

# Communication

## Publication: Human skin wounds: a major and snowballing threat to public health and the economy.

Sen CK, Gordillo GM, Roy S, Kirsner R, Lambert L, Hunt TK, Gottrup F, Gurtner GC, Longaker MT. Wound Repair Regen. 2009 Nov-Dec;17(6):763-71.

**Abstract:** In the United States, chronic wounds affect 6.5 million patients. An estimated excess of US\$25 billion is spent annually on treatment of chronic wounds and the burden is rapidly growing due to increasing health care costs, an aging population and a sharp rise in the incidence of diabetes and obesity worldwide. The annual wound care products market is projected to reach \$15.3 billion by 2010. Chronic wounds are rarely seen in individuals who are otherwise healthy. In fact, chronic wound patients frequently suffer from “highly branded” diseases such as diabetes and obesity. This seems to have overshadowed the significance of wounds per se as a major health problem. For example, NIH’s Research Portfolio Online Reporting Tool (RePORT; <http://report.nih.gov/>), directed at providing access to estimates of funding for various disease conditions does list several rare diseases but does not list wounds. Forty million inpatient surgical procedures were performed in the United States in 2000, followed closely by 31.5 million outpatient surgeries. The need for post-surgical wound care is sharply on the rise. Emergency wound care in an acute setting has major significance not only in a war setting but also in homeland preparedness against natural disasters as well as against terrorism attacks. An additional burden of wound healing is the problem of skin scarring, a \$12 billion annual market. The immense economic and social impact of wounds in our society calls for allocation of a higher level of attention and resources to understand biological mechanisms underlying cutaneous wound complications.

## Points of interest from this publication

- This 2009 publication estimates the costs of chronic wound care, which by now may be conservative, given the increases in comorbidities such as diabetes and obesity.
- Chronic wounds are a major and increasing burden to the public health and economy of the United States and is considered a silent epidemic by the authors.
- 1 to 2% of the worlds population will experience a chronic wound during their lifetime (this figure is consistent with other countries)
- The burden on the healthcare system of treating chronic wounds is growing rapidly. This is due to increasing healthcare costs, an aging population and a significant and rapid rise in the incidence of diabetes and obesity worldwide (particularly in the western world).
- An excess of US\$25 billion is spent annually on treatment of chronic wounds.
- **Venous leg ulcers:**
  - 70%–90% of ulcers found on the lower leg are venous leg ulcers.
  - In the U.S the prevalence of venous leg ulcers is estimated at approximately 600,000 annually.
  - Venous leg ulcers affect approximately 1.69% of the population of the USA.
  - Venous leg ulcers cost approximately \$9,600 to treat.
  - The cost of treating Venous leg ulcers in the USA annually is \$2.5–3.5 billion and approximately one-third of treated patients experience multiple episodes of recurrence.
- **Diabetic foot ulcers:**
  - 12% of patients with a foot ulcer require amputation and the 5-year survival rate after amputation is approximately 50%. Five years after amputation occurs, half of the patients will develop an ulcer in the other limb.
  - A total of \$9 billion was spent on the treatment of diabetic foot ulcers in 2001.
- **Pressure ulcers:**
  - 2.5 million pressure ulcers are treated in the USA annually in acute care clinics and hospitals alone. This does not take into account those that are treated in community care.
  - The Department of Health and Human Services’ Agency for Healthcare Research and Quality (AHRQ) released data that the number of hospital patients with pressure sores rose by 63% during the period 1993–2003.
  - The cost of treating a single pressure ulcer is as much as US\$70,000 and the total cost for treating pressure ulcers in the USA have been estimated at \$11 billion per year.

## Why is this important to Tissue Therapies?

- This publication reinforces the need for a cost effective solution for hard to heal wounds, that will reduce the financial burden on the healthcare system while at the same time providing better patient outcomes.

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- Shows that effective treatments for chronic wounds are required and that the size of the problem and consequently the potential of the market is large and growing.
- Highlights that any cost saving in treatment of hard to heal wounds by reducing healing times, obtaining better wound closure rates and reduced hospital care loading, would be well recieved by any nations healthcare system.
- VitroGro® ECM is indicated for the topical treatment of hard to heal wounds, primarily venous leg ulcers. It is obvious from this publication that an effective, advanced treatment like VitroGro® ECM, is well placed to reduce the economic burden of hard to heal wounds.