

AIR SUPPLY

A possible shortage of ventilators during the COVID-19 pandemic gave Dr Gretta Howard a great idea

PAGE 22

DOWN IN THE MOUTH

This vet is on a mission to improve pet dentistry

PAGE 26

DRIVE TIME

Helping clients with mobility issues get to the clinic

PAGE 18

GO WEST

A new scheme to lure vet graduates to the country

PAGE 14

BUYERS' GUIDE

The best osteo and joint care products on the market

PAGE 29



CLEARING THE AIR

The Ventilator Project allows vets and medical doctors to work together to save lives and establish professional links beyond the pandemic. By **Lynne Testoni**

Dr Gretta Howard conceived
of the Ventilator Project
in the early days of the
COVID-19 pandemic.



"I would like to see more collaboration. And I think, particularly when you're talking about pandemics, where they're often animal diseases that have mutated into a human virus, we've got something to contribute as a profession."

Dr Gretta Howard, veterinarian

For many people, the horror of those first few days and weeks of the COVID-19 pandemic led to a feeling of helplessness as Australians worried about the resulting pressure on our medical and hospital systems.

However, for three women—two veterinarians and a medical doctor—it became an opportunity to do good; to collaborate and build a connection between their two professions and create a template for future partnerships.

Sydney vet Dr Gretta Howard says that as the pandemic began, she was struck by the images from Italy on her TV screen, showing hospitals full of intensive care patients on ventilators. She says she had a feeling of dread, thinking that Australia was just two or three weeks behind in terms of its own surge in demand.

"I wondered if this would happen in Australia where there's not really that many intensive care beds with ventilators available and had the horrible thought of people missing out on that treatment," she says.

"And I thought, hang on a second, veterinary hospitals have ventilators and they're pretty much the same as the [ones in] human hospitals. We use the human models in veterinary medicine, for treating pets with tick paralysis, snake envenomation, and a number of other severe cardiorespiratory problems.

"Not every practice has a ventilator, but the emergency and specialist hospitals do, plus the university teaching hospitals that run veterinary degrees—there's probably several hundreds of these machines in Australia."

Dr Howard spoke to her stepsister, a cardiologist, about the fact that veterinarians might have ventilators and asked if this knowledge might be something that the hospitals could use if they needed more surge capacity. The answer was a resounding yes. One thing led to another, and Dr Howard connected with fellow veterinarian Dr Philomena Kwong, who had posted a message on the Australian Veterinarian Network, a private Facebook group for Australian registered veterinarians asking which clinics had ventilators, in order to compile a national inventory of the ventilators available for use by hospitals in an emergency.

An emergency and critical care veterinarian, Dr Kwong is based in South-East Queensland and says that many of her colleagues have lots of experience with respirators, especially because that area is prone to tick paralysis and brown snake envenomation.

Dr Kwong has some health issues of her own, which meant that she was unable to work in her clinic during the pandemic. But she

saw this time as an opportunity to do her bit, by compiling an accurate inventory.

"We use the ventilators quite a lot, especially in our hospitals during tick and snake season," Dr Kwong explains. "Most general practice clinics won't have them, but ECC and specialist referral hospitals do. When I joined up with Gretta, she asked me whether we could get a stocktake of how many ventilators we've got in the veterinary industry. I work closely with a couple of emergency and critical care specialists, Dr Rob Webster and Dr Ellie Leister, who are the directors of Animal Emergency Service and the Pet Intensive Care Unit, respectively. The veterinary ECC community is very small and close-knit. So, from them, I ended up getting some direct contact details of other emergency and critical care specialists around Australia. I contacted the University of Melbourne and then Murdoch University and other direct contacts and started the list."

To improve efficiency, Dr Howard contacted Australian Veterinary Association president Julia Crawford who spoke to Australasian Veterinary Boards Council executive director Julie Strous. Emails were then sent out via the state veterinary boards to practices all over Australia with the link to the Google online document, which many practices contributed to. Dr Kwong then collated this data onto an Excel spreadsheet ready to distribute.

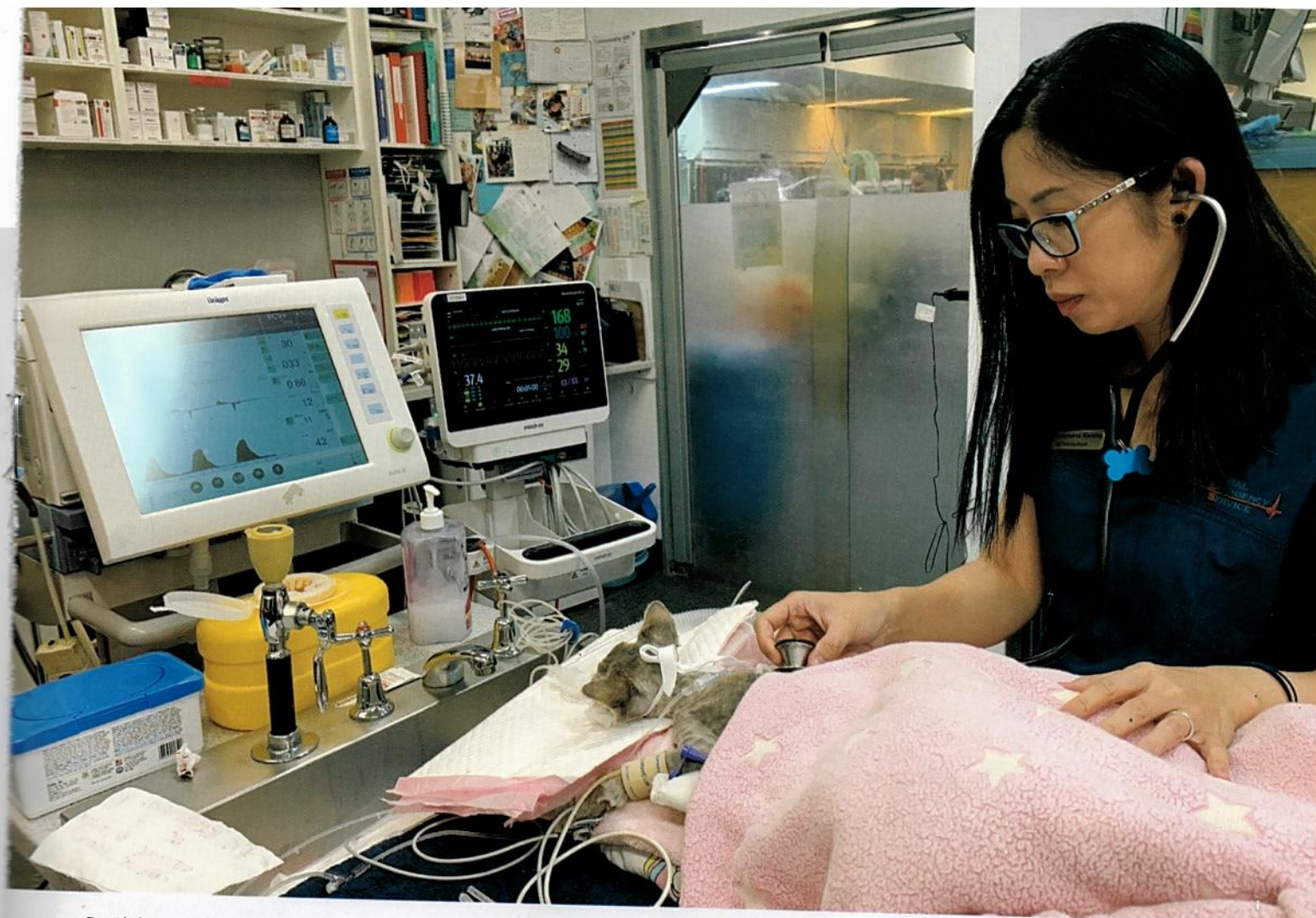
The missing link in the project was provided by prominent Melbourne radiologist Dr Yvonne Ho. A medical doctor, Dr Ho has international medical research experience, in particular cartilage imaging, and was also pivotal in introducing PET-CT imaging to Singapore.

Dr Ho says that meeting Drs Kwong and Howard opened her eyes to the work done by vets and she could see the potential they offered to doctors, especially in a time of crisis.

"What I have discovered is that doctors are very siloed in the way we work," she explains. "I'd not really understood the breadth of a vet's skill set until I met Gretta and Philomena. I thought, perhaps I could help by linking my medical network with the vet network, via Gretta and Philomena."

Dr Ho liaised with her contacts in the medical community to facilitate communication between vets and the medical profession, including Gian (John) Sberna, CEO of The Australian and New Zealand Intensive Care Society (ANZICS), the leading advocate on all intensive care related matters, who communicated with their members about this overlooked resource.

Soon, intensive care specialists all around Australia were made aware of the inventory, with some state health services using the machines, while others were simply reassured that they were there.



Dr Philomena Kwong has compiled a national inventory of the ventilators in vet clinics available for use by human hospitals in an emergency.

in case of emergency. This also led to Drs Howard, Kwong and Ho becoming co-authors on a paper published in the *Medical Journal of Australia* in 2020, with other medical professionals around Australia, entitled 'Surge capacity of intensive care units in case of acute increase in demand caused by COVID-19 in Australia'.

Dr Howard says that she was surprised how few doctors knew that vets used ventilators, but says that infection control and disease outbreak management has been a big part of veterinary medicine for many years.

"I would like to see more collaboration," she says. "And I think, particularly when you're talking about pandemics, where they're often animal diseases that have mutated into a human virus, we've got something to contribute as a profession."

"We are trained in infectious disease control, because we've dealt with canine parvovirus and we've dealt with equine influenza and Hendra virus in horses."

The project worked at high speed too, with the trio establishing a live inventory through an online Google document in a matter of days. The inventory even included the types of ventilators used, serial numbers and any PPE equipment available.

Dr Kwong says that it was an exhausting few days, but ultimately rewarding.

"I didn't realise I could be that efficient," she says. "I didn't realise I could achieve what I did. I think that's a really empowering thing. And an emergency can push you to achieve things that you probably never thought you could."

"I was able to give that whole Excel sheet to the relevant human doctors and say, 'Look, this is exactly where all the ventilators are located: these are the direct contact details, phone

numbers, emails, addresses, and [information about] whether there is extra PPE gear they can lend you as well.'"

She says she was inspired by the generosity of the veterinary profession. "The vets were extremely generous; they even took a stocktake of every single box of masks because we couldn't get masks or PPE at that stage because there was a worldwide shortage. And then, you know, all the vets just came together, offering their private stock, as well as hospital stock."

Dr Ho agrees and says she felt bridges were built between both professions during this project. "There are many ways we can continue to form links between the human and animal medical worlds so that people understand more about one another's strengths and skill sets," she says.

"And while the pandemic was an impetus for it, these bridges that are formed don't need to only happen during a pandemic."

Dr Ho says that the project is nicely aligned with the One Health concept, a collaborative, multisectoral, and transdisciplinary approach. One Health works at local, regional, national, and global levels—with the goal of achieving optimal health outcomes recognising the interconnection between people, animals, plants, and their shared environment.

"The One Health concept is the idea that we all work together, including vets and doctors," she says. "We know that vets have much experience in pandemics in the animal kingdom. However, in the human medical world, it has been many years since the last human pandemic. COVID-19 is one of the first pandemics many medical doctors have seen. I suspect that there will be more to come so, going forward, collaboration between the human and animal medical fraternities will bring much synergy to humankind." ▽