Protocol driven dressing strategy for extensive lower limb soft tissue defect – a retrospective review for limb salvage and evaluation of feasibility of dressing as out-patient basis

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Introduction
With increasing number of patients with peripheral vascular disease and diabetes, lower limb ulcers became more and more common and significant. Suboptimal care can lead to limb amputation. Small or superficial ulcers can be managed by regular dressing or surgical debridement. For large ulcers or those extending beyond the deep fascia, flap surgeries may be needed for coverage. However, they carry high operative risk and may not be feasible in poor risk patients. On the other hand, the guidelines and the result for conservative treatment in this group of patient are lacking. In our study, we tried to standardize our dressing method for this group of the patient according to their wound conditions and the results are evaluated.

Objectives
With a standardized dressing protocol and regular evaluation, the morbidity of the ulcers and the lower limb amputation rate could be reduced. Moreover, the standardized method could be more readily manageable and understandable by our colleagues in out-patient clinic or during home care. As a result, in-patient management could be converted to home-based or out-patient based management, which would significantly reduce the length of stay in the hospital and the treatment cost. Through collaboration with community nurse and development of effective communication channel like fast track clinic, unplanned admission or readmission rate could be reduced.

Methodology
The inclusion criteria for our review included adult patients admitted to our ward with lower limb ulcers larger than 5cm and with extension beyond the deep fascia. Those patients treated with flap surgery were excluded. Patients’ demographics, co-morbidities, ankle brachial index, infection status, size and depth of the wound were recorded. Their wounds were managed using advance dressing materials according to their status: infection, degree of discharge and degree of granulation. The wound were reviewed at regular interval and the results were recorded.
Result
15 patients with significant lower limb soft tissue defects were recruited from August 2014 to December 2015. 11 of them were male and 4 of them were female. The mean age of the patients was 67.1 and 66.7% of the wound were related to diabetes. All wounds healed well except one, which required below knee amputation because of persistent mid foot joints osteomyelitis.