Great Western Hospitals NHS Foundation Trust provides acute hospital services (at Great Western Hospital) and community health services across Wiltshire. Services include community hospitals, community nursing, therapists and children’s and young people’s services. At Great Western Hospital we have all of the facilities you would expect to find in a busy general hospital including an Emergency Department, Delivery Suite, a full range of diagnostics tests such as X-ray, MRI and CT scans, outpatient clinics and 21 inpatient wards. We provide these services in a modern environment ensuring patients have privacy and dignity throughout their care. Our priority whether you are cared for in hospital or in the community is to provide safe, high quality health services and we have an impressive track record on issues such as patient safety and infection control. We take a proactive approach to improving the way we provide care, continually looking for ways we can do things better. This means we invest in the latest technology and training for our staff so we keep up with changes in how care and treatment is given.

The study was undertaken to evaluate a range of products in the WAFFLE® range manufactured by EHOB Inc and available in the UK via their distributor. The products selected were mattress overlays, cushions for day chairs and heel protectors which were directly compared to their equivalents in the Repose™ range supplied by Frontier Medical. The stimulus for the evaluations were two fold, clinical effectiveness (including ease of use and retention in situ i.e., do not migrate away from the part of the body needing intervention) and cost-effectiveness. The majority of the Trust’s spend on this type of product is in the community for the whole range and heel protection in the acute sector.

Clinical Lead: Gill Wicks, Nurse Consultant and Tissue Viability Lead
Tissue Viability Link Nurses at the evaluation sites: Sheila Viterbo (acute), Karen Porter (district), Kym Kettlety, Deborah Adkins (community hospital).

Purpose of the Study

Outcomes were measured, assessed and documented for a total of 10 clients with different degrees of risk, some with existing tissue damage and some with intact skin but considered to be at risk. The evaluation forms were the same in all clinical areas and posed the following questions (for patients and clinicians/careers) to give an opinion on WAFFLE® products compared to Repose™ products with a better, equal or failed result.

Introduction

Pressure ulcers occur when blood supply is decreased to tissues at bony prominences. Most pressure ulcers can be avoided by repositioning the patient at regular intervals and by the use of pressure relieving products. Treating a single pressure ulcer can cost between £43 and £374 per day and may increase hospital stay by 5-8 days per ulcer (1). Costs may increase due to an ageing population with long-term conditions who are considered to be at high risk (2). Pressure ulcers cost the NHS between £1.4 and £2.1 billion per year (3) and in a study by Van Gilder (2) heel pressure ulcers accounted for 41% of all documented ulcers from a group of 450,000 patients. This figure has remained fairly static over the past three decades while other propose that the lack of decrease may be due to better reporting (5).

Evaluation Products

The aim of the evaluations (over a two-three week period) were to consider and assess the effectiveness of a range of static pressure reducing products which were considerably less expensive than the products currently used. The products in the WAFFLE® range manufactured by EHOB Inc were selected as they had many years of use internationally and had been used for patients at all levels of risk and all grades of existing tissue damage.

The evaluations were arranged by the lead in tissue viability and carried out at three sites: The Great Western Hospital (Acute), Melksham Hospital (Community) and in a domestic setting. All the products are made of thermoplastic polyurethane (TPU) and, because they are designed to be re-used rather than single use, have and have an antibacterial additive which cannot be washed away and last the life of the product (one year). The additive is effective against a range of organisms including K.pneumoniae, E.coli, Paeruginosa, MRSA, S.choleraesuis, E.faecalis, B.subtilis, C.difficile, Calibicans and A.niger. The products may be cleaned with soap and water between use and alcohol based products to decontaminate them. Static systems fall into the category of pressure reducing products as they work by spreading the patient’s weight over a greater surface area and so reduce the contact pressures over vulnerable areas of the body. The evaluations were conducted after education from the local clinical representative to ensure the products were used safely and correctly. Staff had an opportunity to try out the products themselves and gain some insight to the patient experience which was to follow.

Outcomes

Outcomes were measured, assessed and documented for a total of 10 clients with different degrees of risk, some with existing tissue damage and some with intact skin but considered to be at risk. The evaluation forms were the same in all clinical areas and posed the following questions (for patients and clinicians/careers) to give an opinion on WAFFLE® products compared to Repose™ products with a better, equal or failed result.

Results and Feedback for the Patient

Ease of use: 100% ‘better’
Comfort: 80% ‘better’ and 20% equal
Airflow: 100% ‘better’

Results and Feedback for the Clinician

Was it used correctly? Yes - 100% satisfaction
Did the product remain in situ? Yes - 100% satisfaction
Any new tissue damage? No - 100% satisfaction
Was there adequate airflow? Yes – 100% satisfaction
Did the product remain intact? Yes – 100% satisfaction
Are the straps/fastenings in place? Yes – 100% satisfaction
Is the product easy to clean? Yes – 90% satisfaction

Anecdotal Feedback

Community hospital
A patient was so impressed, he used to put his own WAFFLE® heel elevators on at night before he went to bed to stop his heels getting ‘sore’. A nurse noted that a patient had ‘red areas’ on admission which did not progress to a ‘sore’. A nurse noted that a patient had ‘red areas’ on admission which did not progress to a ‘sore’. A nurse noted that a patient had ‘red areas’ on admission which did not progress to a ‘sore’. A nurse noted that a patient had ‘red areas’ on admission which did not progress to a ‘sore’. A nurse noted that a patient had ‘red areas’ on admission which did not progress to a ‘sore’.

Acute hospital
Two nurses said the WAFFLE® products were easy to clean, one asked when they can start to use them all the time and another reported that they were useful and cost effective.

Domiciliary care
A patient with a chronic heel ulcer had a good response and his heel ulcer reduced in size by 50% in the two week period and his carer reported that the WAFFLE® were better than what she had before and didn’t want to go back to the old ones.

Discussion

The evaluations undertaken came from three key environments, community hospital, acute care and the patient’s own home. Care plans that had been put in place were not altered, regular turning and pressure area was on-going. The evaluations suggest that a simple inexpensive product may achieve the same outcomes as more expensive alternatives. Static air products can perform as well as dynamic one if the patient’s position is readjusted regularly, this cost saving had previously been noted in 2002, when a study performed in West Wales General Hospital demonstrated that investment in high quality static systems could save the need for purchasing high cost dynamic products. The nature and amount of equipment required is one of the most important considerations in the development of a pressure ulcer prevention policy. Decisions on the choice of equipment must consider the benefit to the individual patient and the most cost-effective use of resources (6). The WAFFLE® range of products outperformed the Repose™ equivalents and over a twelve month period, the Great Western Hospitals NHS Foundation Trust can save approximately 30% by converting to the WAFFLE® range.

References: