

# the monitor

Keeping all those with an interest in OHS informed of current developments in workplace health and safety nationally and internationally



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## President's Report

In the Spring 2019 edition of the Monitor the environment formed the basis of my President Report. Twelve months on, environmental issues hardly raise an eyebrow in the media due solely to the COVID 19 Pandemic. I recall working for the Police Union when SARS was developing into a pandemic threat. The planning for all contingences was very thorough with numerous procedures created to lessen the impact on emergency workers, who unlike the general working population had no option but to continue their sworn role. SARS unlike, COVID 19, thankfully did not take off.

Sadly 'tin pot' outfits in the Cruise Liner business and now apparently some involved in Hotel Security have let the general population down by not heeding the clear and perfectly practical medical advice issued by each jurisdiction medical experts.

I have pondered on how much better we could do as a Society with all its human frailties. I wonder if it is associated with some modern teaching that encourages students to question everything they are taught or are encouraged to comply with. Persons from all walks of life decided to ignore all the health warnings prior to engaging in mass gatherings to protests about something that was essential a single issue in a far-off land. Did they wonder if it would adversely affect everyone else throughout Australia who they mixed with after the protests?

When you analyse the system of governments throughout Australia it is fairly difficult to find major concerns regarding the health and wellbeing of all of its citizens and reactions to major health concerns. Democratically elected candidates develop carefully examined pieces of legislation designed to protect everybody. In matters of health and safety the legislation contains objects that require experts; employee and employer representative organisations to engage in consultation, cooperate and conciliate to ensure any practices, policies and procedures meet the highest practical standards. I think we as Australians have plenty to be proud about in this regard. The same cannot be said for the other democratically elected governments in the UK, Sweden, Israel and in particular the USA, where leadership at the highest level and in a number of American States are actually encouraging people

to disregard health precaution advice for the sake of the economy and freedom to mingle in large groups. This in turn is putting an incredible strain on public health establishments and staff. Absolutely disgraceful.

There can be no argument that this version of coronavirus is highly virulent and contagious. Whilst awaiting the development of a vaccine, that will hopefully eliminate or at the very least subdue the disease. It is the responsibility of everyone to adhere to the advice of the federal and each jurisdiction's Chief Medical Officer.

Perth is the most isolated city in the world, something that all Sandgroppers should be grateful for regarding containing the spread of disease from other places. WA is only accessible by sealed road on highway #1 from Eucla or Kununurra and by the Central Desert Road (dirt track) via Yulara. Great.

*Dave Lampard*

## Membership Fees Postponed

The Committee has agreed that due to the impact of COVID-19 – Coronavirus, that membership fees for all current financial members will be postponed for the 2020 – 2021 financial year. The Committee is hoping that we may be able to offer some events towards the end of the year, but that will be dependent on social distancing requirements and easing of restrictions.

Members will still be receiving the Monitor as usual.

The Committee would like to thank members for their ongoing support of the Society. We are hoping to see you all at one of our events, hopefully in the not too distant future.

## Bio – Kevin White



Kevin White  
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In his current role Kevin provides hands on occupational hygiene and property assessment services with a strong focus on workplace exposure to a range of contaminants. As a Principal Consultant Kevin has proven success in overseeing the delivery of a wide range of audits and assessments and is an industry thought leader in IAQ and mould assessments and management.

Kevin has been working in the consulting sector for approximately twenty years. Over that time, he has been fortunate to work in a wide range of roles from: environmental / contaminated sites consultant, indoor air quality consultant; occupational hygienist; hazmat consultant and mould and water damage specialist. That diversity of roles and more than ten years prior work in the mineral exploration and mineral processing sector has allowed Kevin to draw on a broad range of knowledge and skills to assist clients who were seeking multi-discipline solutions to complex problems.

For the last ten years or so Kevin has been primarily focused on personal exposure to contaminants; in both the indoor environment and in the occupational workplace environment. Such contaminants include asbestos, inhalable and respirable dusts, mould (propagules and mycotoxins) and illicit drug residues.

Kevin has served on a number of industry association committees and is currently a committee member of Indoor Air Quality Association of Australia (IAQAA) and is a member of the Australian Institute of Occupational Hygienists (AIOH) Mould Guidebook development team. Kevin is a Certified Environmental Practitioner with the Environmental Institute of Australia & New Zealand (EIANZ).

As a Cert IV trainer Kevin enjoys sharing his knowledge and has delivered presentations across Australia at conferences, seminars, trade shows and training sessions many of them on exposure

to mould, asbestos and other hazardous materials. Kevin is published in a number of journals, conference proceedings and industry magazines and has presented on several 3M safety podcasts.

The following article was provided by Kevin White. Kevin is a relatively new member of the Society but has demonstrated a high degree of interest in contributing this article for the Society's Monitor newsletter. The Committee wishes to extend their appreciation for the contribution Kevin has made to the Monitor.

## Do your ear plugs work?

It is a pretty simple question, and many would be of the view that provided they use a suitable class of ear plug that provides sufficient attenuation its ok. But they would be wrong, just like respiratory protection everyone is different, and ear plugs that work for you may not work for someone else.



As part of my role I conduct fit testing for both respiratory and hearing protection devices (RPD & HPD). Often, I come across people who have never experienced ear plug testing despite being in roles where they are frequently exposed to noise that could potentially result in hearing loss and they need to wear HPD which is usually ear plugs. Similarly we often meet health and safety professionals who have never experienced hearing protection fit testing and are indifferent to the testing until they find out the ear plug they have been using for ten years actually only provides 5 dB of protection as opposed to the 23 dB the plug is rated as ... for those people hearing protection / ear plug fit testing can be a real light bulb moment. Indeed, it is not uncommon for us to try three or four different types of ear plugs on a person before they get the right fit.

Hearing protection fit testing is relatively common for the mining industry and increasingly we are seeing mine sites requiring construction workers to undergo fit testing before deployment. That said, it is still a bit hit and miss. The Western Australian Mines Act does not specifically mention HPD fit testing although it does mention RPD and as mentioned the two have similar purposes and methodologies.

There is an Australian Standard for Occupational Noise Management (AS/NZS 1269.3) which

discusses the use of hearing protectors and specifically the need for training. Too often we see people who have never been shown how to properly fit ear plugs or the type of ear plug available to them is the one a purchasing officer got the best deal on and it doesn't work for them. One size does not fit all.

AS/NZS 1269.3 states "*People who need to wear protectors shall be trained in their correct use and limitations.*" Ear Plug fit testing allows those being tested to see how hearing protection varies depending on the type of ear plug chosen and how well it is fitted.

A popular misconception is that ear plug fit testing is a form of audiometric testing it is not; it merely assesses the level of noise / sound pressure outside the ear and within the ear behind the ear plug. Nor is ear plug fit testing a form of octave band analysis although it can be useful tool when reviewing octave band analysis undertaken at a workplace.

A popular test platform is the 3M E-A-R Fit system which uses disposable ear plugs fitted with a thin plastic tube to measure sound pressure either side of the inserted ear plug: its quick and effective and within ten minutes we can assess up to six different types of test plugs to match suitability to the person and the type of hearing protection they may need; often this is not necessary but sometimes it is.

**Figure 1** is a typical output from the 3 M E-A-R Fit systems. This test shows the person wearing a Class 5 ear plug which should provide 26 dB of protection; for this person the ear plug was a better fit than the more popular Yellow Neon and provided 18 dB ( $\pm 6$  dB) of protection; assuming it is worn properly. **Figure 2** provides a different person's test to the same ear plug; note the variation between ears.

HSE Australia provides people who have been tested with a fit test card (Figure 3) which allows the holder to demonstrate to employers there understanding of effective hearing protection.

For more information on HPD and RPD fit testing contact Kevin White.

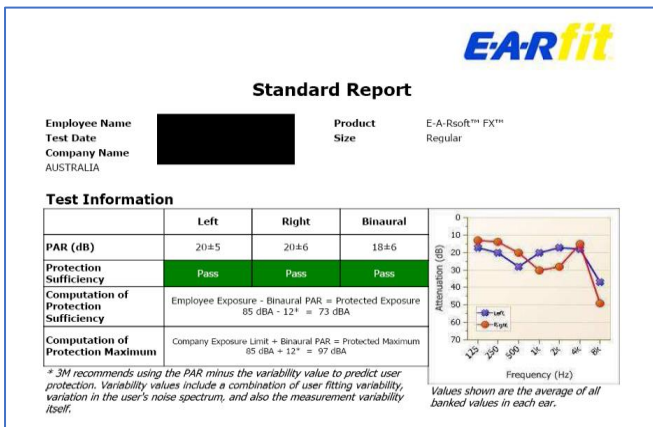


Figure 1

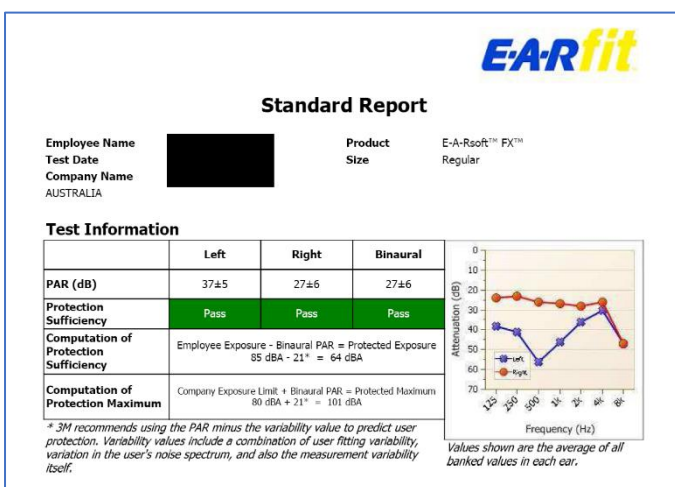


Figure 2



Figure 3

# New guide from Department of Mines, Industry Regulation and Safety

Mentally Healthy Workplaces Audit – Technical guide and audit checklist.

<https://www.commerce.wa.gov.au/publications/mentally-healthy-workplaces-audit-tool-and-technical-guide>

The Code of Practice Mentally Healthy Workplaces for Fly-in, Fly-out Workers in Resources and Construction Sectors was published in 2019.

<https://www.commerce.wa.gov.au/publications/mentally-healthy-workplaces-fly-fly-out-fifo-workers-resources-and-construction-sectors>

Feedback from industry stakeholders indicated the need for an accompanying audit tool to assist duty holders in meeting their work health and safety legal obligations.

The Mentally Healthy Workplaces Audit (“audit tool”) and associated Technical Guide: Mentally Healthy Workplaces Audit (“technical guide”) supersedes the documents titled Psychosocial Harm Audit (2016) and Psychosocial Harm Audit – Guide (2016).

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# IN EVENTS

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Due to the Coronavirus (COVID-19), the Society has been unable to organise any events for our Members. In lieu of this, please meet your Committee.

## Executive



Dave Lampard  
President



Janis Jansz  
Vice President



Allaine Coleman  
Secretary



Lee Cherry  
Treasurer

## Committee Members



KC Wang



Les Vogiatzakis



Lance Van Niekerk



Sheryl Kelly



Peter Nichols

### Western Australian framework and strategy for the prevention and management of work-related musculoskeletal disorders



The Western Australian framework and strategy for the prevention and management of work-related musculoskeletal disorders are intended as useful resources for stakeholders who can influence improvements in this field, including government, consumer advocacy groups and other non-government organisations, professional bodies, service providers, industry bodies, business leaders, employer and employee advocacy groups, health and compensation insurers, researchers, employers and workers.

Work related musculoskeletal disorders contribute to 60 per cent of lost-time injuries, which is a cost and burden on industry and workers. The framework was developed using review of literature, data and stakeholder engagement workshops and is intended to serve as a broad

roadmap for preventing and managing work related musculoskeletal disorders in WA.

This initiative supports the national target to reduce the incidence rate of claims for musculoskeletal disorders that result in one or more weeks off work by at least 30% between 2012 and 2022.

[Western Australian framework and strategy for the prevention and management of work-related musculoskeletal disorders](#)

### Crane driver sentenced for reckless WHS breach

A Tasmanian crane driver who overrode his crane's safety systems in the moments before a serious incident has received a six-month suspended prison sentence, for engaging in conduct that exposed a person to a risk of death or serious injury and being reckless as to the risk.

Glenn Alec Gault was sentenced in the Launceston Magistrates Court just weeks after an ACT crane driver was handed a suspended jail sentence for reckless conduct that killed a co-worker.

As with Gault, the ACT crane driver manually overrode his vehicle's alarms and safety mechanisms before it tipped over while operating at 130.5 per cent of its rated capacity, and its boom struck the co-worker, killing him instantly.

According to WorkSafe Tasmania, Gault and his employer Pfeiffer Cranes Pty Ltd were both prosecuted after Gault's "negligence" caused a 1.9-tonne load of plaster to fall on and seriously injure an Island Block and Paving Pty Ltd worker at a Trevallyn construction site in April 2017.

The Magistrates Court heard Gault was using his crane to lift pallets of plaster onto the first floor of the building under construction when the builder asked him to place the plaster further away from the crane, complicating the task.

In response, Gault overrode the crane's safety systems, which usually stopped the crane moving when it reached 75 per cent of its lifting capacity,

and activated alarms and lights when it reached 100 per cent capacity.

On the fourth lift, the weight of the extended load caused the crane to fail and the boom collapsed, trapping the Block and Paving worker under the load.

A WorkSafe investigation found that prior to the incident, the crane's safety systems had been manually overridden on more than 100 occasions.

Gault was initially charged with breaching sections 31 ("Reckless conduct Category 1") and 32 ("Failure to comply with health and safety duty Category 2") of the Tasmanian Work Health and Safety Act 2012, while Pfeiffer Cranes was charged with breaching sections 32 and 33 ("Failure to comply with health and safety duty Category 3").

Pfeiffer Cranes was convicted and fined \$50,000, while Gault received the suspended jail term.

Source - OHS Tuesday 26 May 2020

## White card safety warning issued in WA



WorkSafe WA and Western Australia's Consumer Protection department have issued a joint warning, to jobseekers and construction site supervisors, that a training provider is offering cheap and possibly unlawful "introductory" construction site safety courses.

Participants are given a "certificate of attendance", as opposed to the "certificate of attainment" needed to obtain a white card, and are turning up to construction sites under the mistaken belief that they're qualified to work on them.

There is some fine print at the bottom of the company's website which states that the holders of these introductory certificates will need to complete an accredited unit of competency in

order to obtain the physical white card before qualifying to go onto a construction site.

WorkSafe Commissioner Darren Kavanagh said that given some safety induction certificates are "being issued by an unregistered provider", it is crucial that construction site supervisors scrutinise every white card presented at sites.

WorkSafe and Consumer Protection added that the company under investigation offers a responsible service of alcohol (RSA) course with certificates that don't qualify participants to work in the tourism and hospitality industries.

Registered training providers can be found on this Federal Government MySkills webpage.

<https://www.myskills.gov.au/>

## Another warning on falsified High-Risk Work Licences

WorkSafe has issued a further warning to carefully check High Risk Work Licences after discovering another falsified licence.

WorkSafe had been alerted to a licence that had been altered to include classes of high-risk work for which the licence holder had not been trained.

In this latest instance, a licence was presented to WorkSafe in the Northern Territory with a request to transfer the licence, and NT WorkSafe sent an electronic copy to WorkSafe WA so the licence could be transferred to NT.

Upon investigation, it was found that the licence that had been issued was only for one class of high-risk work, not the five it showed.

WorkSafe advice to potential employers or anyone in control of a workplace is to satisfy yourself that anyone you are thinking of employing for high risk work has the experience they claim to have.

High Risk Work Licence can be verified the by using the WorkSafe licence and registration search located on the Department of Mines, Industry Regulation and Safety website.

Further information can be obtained by telephoning WorkSafe on 1300 307877 or on the website at [www.worksafe.wa.gov.au](http://www.worksafe.wa.gov.au)

Source – OHS Alert



# HR department censured in workplace bullying ruling

The Fair Work Commission has admonished a large employer's human resources department and recommended it improve its practices, after a worker's stop-bullying application demonstrated the difficulties workers face when HR isn't actively involved in matters like injury management.

Commissioner Susan Booth declined to make stop-bullying orders, after finding the nurse, employed by Queensland X-Ray, was not bullied within the meaning of the Fair Work Act.

But she made four recommendations for the employer, including for it to continue improving the way its HR department supported workers, and rectify the failings identified as a result of the application for orders.

She recommended that the alleged bully, a senior nurse and manager, undergo training to learn how to communicate more effectively with workers and within professional boundaries.

In her anti-bullying application, the nurse claimed the manager constantly "work-shamed" her in front of patients and staff and told her the way she performed her job was "taking nursing back to the dark ages".

She claimed the manager berated her for failing to take breaks on schedule and assaulted her by grabbing her arm to march her to the lunchroom.

The worker said that when she injured her finger in a non-work-related incident in May 2018, the manager was dismissive of the injury and failed to offer her light duties. When she tried to return to work after reinjuring her finger, the HR department advised her she would be returning to a different hospital with only one hour's notice, she said.

The worker said she was subsequently moved to various locations without consultation, and the lack of communication from the manager and the employer generally was humiliating.

She told the FWC that when she complained about the bullying, Queensland X-Ray and its HR staff failed to respond.

Commissioner Booth heard that after the worker lodged her bid for stop-bullying orders, the

employer undertook an investigation and identified some HR practices that required improvement.

The employer said it put arrangements in place to ensure there was no risk of bullying when the worker returned to work, and these would be personally overseen by its HR advisor.

It offered to base the worker at a practice where she would have no contact with the manager, and ensure she would not be required to do relief work at the manager's location or attend meetings led by the manager.

The interactions between the two workers fell "short of what should be expected of a supervisor and subordinate", and the manager spoke sharply to the worker, which needed to be addressed by the employer, Commissioner Booth found.

However, she found there were valid concerns over the worker's performance, and while they were "ventilated in a suboptimal way" the management action was not unreasonable.

Commissioner Booth noted that any failure to offer the worker light duties was a failure of the HR department and could not amount to bullying by the manager, who properly referred management of her injury to HR.

"Unfortunately, HR did not take adequate steps to ensure light duties. There was no evidence of a plan for injury management for this employee or of workplans for the various locations she was required to work in," she said.

"HR should have consulted the [worker] about her work locations and responded to her concerns about proposed relocation; and further, reasons for the relocation should have been provided to the [worker]."

Commissioner Booth said that while the worker did not establish her bullying claim, she exposed severe limitations in the role that HR provided at Queensland X-Ray. "It would be expected that going forward HR can properly support its employees whether in return to work or relocation," she said.

Among her other recommendations, Commissioner Booth said the company should remake its offer to the worker to work at an alternative practice and provide her with support and training to ensure she had the necessary skills for this role.

Ms Anne Pilbrow [2020] FWC 2458 (26 May 2020)

## How to perform pushing and pulling tasks and avoid injury

About half of all manual handling tasks require potentially hazardous pushing and pulling motions. Physical therapy experts have identified optimal methods to reduce spinal load and prevent musculoskeletal injuries from these tasks.

In a motion analysis laboratory, the physical therapy researchers from Thailand's Mahidol University measured the lumbar forces involved in pushing and pulling a trolley with a waist-high handle up and down ramps, and the impact this had on 30 hospital and industrial workers.

They found the pushing techniques applied lower compression and shear forces than pulling and recommend them for moving a cart on a slope.

That is, they advise walking forwards pushing the cart when going up a ramp, and walking backwards downhill from the cart when going down a ramp, rather than walking backwards pulling the cart when going up a ramp and walking forwards uphill from the cart when descending a slope.



*Above: A study participant moving a cart on a ramp*

"When pushing a cart on a large gradient ramp, the level of the cart will rise causing the handle height to be close to shoulder level," the researchers say.

This places the trunk in an upright position and the arms in line with the direction of the force from the cart, generating more force for safe pushing, they say.

"When pulling on the ramp, the cart and handle will be lower, causing the body to have more flexion, and [adversely] affecting the shear force in the spine."

If a worker needs to move forwards down a ramp and use the pulling technique on a trolley because they need to see the way ahead for safety reasons, using an adjustable handle can decrease trunk flexion and reduce shear forces, the study says.

According to the researchers, manual handling, including pushing and pulling, is one of the major risk factors for work-related musculoskeletal disorders.

But while the effects of lifting and physical workloads on the body have been widely studied, pushing and pulling, which make up 50 per cent of manual handling tasks, receive little attention, they say.

"Epidemiological investigations reported that nine to 18 per cent of low back complaints or injuries are related to pushing and pulling," the researchers say.

Many occupations require pushing and pulling tasks, including in the healthcare, construction, air transport, shipping, transportation, warehousing, farming, firefighting, and garbage collecting industries, they say.

Trunk muscle activities and postural changes in the lumbar spine are risk factors for lower back pain that are associated with spinal compression and shear forces during pushing and pulling, they add.

The researchers say their finding that compression force increases with bigger slopes could be due to workers shifting from using upper extremity arm muscles to those in their torsos and legs to overcome the additional gravitational and friction forces, directly affecting spinal load.

Further, the effect of gravity on the cart load moving up a slope causes an external vertical load increase that is transferred to the spine, they say.

"When the angle of the ramp increased, the gravitational force increased, so participants needed to produce a higher pushing or pulling force to move the cart. In addition, the increase in the angle of the slope caused the direction of the gravity force to be parallel to the axis of the spine. These also resulted in the increment of compression forces in the spine."

The effects of ramp gradients and pushing-pulling techniques on lumbar spinal load in healthy workers. Chalearmpong Pinupong, et al, Thailand, *Safety and Health at Work*, online first May 2020, doi: 10.1016/j.shaw.2020.05.001.

Source – OHS Alert – May 2020

## First prosecution under Queensland's pioneering industrial manslaughter laws

In a first for Queensland, the Work Health and Safety Prosecutor has commenced a prosecution against Brisbane Auto Recycling Pty Ltd for industrial manslaughter under the Work Health and Safety Act 2011.

Separate charges have also been made against the company directors, Asadullah Hussaini and Mohammad Ali Jan Karimi, for engaging in reckless conduct that resulted in the death of a worker.

Grace Grace Minister for Industrial Relations was advised by the independent Work Health and Safety Prosecutor that he has initiated the industrial manslaughter and reckless conduct proceedings in relation to a workplace fatality.

Two years ago, the Palaszczuk Government introduced tough new laws aimed at protecting Queensland workers. These laws are about saving lives and ensuring all Queenslanders return home to their loved ones after a day's work.

Individuals guilty of industrial manslaughter will face up to 20 years imprisonment, with corporate offenders liable for fines of up to \$10 million.

The workplace fatality occurred on Friday 17 May 2019, when a worker was tragically killed after being struck by a reversing forklift at wrecking yard in Rocklea.

Following investigations by Workplace Health and Safety Queensland and Queensland Police, a brief of evidence was referred to the Office of the Work Health and Safety Prosecutor.

This the first prosecution for industrial manslaughter in Queensland and is the result of a comprehensive investigation into the fatality.

The charge of industrial manslaughter includes allegations that Brisbane Auto Recycling caused

the death of their worker by failing to effectively separate pedestrians from mobile plant, and failed to effectively supervise workers, including the operators of mobile plant.

The charges will be mentioned in the Holland Park Magistrates Court on Friday 1 November 2019.

More information on industrial prosecutions is at [worksafe.qld.gov.au](https://worksafe.qld.gov.au)

## International Resources



Canadian Centre for OHS <https://www.ccohs.ca/>

Centers for Disease Control and Prevention (USA) <https://www.dol.gov/>

European Agency for Safety and Health at Work <https://osha.europa.eu/en>

Health & Safety Executive (UK) <http://www.hse.gov.uk/>

International Labour Organization <https://www.ilo.org/global/lang--en/index.htm>

National Institute of Occupational Safety & Health (USA) <https://www.cdc.gov/niosh/>

Occupational Safety & Health Administration (OSHA) <https://www.osha.gov/>

PubMed Medline (US) <https://pubmed.ncbi.nlm.nih.gov/>

WorkSafe New Zealand <https://worksafe.govt.nz/>

# Treating Coronavirus



COVID-19 represents a significant threat to society worldwide because we have little if any, herd immunity to limit the spread of infection and we lack the drugs to limit the destructive inflammation that results in certain patients when the body responds to the virus.

Herd immunity is defined as that immunity which builds up in population, either due to natural exposure to (and, of course, surviving) an infectious agent or to being vaccinated against it as part of a disease prevention program. With regard to this pandemic, we have not been previously exposed to the SARS-CoV-2 virus and a vaccine against it does not exist. In the longer term, it is essential that a vaccine is developed as soon as possible as this is the gold standard for infectious disease protection but it is likely to take a year or more of hard and expensive work before one becomes available.

## VACCINES

At this stage, it is unclear which type of vaccine will be the most effective in stimulating a person's immune response such that cytotoxic cells and/or protective antibodies are produced in sufficient quantities to neutralize the virus. However, researchers around the world will be using a variety of different approaches to ensure the right one emerges. For example, some groups may examine whether the vaccine should be constructed using the whole virus particle (dead, as with flu or living but weakened, as with polio) and some whether using just a small part of the virus will suffice (as with Hepatitis B virus). With regard to the latter, a number of researchers are

focusing on the spike protein on the surface of the SARS-CoV-2 that the virus uses to gain entry to a respiratory cell. Any antibodies that can be produced to this component will likely block viral entry and thus stop the infection.

## PASSIVE ANTIBODY TRANSFER THERAPY

The putative vaccines described above rely on the active involvement of a person's own immune system to generate a protective antibody response, a process known as active immunity. It will take about 2 weeks to occur, and will be of little value to someone with COVID-19. However, one vaccine-related treatment option that may have some immediate benefit is under trial at the moment and takes advantage of the fact that COVID-19 patients who overcome the disease, do so by stimulating the production of their own protective antibodies. A large volume of convalescent serum will be required before antibodies can be harvested, concentrated and purified to the point where they can be injected into an ill patient to stop the virus in its tracks. This process is termed passive antibody transfer therapy and the concept is not new since it was first used in the late 19<sup>th</sup> Century for combating infectious diseases such as diphtheria. Here, rather than using convalescing humans as a source of antibodies, serum from animals such as the horse deliberately immunised with, for example, diphtheria toxin was used. Often, it was the only available treatment for certain diseases but, unfortunately, the animal approach was not without risk to the patient and it fell by the wayside as antibiotics were developed during the 1940's. However, these earlier limitations have now been overcome, and a number of clinical trials are currently underway for diseases such as rabies, HIV and flu, and the approach is now extended to include COVID-19 antibodies. The distinct advantage of this approach is that unlimited quantities of antibody of consistent quality can be produced with a long storage life.

## DRUGS TO TREAT COVID-19



At present, drugs to cure the disease are non-existent. As you will be aware, most patients with COVID-19 suffer mild disease, which resolves over a period of time (due to the generation of antibodies as well as other immunological mechanisms) and treatment is likely to consist of paracetamol for pain and maintaining fluid intake. However, people over 65 with a pre-existing condition such as heart disease, chronic lung disease, hypertension or diabetes are susceptible to very severe disease, manifesting as pneumonia, which may or may not then lead on to acute respiratory distress syndrome with a high fatality rate. It is to these categories of patient that drug development is being directed as the only treatment currently available is supportive. To resolve the lack of treatment options, particular attention is focused on trying to control and/or reduce the inflammatory response an infected individual mounts when the virus invades the lower respiratory tract or, alternatively, stop the virus gaining entry to a respiratory cell or stop it from multiplying if it gets inside.

### ANTI-INFLAMMATORY DRUGS

Deleterious inflammatory responses occur with diseases other than COVID-19, and a number of drugs have been developed to suppress them. An inflammatory response to an invading microbial agent is both a usual and essential step in resolving any infectious disease and involves many components some of which are cytokines, a diverse group of small proteins. Usually, cytokines are released from cells in a coordinated and controlled way. However, in certain circumstances, such as that now being seen with some COVID-19 patients, an exaggerated and uncoordinated release of cytokines (a cytokine storm) occurs, which is both excessive and uncontrolled, which results in significant tissue damage to tissue. Thus, medical researchers are investigating whether some of the anti-cytokine drugs shown to be effective in controlling inflammation in diseases such as, for example,

rheumatoid arthritis, will work with severe COVID-19 disease. However, before they can be used to treat COVID-19, we must first determine which cytokine or multiple cytokines are important and then test each cytokine-specific drug to determine their efficacy as well as their potential deleterious side effects.

### ANTI-VIRAL DRUGS

With regard to anti-viral drugs, clinical trials of some of those routinely used to treat HIV are under investigation but thus far, these do not seem to be effective treatment options. However, there is some evidence that a drug developed in Japan (favipiravir) for treating flu may be effective in patients with mild to moderate COVID-19. Drugs used to treat malaria such as chloroquine phosphate and its less toxic derivative, hydroxychloroquine have been shown to stop the replication of the related SARS-CoV-1 virus, as well as some other viruses. This inhibitory activity was originally demonstrated in the test tube but when the drug was tested in flu and dengue patients, the results were disappointing. However, given their in vitro activity, as well as our lack of understanding about how they actually stop viral replication, further investigation in the context of COVID-19 is suitably justified.

### CONCLUSIONS

Many laboratories around the world are either developing new drugs or looking at re-purposing other drugs such as the antimalarials mentioned above. At the last count, more than 200 clinical trials are underway to establish their effectiveness. With regard to vaccines, it is likely to take some considerable time before a product becomes available and, even if an effective vaccine is produced, it will take even more time to determine how long the vaccine-induced protection will last. However, we can take some comfort in knowing that many pharmaceutical companies are involved in this search and that regulatory authorities will be fast-tracking the roll-out of any effective vaccine without compromising safety and efficacy. Although implementing social distancing and enforcing barriers to stop the spread of, and/or contain the infection within our community is all we presently have, 2021 should herald the arrival of potent vaccines and efficacious drugs to combat COVID-19.

Source – Institute for Respiratory Health – Sir Charles Gardener Hospital

## Mentally Healthy Workplace

WorkSafe Victoria has produced a toolkit for mentally healthy workplace. A mentally healthy workplace is good for your people and your business. More and more businesses are realising that safety is about more than just your physical health, it is about mental wellbeing too.

Understanding where to begin can feel overwhelming. That is why WorkSafe's WorkWell Toolkit gives you clear and practical steps to help you get started.

Want to know more? More information can be found on this website

<https://www.worksafe.vic.gov.au/workwell>

## New Guide for buying Respirators



A Guide to Buying P2, or Equivalent, Respirators for use in the Australian & New Zealand Work Environment.

There has been a surge in demand for P2 respirators for use against airborne pollutants during the recent extensive bushfires and more immediately against the transmission of CoV-SARS-2. This has resulted in an increase of non-compliant respirators entering the supply chain, which has been highlighted by several bodies including SafeWork NSW and WorkSafe New Zealand. Identifying non-compliant products presents challenges for businesses purchasing respirators for their workers, as the processes and checkpoints that provide compliance can be complex. This guide was developed to assist

those who purchase disposable P2 respirators in Australia and New Zealand for use in the workplace. Specifically, this document deals with disposable P2 respirators, commonly termed, "Filtering Facepiece Respirators (FFP)" or "P2 face masks". Information on respirators that relate to international standards such as N95, FFP2 and KN95 are included in this document because the standards that relate to those products have been considered to be generally equivalent in times of short supply. Those products are also now more commonly found in the Australian and New Zealand marketplace. In Australia and New Zealand, the preference is always to purchase respirators that meet the Australian and New Zealand Standard (e.g. AS/NZS1716:2012). Caution is needed when procuring respirators claiming compliance with other international standards and the purchaser should have a good understanding of the limitations involved when doing so. At the time of publication, it should be noted that the use of KN95 respirators is not recommended for use in Australian or New Zealand work environments. Preference should be given to P2 or other international equivalently designed and manufactured products, such as N95 or FFP2 respirators. Further information is provided on this topic in this guide. This guide is based on commonly engaged practice under national and international advice. It attempts to aggregate that information to provide a simple method to what can otherwise be a very complex process of pre-purchase evaluation. This guide will be useful for those who purchase and/or use P2, or equivalent, respirators by outlining simple steps to help verify if the product complies with an appropriate standard.

Source – A Guide to Buying P2, or Equivalent, Respirators for use in the Australian & New Zealand Work Environment June 2020 – Version 1.0

# Occupational Health Society of Australia (WA)



Membership of the Society is open to all those interested in occupational health and safety.

\$100 Corporate membership

\$50 ordinary membership

\$20 student membership.

Simply email

[ohswa@outlook.com.au](mailto:ohswa@outlook.com.au)

with your details.

Incorporated in 1978, the Occupational Health Society of

Australia (WA Branch) is a non-profit association which provides a forum for the wide range of disciplines engaged in the occupational health profession in Western Australia.

The aims of the Society are:

- to develop effective occupational health practice within Western Australia
- to encourage awareness by individuals, organisations and other bodies, of the role of occupational health
- to provide a forum for professional contact between persons interested in, and working in, occupational health
- to express an independent, professional viewpoint on all aspects of occupational health considered desirable in the public interest
- to seek the improvement or an extension of the existing legislation for the promotion of safety and health at work
- in order to ensure uniform principles are applied in all occupational activities.

**Please contact the Secretariat on [ohswa@outlook.com.au](mailto:ohswa@outlook.com.au) regarding membership matters.**

# Occupational Health Society of Australia (WA)

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