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60,000 Miles: The Blog

Mile 2: Jetox™ - a solution for patients who cannot tolerate sharp debridement

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Have you treated or cared for a patient who could not tolerate sharp debridement due to pain intolerance? Or, have you found that the next step for a patient was to take them to the operating room to remove the devitalized tissues present on their wound bed? After almost a decade of being involved with wound care treatments, I know that this situation is very prevalent.

"With the introduction of Jetox™ into our clinic, we are now able to debride 5 patients on a weekly basis whom previously did not tolerate sharp debridement. What a godsend! I can tell you that patients are grateful for having found a modality which allows appropriate debridement with much reduced (or no) pain." *Harvey Hashimoto MD, Medical Director, Lodi Health Wound Treatment Center, Lodi, CA*



As many know, debridement is an appropriate treatment to transition a chronic wound to resemble an acute wound by improving the protease and cytokine levels. If a wound has necrotic tissues present, it is not considered a healthy wound bed, which can increase healing times for the patient. With sharp or surgical debridement being the quickest and most effective option for debridement, many patients have pain at their wound bed and cannot tolerate this option of debridement. As a clinician, we want these wounds to have the best chance at healing as quickly as possible. The less time it takes to heal, the less chance the wound has to get infected or cause further issues for the patient. Other options for debridement include autolytic, mechanical, enzymatic/chemical, and bio-surgical. I have listed some of the features of each type of debridement along with potential downfalls from each of these:

- Autolytic debridement is the destruction of necrotic tissues that use the body's white blood cells and natural enzymes to digest the devitalized tissues while leaving healthy tissues intact. This can be a very slow process, as some patients do not have a sufficient amount of white blood cells to complete this process. While this is the least invasive method of debridement, it can also be the slowest.
- Mechanical debridement is a non-selective form of debridement. Force is used to manually remove a dressing with hopes that the necrotic, or non-viable, tissues are removed along with the dressing. This form of debridement can be very painful and, since it is non-selective, the chance of removing healthy tissues along with the non-viable tissues is high.
- Enzymatic/Chemical debridement products dissolve necrotic tissues. Currently, there are only 1-2 products in the wound care market that meet standards for enzymatic debridement. From my experience, these products can also take a long time to reach the treatment goal, often requiring sharp debridement in conjunction. Another negative is that these products can be very expensive and many times are not covered by insurance.
- Bio-surgical is the medical use of live maggots (fly larvae) for treating non-healing wounds. Medicinal maggots have three mechanisms of action, 1) they debride (clean) wounds by dissolving the dead (necrotic), infected tissue; 2) they disinfect the wound by killing bacteria; and 3) they stimulate wound healing. This process can be time consuming as well as not widely accepted by patients. Although it is an effective debridement tool, it is not widely utilized due to regulatory restrictions in many places.

Jetox™, a high powered jet lavage treatment from DeRoyal, allows for a debridement option that is effective in removing devitalized tissues without the use of extra tools or products. Your treatment options after debridement can vary based on the needs of your patient; however Jetox™ gives you a debridement option that is quick, with little to no mess and has been reported by patients to be virtually painless. Jetox™ is effective in removing unwanted necrotic tissues which helps stimulate the wound bed for healing purposes. **This product does not require or need suction due to the minimal amount of fluid necessary to get the desired results and has been assigned a CPT code that may be appropriately billed in many settings.**

Jetox™ is ideal for use on patients who cannot tolerate sharp debridement. It can also be used in conjunction with other therapies for debridement (e.g. primary dressing choices). Clinicians have mentioned how easy Jetox™ is to set up and use, but more importantly they and their patients have been very impressed by the results they are seeing with their wounds!

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