

## Aim

Negative Pressure Wound Therapy (NPWT) is a specialised therapy treatment for acute and chronic wounds. Treatment duration can last from minimum of 7 days to 21 days, depending on the wound conditions. The treatment can be lengthy and expensive. It is used on both inpatients and outpatients for acute and chronic wounds.

NPWT treatment is expensive as market competition is limited. The existing vendors set the treatment permutations and pricing. Hospitals are price takers of packages offered by vendors.

The aim of this project is to work jointly with clinicians to review the existing pricing and operation models so as to **reduce the patients' treatment cost**, to **improve productivity** and to **deliver care in a more cost effective way**.

## Methodology

NHG Group Purchasing Office (GPO) identified NPWT as an opportunity for group consolidation across 4 Restructured Hospitals namely, TTSH, NUH, KTPH and AH.

After detailed spend research, an open RFP was called in 2013. The focus of the project was to review the efficiency and benefits of different pricing, operations models and treatment permutations. Vendors were asked to provide different pricing and treatment permutations as follows:

### Model (A) Inpatient - Therapy Price Per Day

Inpatients received fixed number of consumables and rent the pump for a daily fee.

### Model (B) Inpatient - Zero Rental

Inpatients pay higher prices for the consumables and enjoy complimentary use of pumps

### Model (C) Outpatient - Home Therapy

Outpatients received fixed number of consumables and rent the pump for a daily fee.

Vendors have to provide pricings for different scenarios including:

- Normal and subsidized medical cases
- Home services with and without nursing services
- Wet and dry wound conditions \*

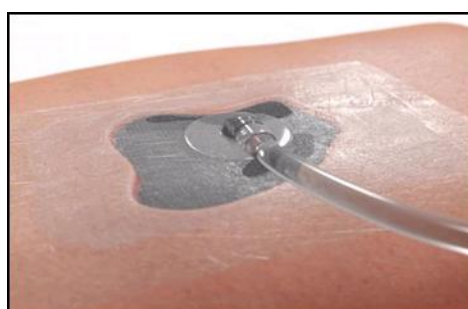
Wet wound has high exudate/ discharge and will require more treatment days and consumables compared to dry wound, with a lesser exudate/ discharge.

The type of wounds will determine the number of treatment days which correlate to the number of consumables - canisters and foams, being utilised by the patients. Various permutations were being explored to develop the **optimal treatment options** for the patients.

### Effect of Negative Pressure Wound Therapy (NPWT)

Wounds that take months to heal can now be healed in weeks with NPWT. The wounds are healed via creation of a negative pressure vacuum over the wound and improving blood flow and removing exudate (discharge).

### Illustration - NPWT at Work



## Results

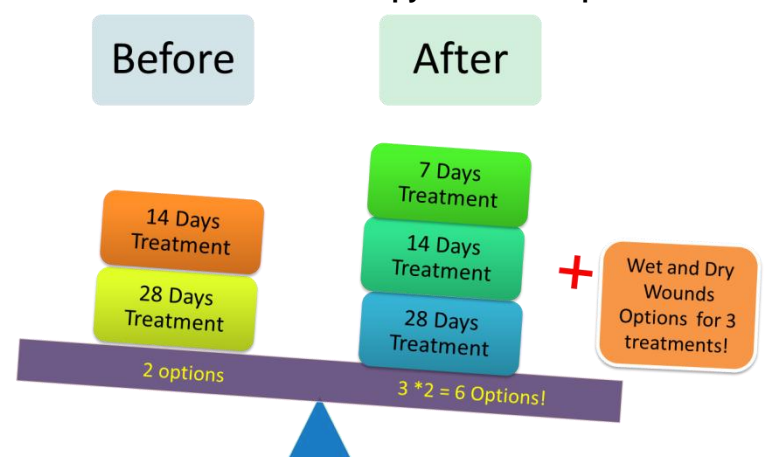
The following results were achieved through this strategic sourcing:

### (A) Better Patient Outcomes

The number of treatment options have expanded. For instance, the options for home therapy have increased from two to six options – depending on the wound types and treatment days. This allowed the clinicians to select the best treatment options, depending on patients' needs and conditions – i.e. wet and dry wounds.

This not only reduces the patient bills and maximise the usage of consumables. It also generates the optimal treatment outcomes for the patients.

### Illustration of Home Therapy Treatment options



### (B) Direct Reduction in Patient Bills

An annual cost saving **\$480K** (21% reduction from current prices) were achieved through the strategic sourcing and negotiations with vendors. This saving directly benefits the patients as they now enjoy lower prices, along with more treatment options.

### (C) Improved Nurses' Productivity

Awarded vendors, instead of nurses, will perform weekly top up of NPWT consumables to the wards. Nurses can channel more time towards patient care activities.

## Conclusion

The concerted effort by NHG GPO and participating Hospitals have yielded benefits for patients via lower healthcare costs and better treatment outcomes.

Productivity in wards has improved as Hospitals can utilize the complimentary Vendor Managed Inventory (VMI) services under the new contract.