

## Appendix

Authors and year	Type of study	Sample	Objective and conclusion
Seidel D <sup>14</sup>	DiaFu multicenter clinical study	368 adults with diabetic foot ulcers.	Objective: To compare the use of NPWT and SMWC in the diabetic foot. Conclusion: The rate of complete wound closure is higher in patients treated with NPWT, as well as hospitalization time is reduced by up to 1.4 days for such patients.
Wang N, Shuang L, Shuang L, Ping Liu Y, et al., <sup>15</sup>	Systematic review and meta-analysis of randomized controlled trials	10 trials were included (619 patients in NPWT and 625 in MWC)	Objective: To compare the efficacy and safety of NPWT with standard wound care. Conclusion: Patients with NPWT have a higher rate of complete closure than those treated with MWC. Furthermore, NPWT increases granulation tissue significantly with respect to MWC in the 2-week period.
Llamas Fernández <sup>16</sup>	Systematic review	A total of 22 studies were included	Objective: to evaluate the results after the application of negative pressure therapy, as well as its influence on the economic sphere and quality of life. Conclusion: Negative pressure therapy reduces the hospital stay of patients undergoing treatment, although caution should be taken with complications derived from this therapy. However, more research is required on the quality of life of these patients.
Jun Wu Y, Chen L, Wu S, Yu L, et al., <sup>17</sup>	retrospective study	16 patients with diabetic foot ulcers	Objective: To know the effectiveness and safety of the simple skin tightening system and NPWT in diabetic foot wounds. Conclusion: The application of the simple skin stretching system and NPWT is an effective and safe approach to diabetic foot wounds, since it reduces hospitalization time and costs, increasing patient satisfaction.
Wynn M, Freeman S <sup>18</sup>	Systematic review	A total of 3 randomized controlled trials, 2 case series, 1 uncontrolled trial and 1 case-control study.	Objective: To study the effectiveness of wound treatment with NPWT in diabetic foot ulcers. Conclusion: It has been shown that the application of NPWT significantly reduces the risk of amputation, stating that the use of this therapy increases the rate of granulation tissue formation, decreasing the area and depth of the wound.
Borys S, Hohendroff J, Kobilk T, et al., <sup>19</sup>	Prospective observational study	75 patients with DFU treated on an outpatient basis	Objective: To evaluate the short- and long-term efficacy, as well as the safety of NPWT in patients with type 2 DM and diabetic foot ulcers. Conclusion: The use of negative pressure therapy achieves closure rates of up to 56%, being useful and effective in the treatment of diabetic foot ulcer, since it reduces the wound area by up to 10% on day 8 of treatment.
Nathaniel Chiang, Rodda OA, Sleigh J, Vasudevan T <sup>20</sup>	Randomized controlled trial	48 patients with acute lower extremity wounds	Objective: To evaluate changes in wound volume, depth and tissue oxygenation with NPWT compared to traditional dressings. Conclusion: The application of NPWT reduces the dimension of the wound, in addition to showing a greater speed in reducing its depth. However, there is no clear reduction in wound volume compared to dressings.
Barreiro García L, Closed Enciso A, García Later N, et al., <sup>21</sup>	Systematic review	Searches in Cuiden, Scielo, Cochrane and Elsevier databases.	Objective: To know the evidence on the use of negative pressure therapy in the diabetic foot and its profitability. Conclusion: The use of negative pressure therapy reduces hospital stay while decreasing healing time. However, more research is required on the cost-effectiveness benefit.

González Ruiz M, Torres González JI, Pérez Granda MJ, et al., <sup>22</sup>	Systematic review	12 RCTs were included.	Objective: To evaluate the effectiveness and real applicability of negative pressure therapy in diabetic foot ulcers. Conclusion: The use of NPWT promotes a greater surface area of granulation tissue, reduces wound extension and reduces healing time, demonstrating a cost-effectiveness benefit by thus reducing hospital stays.
Vasallo IM, Fomorosa C <sup>23</sup>	Quasi-experimental clinical trial	30 patients with type 2 diabetes and neuroischemic ulceration	Objective: Compare and evaluate the effectiveness of V.A.C therapy with alginate dressings in DFU. Conclusion: The use of V.A.C. therapy reduces wound area up to 3.2 times more than alginate and reduces wound depth up to 3.78 times more than dressings.
Ho Park J, Ung Park J <sup>24</sup>	retrospective study	26 patients (14 flaps with NPWT and 12 flaps with conventional therapy)	Objective: To evaluate the effectiveness and safety of postoperative monitoring implemented in conjunction with TPN after flap operations to treat diabetic foot. Conclusion: The use of TPN promotes wound healing through fluid extraction, minimizing edema and optimizing blood flow. With this, the viability of the flaps is achieved, flap monitoring being essential for its success.
Alipur V, Rezapour A, Ebrahimi M, Arabloo J, et al., <sup>25</sup>	Economic evaluation study	Analysis of 200 patient records (100 NPWT; 100 TWC)	Objective: To evaluate the cost-effectiveness of NPWT compared to traditional wound care for DFU. Conclusion: After the use of NPWT in diabetic foot ulcers, it is shown that the costs are lower than those of traditional wound care, being more effective, since it accelerates the granulation process. Therefore, the use of NPWT is more cost-effective than conventional wound healing treatment.
Maranna H, Lal P, Mishra A, Bains L, Sawant G, et al., <sup>26</sup>	Prospective randomized study	45 patients with grade 1 and 2 DFU	Objective: Compare the effectiveness of negative pressure therapy and conventional saline dressings. Conclusion: The application of TPN in the diabetic foot significantly reduces the size of the ulcer compared to traditional dressings. In addition, it increases the formation of granulation tissue, thereby reducing the hospital stay of patients treated with TPN.
Lehrman JD <sup>27</sup>	Clinical case	Patient with DM 1 with chronic UDP lasting 6 months	Objective: To evaluate the use of collagen together with negative pressure therapy for the treatment of diabetic foot ulcers. Conclusion: The application of negative pressure therapy together with the application of a contact layer of collagen matrix in the wound bed reduces the total wound area significantly. Therefore, it is demonstrated that this combination has favorable benefits in relation to wound healing and total wound closure time.
García Oreja S, Navarro González Moncayo J, Sanz Corbalán I, et al., <sup>6</sup>	Retrospective observational study	57 patients, of which 48 showed some complication derived from TPN	Objective: To know the most frequent complications after the application of negative pressure therapy in patients with diabetic foot ulcers. Conclusion: Negative pressure therapy produces few and mild complications, where the most frequent is maceration of the perilesional skin, which is easy to solve.
Yafen Yan, Li W, Song Y, et al., <sup>28</sup>	Clinical case	71-year-old patient with DM, who presents with grade 4 lower extremity ulceration.	Objective: To evaluate the effectiveness of negative pressure therapy in grade 4 diabetic foot wounds. Conclusion: The application of negative pressure therapy favors the growth of granulation tissue faster than other therapies, being an alternative for diabetic foot ulcer cures, since it reduces amputations and thereby improves the quality of patient's life.
Liu Z, Dumville JC, Hinchliffe RJ, Cullum	meta-analysis	11 RCTs with sample sizes between 15 and 341 participants	Objective: To study the effects of negative pressure therapy compared to standard treatment on diabetic foot. Conclusion: The use of negative pressure therapy, compared to traditional dressings, increases the number of ulcers healed in a shorter time, thereby reducing the risk of

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N, et al., <sup>29</sup>			amputation and increasing the quality of life of patients.
Sukur E, Akar A, Cagri Uyar A, et al., <sup>30</sup>	retrospec tive study	65 diabetic patients with DFU	Objective: Compare negative pressure therapy with conventional wet dressings in the treatment of diabetic foot ulcers. Conclusion: The use of V.A.C. therapy achieves up to 90% granulation tissue compared to traditional dressings, demonstrating reduction in ulcer diameter and depth in a faster time.
García Martínez L, Pintueles Álvarez C <sup>31</sup>	Systemat ic review	20 items	Objective: To know the real advantages of using negative pressure therapy in the nursing field. Conclusion: The application of negative pressure therapy reduces tissue edema, increasing revascularization and the formation of granulation tissue. Furthermore, this application reduces local bacterial levels, reducing the risk of infection and the length of hospital stay, increasing the quality of life of patients undergoing said therapy.
Rys P, Borys S, Hohendorff J, Zapala A <sup>32</sup>	meta- analysis	16 observational studies (12 single- arm and 4 comparative)	Objective: Compare the clinical efficacy and safety of negative pressure therapy with conventional treatment in patients with diabetic foot. Conclusion: Patients undergoing negative pressure therapy have higher healing rates and lower amputations than those treated with conventional wound healing therapies. However, the importance of more research on this novel therapy is highlighted.

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