

# Peracetic Acid Wipes

Proven protection against high-risk  
and hard-to-kill-organisms



Made from plant-based fibres



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Brought to you by GAMA Healthcare  
Product offering

# Dry surface biofilms

## Why are some outbreaks so difficult to resolve?

Dry surface biofilms may be the answer.<sup>1</sup>

Biofilms offer an invisible layer of protection to a mixed community of microorganisms. Where biofilms have formed, traditional disinfections don't work<sup>2</sup>.

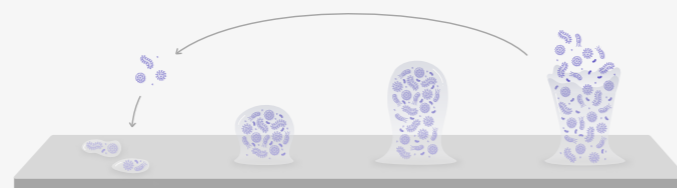
Traditional disinfectants can kill free-floating bacteria and viruses but can't penetrate the biofilm matrix. Despite diligent disinfection, where dry surface biofilms have formed, pathogens are able to recover quickly and continue the outbreak. 95% of terminally cleaned equipment can harbour dry surface biofilms<sup>3</sup>.

### Powerful oxidative action of Clinell Peracetic Acid Wipes

- ✓ Kill > 100,000x more viable organisms than chlorine-dioxide against dry biofilms<sup>1,2</sup>
- ✓ Prevent transference to other surfaces<sup>1,4</sup>



1. Biofilms provide protection to communities of microorganisms
2. Traditional disinfectants kill free-floating pathogens but can't penetrate the biofilm matrix. Micro-organisms within the biofilm survive
3. The biofilm recovers and seeds pathogens back into the environment. The outbreak persists



**Clinell Peracetic Acid Wipes** use a patented formulation to break down the biofilm matrix itself and kill the microorganisms sheltering inside<sup>2</sup>

# Clinell Peracetic Acid Wipes

## Ultimate disinfection.

Clinell Peracetic Acid Wipes use patented technology to offer unbeatable protection against persistent outbreaks, high-risk organisms and dry surface biofilms.

As microbial resistance increases, infection prevention becomes even more important. Continuing threats, such as multi-drug resistant Gram-negatives, and emerging organisms like *Candida auris* put patients at risk and can be incredibly difficult to remove.

For over 15 years, GAMA Healthcare has been developing and manufacturing infection prevention solutions for healthcare facilities across the globe. We drive scientific innovation in microbiology, formulation chemistry and product design.

Clinell Peracetic Acid Wipes are a high-performance disinfectant, more effective than chlorine against hard-to-kill organisms, spores and biofilms. They perfectly complement an everyday disinfectant such as Clinell Universal Wipes.

### Fully bactericidal, fungicidal and sporicidal

- More effective than chlorine<sup>5</sup> ✓
- Eradicates dry surface biofilms ✓
- Effective from 10 seconds ✓
- No pre-cleaning required<sup>6</sup> ✓
- Gentle on surfaces ✓

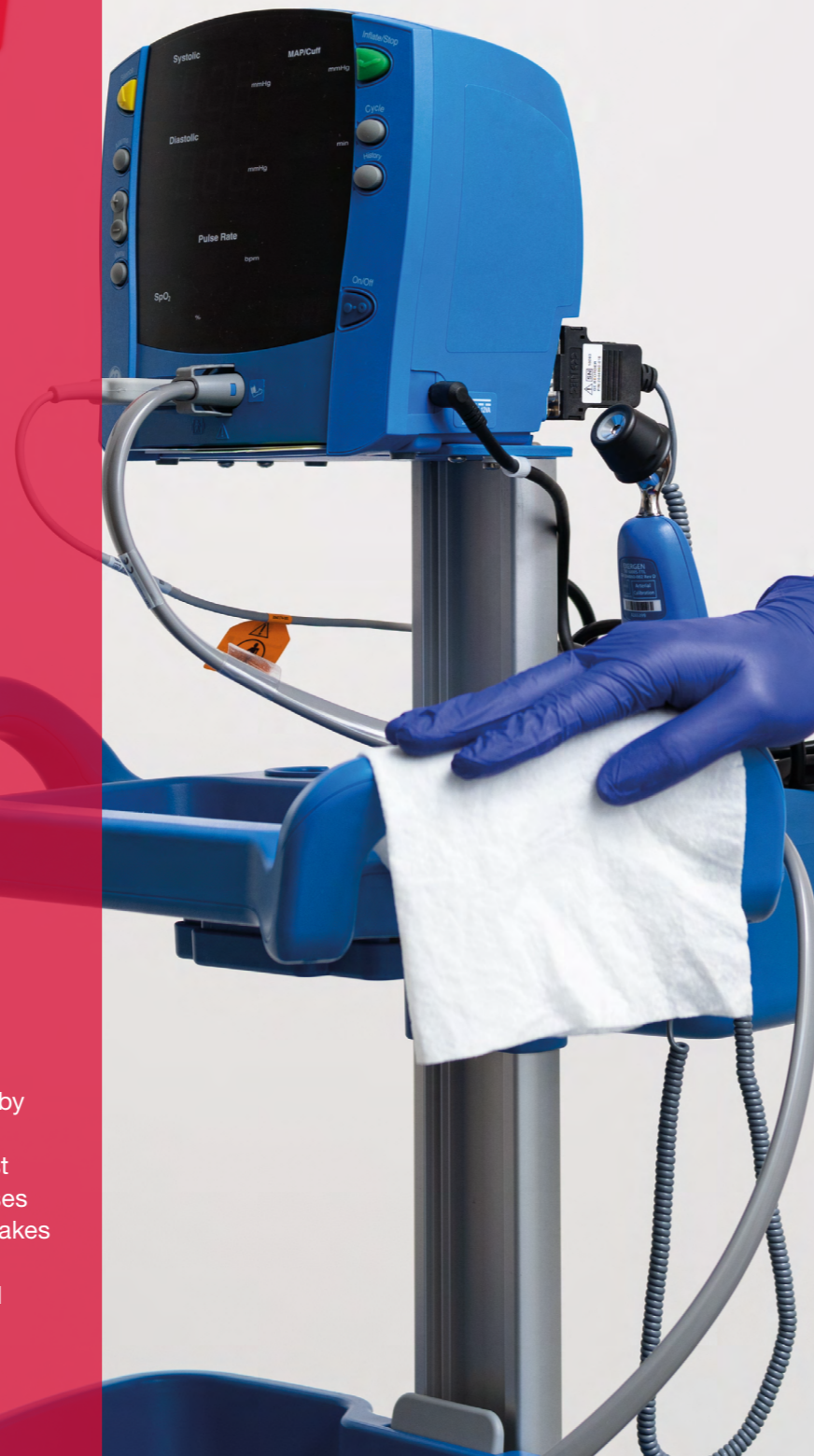


# Microbial resistance



Because of their non-specific, oxidative action, Clinell Peracetic Acid Wipes overcome traditional methods of microbial resistance.

Depending on their structure, different types of microorganisms exhibit varying tolerance to disinfectants. Many traditional disinfectants act by disrupting viral envelopes or bacterial cell walls. These disinfectants can be very effective against easier-to-kill organisms such as enveloped viruses or Gram-positive bacteria. Unfortunately, that makes them ineffective against harder-to-kill organism types such as small, non-enveloped viruses and bacterial spores.

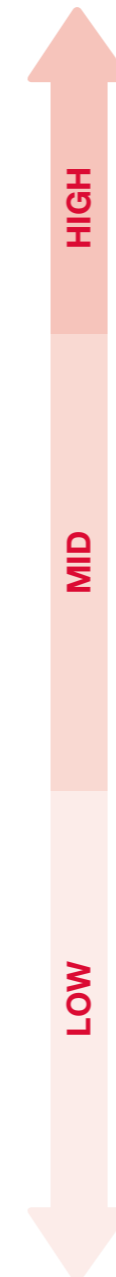


# Unbeatable efficacy

Clinell Peracetic Acid Wipes are proven effective against otherwise hard-to-kill organisms.

Making them ideal for outbreaks and enhanced disinfection. They're tested by third-party laboratories according to EN standard test methods.

Tolerance to disinfectants	Organism example	Time	Test
<b>Biofilms</b>	Dry surface biofilm	Wiping 10 sec, contact 2 min	Modified ASTM E2967-15 <sup>2</sup>
	<i>Bacillus subtilis</i>	5 min	EN 17126
<b>Bacterial spores</b>	<i>Bacillus cereus</i>	5 min	EN 17126
	<i>Clostridioides difficile</i>	5 min	EN 17126
	<i>Mycobacterium avium</i>	2 min	EN 14348
<b>Mycobacteria</b>	<i>Mycobacterium terrae</i>	2 min	EN 14348
	Canine parvovirus	2 min	EN 14675
<b>Small, non-enveloped viruses</b>			
<b>Fungal spores</b>	<i>Aspergillus brasiliensis</i>	5 min	EN 13624
	<i>Acinetobacter baumannii</i>	10 sec	EN 13727
	<i>Escherichia coli (E. coli)</i>	10 sec	EN 13727
<b>Gram-negative bacteria</b>	<i>Klebsiella pneumoniae (ESBL)</i>	10 sec	EN 13727
	<i>Pseudomonas aeruginosa</i>	10 sec	EN 16615
		10 sec	EN 13727
	<i>Candida auris</i>	10 sec	EN 13624
<b>Yeast</b>	<i>Candida albicans</i>	10 sec	EN 16615
		1 min	EN 13624
<b>Large non-enveloped viruses</b>	Adenovirus	1 min	EN 14476
	Norovirus	1 min	EN 14476
<b>Gram-positive bacteria</b>	<i>Staphylococcus aureus</i>	10 sec	EN 16615
		10 sec	EN 13727
	<i>Enterococcus faecalis</i>	10 sec	EN 13727
	<i>Enterococcus hirae</i>	10 sec	EN 16615
		10 sec	EN 13727
<b>Enveloped viruses</b>	Human Coronavirus (MERS-CoV)	1 min	EN 14476
	Herpes simplex virus	1 min	ASTM E1053-11
	Vaccinia virus	15 sec	EN 14476



Typical tolerance of microorganism types to disinfectants, adapted from McDonnell & Russell<sup>7</sup>

# Clinical evidence

## Proven protection from hard-to-kill organisms.

Making them ideal for outbreaks and enhanced disinfection. They're tested by third-party laboratories according to EN standard test methods.

Over 4 million people in Europe acquire an HCAI every year<sup>8</sup>

In the USA, 1 in every 31 hospital patients, and 1 in 43 nursing home patients, has an HCAI<sup>9</sup>

In the UK, HCAs cost the NHS £2.7 billion per year<sup>10</sup>

### Reduced bioburden: double-crossover study

Siani et al. *American Journal of Infection Control*. 2018;46(10)<sup>11</sup>

Greater environmental bioburden – the more viable microorganisms in our environment – the greater the risk of healthcare-associated infections spreading<sup>12</sup>. In this double-crossover study<sup>11</sup>, the authors compared wards using Clinell Peracetic Acid Wipes (then known as 'Clinell Sporicidal Wipes') to wards using hypochlorite solution in a 1,000-bed teaching hospital. They took 1,566 environmental samples over 29 weeks. Part-way through the study, the wards swapped the products they were using – controlling for differing cleaning standards across wards.

Using Clinell Peracetic Acid Wipes significantly reduced the environmental bioburden. There were significant reductions in the number of aerobic bacteria ( $P < 0.001$ ), anaerobic bacteria ( $P < 0.001$ ) and ATP measurement ( $P < 0.001$ ). When the wards returned to using chlorine-based disinfectants, the number of sites testing positive for multi-drug resistant organisms began to rise again.

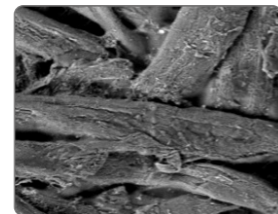
### Unbeaten efficacy against bacterial spores

Siani et al. *American Journal of Infection Control*. 2011;39(3)<sup>13</sup>. Doan et al. *Journal of Hospital Infection*. 2012;82(2)<sup>5</sup>

Bacterial spores are one of the most difficult types of microorganisms to kill. They are incredibly resistant to heat, drying and chemical disinfection. *C. difficile*

is one of the most clinically relevant spore-forming species. Both studies assessed multiple disinfectants against *C. difficile* spores.

In both studies, Clinell Peracetic Acid Wipes were the top-performing wipe<sup>5,13</sup>. Clinell Peracetic Acid Wipes killed a higher percentage of spores than any other wipe<sup>13</sup>, they removed *C. difficile* spores from more sample sites than any other wipe<sup>5</sup> and they were the only wipe not to transfer *C. difficile* spores from one surface to another<sup>13</sup>.



*C. difficile* spores trapped in the fibres of a Clinell Peracetic Acid Wipe. The patented construction prevents transference to other surfaces.

Adapted from Siani et al<sup>13</sup>

### Clinically proven protection for patients

Carter & Barry. *Nursing Times*. 2011;107(36)<sup>14</sup>

Clinell Peracetic Acid Wipes aren't just proven effective in a lab, they're shown to reduce the risk of *C. difficile* infection by 72%<sup>14</sup>. By introducing Clinell Peracetic Acid Wipes into a London teaching hospital, and replacing chlorine-based disinfection methods, the authors found a dramatic reduction in their infection rates, calculated to save them £660,000 per year.

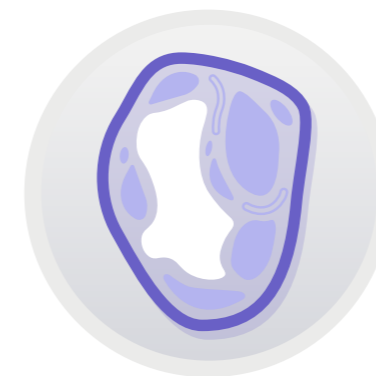
Using Clinell Peracetic Acid Wipes significantly reduced the environmental bioburden<sup>11</sup>

# Intracellular/ Intraviral

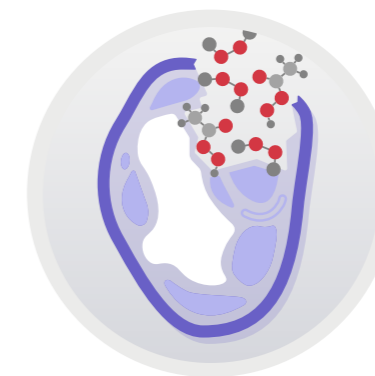
## Disrupts every layer of microbial defence.

The combination of peracetic acid and hydrogen peroxide helps break through spore coats, cell membranes and viral capsids. Once there, they act on the machinery the microorganisms need to function.

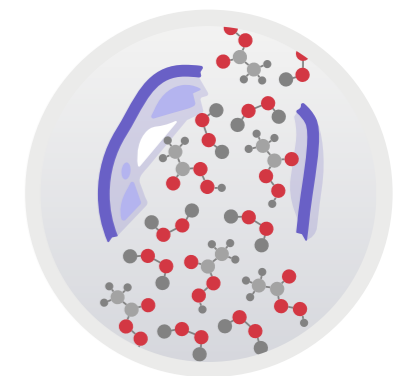
Clinell Peracetic Acid Wipes have a non-specific, oxidative action. They release peracetic acid and hydrogen peroxide synergistically to wipe out even hard-to-kill organisms.



Clinell Peracetic Acid Wipes work at a cellular level



PAA and H<sub>2</sub>O<sub>2</sub> disrupt the cell membrane or viral capsid



Once inside, they destroy microbial structure and genetic material

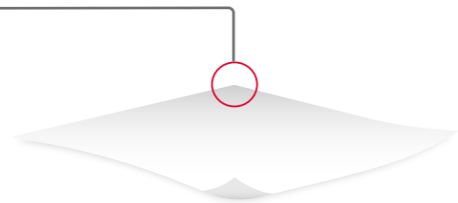
# Patented technology

## Unique dual-layer construction.

Clinell Peracetic Acid Wipes pack over 15 years of infection prevention expertise into a patented dual-layer wipe. The pre-active substances are laid between the layers. Once the wipe is exposed to water, it triggers a reaction in the wipe, generating a unique blend of oxidative disinfectants that tackle high-risk and hard-to-kill organisms.

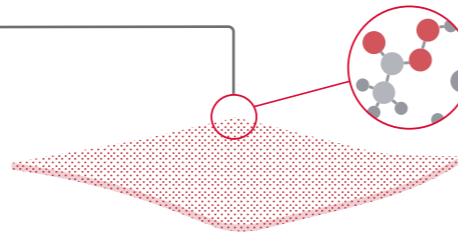
### Cleans and disinfects

Our unique dual-layer construction traps microorganisms, whilst added detergents make sure Clinell Peracetic Acid Wipes are just as effective in dirty conditions.



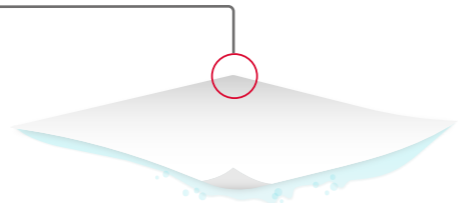
### Gentle on surfaces

By combining the action of peracetic acid and hydrogen peroxide, we're able to achieve unbeatable disinfectant efficacy at near neutral pH. Clinell Peracetic Acid Wipes are therefore kind to surfaces, unlike other peracetic acid-based products.



### 5x the surface coverage

Thanks to our unique construction, each single Clinell Peracetic Acid Wipe delivers surface coverage equivalent to 5 standard disinfectant wipes. This reduces wasted wipes, time and money.



# Complete protection

## The advantages of wipes.

Surface hygiene is a cornerstone of infection prevention. We need to make sure the products we use are proven in the real world.

Clinell Peracetic Acid Wipes are designed by infection prevention specialists - a collaboration between formulation chemists, microbiologists and clinicians. They offer important real-world advantages.

### Improving practice

Traditional, chlorine solutions are often subject to low compliance and user error. Chlorine is inactivated by organic matter. That means surfaces must be pre-cleaned before they can be disinfected with chlorine. In the real world, this extra step results in poor compliance and low disinfectant efficacy.

Repeated real-world studies show that replacing chlorine solutions with Clinell Universal and Clinell Peracetic Acid Wipes results in cleaner surfaces<sup>15</sup>, fewer pathogens in our environment<sup>5,11</sup> and reduced spread of healthcare-associated pathogens<sup>14,16</sup>.

### Gentle on surfaces

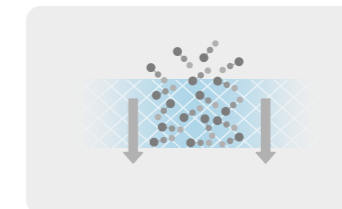
Thanks to their unique formulation, Clinell Peracetic Acid Wipes are tough on microorganisms but gentle on surfaces. We work with medical device manufacturers to produce robust compatibility data, testing to make sure Clinell Peracetic Acid Wipes don't cause environmental stress cracking, colour damage or residue build up. Meaning you don't have to compromise between patient safety and the longevity of your equipment.

## Effective dose every time

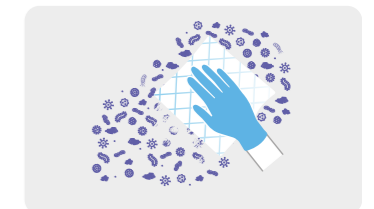
### Dry wipe and solution



1. Dry wipe and disinfectant solution

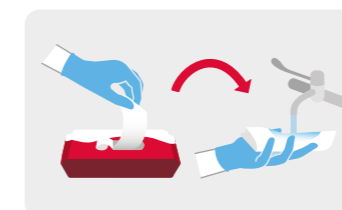


2. Active ingredients are trapped in the dry wipe

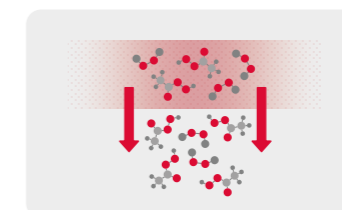


3. Ineffective against microorganisms

### Clinell Peracetic Acid Wipes



1. Clinell Peracetic Acid Wipes are activated by water



2. Wipe material and disinfectants formulated to deliver an active dose



3. Effective against hard-to-kill microorganisms

# Product comparison

## Infection, prevention, innovation.

The Clinell product range is the gold standard in environmental hygiene. Together they offer a complete solution for everyday decontamination, terminal cleaning and outbreak response.

Clinell products help healthcare organisations achieve real results. Introducing Clinell Universal Wipes resulted in a 55% reduction in MRSA acquisition<sup>16</sup> and Clinell Peracetic Acid Wipes produced a 72% reduction in *C. difficile* infections<sup>14</sup>.

clinell®



### Clinell Universal Wipes

**Everyday cleaning and disinfection**  
Trusted by 9 out of 10 NHS hospitals. Effective against the most common causes of healthcare-associated infections.



### Clinell Peracetic Acid Wipes

**Enhanced level cleaning and disinfection**  
Effective against dry surface biofilms and other hard-to-kill organisms, Clinell Peracetic Acid Wipes are more effective than chlorine<sup>5</sup> and complement everyday disinfectants like Clinell Universal Wipes.



### Clinell Enhanced Pods

**Offering a safe yet powerful solution to eradicate microorganisms**  
Specifically designed for cleaning and disinfection of floors and general surfaces in healthcare, giving access to a safer way to carry out decontamination, without the hazards associated with chlorine-releasing agents.



### Clinell Enhanced UV-C Disinfector

**A world without shadows**  
Rapid and complete room disinfection in one cycle, with four detachable satellites alongside the main tower, that can be positioned vertically, horizontally and diagonally.

Key features	Universal Wipes	Peracetic Acid Wipes	Enhanced Pods*	Enhanced UV-C Disinfector
Ideal for daily disinfection	✓		✓	
Ideal for outbreaks, high risk and hard-to-kill organisms		✓	✓	✓
Powerful cleaning action	✓	✓	✓	
Effective in dirty conditions	✓	✓	✓	
Clinically proven to reduce Multi-Drug Resistant organisms	✓	✓	✓	✓
Kills 99.999% of bacteria	✓	✓	✓	✓
Kills 99.99% of viruses	✓ <small>*Limited spectrum efficacy</small>	✓	✓	✓
Kills 99.99% of fungi		✓	✓	
Kills 99.99% of yeast	✓	✓	✓	✓
Kills 99.99% of bacterial spores		✓	✓	✓
Effective against dry surface biofilms		✓	✓	

\*Based on step-up dilution

# GAMA Healthcare

## Unbeatable support.

Clinell products are developed and manufactured by GAMA Healthcare. Founded in 2004 by two NHS doctors, GAMA Healthcare is at the forefront of infection prevention technology, driving scientific innovation in surface disinfection, skin hygiene and patient isolation products.

# Product offering

## Complete protection.

Practice makes perfect. That's why we provide market-leading clinical training, digital tools and award-winning aftersales support.

Our team of specialist IPC Nurse Trainers and Clinical Educators provide bespoke on-ward training to NHS Trusts and healthcare organisations. They've been shown to significantly improve staff capability ( $P < 0.0001$ ) and significantly reduce the time taken to clean ( $P < 0.0001$ )<sup>17</sup>. Switching to Clinell Universal Wipes (complete with support from our IPC Nurse Trainers) helped a UK teaching hospital reduce their rate of MRSA acquisition by 55%<sup>16</sup>.

### Order info



**Peracetic Acid Wipes**  
25 wipes per pack  
Product code: CS25  
NHS code: VJT113



**Universal Wipes**  
200 wipes per pack  
Product code: CW200B  
NHS code: VJT118



**Wipes Dispenser**  
Single unit  
Product code: CS25D



**Enhanced UV-C Disinfector**  
1 machine unit  
Product code: DCUVC  
NHS code: N1225645



**Enhanced Pods**  
100 pods per tub  
Product code: CSEP100  
NHS code: MFB85193

To find out more, speak to your GAMA Healthcare Area Manager or visit [www.gamahealthcare.com](http://www.gamahealthcare.com)

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Use disinfectants safely.

Always read the label and product information before use.

Always follow medical equipment manufacturer's cleaning procedures and guidelines.