

Nursing Fleece Trial

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A pilot study was undertaken using 100% wool Nursing Fleece in the Infection Control Unit of the Sydney Adventist Hospital (SAN¹). This trial was undertaken to determine whether a new wool product could fulfil the specialist needs of this patient care unit.

The 100% wool Nursing Fleece was issued to all bedridden postoperative patients in the Infection Control Unit over the trial period. These patients were closely monitored by the attending nurses who were asked to evaluate the effectiveness of the Nursing Fleece against current practices.

Pressure sores, ulcers and tissue damage are ailments faced by the bed-ridden patient. Policy at the SAN stipulates that all bed ridden patients be turned every two hours to decrease the chance of patients developing these conditions. It is also important to remember that people who are not ill rarely develop pressure sores. For bed-bound patients, pressure reduction is a high priority and should be provided immediately after. The greater the need to turn a patient to relieve pressure sores the more traumatic this becomes for the patient due to their underlying original condition. Additionally, regular turning of very sick patients deprives them of sleep and increases stress levels. Both of these factors increase a patient's healing and decrease their comfort and well being.

Fleece Products Pty Ltd of Sydney, Australia, provided the Nursing Fleece supplied to the SAN for the trial. The Nursing Fleece was 100% wool pile sliver knit designed as a full sized mattress cover for a standard hospital bed. As the name implies Nursing Fleece was created specifically for medical applications using a denser, non-linting, highly absorbent fabric. Nursing Fleece is fully machine washable and therefore can be conventionally serviced in any hospital laundry. They are also licensed to carry International Woolmark symbol.

All participating nurses surveyed were highly enthusiastic of the performance of the Nursing Fleece. Comments covered increased patient comfort, the reduction of pressure points and the alleviation of sweat rashes and itching. It was agreed that the full sized Nursing Fleece was clearly superior to the smaller synthetic pad currently used which only allow one pressure area to be relieved.

The advantage of using the full length Nursing Fleece was apparent. The full length Nursing Fleece provides protection for the shoulders, elbows, buttocks, heels and other bony prominences evident on the human body. The Nursing Fleece allows the patient to move and still benefit from the protection provided against pressure sores.

¹ The Sydney Adventist Hospital is commonly referred to as "The SAN" or Sanitarium.

Patients who have experienced sweat rashes and itching found that the 100% wool Nursing Fleece alleviated these conditions altogether. Wool's comfort advantages have traditionally been attributed to the capacity of the fibre to absorb a significant proportion of its own mass as water². Researches agree that more than simply absorb, wool fibres have the ability to buffer by reacting to the humidity level within the particular environment. As the humidity rises, wool will absorb and store more moisture. When the level decreases, the fibre releases the moisture, thus regulating the microclimate. This property ensures that a damp, clammy feeling will never be experienced with wool. In this way, instead of the body regulating the microclimate, the wool bedding acclimatises the body, ensuring a healthier rest with an even heart rate and blood pressure. The wool Nursing Fleece, by controlling the microclimate and drawing excess water away from the patient, eliminated moisture related itching and sweat rashes.

The pilot study showed that patients on the Nursing Fleece could be comfortably left unturned for more than double the usual two hours period. Even after four hours there were no obvious pressure points or redness. In all cases the patient reported increased comfort on the Nursing Fleeces.

Apart from the obvious benefits to the patient, the wool Nursing Fleece significantly reduced nursing time involved in patient turning. This labour saving equates directly to a financial saving by the hospital. By extending the turning time by a conservative 0.6 hours, a saving of almost \$3000.00AUD can be released for each Nursing Fleece over a one-year period.³

The nursing Fleece is currently an economically viable solution to a continuing concern in patient care. As one nurse explained ".....best we have seen with the exception of the expensive air beds....."

² Wool can absorb 33% of its weight in water compared with synthetics at 0%-4%, cotton 8%

³ Cost analysis based on number of turns each day reduced from 10 turns to 8 turns. Each time a patient is turned three nurses/wardsmen are required. A turn approximately five minutes at \$15.00 AUD per hour for each member of staff