



Urgo 💆

FLEXIBLE CONTACT LAYER WITH TLC-NOSF Can be used in cavity wounds







TLC-NOSF healing matrix

- Reduces healing time
- Moist environment
- Pain-free and atraumatic removal

Highly flexible and conformable non-occlusive mesh

- No risk of occlusion and maceration (open mesh pores)
- No trapping of newly formed granulation tissue(closely woven)

Available presentations

5 x 7 cm* | 10 x 10 cm* | 13 x 12 cm | 15 x 20 cm*

UrgoStart

SOFT ADHERENT FOAM DRESSING WITH TLC-NOSF Can be cut to fit the wound size











TLC-NOSF healing matrix

- Reduces healing time
- Moist environment Pain-free and atraumatic

Absorbent polyurethane foam pad

 Absorbs and retains exudates

removal

Available presentations

6 x 6 cm* | 10 x 10 cm* | 13 x 12 cm | 15 x 20 cm* | Heel shape 12 x 19 cm

UrgoStart ADHERENT FOAM DRESSING WITH TLC-NOSF Practical, ready to use absorption

Waterproof

Waterproof backing and

silicone adhesive

- Pain-free atraumatic removal
- for patient Very convenient use:
- allows showering

Absorbent polyurethane foam pad and highly absorbent layer

 Absorbs and retains exudates, preventing maceration

* common stock

TLC-NOSF healing matrix

- Reduces healing time
- Moist environment
- Pain-free and atraumatic removal

Available presentations

8 x 8 cm | 10 x 10 cm | 12 x 12 cm | 15 x 15 cm | 15 x 20cm* | Sacrum 20 x 20cm







REDUCE HEALING TIME. IMPROVE QUALITY OF LIFE. SAVE COSTS

Guidelines, based on systematic review of clinical evidence

- 2. Rayman G, Vas P, Dhatariya K, Driver V, Hartemann A, Londahl M, Piaggesi A, Apelquis I, Attinger C, Game F; International Working Group on the Diabetic Foot (IWGDF). Guidelines on use of interventions to enhance healing of chronic foot ulcers in diabetes (IWGDF 2019 update). Diabetes Metab Res Rev. 2020 Mar;36 Suppl 1:e3283. doi: 10.1002/dmrr.3283
- 3. Dissemond J, Augustin M, Dietlein M, Faust U, Keuthage W, Lobmann R, Münter KC, Strohal R, Stücker M, Traber J, Vanscheidt W, Läuchli S. Efficacy of MMP-inhibiting wound dressings in the treatment of chronic wounds: a systematic review. J Wound Care 2020; 29(2): 102-118.
- 4. Nair H, Galea E, Deng W, Uthaipaisanwong A, Venkateshwaran N, Selva Seetha Raman S. Benefits of sucrose octasulfate (TLC-NOSF) dressings in the treatment of chronic wounds: A systematic review. Journal of Wound Care 2021; 30 (Suppl.4): S42-S52. doi: 10.12968/jowc.2021.30. Sup4.S42
 5. Vas P, Rayman G, Dhatariya K, Driver V, Hartemann A, Londahl M, Piaggesi A, Apelqvist J, Attinger C, Game F.Vas P, et al. Effectiveness of interventions to enhance healing of chronic foot ulcers in diabetes: a systematic review. Diabetes
- Metab Res Rev. 2020 Mar;36 Suppl 1:e3284. doi: 10.1002/dmrr.3284
- Randomised Controlled Trials.
 6. Measume S, Truchetet F, Cambazard F et al. A randomized, controlled, double-blind prospective trial with a Lipido-Colloid Technology-Nano-oligosaccharide Factor wound dressing in the local management of venous leg ulcers. Wound Repair Regen 2012; 20: 4: 500-511. doi: 10.1111/j.1524-475X.2012.00797.x [Study conducted with Urgostart] 7. Meaume S. Dompmartin A. Lazareth I, Sigal M. Truchetet F. Sauvadet A. Bohbot S. Quality of life in patients with legulcers: results from CHALLENGE, a double-blind randomized controlled trial, Journal of Wound Care 2017; 26 (7): 368-379
- doi: 10.12968/jowc.2017.26.7.368 [Study conducted with Urgostart]
 8. Schmutz J.-L., Meaume S, Fays S, Ourabah Z, Guillot B, Thirion V, Collier M, Barrett S, Smith J, Bohbot S, Dompmartin A et al. Evaluation of the nano-oligosaccharide factor lopido-colloid matrix in the local management of venous leg ulcers results of a randomised, controlled trial, International Wound Journal 2008; 5(2): 172-182, [Study conducted with Urgostart contact]
- 9. Edmonds M, Lázaro-Martínez JL, Alfayate-García JM, Martíni J, Petit JM, Rayman G, Lobmann R, Uccioli L, Sauvadet A, Bohbot S, Kerihuel JC, Piaggesi A. Sucrose octasulfate dressing versus control dressing in patients with neur diabetic foot ulcers (Explorer): an international, multicentre, double-blind, randomised, controlled trial. Lancet Diabetes Endocrinol. 2018 Mar;6(3):186-196. [Study conducted with Urgostart contact] 10. Lázaro-Martínez JL, Edmonds M, Rayman G, Apelqvist J, Van Acker K, Hartemann A, Martini J, Lobmann R, Bohbot S, Kerihuel JC, Piaggesi A. Optimal wound closure of diabetic foot ulcers with early initiation of TLC-NOSF treatment: post-hoc
- nalysis of Explorer. J Wound Care 2019; 28(6): 358-367. doi: 10.12968/jowc.2019.28.6.358. PMID: 31166858. [Study conducted with Urgostart contact]
- 11. Augustin M. Herberger K. Kroeger K. Muenter KC. Goepel L. Rychlik R. Cost-effectiveness of treating vascular leg ulcers with UrgoStart(*) and UrgoCell(*) Contact. Int Wound J. 2016 Feb:13(1):82-7. doi: 10.1111/iwi.12238. Epub 2014 Feb
- 21. PMID: 24618370. [Study conducted with Urgostart]
 12. Arroyo Ana A, Alvarez Vázquez JC, Blasco García C, Bermejo Martínez M, López Casanova P, Cuesta Cuesta JJ, De Haro Fernández F, Mateo Marín E, Segovia Gómez T, Villar Rojas AE. Coste-Efectividad de un apósito de espuma de poliur
- 13. Lobmann R, Augustin M, Lawall H, Tigges W, Potempa C, Thiem H, Fietz C, Rychlik RP. Cost-effectiveness of TLC-sucrose octasulfate versus control dressings in the treatment of diabetic foot ulcers. J Wound Care 2019; 28(12): 808-816. doi: 10.12968/jowc.2019.28.12.808. [Study conducted with Urgostart contact] 14. Lobmann R, Grünerbel A, Lawall H, Lüdemann C, Morbach S, Tigges W, Völkel L, Rychlik RP. Impact of wound duration on diabetic foot ulcer healing: evaluation of a new sucrose octasulfate wound dressing. J Wound Care 2020; 29(10):
- 543-551. doi: 10.12968/jowc.2020.29.10.543. PMID: 33052796. [Study conducted with Urgostart contact]

 15. Maunoury F, Oury A, Fortin S, Thomassin L, Bohbot S; Explorer Study. Cost-effectiveness of TLC-NOSF dressings versus neutral dressings for the treatment of diabetic foot ulcers in France. PLoS One 2021; 16(1): e0245652. doi::10.1371/journal.pone.0245652 [Study conducted with Urgostart contact]
- Investigational studies (non-comparative clinical trials)

 16. Sigal ML, Addala A, Maillard H, Chahim M, Sal Ha F, Blaise S, Dalac S, Meaume S, Bohbot S, Tumba C, Tacca O. Clinical evaluation of a new TLC-NOSF dressing with poly-absorbent fibers for the local manage
- the different stages of the healing process: Results from two multicentric, single-arm, prospective, open-label clinical trials. J Wound Care 2019: 28(3):164-175. doi: 10.12968/jowc.2019.28.3.164 [Study conducted with Urgostart Plus pad 17. Leger P. Vin F, Paradis H, Tacca O, Bohbot S. Management of venous leg ulcers with a lipidocolloid matrix impregnated with NOSF (Nano-Oligosaccharide Factor): Results of a clinical study. EWMA, May 2010, Geneva, Switzerland. [Study 18. Conde-Montero E, Bohbot S, Grado Sanz R, Peral Vázquez A, Recarte-Marín L, Pérez-Jerónimo L, Galán Sánchez JL, de la Cueva Dobao P. Association of autologous punch grafting, TLC-NOSF dressing and multitype comp
- rapidly achieve wound closure in hard-to-heal venous leg ulcers. J Med Vasc. 2020; 45(6): 316-325. doi: 10.1016/j.jdmv. 2020. 10.123 [Study conducted with Urgostart contact]
- 19. Richard JL, Martini J, Bonello Faraill MM, M'Bemba J, Lepeut M, Truchetet F, Ehrler S, Schuldiner S, Sauvadet A, Bohbot S. Management of diabetic foot ulcers with a TLC-NOSF wound dressing. Journal of Wound Care 2012; 21(3): 142-147. doi: 10.12968/jowc.2012.21.3.142 [Study conducted with Urgostart contact] Real-life studies
- 20. Multier N., meanine 3, Augustin M., Select, Refinite 12. The reality of Toutine practice, a pooled data analysis on chronic would detect with Tic-Mose would diessings. J Would date 2017, 26(30)(2), 34(30)(2), 34(31)(
- patients. J Wound Care 2020; 29 (6): 350-361. doi: 10.12968/jowc.2020.29.6.350 [Study conducted with Urgostart Plus pad and Urgostart Plus Border]
 22. Allaert FA. Etude observationnelle de la Synergie d'Action Séquentielle d'un pansement TLC-Ag puis TLC-NOSF sur la cicatrisation (Enquête SAS) [Observational study on the efficacy of TLC-Ag and TLC-NOSF on chronic wounds]. Soins 2014; 785:15-8. French. PMID: 24941523 [Study conducted with Urgostart]
- 24. Murray S, Norrie L. Reducing variation in care: Implementation of a leg ulcer pathway including treatment with UrgoStart Plus and UrgoKTwo compression system. Wounds UK 2020; 16 (1): 106-123.
- 25. Milne J, Nichols J. Optimising resources: an evidence-based pathway using UrgoStart for community based patients with wounds. Br J Community Nurs. 2021 Mar 2;26(3):130-135. doi: 10.12968/bjcn.2021.26.3.130. PMID: 3371 26. UrgoStart Plus in Real Life. Wounds UK Suppl. 26 Oct 2020. https://www.wounds-uk.com/resources/details/urgostart-plus-real-life (open access) 27. Scarpa C, Vindigni V, Basseto F. The TLC-NOSF for the treatment of ulceration in rheumatic disease. A case report. Ann Ital Chir; 2020 9- Oct 14. Pii. S2239253X20032934 Online Epub. PMID: 33085653
- 28. Hinojosa Caballero D, Torres Subires A, Álvarez Rodríguez LR, Garrigós Sancristóbal X, Pol Reyes MA, Espejo Arenas E, Viturtia González M, Delgado Ballesteros S, Sans Masip C, Pascual-Malo I, Zaguirre Medina M, Cuenda Macías M. Casos
- clinicos tratados con La tecnologia lipido coloidal (TLC) (CLINICAL CASES-TREATED WITH TECHNOLOGY LIPID COLLOIDAL (TLC)). Rev Enferm. 2016 Apr;39(4):8-16. Spanish. PMID: 27349057.

 29. Blasco García C, Segovia Gómez T, Bermejo Martínez M, Cuesta Cuesta JJ, Alventosa Cortés AM. Casos clínicos sobre el uso terapéutico en heridas crónicas de: Apósitos desbridantes de fibras hidrodetersivas de poliacrilato con TLC. Apósitos de espuma de poliuretano con TLC-NOSF (Clinical cases about the therapeutic use of debriding dressing hidrodetersive polyacrylate fibers with TLC and foam dressings TLC-NOSF polyurethane in chronic wounds). Rev Enferm 2012; 35(10):
- 31. Galea E and Khatib M. Addressing wound chronicity factors: UrgoClean Ag® and UrgoStart® case studies. Wounds Middle East. 2020; 7 (1): 25-29

Consensus documents, Best practices, pathways, and expert opinions

- 33. Ousey K, Atkin L, Conway Bet al (2021) Wound care and dressing selection for pharmacy teams. London: Wounds UK. Available to download from: www.wounds-uk.com

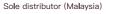
 34. Mullings J. Embedding National Institute For Health and Care Excellence guidance into a leg ulcer pathway. Community Wound Care 2019; 24(S9): S6-S11. doi: 10.12968/bjcn.2019.24.Sup9.S6

 35. Meloni M, Bouillet B, Ahluwalia R, Lüdemann C, Sánchez-Ríos JP, Jacopi E, Lazaro-Martinez JL. Fast-track pathway for diabetic foot ulceration during COVID-19 crisis: A document from International Diabetic Foot Care Group and D-Foot
- International, Diabetes Metab Res Rev. 2020 Aug 17:e3396. doi: 10.1002/dmr.3396. Epub ahead of print. PMID: 32804425

 36. Bullen B, Cowden J, Shorney R. Optimising care for patients with diabetic foot ulcers: overcoming the barriers. The Diabetic Foot Journal . 2020. 23(1): 56–60

 37. Dissemond, J., Augustin, M., Dietlein, M. et al. Sucrose Octasulfat Evidenz in der Behandlung chronischer Wunden. Hautarzt (2020). https://doi.org/10.1007/s00105-020-04637-9 [In German]
- 38. Lobmann R. ZeitgemäßeWundversorgung beim diabetischen Fußsyndrom Update zu Strukturen und Prozeduren. Diabetologe 2020; 16:329-338 https://doi.org/10.1007/s11428-020-00636-5 39. Caizhe Y, Ying C. Use of interventions to enhance healing of chronic foot ulcers in diabetes: the update interpretation of 2019 International Working Group on the diabetic foot guideline. Chin J Diabetes Mellitus; September 2020; 12 (9):
- 40. Sagüez FS. Gallardo RC. Pozo AP. Uso de apósitos con TLC-NOSF en el manejo de la úlcera de pie diabético, basado en la revisión de la evidencia y la práctica clínica. J Wound Care, 2020 Nov 1:29(LatAm sup 3):31-36. doi: 10.12968/jowc.2020.29 [In Spanish]
 41. 2020 Guidelines on the management of diabetic patients. A position of Diabetes Poland. Clin Diabetol 2020; 9, 1. doi: 10.5603/DK.2020.0001. [In Polish]
- 42. Mrozikiewicz-Rakowska B. Kucharzewski M. Jawień A. Sopata M. Bartoszewicz M. Szewczyk MT. Banasiewicz T. Borys S. Malka M. Korzon-Burakowska A. Lipiński P. Wegrzynowski A. Stepień A. Głażewski T. [Position of the expert group
- regarding UrgoStart dressings with LipidoColloidal Technology containing nano-oligosaccahride factor (TLC-NOSF)] Stanowisko Grupy Ekspertów dotyczące opatrunków UrgoStart, wykonanych w technologii lipidoko cząsteczki nanooligosacharydów (TLC-NOSF). Leczenie Ran 2018; 15(4):173-179 [Czech]
- Others:
 43. Lázaro JL, Izzo V, Meaume S, Davies AH, Lobman Rm Uccioli L. Elevated levels or matrix metalloproteinases and chronic wound healing: an updated review of clinical evidence. J Wound Care 2016: 25(5):277-287
 44. Honnegowda TM, Kumar P, Udupa EG, Kumar S, Kumar U, Rao P. Role of angiogenesis and angiogenic factors in acute and chronic wound healing. Plast Aesthet Res 2015;2:243-9.
- 45. White, R., Cowan, T., Glover, D. Supporting evidence-based practice: a clinical review of TLC healing matrix (2nd edition). MA Healthcare Ltd, London, 2015. White, R., Cowan, T., Glover, D. Supporting evidence-based practice: a clinical











URG-L1-2405E3

UrgoStart

A Local Treatment Proven To Reduce Healing Time

Chronic ulcers take over 200-240 days on average to heal despite standard treatment





DIABETIC FOOT ULCER

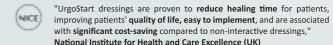




LEG ULCER

PRESSURE ULCER







NGDF "Consider the use of the sucrose-octasulfate impregnated dressing in non-infected, neuro-ischaemic diabetic foot ulcers, that are difficult to heal despite best standard of care," International Working Group on the Diabetic Foot

Our Mission at Urgo Medical: Healing People

At Urgo Medical, we believe 200 days healing time for leg ulcers, diabetic foot ulcers and pressure ulcers is too long. It represents a burden for patients, clinicians and healthcare systems. Indeed, leg ulcers, diabetic foot ulcers and pressure ulcers are known to be chronic wounds from the beginning due to their etiology, and therefore require a specific approach.

In addition to the etiological treatment (off-loading, compression...), a local wound treatment is needed to act on this factor. By addressing this, the TLC-NOSF Healing Matrix, the UrgoStart treatment range is clinically proven to reduce healing time^{7,8,9,20} of leg ulcers, diabetic foot ulcers, and pressure ulcers.

Composition of TLC-NOSF Healing Matrix



TLC (Technology Lipido-Colloid) consists of discrete hydrocolloid particles (CMC) dispersed in a jellified lipophilic layer, constituting a healing matrix, the composition of which has been patented. It is a unique innovative technology from Urgo Medical. TLC is the core technology of all the Urgo Medical products.

NOSF (Nano OligoSaccharide Factor)*is a compound that, combined with the TLC, has been shown to inhibit excess Matrix Metalloproteinases (MMPs) and promote angiogenesis^{9,45}, hence reducing healing time^{7,8,9,20}.

Mode of Action: TLC-NOSF Healing Matrix



Beyond the underlying etiology of Leg Ulcers, Diabetic Foot Ulcers and Pressure Ulcers, two key local factors significantly impair wound healing from the beginning:









Composition of TLC-NOSF Matrix

CMC particles

Lipophilic substances

Clinical Study: EXPLORER

Neutral dressing

with standard

% patients with complete wound closure* at 20 weeks

TLC-NOSF

of care

URGOSTART SIGNIFICANTLY INCREASED THE RATE

OF COMPLETE DIABETIC FOOT ULCER WOUND CLOSURE VERSUS STANDARD OF CARE ALONE.

Wound closure: Defined as 100% epithelialization with no drainage and

+60%

NOSF* particle

- 1a. A prolonged inflammatory phase with increased levels of Matrix Metalloproteinases (MMPs)⁴³ which are present from the beginning of the wound and destroy essential extracellular matrix (ECM) components.
- 1b. Inhibition of excess matrix metalloproteinases (MMPs): NOSF has been shown to inhibit MMPs⁴⁵. Since MMPs are the main enzymes implicated in the extracellular matrix (ECM) degradation, their inhibition results in a reduction of proteolytic destruction of essential ECM components.





- 2a. An impaired blood vessels network⁴⁴ leading to hypoxia and defective micronutrient delivery.
- **2b. Promotion of angiogenesis through proliferation and migration of endothelial cells**^{9,45} NOSF has a unique structure that interacts with growth factors, particularly those acting on endothelial cells. Thus, it promotes proliferation and migration of endothelial cells, leading to angiogenesis.

TLC-NOSF: the highest level of Evidence in Wound Care

UrgoStart has proven its unique efficacy to reduce healing time with the highest level of evidence 7,9,20

In Leg Ulcers In Diabetic Foot Ulcers NICE¹ recommends the UrgoStart range for DFUs and VLUs 2020 IWGDF guidelines² recommends UrgoStart dressings to enhance wound healing of Meta NICE¹ recommends the UrgoStart range for VLUs and DFUs analyses Systematic review on MMPs reducers³ Systematic review on interventions to enhance healing of foot ulcers in diabetes⁵ Systematic review – Benefit of TLC-NOSF dressings & systemati Systematic review on MMPs reducers³ Systematic review - Benefit of TLC-NOSF dressings⁴ reviews CHALLENGE^{6,7}, double-blind RCT (vs neutral dressing) **EXPLORER**^{9,10}, international double-blind RCT (vs neutral Venous and mixed leg ulcers - 187 patients dressing)Patients with DFUs, neuropathy and PAD - 240 WHAT⁸, RCT (vs another MMP reducer dressing); Venous and **RCTs** mixed leg ulcers - 117 patients Cost-effectiveness analyses 13-15 Cost-effectiveness analyses^{11,12} NEREIDES/CASSIOPEE¹⁶, multicentre, prospective clinical trials. Venous and mixed leg ulcers - 37 and 51 patients Investigational studies SPID¹⁹, multicentre, prospective clinical trial. Neuropathic DFUs -**STARTER**¹⁷, multicentre, prospective clinical trial - 22 VLUs (non-comparative clinical trials) 33 Patients The Condé trial¹⁸, prospective clinical trial - 51 grafted ______ ______ **REALITY**²⁰, pooled data analysis of real-life studies on REALITY²⁰, pooled data analysis of real-life studies on VLUs, DFUs VLUs, DFUs and PUs - 10,220 patients and PUs - 10 220 natients GOS²¹, German prospective Observational Study on Observational studies GOS²¹, German prospective Observational Study on DFUs, VLUs DFUs, VLUs and PUs - 1,140 patients (real-life clinical studies) and PUs - 1,140 patients SAS²², French prospective observational study on SAS²², French prospective observational study on DFUs, VLUs DFUs, VLUs and PUs - 279 patients and PUs - 279 patients Most recent case studies and case reports from Most recent case studies and case reports from Spain³⁰. Case series. Case reports the UK²³⁻²⁶, Italy²⁷, or Spain^{28,29} the UK²⁶, or the UAE³¹ In vitro study³² on MMP reduction In vitro study³² on MMP reduction Pre-clinical studies (animal research, in-vitro studies) Most recent best practices. DFU Pathways³⁵⁻⁴² Most recent best practices, LU Pathways 33,34 Expert consensus / opinion including TLC-NOSF dressings including TLC-NOSF dressings

23/02/2016 (W4)

After surgical debridement

20/01/2016 (D0)

Wound area 2.5 cm²

After surgical

debridement

01/03/2016 (D36) completely

08/02/2016 (W2)

After surgical

Medical History: Type 1 DM for 22 years, HbA1c was 7.7; diabetic neuropathy and mild ischemia confirmed

Sex / Age: M / 54 Wound Description

- Wound size of 2.5 cm² over the amputation site of
- Wound presented for 2.5 months, treated with neutral foam (Mepilex) before inclusion of the trial
- Wound treated with UrgoStart contact layer (average dressing change 2 times per week), surgical debridement and offloading devices

URGOSTART ALLOWED PATIENTS TO

REACH COMPLETE CLOSURE 60 DAYS

SOONER VERSUS NEUTRAL DRESSING

WITH THE SAME STANDARD OFCARE.

- Complete healing in 36 days
- Surrounding skin was considered healthy during the full treatment period

DFU Patients Treated with TLC-NOSF in the EXPLORER Study



Medical History: Type 2 DM for 15 years, HbA1c was 7; diabetic neuropathy and mild ischemia confirmed.

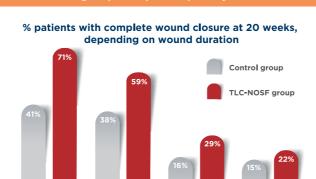
Sex / Age: M / 57

- **Wound Description:** • Wound size of 4.4 cm² at the sole of left foot
- Wound presented for 3.5 months, treated with neutral foam (Actisorb) before inclusion of the
- Wound treated with UrgoStart contact layer (average dressing change 2 times per week), surgical debridement, removal of hyperkeratosis and offloading devices

· Complete healing in 43 days

Secondary Endpoint: Estimated Time to Complete Closure (Kaplan Meirer Analysis) Primary Endpoint: Wound Closure* by Week 20

Control group TLC-NOSF group Time to Closure Difference (Mantel-Cox) p=0.029 (110-129) Subgroup Analysis: Impact of Wound Duration on Wound Closure in Both Treatment Arms¹⁰



2 to ≤ 5 months 5 to ≤ 11 months > 11 months

- Urgostart, regardless of the wound duration. • The sooner Urgostart is initiated, the better the results in comparison to a neutral dressing.

• The percentage of wounds healed is always greater with

• The difference in % of healed wounds is higher for wounds present for less than 2 months, which advocates for the implementation of Urgostart as soon as possible for a maximum efficacy & impact on patient outcomes.

Conclusion

UrgoStart is the only treatment proven in a double blind RCT to have a significantly higher wound closure rate and a shorter healing time for diabetic foot ulcers, compared to a neutral dressing with the same standard of care.

- UrgoStart has a superior efficacy compared to neutral dressing, whatever the wound duration;
- The sooner UrgoStart is initiated, the better the healing outcomes for the patient;
- The superior efficacy of UrgoStart demonstrated in this trial supports the use of UrgoStart as a new local treatment in DFUs in addition to good standard of care.

TLC-NOSF Evidences: Scan to Read More









CHALLENGE