Case Report: Ambulatory care for necrotizing fasciitis wound by negative pressure wound therapy

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Introduction
Necrotizing fasciitis is a life-threatening infection requiring urgent surgical and medical therapy. The treatment option is aggressive. Extensive surgical debridement of the necrotic tissue is required, with the possibility of further debridement and allowing for removal of further infected tissue. This rapidly spreading infection and aggressive surgical intervention create challenges for the wound management. A 55-year-old gentleman admitted to our surgical department with a 2-day history of fever, and severe left chest wall pain and increased redness. Surgical debridement was performed 3 times within 10 days. The 36cm x 16cm necrotic tissue over the left chest wall and trunk was completely excised. Skin grafting was used to cover up raw surface but were partially failed. In order to salvage the remaining skin graft over the wound, negative pressure wound therapy (NPWT) was used. The huge wound was re-epithelialization over 80% after NPWT applied for 21 days. This case report highlights the advantage on the usage of NPWT in ambulatory wound services, which minimize hospital resources. This ambulatory technology also contributes to wound services at out-patient wound clinic in future.

Objectives
1. To improve wound healing 2. To promote patient mobilization and improve quality of life 3. To reduce costs

Methodology
Portable NPWT renewed 4 times and required checking the system every 2-3 times weekly within 21 days.

Result
The results after the treatment of the portable NPWT are summarized as follows: 1. No wound infection signs found. 2. Over 80% size of wound healed after 21 days. 3. Patient claimed nearly painless, he was allowed for the mobilization (movement) and took the home leave to rest at home 19 days within 21 days. 4. There were 80% reduction in time-consuming dressing changes and total HK$259.5 (17.7%) was saved from the dressing material within 21 days. Conclusions: It has been proved that the portable NPWT was much cost effective when comparing with the usual wound therapy due to the deduction of dressing change and decrease of dressing materials.
From patient’s perspective, the improved quality of life and reduced pain during the treatment are the most important benefit of NPWT.