

Chapter 5

Conclusion and Recommendation

5.1 Conclusion

This research analyses the incremental cost-effectiveness between autologous skin graft and cultured skin graft from the provider point of view. Both methods of therapy involves 2 steps of activities, the general activities and the specific activities. In each step of these activities, several types of cost incurred, including 1.) the capital cost, which comprises of building cost and equipment cost, 2.) the recurrent cost, which make up of labor cost, material cost and facilities cost. The cost incurred under cultured skin graft is estimated, based on costing information from the autologous skin graft method. The sources of information for provider cost are The Chulalongkorn Hospital and The Biomaterial Laboratory, from January 1st, 1998 to December 31st, 1998. The total cost represents the total provider cost for each method of therapy.

From the study, in 1998, the total cost for autologous skin graft therapy is Baht 4,491,287.78 divided by activities into Baht 3,240,043.01 for general activities and Baht 1,251,244.77 for specific activities, or divided by input into Baht 1,917,793.63 for labor cost, follow by Baht 271,541.15 for material cost and Baht 2,301,953.00 for capital cost. The average total cost of burn therapy for one patient is Baht 166,343.99, divided into Baht 120,001.59 for general activities and Baht 46,342.40 for specific activities. In another word the average total cost is divided into Baht 71,029.39 for labor cost, follow by Baht 10,057.08 for material cost and Baht 85,257.52 for capital cost. It is obvious that the recurrent cost for autologous skin graft is higher than the capital cost, since most recurrent cost is relating to overhead cost. The patients treated with Autologous skin graft have an average length of stay of 45.55 days.

The total cost for cultured skin graft therapy is Baht 5,802,242.52, divided by activities into Baht 2,133,947.10 for general activities and Baht 3,668,295.42 for specific activities. Specific activities include Baht 1,073,179.12 for process in the operating room, and Baht 2,595,116.30 for skin graft culturing. The total cost divided in term of the manufacturing factors or by input into, Baht 1,444,816.07 for material cost, follow by Baht 2,421,318.99 for labor cost and Baht 1,936,107.46 for capital cost. The average total cost of burn therapy for one patient is Baht 214,897.87, divided into Baht 79,035.08 for general activities and Baht 135,862.79 for specific

activities. The average total cost of burn therapy incurred from specific activities is divided into Baht 39,747.37 for process in the operating room and Baht 96,115.42 for skin graft culturing. The average total cost of burn therapy for one patient is divided in term of the manufacturing factors or by input into, Baht 53,511.71 for material cost, follow by Baht 89,678.48 for labor cost and Baht 71,707.68 for capital cost. It is obvious that the recurrent cost for cultured skin graft is higher than the capital cost, since most recurrent cost is relating to overhead cost. The patients treated with cultured skin graft have an average length of stay of 30 days.

For the incremental cost-effectiveness analysis for burn therapy, the cost-effectiveness per length of stay is Baht -3,122.44. In another word, if each patient want to decrease the length of stay in the hospital by one day, an additional of Baht 3,122.44 must be paid.

In consideration on cost, cultured skin graft therapy ought to include the principle of the ability to pay. Patients, who are able to sustain the cost, must be the decision-maker for the therapy option, since the outcome of therapy can decrease the length of stay in the hospital for them. cultured skin graft will provide another option of burn therapy for Thai patients who have enough income to pay for their treatment. If we can produce cultured skin graft sheet in Thailand instead of import. It will reduce the cost of the product which include of transportation, damage, and waiting time.

5.2 Recommendation

1. In this study, the cost and outcome of cultured skin graft therapy, is based on a conditional-sampling group of patients who do not have any past record of hereditary disease, such as, diabetics, hypertention, and obesity. The actual figure, if needed, must be obtained from research performed on an actual group of population, in order to acquire the accurate cost and outcome of the therapy.

2. There are several methods for burn wound management. In this study, autologous skin graft and cultured skin graft are the two methods under our investigation. Further study should focus on the other comparative methods used for burn wound management for the collection of the best choice.

3. The cost of burn therapy incurred for both the service provider and service receiver. In this study, due to time limitation, only on the service provider aspect is covered. Further study should include investigation on the service receiver, in order to obtain a more integral cost of burn therapy.

4. Cost for manufacturing cultured skin graft sheet in this study is based on a study done in biomaterial laboratory. This may result in higher manufacturing cost. Any further study should investigate manufacturing cost in hospital or units associating with direct cultured skin graft sheet manufacturing, which believably may have a lower manufacturing cost.

5. Cultured skin graft is an expensive burn therapy method. Most patients are unable to support themselves financially for the cost incurred. For this reason, further study should center on possible options to financially support any patients undergoing cultured skin graft therapy. Assistance could be in forms of social security scheme, civil servant medical scheme, and private insurance, for example.

6. Cultured skin graft is a preferred method for burn wound management, due to its satisfactory result. Anyway, during treatment, some complications such as, infection, contracture scare, or graft that do not take properly, will affect the cost incurred for treatment and length of stay. Further study should include these possibilities of complication that may affect the total cost of burn therapy.