Project Title

To achieve 30% man-hours saving using Ultrasonic Assisted Wound (UAW) Debridement

Project Lead and Members

Project lead: Kathy Lam

Project members: Tan Ai Li, Fadlon Binte Shaik Dawood and Chua Gek Choo

Organisation(s) Involved

Yishun Community Hospital

Aims

The desired outcome is to implement the use of UAW to reduce time taken for wound cleansing, debridement and hasten patient's wound recovery time. Hence the objective is to achieve at least 30% man-hours saving with the implementation of UAW

Background

See poster appended/ below

Methods

See poster appended/ below

Results

See poster appended/ below

Lessons Learnt

Appropriate use of medical device can help to facilitate early healing of complex wounds, reduce cost to the healthcare system and improve man-hours of the specialty nurse.

Conclusion

See poster appended/ below

Additional Information

Winner of the AIC Community Care Excellence Awards (CCEA) 2020: Team Award – Productivity Improvement Awards

Project Category

Productivity

Keywords

Productivity, Healthcare Training and Education, Safe Care, Wound Management, Time Saving, Man-Hours Saving, Cost Saving, Nursing, Yishun Community Hospital, Ultrasonic Assisted Wound Debridement

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[Yishun Community Hospital (YCH)]

Kathy Lam, Tan Ai Li, Fadlon Binte Shaik Dawood, Chua Gek Choo

What is the project about and why do we need to work on this?

The specialty wound care team reviews all types of wounds, from chronic to complex wound cases admitted to Yishun Community Hospital (YCH). Chronic wounds have been described as disabling and are a significant burden to patients. For more than a decade, wound management encompasses preparing the wound bed to promote re-epithelialization of chronic wound. The goal of wound debridement is the removal of tissue to be as precise as possible, so as to preserve viable tissue. Wound debridement was previously done manually using cleansing / irrigation solution, scalpels or scissors. It was extremely time-consuming because of the need for precision, and reduces the throughput of the specialty wound care nurse.

Project Goal

The desired outcome is to implement the use of UAW to reduce time taken for wound cleansing, debridement and hasten patient's wound recovery time. Hence the objective is to achieve at least 30% man-hours saving with the implementation of UAW.

What solutions have been implemented?

Review of Wound data
The data was analysed and indicated an increase of 27.5% (n= 33) of wound care cases in first half of 2018 as compared to 2017.

Wound Management Training
The specialty wound nurses were selected to attend 7 days of intensive training at St Luke's Hospital to achieve certification of Intermediate Wound Care management,

UAW Training
The team proceeded to procure UAW machine funded by AIC Healthcare Productivity Fund. UAW is applicable to majority of the chronic wounds, leg ulcers, diabetic foot ulcers and pressure ulcers as long there were no contraindications.

Standard Work Instruction for UAW Debridement
The specialty wound nurses prepared a standard work instruction to provide a set of guidelines for reference in the care of patients who require UAW debridement.

Data Collection
Patients fulfilled the criteria for the use of Ultrasonic Assisted Debridement (UAD) were selected. The time and duration of each wound management with UAD, frequency of session, and wound assessment were collected and analysed.

Benefits

Time Saved
The conventional mechanical wound debridement procedure required 30 minutes per session. With the use of UAW, procedure time was reduced to IO minutes per session.

Enhance Staff Productivity
The introduction of UAD also saved the number of wound management sessions from 8 to 4 sessions and resulted in 50% of man-hours saved.

Cost Saving (Man-hours)
From November 2018 to December 2019, there were a total of 74 UAD sessions. The total man-hour time saved was 18.5hrs. Total man-hours cost savings was $1,540.

Next Steps

The specialised wound care team will continue to collate monthly workload and time saved per procedure for consistent results.

In addition, wound images are taken before and after UAD procedure with evaluation of each patient's wound healing progress and duration taken to achieve wound healing.