Bioactive Beta-Glucan® Gel is a sterile, homogenous viscous gel that contains Soluble Beta-Glucan (SBG) extracted from Baker’s Yeast S. cerevisiae, Glycerol, Carboxymethylcellulose and water. The hydrogel components provide a moist healing environment and supports autolytic debridement. SBG has been found to be a powerful immunomodulator in animal models and an effective, safe and well tolerated treatment in diabetic foot and leg ulcers.

Wound care demands extensive financial resources. Current estimates indicate that costs to the National Health Service in the UK are in the region of £4.5 - £5.1 billion per annum. Evaluating the economic benefits of therapeutic intervention is therefore of paramount importance in the dressing selection process.

Aim: To report on the cost-effectiveness of treating patients with diabetic foot ulcers (DFU) with a Bioactive Beta-Glucan Gel dressing plus secondary dressing when compared to the standard of care dressing (methylcellulose).

Method: A health economic evaluation of a prospective, double-blinded, randomized controlled study of 60 patients with DFUs who received a SBG gel or a 2% methylcellulose (MC) hydrogel. The SBG gel efficacy was evaluated by the percentage of fully healed ulcers at 8 and 12 weeks where treatment was applied 3 times weekly. Cost effectiveness was measured by calculating per patient costs over an annual budget cycle.
Economics is the science of scarcity. We have unlimited healthcare needs but limited resources. We therefore need to make careful choices when it comes to deciding on therapeutic interventions.

54 patients completed the treatment in the Per Protocol (PP) population, total of 57 ulcers.

- At 8 weeks, a significantly higher healing incidence was observed in the SBG gel group (44% vs 17%, P=0.03), and a clearly higher incidence was seen at 12 weeks (59% vs 37%, P=0.09).

Results / Discussion

The mean number of weeks healed for patients treated with SBG was 4.0 compared with 1.8 for the MC group.

![Mean number of weeks healed](chart)

The SBG gel group demonstrated an incremental 2.13 more wounds healed at 12 weeks.

When results are extrapolated to 1 year the SBG gel group will see 94% of wounds healed with 78% healed in the standard of care group. These results deliver an incremental cost effectiveness ratio of £47.40 per additional healed week and a yearly cost saving of £503.15 per patient. Thus, more patients heal faster and the average cost per patient treatment is reduced by £503 within an annual treatment cycle.

![Results extrapolated to 1 year](chart)

![Cost reduction](chart)
SBG wound dressing offers improvements in healing rates at 8 and 12 weeks of treatment when compared to 2% methylcellulose hydrogel. Annual cost savings exceed £500 per patient.

*Bioactive Beta-Glucan Gel is marketed as Woulgan®

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References: