

The S3I Committee has reached consensus on the recommendation to deprecate of the term "High Specification Foam" Mattress.

Although there are thousands of articles published worldwide that refer to "High Specification Foam Mattresses" and clinical practice guidelines make reference to the the term in their recommendations, the term has become outdated and subsequently misleading. The term was initiated over 25 years ago when support surface manufacturers began to use high resilient, often castellated and multiple density layered foam constructs with stretch covers in their products. These newer mattresses were shown to offer significantly more benefit for the prevention of pressure injuries compared to what was then referred to as the "standard hospital mattress." In the 1990's it could be argued that the "standard hospital mattress" was a single block of foam covered with a non-stretch vinyl cover. The new "high specification foam" mattresses, with stretchable covers were indeed a significant step forward in pressure injury prevention due to their superior pressure redistribution qualities.

Today, what was previously referred to as, High Specification Foam Mattresses that have become the standard hospital mattress thus the suggestion that they are somehow different to the norm has become outdated. In the context of clinical practice guidelines and in many research publications, the term has become a generic term for foam mattresses that have pressure redistributing properties. But the complexities of these newer foam mattresses and their constructs cannot be adequately described by the definition of high specification foam that has been published in the International Guidelines. And, if any manufacturer followed it precisely the resulting mattress would not provide the best possible pressure redistributing properties. The minimum specification, amongst other requirements calls for a single block of high resilience foam which has a minimum density of 35kgs/m³ or 2.18lbs/ft³. Even if was castellated, at the heels, a second layer of lower density foam would be desirable on top especially at the heels. The specification does not allow for this thus it is extremely limiting. The Guideline criteria also suggests a minimum moisture vapour transmission rate of the cover fabric but does not mention anything about the cover having stretch properties. Stretch properties in the cover can totally negate the benefit of immersion and envelopment (pressure relieving properties), which the foam construct might otherwise provide.

A fundamental problem with the published criteria is that trying to be prescriptive or to give minimum requirements becomes restrictive to development. As of 2014, published performance standards are available and provide a better alternative for describing support surface performance characteristics related to pressure injury risk. These standards establish test methods for generating quantitative performance metrics for the pressure distributing qualities (immersion and envelopment) as well as microclimate management, heat, humidity and moisture. Together these metrics assist clinicians in making informed clinical decisions, assist manufacturers in developing improved product, and assist purchasers in making better informed purchasing decisions.

Perpetuating the current use of the term high specification foam mattresses confuses clinicians, inhibits innovation and leads to inefficient use of resources.