a “risk-free” life. But we try to minimise those risks, where we can. A perfect example is road safety. In 2019, road traffic accidents caused 1,752 deaths and a further 25,945 serious injuries in the UK, a far smaller figure compared to the number of people Covid affects (In the past week alone, there were nearly 1,200 deaths within 28 days of a positive Covid test and an estimated 1.3 million people are currently living with long Covid in the UK) . Yet we have legal mandates on seatbelt use and fines for drink-driving and driving while using your phone; as of January this year, we even have a new Highway Code which prescribes a “hierarchy of responsibility” to protect road-users most vulnerable to the effects of road traffic accidents, such as pedestrians and cyclists. But when it comes to Covid, the talk is all “personal responsibility” and “personal freedoms”.

The bad news is that for people unable to work from home or avoid essential shops and services, there is nothing “personal” or liberating about being infected with a highly contagious virus which causes mass death and long-term disability. Whether you like it or not, humans live in a complex cluster of social relationships, with each member of the community living with various degrees of health and ill-health. It also means that in a global pandemic, personal health is not personal *per se* – my health is your health and your health, my health.

Mask-wearing/sense-making

So, what can we do in the face of such complexity and uncertainty? As humans, we go

about our daily lives and create meanings around our collective experiences in a process often called *sense-making*. In the case of masks, those who have grown up in a culture where masks are a part of everyday life (as I have done in Japan), have created meanings of security and collective solidarity around our experiences of wearing masks. On the contrary, those who oppose mask-wearing often associate masks with government overreach and other forceful measures to contain the pandemic, which represent an impingement of personal freedoms.

If we truly want to learn to “live with Covid”, we must change the meanings we have created our experiences of wearing masks, from meanings of restrictions and lockdowns towards those representing empathy and compassion. This becomes particularly important in social spaces where clinically vulnerable people have little to no choice but to attend, such as workplaces, public transport, essential shops and healthcare settings. It’s time to change our relationships with masks – towards an understanding that it is a simple and effective tool which is a matter of convenience for all, NOT an inconvenience.



Myth Busting citations:

Escandón, K., Rasmussen, A.L., Bogoch, I.I. et al. COVID-19 false dichotomies and a comprehensive review of the evidence regarding public health, COVID-19 symptomatology, SARS-CoV-2 transmission, mask wearing, and reinfection. *BMC Infect Dis* 21, 710 (2021). <https://doi.org/10.1186/s12879-021-06357-4>

Eyre, D.W., Taylor, D., Purver, M., Chapman, D., Fowler, T., Pouwels, K.B., Walker, A.S. and Peto, T.E., 2022. Effect of Covid-19 Vaccination on Transmission of Alpha and Delta Variants. *New England Journal of Medicine*.

Sharma, V., Rai, H., Gautam, D.N.S., Prajapati, P.K. and Sharma, R., Emerging evidence on Omicron (B. 1.1. 529) SARS-CoV-2 variant. *Journal of Medical Virology*.

MYTH BUSTING!

Claim 1: Masks don't work!

The short answer is no, they work. Early in 2020, many scientists, including the UK's Deputy Chief Medical Officer, advised that masks were not effective at reducing Covid transmission and that they even "trap the virus", increasing your chances of catching Covid. This was based on an understanding that Covid spreads through larger droplets (defined as greater than 5 – 10 μm), which circulates in the air for a short period of time, before falling on the ground and other surfaces. The so-called "droplet dogma" of Covid transmission justified the preponderance of public health measures such as 2m physical distancing, hand-washing and surface cleaning, as opposed to mask-wearing.

However, 2 years on, scientific evidence has moved on. We now know that particularly indoors or in poorly ventilated spaces, Covid is much more likely to spread through smaller particles which travel in the air beyond 2m and can remain there for hours after an infectious person has left the space. This makes masks and ventilation an important and effective measure for reducing Covid transmission, with different levels of protection offered by different masks (in descending order – FFP3's, FFP2's/N95's, surgical masks, cloth masks).

Claim 2: But I'm young, fit and vaccinated/boosted.

The Covid vaccines are highly effective at reducing risks of deaths and hospitalisations from a Covid infection, but they are not so great at reducing transmission. This means that you can still pass Covid onto someone else even if you are vaccinated. Data for the delta variant show that 12 weeks after vaccination, your risk of transmitting Covid to someone else is similar to that of an unvaccinated person.

This means that any approach to the pandemic which relies on vaccines alone is doomed to fail – an approach which balances vaccination with mitigations to reduce spread of the virus remains as important as ever.

Claim 3: Omicron is "mild" or "milder" than other variants.

No, Omicron is not intrinsically "mild", it's just different. It replicates 10 times more slowly in the lungs than previous variants, meaning that it is less likely to cause pneumonia. In the UK, we are also seeing fewer hospitalisations and deaths than previous waves because of relatively high vaccine coverage. However, Omicron is much more transmissible than previous variants, meaning that it can still cause hospitalisations and deaths in a large proportion of the population if a large number of people get infected.

Claim 4: I find it hard to breathe with a mask on.

Sure, mask-wearing takes a bit of getting used to. But if you find a comfortable, well-fitted mask, trust me, you'll soon forget that you're even wearing one.

How have children been impacted due to COVID-19?

By Sam Jarada

Since March 2020, when COVID-19 was declared a pandemic by the World Health Organisation (WHO), billions of lives have been impacted. However, one group that I think have been most affected by this dynamic situation: children. My previous article spoke about working as a Teaching Assistant during the pandemic, but this time I am focusing on the children I interacted with, by discussing how their education, wellbeing, mental and physical health have all been impacted.

Almost every school was forced to shut down at the beginning of lockdown, leaving many children at home to learn via online platforms. Some benefits of this included a more comfortable learning environment, ease of access to technology and lesser need for commuting. However, the drawbacks were that many children lacked digital access, struggled with focusing at home, or didn't have a quiet space to work. From my work last year, I saw that in some schools, most students were academically behind when they came back into the classroom, suggesting that online learning was evidently challenging for them. Therefore, low motivation and lack of interpersonal



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interaction were detrimental barriers for these children. These problems may indicate that children from poorer backgrounds were more likely to encounter these difficulties than children from wealthier backgrounds, making inequality an ongoing issue.

According to a 2021 systematic review, mental health among children worsened because of the COVID-19 pandemic control measures. On the other hand, external measures such as positive family relationships and social support were linked to better mental health outcomes (Samji, H. et al., 2021). Does this mean that perhaps these latter relationships had greater value in improving children's mental health? On my return to re-opened schools during my gap year, observing children playing together, conversing with each other during break times and engaging with teachers during classes after a long time of being physically apart seemed optimistic. Having spoken to several children about being forced to stay at home, most of them didn't enjoy it. This highlighted how vital being with other people is to a child's mental health and wellbeing.

As a result of spending more time at home,

levels of physical activity in children have decreased - even though this was a problem before the pandemic. For example, a 2020 research article with a sample size of 600 adolescent Palestinians stated that 45% of them reported no physical activity during their lockdown (Allabadi, H. et al., 2020); this study, among others, opened my eyes to the fact that this pandemic not only has had a harmful effect on children's mental health and education but also on their physical health. Therefore, schools have an opportunity and a responsibility to increase the amount of physical activity during lessons to counteract sedentary habits developed during the past two years and tackle the worsening public health challenge that is childhood obesity. One could argue that the effects of physical activity on children's wellbeing and mental health are beneficial, so perhaps these factors are more related than we think.

With all these significant points illustrated throughout this article, it's now more important than ever for us to continue supporting children and improve this

support. Childhood and adolescence are crucial for growth, maturity, and development. Whilst the pandemic may have hindered that to an extent, I hope that children today will gain the resilience to overcome the impact of COVID-19 and future challenges that this next generation will encounter.

References

1. Samji H, Wu J, Ladak A, Vossen C, Stewart E, Dove N, Long D, Snell G. Review: Mental health impacts of the COVID-19 pandemic on children and youth - a systematic review. *Child Adolesc Ment Health*. 2021 Aug 28;10.1111/camh.12501. doi: 10.1111/camh.12501. Epub ahead of print. PMID: 34455683; PMCID: PMC8653204.
2. Allabadi, H. et al. (2020). Impact of COVID-19 lockdown on dietary and lifestyle behaviours among adolescents in Palestine. *DHH*, 7(2):https://journalofhealth.co.nz/?page_id=2170



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Both BL and QM Debating Society held a historic debate earlier this term. Our esteemed president and vice-president, Rob Tucker and Numa Ali, represented BL with 2 others in a 4-man team with the QM team having 4 formidable debaters in their ranks. The debate was run in a British Parliamentary style. The topic? An issue that has been in the spotlight for the past couple of years. ‘This house believes that Barts and the London should not be rebranded’ As you may well know, there has been considerable efforts to rename Barts and the London School of Medicine and Dentistry (BLSMD) to Queen Mary University of London (QMUL) School of Medicine and Dentistry. Such a move has been met with sizeable opposition from current students and staff as well as alumni with the ‘#weareBL’ petition gaining 10,000 signatures. Many are unhappy with this change for various reasons which will be stated below. However, some impressive points were made by the opposition which made for a good debate.

The purpose of this article isn’t to persuade you to choose a particular side (there are many other articles and people to do that!) but rather to summarise the points made in the debate and lay before you the reasons why some people are in favour of rebranding BLSMD, and some are against. This will hopefully give you a better understanding of the intricacies of the debate and enable you to come to a more informed conclusion.

FOR

- Closer unity between Queen Mary and Barts – there has been a trajectory of ever-closer union between Barts and the London and Queen Mary that was begun in 1995 when Queen Mary and West Smithfield College merged with Barts and the London, not too long ago (27 years). We already use QM premises for our anatomy and physiology sessions and therefore merger proponents do not rebranding as a significant change since we are operating closely together already.

- Synergistic collaboration – it was argued that the possibilities of Barts and the London and Queen Mary combined will be greater than if we remained separate when it comes to research opportunities and sporting competitions. By being a bigger entity, the new proposed union will be able to have a bigger presence and secure better research opportunities for the medical school and the university than if they both operated separately. Another point was that by combining sports teams together, better teams would be formed leading to a greater chance of sporting success for the university. Proponents would see this merger as a win-win scenario.

- The history of Barts isn’t necessarily one to be proud of – this made for some uncomfortable hearing. Barts students are proud of their medical school heritage but it was pointed out that in times past, the medical school engaged in morally questionable behaviour. (see the story of Joseph Merrick aka the Elephant Man). So it was argued that Barts should not be boasting in its history but be willing to hold it with a loose hand unless it is willing to accept the negative aspects of its history along with the good.

- Replacing an elitist spirit with a collaborative one - There may be an elitist spirit behind why Barts want to keep separate from Queen Mary. It has been argued that Queen Mary cannot hope to match the prestige of Barts since many academics and prospective students around the world have heard of Barts but not of Queen Mary and therefore Barts would be hindered by the merge. However, this goes against the inclusive and welcoming spirit that is championed at both campuses. The sense of a condescending sneer from Barts to QM can be felt by some and this goes against the core values of both Barts and Queen Mary.

The Branding

By Daniel Nie

AGAINST

- Barts has a prestigious reputation – St Bartholomew’s Hospital was founded in 1123 by the Anglo-Norman priest Rahere making it the oldest hospital in the country. It made its reputation as a hospital providing medical care for the poor who were brought in via the River Thames and since then, it has built on that reputation on international renown and is considered a world-leader in cardiovascular medicine, oncology and preventative medicine. This is a medical school with a great history and to flagrantly erode it away with the proposed merger is unpalatable for many.

- It is a world-leader in medical education – Barts is able to stand on its own two feet when it comes to medical education. With the ‘canonical’ Kumar and Clark’s Clinical Medicine originating from two doctors working for Barts and the London School of Medicine and

Dentistry, Barts occupies a serious presence in the medical education world.

- It would seriously affect Barts’ identity – one of the chief objections of the proposed merger is that it undermines the existence of current societies and sports teams. One of the great things about BL societies and sports teams is that it is democratic with student members able to create and run societies and vote for the committee. It enables such societies to work on the ‘grassroots’ level. Merging and getting rid of Barts societies will take the control out of the hands of the BL students and could result in decisions being made about their society which are out of their control.

- Without consent – This may be one of the biggest reasons for the outrage. This move was pushed through without consultation of the students and staff involved. BL students and staff have felt as if they haven’t been heard and their wishes and concerns were

ignored and trampled on without due consideration. With such a decision, would it have been so unreasonable to see what the students and staff think about this before moving ahead with the proposed plan?

- 10,000 staff, alumni and students oppose this action – 10,000 signatures are a large amount with the Government obliged to respond to such a petition if it was directed towards Parliament. These signatures represent a broad range of people: staff, students and alumni so there is widespread resistance to the change and not just a small group within the medical school. These voices need to be taken seriously if talks are to proceed in an honourable fashion.

Big Debate

The debate was highly successful in highlighting the reasons why people were in favour or against the proposed merger. They were set out and articulated beautifully giving the audience much to chew over. Something which can be so easy to underrate but so good to see was the civil way the debate took place with no raucous behaviour or insults taking place. Being a Barts student myself, I am naturally biased to one side but the debate has opened my eyes and helped me to appreciate and understand better why the other side holds their position and I think it is incumbent on us as a medical school to acknowledge that those who disagree with us have legitimate points and we ought to carefully think about why we believe what we believe making sure our reasons are robust enough for heavy debate.

