## DÉJÀ VU: SWINE FLU

Dear Sir,

It's surreal – the sunny, beautiful Carolina spring weather outside stands in stark contrast to the drama playing out on CNN, where a somber Dr Margaret Chan of the World Health Organization (WHO) braces the world for an impending influenza pandemic.

Personally, it echoes back to a time six years ago, when SARS swept into Singapore. I experienced it first as a caregiver, swathed in PPE as a MICU medical officer; then stood in silence as we honoured fellow medical professionals who had fallen in the line of duty; and finally coming full circle, as a patient going through the healthcare system with appendicitis, but was treated in isolation as a high-risk subject given my direct care with possible SARS patients. So you will forgive the déjà vu, when as a gastroenterologist on HMDP in the US, I'm now confronted with the outbreak of yet another novel respiratory virus, this time eponymously going by the name of "swine flu".

Swine flu first rose to prominence last week, when an influenza-like illness took hold in Mexico City. It stood out for a number of reasons. First, it is spring in the Northern Hemisphere, traditionally the end of the flu season. Second and more ominously, it appeared to spread rapidly, and left in its wake a swathe of deaths. Microbiologists raced to identify this new pathogen, and quickly established its identity as an H1N1 influenza A virus, a strain that the world has never seen previously, a strain new to our immune systems, and to which the majority of this planet's inhabitants have no immunity.

The parallels to SARS were striking. First, pathogens do not carry passports, and have no respect or recognition for international boundaries. Just as SARS arrived in Singapore on a plane, so H1N1 was airborne in more ways than one, with modern air travel transporting it from its epicentre in Mexico across to Europe, and all the way to New Zealand and Asia. More significantly, it has literally marched across the border into the most powerful nation of the world, the United States. Second, the undergrowth was already smoldering before the forest fire broke out. It is now believed that the virus hopped onto a human host and begun viable human-to-human transmission since February, but simply went undetected for weeks. Third, just as ground zero for SARS was China, the dubious honour goes similarly to a developing country – in this case, Mexico.

The same demons that visited SARS are all too present. Misinformation and fear are back, with urgent care facilities in some states flooded even with non-patients seeking reassurance, consumers avoiding pork products (hence the name change to drop the unfortunate reference to our porcine friends), a local politician from Mexico proudly declaring on a CNN interview that he had a cure to offer to the world — a drug called ampicillin! (Fortunately, he was quickly cut off and his statement corrected by a doctor on the show). On a lighter note, patient zero, a cherubic young boy called Edgar Hernandez, attributed his recovery to eating lots of ice-cream, an endorsement that surely brought more than a smile to the CEO of Haagen-Dazs! More worryingly, the finger-pointing has begun — why didn't Mexican authorities detect the surge in flu cases earlier? Where did the flu virus come from? (In a random curbside CNN interview in Mexico, none of the respondents would agree that it originated within their country, and one even suggested it was imported by a visitor from Asia).

But this is where the similarities end. SARS would have qualified as a Level 3 or 4 outbreak, while H1N1 has already climbed the billboards to a Level 5, one rung short of a full-blown pandemic. Even in her speech on behalf of the WHO, Dr Chan (who incidentally is an NUS alumnus) inadvertently referred to the current situation as an ongoing "pandemic" more than once – a Freudian slip, one might argue, but more likely a potent indicator of the times to come. H1N1 does not have the lethality of SARS, a double-edged sword as this means the primary cases will still be ambulatory while they are ill, allowing them to infect more people.

A colleague of mine commented that it might be a good idea if she were to be afflicted with swine flu now and develop immunity, at least while there were still drugs and ventilators available. A comment made in partial jest, but which highlights certain realities of this new infection. First, H1N1 is here to stay, and will likely be an addition to evolution's growing repertoire of seasonal flu viruses. Second, there is recognition that a sizable population will become infected, plateauing off only when sufficient numbers have been infected to develop herd immunity or artificially inoculated with a vaccine. Lastly, the age old debate of health resources allocation – who will get first priority, and more importantly, who will decide.

The biggest difference has been the response to the outbreak. The Changi airport thermal scanners, N95 masks and PPE in Singapore hospitals are copiously absent here in the US. Images beamed from Singapore show a lockdown that is reminiscent of SARS, while the entry points to the US remain relatively unfettered (visitors from Mexico continue to stream across the land crossings, subject to voluntary reporting and passive screening), business is as usual in the hospital where I work (no temperature recordings, visitor restrictions or widespread use of PPE), and suspected cases are placed on quarantine "advisories" rather than forcibly isolated (here in North Carolina, one of the patients promptly left for Canada after being tested, just when the results came back as likely positive). With four probable cases within our state and nationwide confirmed cases climbing past the 150 mark, should I pull my daughters out of school and ballet classes? Maybe I should wear a mask to work, or maybe I should avoid going out at all (and I believe my concerns are shared by citizens worldwide). So who is getting it right – are countries like Singapore over-reacting, or is the US not doing enough?

I believe there is no unitary one-size fits all response, and at the heart lies the underlying objective – containment vs. mitigation. Dr Fukuda, the deputy director general of the WHO, declared "Containment (of H1N1) is no longer an option". The US CDC and President Obama's administration have decided that mitigation of the effects of the virus will form the cornerstone of their battle plans, and for good reason. Geographically, the US is huge, with over 71 international airports, and a 3,169-km porous land border with Mexico. To screen everyone across would send the system into gridlock. Compare this with Singapore that has two land-entry points, one major airport and two seaports, and it's easy to see why containment is our government's choice of action. Singapore is also demographically very dense, and H1N1 would spread rapidly if given a foothold in the community. There are socioeconomic ramifications – shutting the border or mandating forced quarantines in the US would inflame sensitivities, pose legal challenges and cripple the already struggling economy. Finally, there are the intangible scars left by SARS. While many of my American colleagues are worried about H1N1, they view it not dissimilarly from the seasonal flu viruses that already kill more than 30,000 each year in the US. In Singapore, H1N1 hearkens back to the possibility of SARS part 2, something we are determined would never happen again, whatever the cost.

Yours sincerely,

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