

Letter to Editor

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# Classification of negative pressure wound therapy

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Since relatively new negative pressure wound therapy (NPWT) has become an integral part of simple to complex wound management, effective price transparency of NPWT should include the release of clear, accurate, and actionable information for patients to determine their cost of treatment and remove the guesswork. The amount and type of material used, number of hours of negative pressure application, cost of maintaining negative pressure for a definite period, *etc.*, usually determine the cost of NPWT. With this idea of price transparency, the author attempted to classify NPWT in different ways. The author believes that, with similar attempts by various authors in the future, a better classification would evolve.

A. Depending on the schedule of negative pressure and type of environment produced under the NPWT device, it may be classified as:

1. Continuous NPWT [Vacuum Assisted Closure (VAC)]<sup>[1]</sup> (KCI Medical, San Antonio, Texas) and Versatile-1 Wound Vacuum System (Versatile-1 WVS) (Blue Sky Medical, La Costa Calif)<sup>[2]</sup>.
2. Intermittent NPWT [Limited access dressing (LAD)]<sup>[3,4]</sup>.

B. Depending on the interface material used between the tissue and device, NPWT may be classified as:

1. NPWT with interface such as foam, gauze, or other porous material that helps to distribute the negative pressure uniformly over wound surface. Examples include VAC<sup>[1]</sup> and Suction Assisted Dressing (SAD)<sup>[4]</sup>. In this type of NPWT devices, granulation grows in the pores of interface material and does not provide favorable environment for epithelialization.
2. NPWT without interface material. An example is LAD. This type of NPWT is better for epithelialization.



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The single use portable NPWT dressing used for outdoor (OPD) patients is PICO (Smith and Nephew Healthcare, Hull, United Kingdom) that requires fewer dressing changes and is an adjuvant therapy to hasten wound healing. PICO is better accepted by OPD patient with reduced financial burden<sup>[5]</sup>.

C. Depending on sealing of the device, NPWT may be classified as:

1. NPWT with occlusive dressing: such dressings provide moist healing environment with enormous capacity to remove soakage. Examples include VAC and LAD. Moist healing becomes more effective in intermittent negative pressure regimen, such as in LAD<sup>[3,4]</sup>.
2. NPWT with semi-occlusive dressing. Such dressings, apart from negative pressure, provide wet to dry environment, and are effective in wounds with relatively small amount of soakage. An example is SAD<sup>[4]</sup>.

D. Depending on area of dressing, NPWT may be classified as:

1. Small area dressing.
2. NPWT over a part of a region of the body, e.g., foot.
3. NPWT over a region of the body, e.g., inferior or superior extremity.
4. Separate NPWT over multiple regions of the body, e.g., both limbs separately, one upper limb and one lower limb, *etc.*
5. Extra large and complex NPWT, e.g., upper limb and adjacent chest.
6. Whole body dressing, e.g., in extensive burn areas.
7. Special area NPWT, e.g., perineum, face and scalp, or over area with external fixator.

## DECLARATIONS

### Authors' contributions

The author contributed solely to the article.

### Availability of data and materials

Not applicable.

### Financial support and sponsorship

None.

### Conflicts of interest

The author declared that there are no conflicts of interest.

### Ethical approval and consent to participate

Not applicable.

### Consent for publication

Not applicable.

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