Poster Presentation: VENTURI® NPWT Systems

EUROPEAN WOUND MANAGEMENT ASSOCIATION CONFERENCE, LONDON 2015

Setting up an effective Negative Pressure Wound Therapy service across both primary and secondary care

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Introduction and Treatment Aim

Negative Pressure Wound Therapy (NPWT) has been used in the health board for over ten years. Prior to service redesign NPWT provision to patients was determined by their location. Primary care held purchased NPWT pumps in several locations. Secondary care rented NPWT pumps from two companies.

As a result of the way the service was structured, patients who required NPWT often experienced delays in treatment provision. In primary care delays of three to five days occurred if a local pump was unavailable. Secondary care patients had to await delivery of pumps/consumables which could cause a one to two day delay in treatment. With each secondary care delivery costing £50, providing fifteen patients with NPWT cost the service £1500 per week in delivery fees alone (based on two dressing changes per patient per week).

Using NPWT from two providers raised additional patient safety issues as patients were transferred from primary to secondary care (or vice versa) staff were required to set up NPWT pumps despite varying levels of training and experience with the different systems.

This project was led by the tissue viability team with the aim of setting up a co-ordinated NPWT service across primary and secondary care in order to;

- Minimise delays in NPWT provision
- Reduce NPWT service costs
- Improve equity of service
- Optimise patient safety by simplifying staff training and competency

Methods

To standardise NPWT across the service, tissue viability purchased NPWT pumps from a single provider. Key considerations when purchasing the NPWT systems were;

- Clinical effectiveness
- Cost effectiveness
- Ease of use / user acceptance (staff) / patient concordance
- Product reliability and company training/support

Two NPWT pumps from Talley [the VENTURI® AVANTI (600/1200ml capacity) and VENTURI® COMPACT (300ml capacity)] together with their associated consumables now cater for all NPWT requirements across the health board (see Figure 1 and Figure 2). The tissue viability team now have full responsibility for managing the NPWT service.

FIGURE 1.
VENTURI® AVANTI and VENTURI® COMPACT Negative Pressure Wound Therapy systems

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FIGURE 2.
Consumables for use with the VENTURI® NPWT systems

The NPWT service is arranged to ensure pumps are strategically distributed between the departmental tissue viability office and both acute hospitals. This set up allows consultants, vascular, orthopaedic and general surgeons, the tissue viability team and other qualified staff instant, out-of-hours access, ensuring that patients have same day access to pumps and consumables. This minimises any potential delays to the start of their NPWT therapy.

Results

Once a suitable NPWT provider had been identified, tissue viability purchased eighteen NPWT pumps to cover their needs across both primary and secondary care. Purchasing NPWT pumps and restructuring the service to provide a pump and consumables for two dressing changes has resulted in several clear benefits for the health board. These include;

1. Staff education and training on NPWT systems has reduced by 50%. This has reduced the risk to patients when moving between primary/secondary care by ensuring that staff from both care sectors receive identical training on the systems.
2. Strategically distributing NPWT pumps between the departmental office and both acute hospitals has given qualified staff 24-hour access. This has eliminated the delays in NPWT provision historically experienced by some patients.
3. Purchasing the NPWT systems eliminated all delivery costs associated with NPWT pumps.
4. With NPWT systems now transferrable between primary and secondary care, patients receive uninterrupted therapy irrespective of their patient journey.

Nursing staff are very happy with both the new service and the NPWT systems that have been purchased by the health board. Consistent feedback from staff is that the NPWT systems in use are reliable, clinically effective, easy to use and simple for patients to manage.

Discussion / Conclusion

By restructuring the service across the health board the tissue viability team have eliminated delays in NPWT provision, reduced service costs by eliminating delivery of NPWT pumps into secondary care, ensured that the NPWT systems now follow patients throughout their patient journey and reduced the risk to patients by standardising NPWT pumps from a single supplier.

Offering two similar pumps with differing exudate capacities enables appropriate patients the option of being discharged into primary care with a smaller (300ml) capacity system. This provides patients with a smaller, more compact pump which may fit their lifestyle better than the larger capacity pump unit.

Giving tissue viability ownership of the full NPWT service has resulted in some significant efficiency gains. Although management of the new service is performed by tissue viability staff administrative support has minimised the impact on clinical services.

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05 / 2015