



An Evaluation Of The VACOcast Diabetic Boot™ Within The Community

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Introduction.

The VACOcast Diabetic boot was evaluated on 20 patients by a community podiatry service. It was used to provide offloading within the framework of best practice recommended by NICE¹, which also includes debridement, wound management, infection control and management of ischaemia for up to 8 weeks.

The primary outcome of the evaluation was to observe the reduction in foot complications in patients with diabetes (ulceration and Charcot development). The secondary outcomes were to identify patient use, durability of the boot and potential cost savings.

Results

17 male and 3 female patients were recruited, with an age range of 41-80 years. 19 patients were type 2 diabetics. 17 had an increased BMI indicating that they were obese or overweight. The mean HbA1C was 79.3 mmol/mol, with 19 patients having an increased reading.

All of the patients were assessed as requiring offloading:-

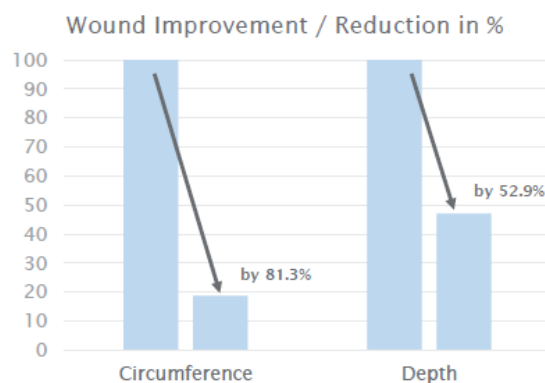
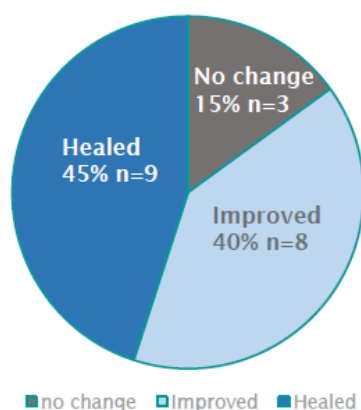
- In 12 patients a Total Contact Cast (TCC) was contraindicated as the wounds were infected.
- In 6 patients, a TCC was not available.
- 2 patients were changed from other offloading devices for clinical reasons.

All patients were offered an EVENup for the contralateral limb to prevent device related injury.

Outcomes after 8 weeks investigation period

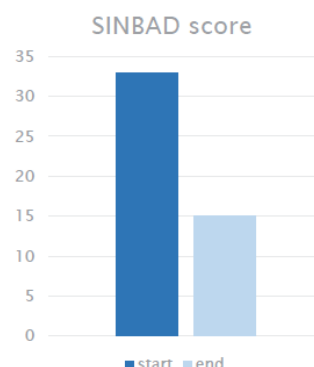
45% (9) healed; 40% (8) improved; 15% (3) no change

81% reduction in circumference, 53% reduction in depths of the wounds



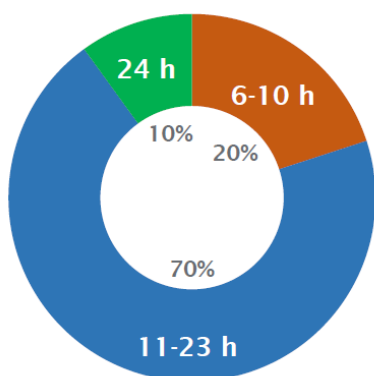
SINBAD score was reduced by 19 within the 8 weeks investigation period

Patient	TEXAS start	TEXAS end	SINBAD start	SINBAD end	Outcome
1	A2	A0	3	1	heal
2	A1	A0	2	1	heal
3	A1	A0	2	1	heal
4	B3	A0	4	1	heal
5	B3	A0	3	1	heal
6	A1	A0	2	1	heal
7	B1	A0	3	1	heal
8	A1	A0	1	1	heal
9	B1	A0	2	1	heal
10	B3	A1	4	3	improve
11	B3	B1	5	4	improve
12	B1	B1	5	5	no change
13	A1	A1	2	2	no change
14	B3	A1	4	3	improve
15	A1	A1	2	1	improve
16	B1	A1	3	2	improve
17	B1	B1	3	3	no change



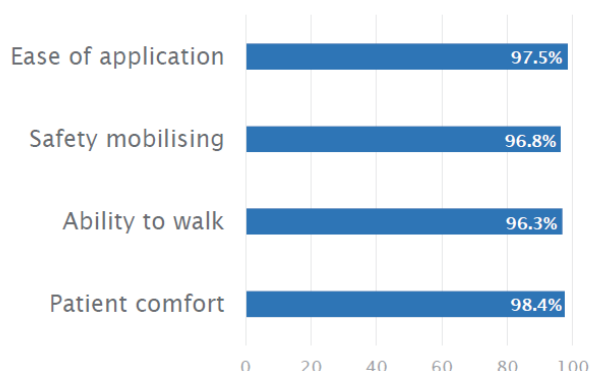
Patient Concordance and Satisfaction

70% wore VACOCast Diabetic between 11 and 23 hours



*no Lock was applied to these patients

High Patient Satisfaction (ranking 96.3% – 98.4%)



Acceptability and Durability of the VACOCast Diabetic Boot.

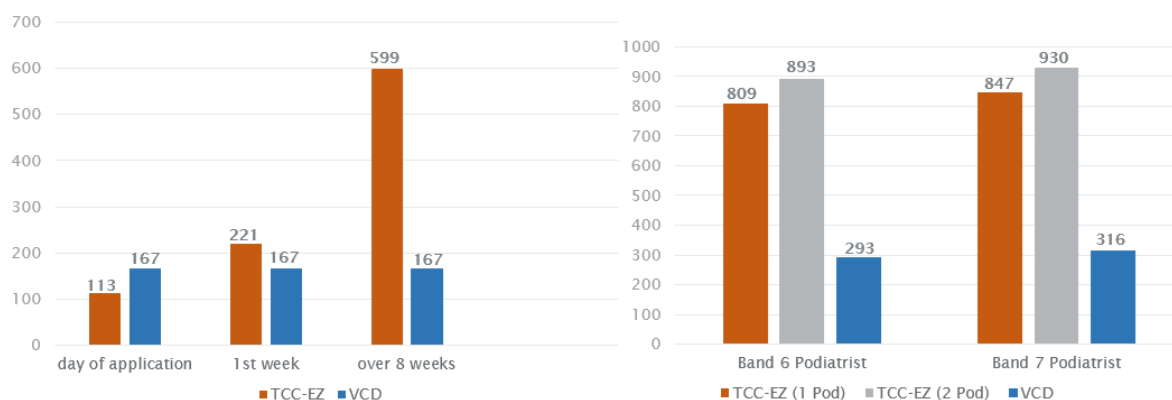
- No device related injuries were reported.
- Highly rated by patients for comfort, safety, stability and ability to mobilise, and ease of use.
- Worn safely over a range of terrains.
- Durable during wear, and the ability to wash the liner provided a hygienic solution when required.
- Worn over a range of time periods ranging from 6-24 hours.

Cost saving

Saving: £423
Consumables only

Saving: £600
(Consumables + Clinician time)

16 clinician appointments in hospital were saved



The potential for cost saving was calculated from the data of the patients who healed.

- Mean weekly cost saving on dressings was only £0.37
- 16 clinician appointments were saved.

Using the cost of the VACOCast Diabetic boot in comparison to other methods of offloading, the potential cost savings may be :-

- £516.28 - £614.66 if the TCC-EZ® is funded through a business case to the Clinical Commissioning Group.
- £365.96 - £384.81 when the patient attends an Out-Patient Clinic

Patient cases



01/11/2017



12/12/2017



Case Study 1

VACOCast Diabetic boot used with EVENup on contralateral limb.

Healed in 6 weeks



28/09/2017



09/11/2017



Case Study 2

VACOCast Diabetic boot used with EVENup on contralateral limb

Healed in 6 weeks



11/12/2017



25/01/2018



Case Study 3

VACOCast Diabetic boot with TCC applied on contralateral limb.

Healed in 7 weeks

Conclusion

This is a small, uncontrolled study, where the outcomes suggest that it is an effective method of offloading. It provides clinical benefits and potential cost savings when used with “best practice” on patients in the community.

Clinician Comments:

“ Despite the patient having a BMI 52 and a HbA1C of 104, the boot accelerated healing in 30 days”

“ Patient very happy with boot – has made a significant difference to right foot”

References

1. National Institute for Health and Care Excellence. Diabetic foot problems: prevention and management. January 2016. www.nice.org.uk.
2. Ince P, Zulfiqaili AG et al. Use of the SINBED Classification System and Score in Comparing Outcome of Foot Ulcer Management on Three Continents. Diabetes Care 2008 May; 31(5): 964-967. <https://doi.org/10.2337/dc07-2367>

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