

Clinical studies on dietary management of wounds using Cubitan

Cubitan has unrivalled clinical evidence supporting its efficacy in the dietary management of wounds

Table 1. Treatment studies with Cubitan

Reference	Study type	Population	Intervention	Results	Comments
CUBE Trial BREAKING RESULTS NEW	RCT	43 non-malnourished institutionalised patients with grade III and IV wounds	3 Cubitan daily vs. non-caloric placebo	Cubitan treatment improved PU healing compared to control group. Cubitan treatment showed a significant difference in PU surface area ($p=0.016$) and PUSH* score ($p=0.033$) over time compared to the control group Cubitan treatment resulted in a significant change in wound size 2 weeks earlier than the control group (3 weeks compared to 5 weeks) Cubitan treatment showed significantly less dressings per week compared to control at weeks 3, 5, 6, and 7 ($p<0.05$) and less time spent on dressings at week 4 compared to control ($p=0.010$)	The authors conclude that this study proves that non-malnourished patients with wounds can benefit directly from a specific nutritional supplement (Cubitan) and that the benefit of this supplement might reach beyond restoring caloric and protein deficiencies, as often is the case in malnourished patients
Cereda et al., 2008	RCT	28 institutionalised elderly with grade II-IV wounds	13 subjects received standard diet plus 2 Cubitan or Cubison daily and 15 subjects received standard nutrition (hospital diet or standard 16% energy from protein ONS) for a period of 12 weeks	Cubitan or Cubison reduced PU surface area significantly more than standard enteral formula after 8 ($P<0.02$) and 12 weeks ($P<0.005$) Cubitan or Cubison treatment reduced PUSH score significantly more than controls after 12 weeks ($P<0.05$) Cubitan or Cubison treatment and treatment with a standard enteral formula both resulted in significantly improved PU healing compared to baseline ($P<0.0001$) after 12 weeks	The authors concluded that the rate of PU healing appears to accelerate when Cubitan or Cubison is administered, making such a formula preferable to a standard enteral formula, however further confirmation is required
Heyman et al., 2008	CT, single group	245 long-term care residents with grade II-IV wounds; mean age 82 y	2-3 Cubitan daily for 9 weeks, along with their normal diet or enteral feed and standard pressure care	Cubitan treatment reduced average PU area from $1580\pm 3743\text{mm}^2$ to $743\pm 1809\text{mm}^2$ ($P<0.0001$). This resulted in a reduced mean wound area by 30% in just 3 weeks and by 53% in just 9 weeks Cubitan treatment resulted in complete wound closure after 3 and 9 wks in 7% and 20% of patients Cubitan significantly reduced the amount of exudation ($P<0.0001$)	The authors concluded that nutritional intervention with Cubitan added to standard care resulted in a statistically significant reduction in wound area of long-term care residents
Frias Soriano et al., 2003	CT, single group	39 elderly in-patients with wounds grade III-IV; mean age 75 y	2-3 Cubitan daily for 3 weeks, or standard enteral feed and standard pressure care	Cubitan treatment showed a 29% median reduction of PU area from 23.6cm^2 to 19.2cm^2 ($P<0.001$) in 3 weeks Treatment with Cubitan reduced the amount of exudate in infected ulcers by 60% ($P=0.012$) and incidence of necrotic tissue by 76% ($P=0.001$) in 3 weeks	Cubitan treatment showed significantly faster wound healing rate than high protein ONS when compared to historical controls The authors concluded that nutritional intervention in the form of a specific oral nutritional supplement rich in protein and enriched with arginine, vitamin C and zinc (Cubitan) resulted in a significant reduction in ulcer area and improvement in the wound condition in patients with grade III and IV wounds within three weeks
Benati et al., 2001	RCT, parallel groups	16 cognitively impaired elderly in-patients with wounds Aged 72 – 91 y	2 Cubitan daily for 15 days vs. standard hospital diet vs. 2 x high protein ONS	Cubitan treatment resulted in the lowest PSST (Pressure Sore Status Tool) scores after 2 weeks Cubitan had more effect on PU healing than treatment with a standard hospital diet	The authors concluded that this data supported the use of a nutritional supplement enriched with arginine, zinc and antioxidants (Cubitan), in patients with wounds The data was provided only graphically

*PUSH tool = Pressure Ulcer Healing Chart by the National Pressure Ulcer Advisory Panel (NPUAP).

See overleaf for Prevention studies, Health economic studies & Review papers

Abbreviations: RCT = randomised controlled trials; CT = clinical trial; PU = pressure ulcer.

Table 2. Prevention studies with Cubitan

Reference	Study type	Population	Intervention	Results	Comments
Hommel <i>et al.</i> , 2007	CT, two groups	420 hip fracture patients undergoing surgery; patients aged 65 years or older: Cubitan group 80.4±10.3 y; control group 81.5±10.5 (n.s.)	The intervention group (n=210) received 2 Cubitan daily post-operatively until hospital discharge (median 11 days)	Cubitan treatment resulted in significantly less hospital acquired PUs than controls (P=0.007) Cubitan treatment resulted in significantly less total number of PU at discharge than controls (P=0.009)	No wounds present at start of the study
Houwing <i>et al.</i> , 2003	RCT, double blind, parallel groups	103 patients with hip fractures at risk for wounds. Mean age: Cubitan 81.5±0.9 y; placebo group 80.5±1.3 (n.s.)	After surgery, patients received 2 Cubitan daily (n=51) or a non-caloric, placebo (n=52) for 4 weeks or until discharge (median: 10 days)	Cubitan treatment showed a trend towards later onset of PU (P=0.09) Cubitan treatment showed a lower incidence of (55% vs. 59%), and number of days with PU (4.4 vs. 5.0) though this was not statistically significant	No wounds present at start of the study The authors suggest the use of Cubitan possibly contributes to a delayed onset and progression of wounds

Table 3. Health economic studies with Cubitan

Reference	Manuscript type	Description	Results
Schols <i>et al.</i> , 2003	Narrative review	Economic review assessing the actual costs of treating wounds and the potential cost effectiveness of incorporating Cubitan into patient care	Cubitan treatment was indicated to reduce the cost of wound treatment if length of hospital stay is reduced by as little as one day, irrespective of wound grade The authors suggest that use of Cubitan is likely to reduce length of stay by more than one day, resulting in greater cost benefits

Table 4. Review papers on Cubitan

Reference	Manuscript type	Description	Results
Schols <i>et al.</i> , 2009	Narrative review	Narrative review of studies investigating Cubitan up to October 2008	Cubitan treatment shows positive effects on wound healing and may reduce the risk of developing wounds

References:

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See overleaf for Treatment studies

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