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FEATURE ARTICLE

Giving Aesthetics a Clean Bill of Health

Introducing Clinisept...The Ultimate Skin Disinfectant?

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GIVING AESTHETICS A CLEAN BILL OF HEALTH

Introducing Clinisept...The Ultimate Skin Disinfectant?

A brand-new skin disinfection technology is coming to the aesthetics sector and it's going to have a significant – and thoroughly beneficial – impact. Greater levels of cleansing, a non-hazardous safety profile and better patient outcomes make this one of the most significant advances the industry has seen for years.

Clinical Health Technologies is a new entrant into the aesthetics arena, and they are making a big debut with their unique high purity and stabilised hypochlorous skin cleansing technology – which provides not only greater protection against infection than existing products, but also greater levels of skin compatibility... which delivers its own set of benefits.

The company was formed in 2013 to commercialise their unique chemistry in the human healthcare sector; in fact in any application where high levels of disinfection are required, but where the highest levels of skin compatibility is essential.

Since then, they haven't looked back; they have even been asked - is this the ultimate skin disinfectant?

Skin hygiene and its role in ensuring patient safety

From a young age, we all learn the importance of washing cuts and grazes to ensure they don't become infected. It's one of the basic ABC's of healthcare, and is just as important within the clinic environment as it was when we took a tumble off our first bike!

Any penetration of the dermal layer, (whether intentional or not), has the potential to cause problems. Invading pathogens get into the skin and, if not killed off by the body's immune system, can quickly lead to infection.

We are all aware of the dangers of infection in medical healthcare environments, where hospital acquired infections such as MRSA can lead to severe complications often resulting in amputation and even fatality.

Fortunately, in the aesthetic environment infections tend to be of a less serious nature. However they do still occur regularly and can be highly distressing to all concerned – at the very least causing treatments to take longer to heal and to require antibiotics, whilst more serious

Even the smallest penetration of the dermal layer, (such as a needling site), can allow the ingress of infection. There is now a growing acknowledgement that bio-film infections, (which can present themselves months or even years after a procedure), are caused at the time of the procedure.

"The administration of dermal filler can no longer be considered as a semi-sterile procedure - aseptic technique must be respected at all times". **The role of bacterial biofilms in aesthetic medicine. Collier H. - Journal of Aesthetic Nursing 2014. 3:10, 476-481**

"There is now increasing concern that with the ever-increasing durability and longevity of modern filler products being present in the tissue, they now pose a higher risk of complications due to biofilm formation" **Alijotas-Reig and Garcia-Gimenez, 2008**

infections can be so damaging as to cause permanent scarring and can require corrective surgery to eradicate the cause of the infection.

The incidence of infections in aesthetics

In 2013, bacterial skin infections affected approximately 155 million people worldwide, with cellulitis occurring in circa 600 million people **- Global Burden of Disease Study 2013**

According to data from a report on 2016 claims by leading aesthetic insurers Hamilton Fraser Cosmetic Insurance, 30% of the claims received were made due to infection post treatment. All of these claims were made either because the injury occurred as a result of the infection, (e.g., a permanent scar was left as a direct result of the post-treatment infection), or it was an additional allegation as part of a bigger claim. For example, a PDO thread lift claim where infection was contracted from threads which were left outside of the skin.

"*To be able to eliminate 30% of claims would be a fantastic result with the introduction of Clinisept*"; says Naomi Di-Scala Cert CII. Aesthetic Insurance & Claims Manager, Hamilton Fraser Cosmetic Insurance.

In recent months, there has been an increase in the incidence of reported aesthetic infections. In January 2017, Public Health England investigated 3 separate cases of blood-borne viruses being transmitted by micro-needling, and there have been several documented cases of biofilm infection from injection procedures that have required surgery to remove the infection.

Acute skin infections can occur following any procedure where the normal integrity of the skin is compromised. Typically, this is following an intradermal injection such as when performing dermal fillers, botulinum toxin treatments, micro-needling or sclerotherapy. However, it is also possible with non-penetrating treatments such as chemical damage following skin peels or thermal damage caused by laser or intense pulsed light. [3]

Hygiene and the aesthetic clinic

The importance of patient hygiene in the aesthetic sector is well documented: best practice requires following a proper aseptic procedure at all times, as well as using skin cleansing/disinfection products that provide adequate protection against infection. Patient safety, and the best results, are only achieved when both elements are delivered together. Ultimately, using an effective skin cleanser is the backbone of any aesthetic medical protocol; if you are not using a product that disinfects well, it makes no difference how carefully you apply it!

Do we need something new?

Unfortunately, skin cleansing is an area of healthcare, and consequently aesthetics, that really hasn't moved on much for several years. There are a wide range of products on the market which are almost all either chlorhexidine gluconate or povidone iodine based.

Chlorhexidine gluconate comes as either a pink, (hence the generic term, '*pink spray*'), or clear solution and ranges in strength from 2% to 20% concentration. Povidone Iodine, (typically 10% concentration) is most usually used as a skin prep in medical and surgical procedures as it has a distinctive brown colour and stains the skin a similar tint, which is not especially helpful for most aesthetic applications.

Both chlorhexidine gluconate and povidone iodine are effective in disinfecting the skin, but they also have their drawbacks. Although bactericidal, chlorhexidine can be slow to take effect and it is typically not very effective against fungi or spores. Iodine is effective against viurses and funguses, but has a high incidence of skin sensitivity reactions. Reactions are also a concern for chlorhexidine and there is a growing acknowledgement that serious allergic reactions can be triggered by chlorhexidine gluconate. In February 2017, the FDA reported an increase in incidence of exposure to chlorhexidine gluconate resulting in hospital treatment, with some of these resulting in anaphyalaxis. (Medscape, 2 Feb 2017).

Additionally, there are an increasing number of studies that report reduced levels of bacterial susceptibility to chlorhexidine – including to methicillin-resistant Staphylococcus aureus (MRSA) [1] - one of the most prevalent causes of infection - and also Klebsiella pneumoniae. [2]

There are also numerous papers which cite the potential for chlorhexidine gluconate to cause DNA damage and cell death. Alcohol is often added to chlorhexidine to increase its efficacy, but this dries the skin and can cause respiratory and eye irritations.

The bottom line is that most of the products currently available are weak poisons, and are therefore only really suitable for use on unbroken skin.

These limitations have largely been ignored until now as there hasn't been a viable alternative. Now however, Clinical Health Technologies has launched the ***Clinisept*** range of unique high purity hypochlorous skin cleansing disinfectants which represents a significant step forward for the aesthetics sector - not only because it delivers more effective cleansing, but because it is also more compatible with the skin.

A new technology?

Lethal to pathogens

Hypochlorous is not a new discovery – it has long been recognised as the most effective disinfecting chemistry available, (being rapidly and

Clinisept+

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LEARN MORE
Bringing Skin Cleansing & Disinfection into the 21st Century
- Mr Kambiz Golchin
16th June - 09.45 - 10.00
(Ground Floor, Churchill Auditorium)

CLINISEPT PLUS PREP & PROCEDURE
CLINISEPT PLUS AFTERCARE

Effective skin cleansing is arguably the most important aspect of any aesthetic procedure, but there have been few meaningful developments in this field for many years – until now.

Clinisept Plus is a ground-breaking technology which brings significant benefits over existing medical skin disinfectants and pre-procedure cleansers.

Ultimate skin disinfection
+ **Bactericidal**
+ **Fungicidal**
+ **Virucidal**
+ **Sporicidal**

Complete skin compatibility
+ **Skin neutral pH**
+ **Dermatologically tested**
+ **No alcohol, parabens, fragrances**
+ **Non-cytotoxic to re-growing skin**

The Clinisept Plus products deliver a unique combination of greater protection against infection before, during and after aesthetic procedures, as well as far better skin compatibility than existing medical cleansers – actually aiding the healing process by providing an ideal environment for skin regeneration.

new

Clinisept Plus represents a new standard of 'best practice' safety, that, combined with the additional benefits that Clinisept Plus brings to patient outcomes, makes this a step change product that should be adopted by all professional clinics.

Clinisept Plus has been comprehensively tested by independent laboratories to prove its efficacy and safety.

Highly effective antimicrobial cleansing:
· **BS EN 1040** · **BS EN 1275**
· **BS EN 1276** · **BS EN 13727**
· **BS EN 1650** · **BS EN 13704**

Proven skin safety:
· **Non-toxic**
· **Non-irritant to skin**
· **Non-irritant to eyes**
· **Non cytotoxic.**

Manufactured to ISO13485 Medical Standards of quality reliability and assurance

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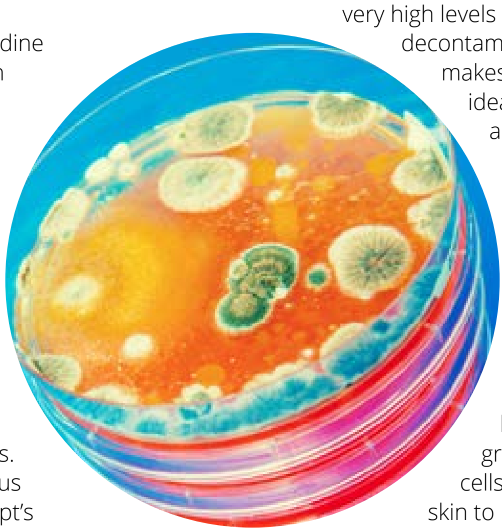
completely bactericidal, fungicidal, virucidal and sporicidal), and is actually the same chemistry that the human immune system uses to fight infection. Understanding its chemistry doesn't make it any easier to manufacture however, and poor stability, and therefore limited shelf life, have previously made it all but unusable unless applied immediately following manufacture; as is the case with disinfecting hospital endoscopes, a job it has been doing successfully for many years. Now however, Clinical Health Technologies has perfected an incredibly pure and stabilised version of this unique chemistry, which gives it a shelf life of two years, whilst fully retaining its multi-pathogen efficacy.

As you can imagine, there are a plethora of applications for a broad-spectrum disinfectant that is as effective as this. However, it is in human healthcare applications where its benefits really shine through, as, in addition to its very impressive antimicrobial properties, this technology is incredibly safe to use, and in particular, is safe to use on skin.

But safe on human skin

Given its aggressive ability to kill all types of pathogens we would typically expect such a chemistry to carry a plethora of hazard warnings... but remarkably, the Clinisept products have none. In fact, Clinisept is safer to handle and use than the existing skin cleansers and disinfectants it replaces, which are typically labelled as being toxic, corrosive and causing serious eye damage.

Where chlorhexidine is combined with alcohol, these products are also flammable. In contrast, Clinisept has a skin neutral pH, is non-toxic, contains no alcohol and is even non-cytotoxic to re-growing skin cells. As well as rigorous testing of Clinisept's disinfecting ability, (it passes most EN standards in seconds), extensive skin sensitisation testing has also proven it to be completely non-sensitising and non-irritating.



So how can something that's so safe to humans be so lethal to pathogens? The key is in its method of action. Clinisept is a very weak acid, (weaker than carbonated soft drinks), but is strongly oxidising, which means that it readily penetrates and breaks down the cell walls of pathogens. Because human cells are ten times larger, and much more robust than those of pathogens, human cells are not affected.

A further benefit of Clinisept's oxidising method of action is that it is not subject to antimicrobial resistance - pathogens cannot become immune to it.

Non-cytotoxic

Clinisept is even non-cytotoxic to re-growing skin cells, which sets it apart from almost every other skin disinfectant on the market, and certainly those that have anything like the efficacy. The ability to disinfect without damaging regenerating skin is a tremendous advantage in aesthetic applications, where (intentional) damage is often being caused to the dermal layer.

In contrast, most disinfecting chemistries, however weak, are harmful to re-growing skin and cell regeneration is often impaired as a result. Clinisept causes no harm to re-growing skin cells, therefore skin regrowth isn't slowed. This, combined with the ability to achieve very high levels of microbial decontamination, makes Clinisept the ideal partner for applications where skin is re-generating. The ability to kill the pathogens that inhibit wound healing, without hindering the growth of new cells, enables the skin to re-grow at its natural rate; which is typically swift.

"*Clinisept represents a new era of skin disinfection*"; says Helena Collier, BSc RGN DNC PGDp (Medical Aesthetics) Skintalks Clinic Director, Independent Prescriber and Aesthetic Nurse Practitioner.

Although just introducing to the aesthetic sector, this technology is already well proven within ear-piercing environments, where it has been used as an aftercare lotion by one of the world's largest suppliers of piercings, on over 2 million ear piercings to date; with zero incidence of reported infection. Just as importantly however, the piercing supplier has been able to reduce their claimed healing time, from six weeks to three weeks. Clinical Health Technologies Ltd has conducted rigorous trials of Clinisept in aesthetics applications, and has found similar benefits.

How can I obtain Clinisept?

To distribute Clinisept in the aesthetic sector, Clinical Health Technologies have partnered with Aesthetic Source Ltd.

"*Following our showcasing of Clinisept at the 'Distributors Den' presentation at Aesthetic Medicine Live in February 2017, we were inundated with interest and offers to distribute Clinisept. We were flattered to be in this position. We felt Aesthetic Source to be the ideal partners for us, owing to their respected industry presence, medical background and select product portfolio*"; says Ross Walker, Clinical Health Technologies.

Lorna Bowes, Director of Aesthetic Source says: "*Since my days in the NHS working with Diabetes and Dermatology, the issues of skin hygiene and the skin healing process have been of real interest to me. At Aesthetic Source we strive to source the very best new, innovative and leading brands to bring to the UK and ROI. I can now bring those two things together with a paradigm shift in skin cleansing. The idea of being able to use a pH neutral, skin friendly, bactericidal, fungicidal, virucidal, and sporicidal cleanser; before, during and after procedures, appears to be game changing. As always, we have reached out to a group of KOLs to support our decisions and the feedback has been 100% positive – a level of excitement and enthusiasm I have not seen for* *some time! Clinical Health Technologies invested enormous energy and research to develop the Clinisept concept – at Aesthetic Source we cannot wait to share this leap forward in patient safety*".

Clinisept is available in two formats – **Clinisept Prep & Procedure** for in-clinic use, and **Clinisept Aftercare**, for use by the patient.

Clinisept Prep & Procedure is available in 400ml bottles, (suitable for decanting into galley pots), and is intended for use by the clinician before, during and after a procedure is conducted. **Clinisept Aftercare** is supplied in 100ml spray bottles, for sale by the clinician to patients to use 2-3 times a day at home. The spray head of this bottle delivers a finely atomised mist, thereby enabling Clinisept to either be sprayed onto a cotton wool pad, or sprayed directly onto the treatment area.

Both Clinisept products have been trialled extensively within the aesthetics environment and both have received compelling reviews. Aesthetic Source has recruited an advisory board, (comprising a number of industry luminaries), to help fully understand the benefits each product brings to the aesthetics applications. Trials amongst the advisory board have found Clinisept Prep & Procedure to cause less respiratory and eye sensitisation amongst patients than chlorhexidine, and zero irritation or infections. Clinisept Aftercare has been used following a wide range of treatments and has been found to deliver similar benefits to those experienced in the piercing sector. It is especially beneficial where there is merit in maintaining high levels of skin hygiene following a procedure, but without the patient touching the treated area, for example, in full facial laser rejuvenations.

Both of the Clinisept products are manufactured in ISO 13485 Medical Device conditions, and both are Article 95 compliant and approved for use as a PT1 skin disinfectant.

How to use Clinisept

Clinisept couldn't be easier to use. The Prep & Procedure bottle has a tamper proof screw cap and a restricted pouring plug to ensure a controlled delivery. Its 400ml size gives cost effective dosing into a galley pot, allowing application to the patient with cotton pads. Clinisept should be applied liberally over the whole area to be treated. It is rapid in action and requires only a 30 second contact time to achieve highly effective cleansing. Clinisept will not sting or irritate and can be used around the eyes without concern. Use Clinisept Prep & Procedure to cleanse the skin before a treatment, and then continue to wipe over the area during the treatment, for example with injectables, to soothe the area. Conduct a final application once the treatment is finished.

Clinisept Aftercare comes in an outer cardboard box to aid the patient taking it home. The trigger spray has a safety lock on the collar of the bottle, which is twisted to enable use. The spray is ideal for either applying to a cotton pad and wiping onto the treated area, or, where the skin is sensitive, it can be sprayed directly onto the area. Clinisept Aftercare should be applied up to 3 times a day to ensure treated skin remains free from infection. The Clinisept Aftercare bottle contains sufficient fluid to allow application for up to 21 days.

"*Clinisept is my cleanser of choice for preparing my patients skin in advance of their skin analysis, injectable and laser treatments*". Miss Sherina Balaratnam MBBS, MRCS, MSc (UCL), Medical Director S-Thetics.

No matter what type of procedure is being conducted, protection from infection and swift patient recovery is pivotal to every patient treatment. The Clinisept products significantly raise the bar in both respects.

Both Clinisept products are being launched at FACE 2017 in June, where they will feature in the speaker agenda (with Mr Kambiz Golchin), as well as being demonstrated throughout the conference. If you'd like to learn more, you can also meet representatives from Clinical Health Technologies at the Aesthetic Source stand in the exhibition hall.

References

1 - Reduced Susceptibility to Chlorhexidine in Staphylococci: Is It Increasing and Does It Matter? Carolyne Horner, Damien Mawer, Mark Wilcox. Journal of Antimicrobial Chemotherapy (2012) 67 (11): 2547-2559.
2 - Mechanisms of Increased Resistance to Chlorhexidine and Cross-Resistance to Colistin Following Exposure of Klebsiella Pneumoniae Clinical Isolates to Chlorhexidine. Matthew E Wand, Lucy J Bock, Laura C Bonney, and J Mark Sutton Antimicrob. Agents Chemother. AAC.01162-16; Accepted manuscript posted online 31 October 2016, doi:10.1128/AAC.01162-16).
3 - Management of acute skin infections. Emma Davies RN NIP & Dr Martyn King. Aesthetic Complications Expert Group 2016.

Clinical Health Technologies is a new entrant to the aesthetics sector. Although you are unlikely to have heard of them before, they are no stranger to skin care: for the past three years, their technology has been successfully used all over the world in the piercing sector and they are already looking at applications for their products in medical healthcare. Tel: 01733 232416 | Web: www.clinicalhealthtechnologies.com