THE AGE

Exclusive National Healthcare

Sick and span: The household germ killers nurturing drug-resistant superbugs

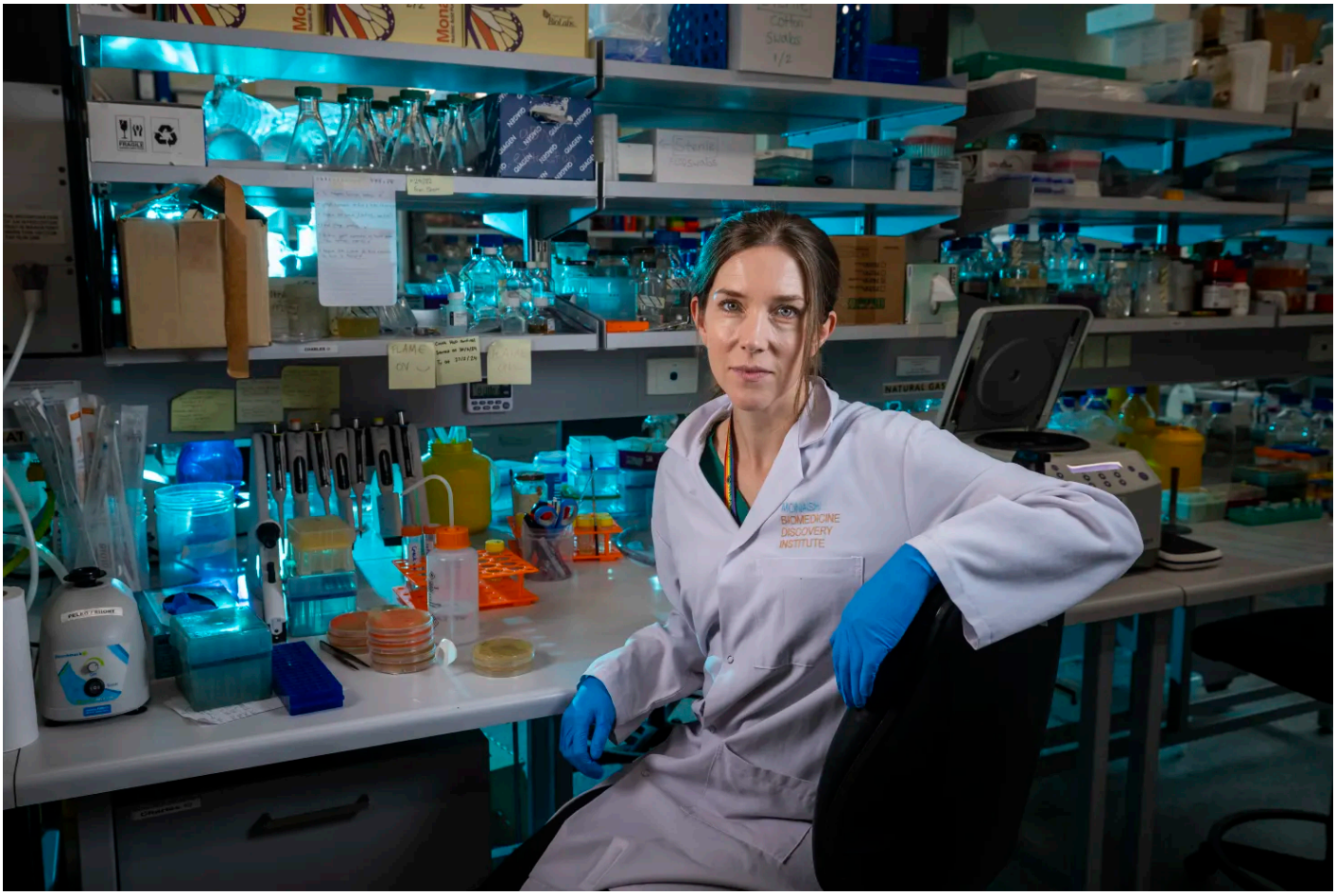
Henrietta Cook

April 4, 2024 — 5.00am

Listen to this article
5 min

They promise to kill the germs on our hands and in our homes, but researchers have found that almost one in three antibacterial products sold in Australian supermarkets and chemists contain ingredients linked to drug-resistant infections.

Monash University researchers have for the first time investigated hundreds of common products and discovered that additives responsible for antimicrobial resistance – or superbugs – are widely used.



Dr Francesca Short has been researching how the products sold in our supermarkets and pharmacies are fuelling antimicrobial resistance. WAYNE TAYLOR

They show up in hand sanitiser, eye drops, throat lozenges, mouthwash, soaps, handwash, disinfectants, toilet cleaners, wet wipes and laundry sanitiser.

Now the researchers are calling for the pharmaceutical watchdog, the Therapeutic Goods Administration (TGA), to start regulating antibacterial products for their potential to create superbugs.

Antimicrobial resistance occurs when bacteria become immune to the drugs we use to kill them – such as antibiotics – or stop responding to antibacterials.

“It’s basically a ‘what doesn’t kill you makes you stronger’ mechanism,” said Dr Francesca Short, senior author of the study.

“When we treat bacteria with disinfectants then in some cases they can adapt in ways that make them a bit stronger across the board and more resistant to antibiotics as well.”

Drug-resistant bacterial infections killed 1031 Australians in 2020.

The researchers were surprised by the sheer number of products sold in Australian stores that contained ingredients linked to antibiotic resistance, such as quaternary ammonium

compounds.

The study, published in the latest edition of the UK's Microbiology Society journal *Access Microbiology*, found that 31 per cent of the 369 products investigated contained these potentially harmful ingredients.

A handful of hand sanitisers and soaps contained triclosan, an ingredient banned in many products in the US and European Union due to its potential to fuel antimicrobial resistance. Animal studies have found it disrupts the normal development of the reproductive system and metabolism.

Short said there had been a proliferation of antibacterial products following the COVID-19 pandemic, and it was a tricky space for consumers to navigate.

"They are trying to protect themselves from COVID and other illnesses," she said. "They've been told [using these products] is an important thing to do to protect their health."

Even if consumers want to steer clear of substances that fuel superbugs, it can be hard to do so unless they can decipher long ingredient lists of chemicals. This is because many products are not branded as antibacterial, despite containing antibacterial substances that promote superbugs.

Short said disinfectants containing alcohol were much safer to use because alcohol evaporated once it had been used, instead of lingering and allowing bacteria to adapt.

She said products containing citric and lactic acid – and plain old soap – were also safer and still effective.

The Victorian Health Department advises healthy households to steer clear of antibacterial cleaning products.

"Effective handwashing with soap, and household cleaning using warm water and a plain detergent, is the cheapest way to get rid of germs," it says on its website.

The study calls for a regulatory overhaul, pointing out that while the TGA regulated the efficacy and safety of many antibacterial products, it does not look at their potential to spur antimicrobial resistance.

A TGA spokeswoman said therapeutic goods containing anti-bacterial substances, such as eye drops, throat lozenges and disinfectants, must be included on the Australian Register of Therapeutic Goods before they can be supplied to consumers.

She said while the TGA did not assess whether disinfectants and sanitisers contributed to antimicrobial resistance, test data was examined to ensure they achieved their disinfection claims.

"The TGA along with other regulators are working together in a coordinated global approach to find safe, effective, and innovative solutions to the challenges of [antimicrobial

resistance],” she said.

But University of Technology Sydney microbiologist Liz Harry believes an education campaign for consumers about the pros and cons of antibacterial household products could be more effective.

“It would help them make better decisions when they get to the supermarket shelves,” she said.

Harry is also concerned about what happens to household products containing antibacterials when they are flushed down our sinks and toilets, entering our waterways and the environment.

“This causes a dilution of these products, which then doesn’t kill bacteria, but promotes antibiotic resistance,” she said.

“We’re running out of drugs that will treat infections. There are many situations where we can’t treat certain infections because we don’t have the antibiotics that will work against them.”

Woolworths and Coles were also contacted for comment.

The Morning Edition newsletter is our guide to the day’s most important and interesting stories, analysis and insights. Sign up here.

Henrietta Cook is a senior reporter covering health for The Age. Henrietta joined The Age in 2012 and has previously covered state politics, education and consumer affairs. Connect via Twitter, Facebook or email.