

## PRIZE P1

### Levels of Vitamin D (25(OH)D) in Patients With Chronic Wounds With and Without Diabetes

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**Background:** Vitamin D level in various populations have been discussed and there is increasing evidence that low levels of Vitamin D is associated with ostomalacia, proximal or general myopathy, pain, increased falling risk and fractures. Chronic wound patients and especially those with diabetes meet all the risk factors of Vitamin D insufficiency: Elderly, immobile, bound at home, malnourished etc. In the Nordic countries the lowest levels of Vitamin D is detected in late winter due to low levels of sunlight during winter. **Aim:** To evaluate if patients with chronic wounds have increased risk of Vitamin D insufficiency. **Material and methods:** In the period October 15 2008 to March 20 2009 all patients admitted to Copenhagen Wound Healing Center for more than two days were screened with measurement of their 25(OH)D level. Their Diabetes status, wound type, Vitamin D supplement and age. 98 patients were screened, 46 without diabetes and 52 with diabetes.

**Results:** The levels of 25(OH)D (nmol/L) is shown in the table. Normal values from two different populations are listed as well.

**Discussion:** Our finding suggests that diabetics with chronic wounds have a higher risk of severe Vitamin D insufficiency. The risk of falling getting a fracture due to poor balance increases if the patients have neuropathy. **Conclusion:** Since neuropathy and Vitamin D insufficiency acts synergistically in the risk of getting a fracture, together with poor wound healing, pain and muscle weakness, we recommend screening for Vitamin D insufficiency in all patients with chronic wounds, but especially patients with diabetes.

	CWHC patients with diabetes	CWHC patients no diabetes	Blood donors Winter <sup>1</sup>	Elderly <sup>2</sup>
Age (Range)	67(45-87)	64(21-85)	43(18-64)	74(66-88)
No.	52	46	189	100
50-26 nmol/L	36,5%(19)	23,9%(11)	42%	47%
25-12,5 nmol/L	21,2%(11)	30,4%(14)	18%	19%
<12,5 nmol/L	17,3%(9)	8,7%(4)	0%	12%

1

Reference values, Aarhus biochemical department, Denmark

2 Larsen ER. Fall and fractures among elderly community residents: risk factors and prevention. Århus: Aarhus Universitet, Det Sundhedsvidenskabelige Fakultet, 2002