



**Service Priorities and Programmes**  
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**A Great Success of Open Sternotomy Wound Management by Cardiothoracic Surgical (CTS) Nurse Clinic: Case sharing on post discharge management of mediastinitis**

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**Introduction**

Median sternotomy is the most frequently used incision for cardiac operations. However, post-op mediastinitis carries a substantial risk for development of sternal dehiscence and chronic osteomyelitis. Re-exploration with debridement and cleansing of mediastinitis with continuous warm normal saline irrigation is the usual treatment of mediastinitis. Through a case sharing, we illustrate how CTS nurse clinic had handled a prolonged hospitalization case.

**Objectives**

- To improve patient's quality of life
- To decrease length of stay & hospital cost
- To minimize unplanned admission to AED
- To allow early detection of deteriorated condition

**Case Sharing:**

Male, 73-year-old, live alone

Post CABG on May2016,

post-op suffered from mediastinitis

Post-op wound complication: Re-exploration + wound debridement + continuous NS irrigation

Readmitted due to early identification of deteriorated condition on 7April2016

Discharge on 12Dec2016 and regular visits (29times)CTS nurse clinic for open sternotomy wound management till Dec2017

Terminate nurse clinic service / keep phone follow up

**Methodology**

A patient was referred to CTS nurse clinic for post discharge management on the open sternotomy wound. Comprehensive wound assessment was performed. Interval of nursing visit depended on patient's general condition and wound condition +/- liaison with community nurse. Potential complications were identified earlier before

catastrophic consequence occurred. Besides, wound management, education, individual counseling and psychological support were provided. Appropriate wound management methods including Negative Pressure Wound Therapy (NPWT), and advanced dressing material were used.

### **Result**

Post-op mediastinitis occurred less than 1 % in our department. Health care cost for an in-patient is about \$5100 per day. If this patient still stayed in hospital for open sternotomy wound management for one year, the healthcare cost total \$1,861,500. The cost for visiting nurse clinic in total of 29 times was \$34,510 which showed \$1,826,990 less for in-patient and out-patient management suffering from mediastinitis. Besides, patient felt satisfied in visiting nurse clinic for taking care of his sternal wound. He preferred to stay home and regularly visited nurse clinic to ensure his quality of life. The psychological condition of patient was greatly improved as compared to the time he stayed in hospital. Potential complications (heart failure, ascites, gangrene toe) were identified earlier to prevent life threatening event occurred on this patient.