Correlation of Wound Bed Score and Its Reduction Rate (pilot project)
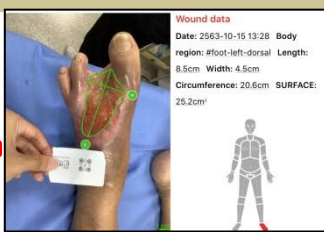
Rattana Pianchareonsin[1], Gulradar Sivasarit[2], Benjawan Worawitnoppakul[2], Tipyanee Thinwilai[2],
[1]APN – Peripheral Arterial Disease, [2]RN Vascular Wound Care Nurse Team,
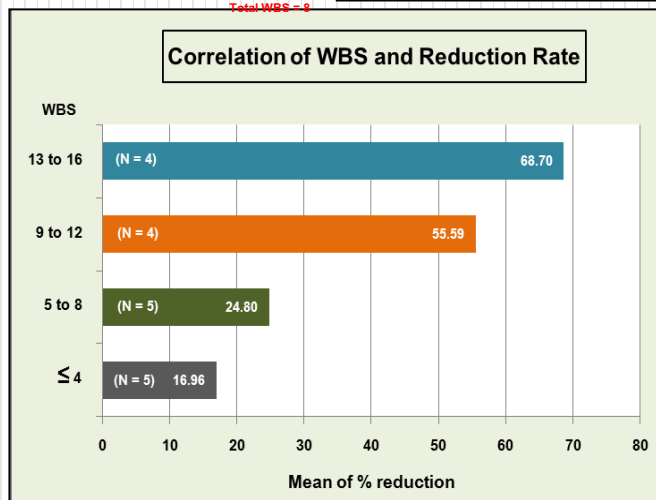Nursing Department Siriraj Hospital, Siriraj Vascular Center

Abstract: Efficient wound bed preparation is very important for wound healing, and includes of decreasing the bacterial burden, removing necrotic tissue, controlling exudate, and promoting granulation tissue[1-2]. We use the wound bed score (WBS) to evaluate outcome of wound bed preparation in 18 ischemic ulcer patients after revascularization. We evaluated the photographs at baseline to determine the wound characteristics. The study show that WBS system can predict closure in wounds treatment[3]. In conclusion the best result of wound bed preparation will promote to increase in WBS score and will reduce the duration of wound healing. In the case of vascular patients, nurses need to select the best practice of Wound Bed Preparation, especially for patients taking antiplatelet. 0.1% polyhexanide-betaine gel is the appropriate choice for the management of wound bed score in these patients.

no	area 1	area 2	WBS	Start date	End date	Duration (m)	% Reduction
1	52.9	0	5	8-Feb-21	30-Jun-21	4.73	21.13
2	56.3	0	3	10-Apr-21	4-Nov-21	6.93	14.42
3	11.9	0	15	17-Jun-21	9-Aug-21	1.77	56.60
4	2.3	0	15	4-Feb-21	11-Mar-21	1.17	85.71
5	16.8	4.6	7	20-Apr-21	19-Jul-21	3.00	24.21
6	7.5	0	13	17-Jun-21	4-Aug-21	1.60	62.50
7	6.16	0.2	8	21-Jan-21	1-Jun-21	4.37	22.16
8	34.5	15	4	25-Feb-21	20-May-21	2.80	20.19
9	4.9	1.7	14	26-Aug-21	23-Sep-21	0.93	69.97
10	35.3	32.5	4	19-Aug-21	2-Sep-21	0.47	17.00
11	30	23.2	3	12-Jul-21	19-Aug-21	1.27	17.89
12	21.4	13	3	19-Aug-21	4-Nov-21	2.57	15.29
13	6.5	1	11	19-Jun-21	4-Aug-21	1.53	55.18
14	25.2	0	8	16-Oct-20	18-Jan-21	3.13	31.91
15	29.5	0.5	6	15-Mar-21	13-Jul-21	4.00	24.58
16	27.5	0	11	15-Apr-21	5-Jun-21	1.70	58.82
17	3.7	0	9	19-Aug-21	3-Oct-21	1.50	66.67
18	5.7	3.8	9	10-Oct-21	3-Nov-21	0.80	41.67

Wound Bed Score (WBS) chart and Wound data. Total WBS = 8

Correlation of WBS and Reduction Rate

WBS	Mean of % reduction
13 to 16 (N = 4)	68.70
9 to 12 (N = 4)	55.59
5 to 8 (N = 5)	24.80
≤ 4 (N = 5)	16.96

Limitation: Evaluation of the photographs was performed by co-study, not blinded observer and involve to the project. Further studies are going to develop guideline of wound dressing selection base on WBS.

References

1. Falanga V. Classifications for wound bed preparation and stimulation of chronic wounds. Wound Repair Regen 2000: 8: 347-352.
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3. Falanga V, Saap LJ, Ozonoff A. Wound bed score and its correlation with healing of chronic wounds. Dermatol Ther 2006: 19: 383-390