



MEDICAL WASTE

TALLYING MEDICAL WASTE

The swift onset of the COVID-19 pandemic has irrevocably changed the medical waste landscape, notably in the management and disposal of single-use personal protective equipment (PPE).
 By **BETH AMATO**

The impact on the environment of increased medical waste is unknown, but there is hope for some of the plastic PPE used in the pandemic to be recycled. Brindha Roberts, group director of sustainability at Averda, says that recycling is a possibility if the waste is first segregated at source and then disinfected.

This can be achieved via an electrothermal deactivation process which destroys microbial organisms in medical waste items and renders them harmless. "This process could enable safe recyclable materials to be returned to the economy instead of being lost in landfills," says Roberts. "As long as the recycling or recovery process consumes fewer natural resources and is less harmful than the disposal of such waste, recycling should be a consideration. The conundrum is that the single-use PPE causing the biggest environmental impact on the environment is from the unregulated domestic market where segregation and collection would be difficult."

John Kieser, sustainability manager at Plastics SA, has also noted the increase in land and marine animals becoming entangled in PPE items, especially single-use masks. "It is not a crisis yet, but single-use PPE is certainly becoming an item of concern," he says.

Roberts explains that with the vaccine roll-out, there must be extra provision for "sharps" containers. "We have already commenced with

Progressive COVID-19 Waste Received Comparison				
	1-31 Oct	1-30 Nov	1-31 Dec	1-31 Jan
City Deep	143 181	74 776	148 659	270 274
George	8 591	13 191	41 109	42 158
Killarney Gardens	20 350	17 302	53 567	86 414
Klerksdorp	84 028	64 721	107 080	205 421
TOTAL	256 150	169 990	350 4115	604 267

Source: Averda

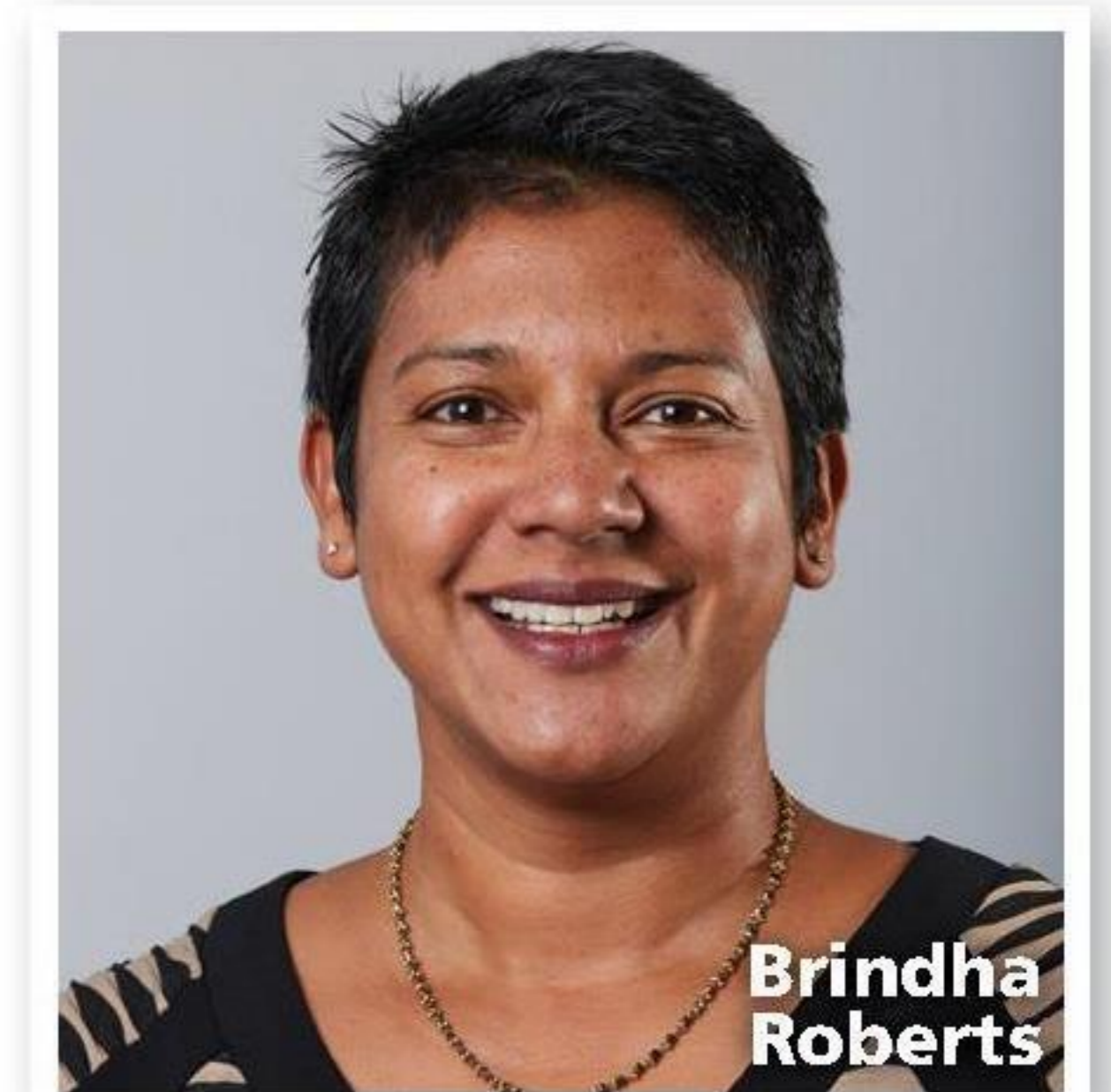
Data above shows the increase in COVID-19 waste in tonnes during South Africa's "second wave". It is, however, difficult to garner substantial national data at such an early stage.

preparations for the influx of this type of medical waste and will be able to deal with the increase in demand for containers, the collection of the waste, as well as the safe disposal thereof. We offer different size containers that can take several hundred sharps."

Roberts says that previous hazardous outbreaks, such as listeriosis in 2018 and cholera outbreaks across Africa, have helped prepare Averda for a pandemic like COVID-19. However, she emphasises the importance of hospitals and those administering the vaccine following the disposal guidelines, and using the correct containers for needles.

"We all need to play our part. This will require a concerted, unified effort," says Kieser. ■

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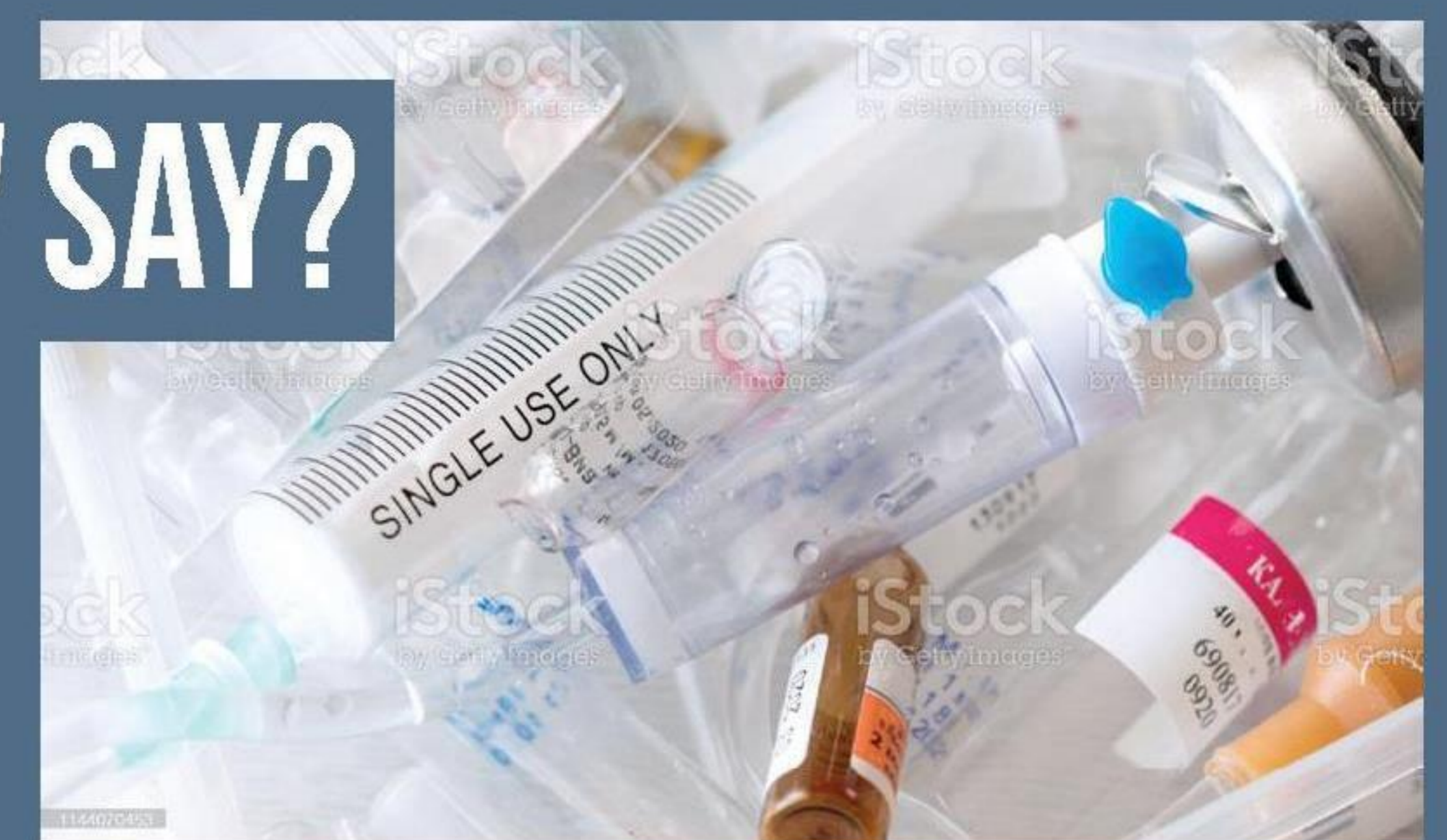


Brindha Roberts

WHAT DOES THE LAW SAY?

The waste sector is guided by the Waste Management Act and South African National Standards (SANS). The Health Care Risk Waste Management Regulations, which govern the management of healthcare waste, assert that the "generator of waste has a duty of care to handle, store, transport or dispose of waste in an environmentally sound way. This is referred to as the cradle-to-grave responsibility".

Healthcare waste has undoubtedly come under the spotlight since the onset of the COVID-19 pandemic. For example, used tissues are now considered hazardous and must be handled as such. With the upcoming vaccine roll-out never seen at such scale, the disposal of needles and other materials would be in line



with SANS 10248. These changes haven't been explicitly recommended yet, but industry bodies and organisations are accounting for this.

John Kieser of Plastics SA says that legislation and control of post-consumer material in the healthcare waste stream are adequate. He explains that sometimes there is illegal dumping, but usually it raises an alarm, especially on landfill sites. Improvements need to be made, however, in protecting waste workers from hazardous waste. ■



John Kieser

SOUTH AFRICA'S WASTE PICKERS

South Africa's 60 000 waste pickers collect 80-90 per cent of used recyclable material on an annual basis, playing a critical role in the country's waste industry and so-called "circular economy".

Because they are not formally recognised workers, they have little protection against hazardous waste and COVID-19. The United Nations Industrial Development Organization, with the help of Japanese funding, has provided personal protective equipment to members of the SA Waste Pickers Association at four pilot sites in the Free State, KwaZulu-Natal and the Western Cape.

Source: SA Waste Pickers Association

IMAGES: ISTOCK.COM, SUPPLIED