Adtec has invested significantly in scientific studies to support the safety, efficacy and application of Plasma in Medicine. The body of evidence is constantly growing for the effectiveness and application of Adtec Plasma in a wide range of therapies, particularly in wound care, surgical site infection and dermatological applications. The clinical evidence and scientific research referenced below is data produced with the Adtec SteriPlas and MicroPlaSter Microwave argon gas plasma technology.

**Wound Management**


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**Plasma therapy – Once a week enough? Prospective RCT to validate the interval of plasma treatment for reduction of wound area, bacterial load and pain,** Jockenhöfer F., EWMA 2018 (oral presentation)

**A proof of concept evaluation of the efficacy of non-thermal gas plasma in the treatment of diabetic foot ulcers that are stalled by sub clinical wound infection,** McCardle J., Haycocks S., Chadwick P., EWMA 2018 (poster presentation)

**Use of cold atmospheric plasma treatment in a chronic burn wound,** Kwang CL, Wounds UK 2015 (poster presentation)


Surgical Site Infection Management

Cold atmospheric plasma and advanced negative pressure wound treatment – First results of a tissue saving approach for deep surgical site infections. H. Rotering, Muenster, S. Martens, Muenster, A. M. Dell’aquila, Muenster EACTS 2018 (Oral presentation)

Cold atmospheric plasma and advanced negative pressure wound treatment – New option for therapy refractory left ventricular assist device infections? H. Rotering EACTS 2017 (Oral presentation)

Remove it or treat it – New technologies for complicated wounds, Rotering H., EWMA 2018 (e-poster)

Cold Atmospheric Plasma: Treatment option for critical ill patients with an infected pacemaker pocket, Rotering H., EWMA 2017, Amsterdam (poster presentation)

Cold Atmospheric Plasma- new options for infection control in wound management, Rotering H., EWMA 2016, Bremen (oral presentation)

Cold Atmospheric Plasma- new treatment options for infected chronic implants, Rotering H., WUWHS 2016, Florence (oral presentation)


Dermatology


Actinic keratoses treated with cold atmospheric plasma, M. Wirtz, MD, Stoffels, MD; J. Dissemond, MD; D. Schadendorf, MD; A. Roesch, MD, J. Eur. Acad. Dermatol. Venereol. Online July 11,2017


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Biofilm

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Antibiofilm Activity demonstrated following treatment with a novel plasma device, S. Westgate EWMA 2016 Bremen (poster presentation)

The impact of non-thermal gas plasma on bacterial pathogens (planktonic and biofilm phenotype) in vitro and in an animal model. K. Cutting EWMA 2016 Bremen (poster presentation))

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Antimicrobial Properties

The impact of argon gas plasma on bacterial pathogens in vitro and in an animal model, K. Cutting, EWMA 2018 poster presentation.

Non-thermal gas plasma – mode of action and bioburden management, Cutting K Wounds UK, 2016 (poster presentation).


Safety & Efficacy


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Effects of Cold Atmospheric Plasma (CAP) on β-Defensins, Inflammatory Cytokines, and Apoptosis-Related Molecules in Keratinocytes In Vitro and In Vivo, Arndt, S; Landthaler, M.; Zimmermann, J.L; Unger, P.; Wacker, E; Shimizu, T; Li, Y-F; Morfill, G.E. Karrer, S, PLoS ONE 10(3) · January 2015


Plasma in Medicine

Biological and Microbiological Impact of Plasma Medicine in Wound Healing, Keith Cutting, Wound Healing UK 2016 (oral presentation).


