AN EVIDENCE INFORMED APPROACH TO CHOOSING THERAPEUTIC SUPPORT SURFACES

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The careful selection of a support surface in bed is a critical part of a pressure ulcer prevention and management plan. Considering 26% of patients in the Canadian Health Care System have a pressure ulcer, and in the United States the prevalence of pressure ulcers is 12.3%, support surface selection should be considered across all settings.

When choosing a support surface a multitude of factors, in addition to pressure management, need to be considered, yet current best practice guidelines provide little specific clinical guidance:

“Choose the support surface which best fits with the overall care plan for the client considering the goals of treatment, client bed mobility, transfers, caregiver impacts, ease of use, cost/benefit, etc. Ensure ongoing monitoring and evaluation to ensure that the support surface continues to meet the client’s needs and that the surface is used appropriately and is properly maintained. If the wound is not healing, consider the total care plan for the client before replacing the surface.”

Key in this guideline are the ideas of ongoing monitoring and evaluation as well as ensuring it is appropriately used and properly maintained. Many of the support surfaces have adjustments, which if incorrectly set could be detrimental to the client.

Little evidence exists to assist clinicians choosing a support surface for a specific client. It is clear that a high specification foam mattress is better than a standard hospital mattress, but the role of alternating air and low air loss are not clear. It is also clear that support surfaces are not a substitute for good skin care and repositioning.

One factor that is highlighted in the literature is the importance of mobility. Shifting the areas of pressure and preventing the interstitial fluid from moving away from the bony prominences does help to prevent pressure ulcers. Unfortunately many of the surfaces immerse and envelop the client such that their mobility is reduced. A new model of support surface selection was developed, grounded in the literature and based on the concept that the surface should manage pressure while not limiting the client's independent mobility.

The first part of the model is a chart which helps to identify the broad category of surface the client requires based on their mobility status and either the number of pressure ulcers the client currently has, or their risk of pressure ulcer development. The original chart used the Functional Independence Measure to classify mobility. Unfortunately clinicians outside of the rehabilitation sector were unfamiliar with this tool. As a result, this measure was replaced with general mobility descriptions. To evaluate the validity of these measures, the old tool using the FIM was completed by an OT, and the new tool using the mobility descriptions was completed by an RN on same admissions. Regardless of the mobility indicator used, the ultimate recommendation of the surface remained the same.

The two broad categories of support surfaces have been defined by the national Pressure Ulcer Advisory Panel as active support surfaces and reactive support surfaces. A reactive support surface is a powered or non-powered support surface with the capability to change its load distribution properties only in response to applied load. An active support surface is a powered support surface, with the capability to change its load distribution properties, with or without applied load.

Once the category of support surface has been determined a decision tree (one for active support surfaces and one for reactive support surfaces) facilitates decision making by the clinician to
determine the specific features required by that client. This decision tree has been developed based on the current evidence, and provides the clinician with specific issues to consider. The specific features in turn, lead the clinician to specific product recommendations for the individual client.

Any support surface can be classified using this model. Comparing the classification of the client’s current support surface to the classifications recommended by the model facilitates clinical decision making. If the current surface does not have the features recommended working through the model, or has more features than appropriate, the clinician can re-evaluate this choice of surface.

During this workshop the current evidence surrounding support surface selection will be reviewed. Participants will have the opportunity to explore using the support surface selection model to choose support surfaces based on clinical needs.

This model bridges the gap between the evidence, clinical reasoning and product information to promote a clinically appropriate support surface selection. Since its release, clinicians, funders and researchers have shown an interest in implementing this tool into practice.

References


Speaker Bio

Dedicated to the prevention and treatment of pressure ulcers, Linda has participated in best practice guideline development with the Registered Nurses Association and the Canadian Association of Wound Care. In addition to her full time role responsible for National Education with Shoppers Home Health Care, she is a faculty member with two Ontario Universities and the Canadian Association of Wound Care Institute.