

September 16 2019

## Essential Medical Products Mattress Medical Justification Notes

*This document provides general guidance. EMP recommends specialized sleep surfaces be selected under the direction of a qualified medical professional.*

*This information is best used along with the Essential Medical Products **Intermediate Care Mattress Selection Guide** and **Premium Care Selection Guide** found @ [www.essentialmedicalproducts.com](http://www.essentialmedicalproducts.com)*

These notes are a result of ongoing discussion intended to assist prescribers when assessing patient need for a specialized mattress. If you would like to add to these notes, make corrections or recommendations that may add to the conversation, please send your thoughts to [pmundy@essentialmedicalproducts.com](mailto:pmundy@essentialmedicalproducts.com)

This document is intended for use by equipment prescribers. Our goal in assembling this information is to help prescribers in their efforts to match client needs with available equipment capabilities. Information is organized so that when writing a letter of medical justification, the prescriber can include;

- an outline of how the recommended specialty mattress works to reduce the risk of pressure injury.
- a list of specific patient observations with matching commentary about a recommended mattress feature/benefits addressing those patient observations
- It may be helpful to include a doctors' prescription for a recommended mattress when seeking third party funding assistance
- a specific supplier recommendation, identifying who might best furnish the mattress and follow-up with the patient if future sleep surface equipment needs arise.

**Your medical justification letter should include information outlining how the required support surface (mattress) operates and how deployment of this product will result in improved skin health, prevention of a pressure injury, or remediation of an open injury for and individual with an existing injury.**

### **Comments relating to the Braden Scale for predicting Pressure Ulcer Risk in Adults & Children**

The Braden scale assesses each client according to 6 subscales: sensory perception, skin exposure to moisture, the client's level of activity, the client's ability to change positions, nutritional intake and the presence of friction and shearing force. Total Braden Scale scores range from 6 to 23 with lower scores indicating higher risk. Risk scores range from 6 - 18 from at-risk to very high risk.

Essential Medical Products (EMP) mattresses are defined as Passive Support Surfaces. These surfaces use a variety of foam and/or air inserts to redistribute pressure against the patient’s skin, reducing peak pressures by redistributing pressure loading over a larger area.

Additionally, EMP surfaces are designed to meet a variety of patient requirements, providing choices for surface firmness, surfaces that can affect skin temperature, structural elements that assist is patient transfers and reduce the risk of entrapment, and surfaces that provide for easy independent movement on the bed. Finally, mattress options provide for varying patient weights.

Considering EMP mattresses included in the Intermediate Care and Premium Care Mattress Guide, the following table may be useful in determining a starting point when selecting a sleep surface, keeping in-mind that any one of the six subscale scores might cause the clinician to select a different support surface more suited to address specific needs;

| <b>Mattress ID</b>            | <b>Braden Scale Range</b> | <b>Notes</b>   |
|-------------------------------|---------------------------|--|
| LTC 2500 Basic Comfort        | 20 - 23                   |  |
| LTC 3500 Active Care          | 18 – 23                   |  |
| LTC 4000 Plus                 | 15 - 18                   | High transfer border                                   |
| LTC 4000 Ultra 55             | 15– 18                    | High transfer border, higher firmness                  |
| LTC 7000 Latex                | 15 – 18                   | High transfer border, Latex improve cooling potential  |
| LTC 8000 Gel-In               | 15 – 18                   | High transfer border, Gel improves cooling potential   |
|                               |                           |  |
| LTC Bariatric/Ultra-bariatric | 15 - 23                   | Designed for bariatric 500 lb & ultra-bariatric 700 lb |
|                               |                           |  |
| LTC 9000                      | 14 – 15                   | Use Conform Air Insert(s) in high risk areas           |
| LTC 9100                      | 13 - 15                   | Use Conform Air Insert(s) in high risk areas           |
| LTC 9200                      | 13 - 15                   | Use Conform Air Insert(s) in high risk areas           |
|                               |                           |  |

While these notes provide overall suggestions, it is important to follow the complete Braden Scale assessment as there are sub-categories identifying risks that can and should influence therapeutic choices.

**Why am I recommending an Intermediate Care or Premium Care specialty mattress system?**

Passive mattress systems typically include foam mattresses, passive air systems, and/or hybrid systems that may include both foam and air inserts, among other materials. I am recommending a passive mattress system because in my opinion this patient is

- at risk of falling while getting in or out of bed, or falling out of bed while sleeping, and/or is
- at risk of becoming entrapped between the current mattress and bed side rails, and/or is
- at risk of acquiring a pressure injury.

As such, I am recommending a specialty support surface in managing this patients’ needs.

There are several reasons why I am recommending an EMP mattress;

- EMP Intermediate Care mattresses are available in a wide assortment of models allowing me to select a model closely matching my client’s need, and/or

- EMP moisture-proof mattress covers come with a lifetime warranty, ensuring the cover will protect the inside materials from moisture, meaning the mattress will last much longer.
- EMP Intermediate Care mattresses all include a 2” topper, ensuring adequate emersion capability, adding better pressure redistribution compared to mattresses with thinner toppers
- When using EMP I am able to choose a mattress with either bonded or low-shear construction. EMP’s bonded construction mattresses are widely recommended and used in healthcare, having been available for well over 20 years. EMP’s low shear mattresses are designed to permit the topper to move when the head of the bed is raised, reducing shear along the patient’s body surface.
- EMP always has stock ready for immediate shipping so my client will not have to wait long to receive their mattress.
- When recommending an EMP Premium Care mattress, EMP offers simple-to-use order forms, making it easy for me to select exactly the configuration I need for this patient. I can select from a variety of pressure relieving materials and mattress configurations that exactly match my patient’s needs.
- When recommending an EMP Premium Care mattress needing an air insert, EMP can supply a variety of specialty mattress inserts, including the Conform air insert(s). Conform inserts offer excellent pressure redistribution characteristics and superior construction. As such, the Conform insert will meet my patient’s pressure redistribution needs and includes an excellent warranty compared to other air insert options.

EMP Intermediate Care mattresses are available in six configurations. Together, these configurations are designed to meet a wide range of needs ranging from basic patient support and safety through to pressure redistribution. Choices include varying levels of firmness, materials that help keep the skin surface cool and dry, firm side support (transfer borders) that help make patient transfer safer, surfaces that optimize in-bed mobility and products meeting patient weight requirements.

EMP Premium Care mattresses are available in many configurations that facilitate use of Air Inserts (EMP provides Conform Air Inserts), covered and uncovered Memory foam, Gel-in Memory foam, Latex foam and Polyurethane foam inserts. Each of these insert types provide additional benefits relating to pressure redistribution, heat dissipation, moisture dissipation and patient comfort. Most importantly, Premium Care mattresses facilitate placement of specialized inserts in specific locations within the mattress.

**Matching a Specific Client Profile with a recommended EMP Mattress– The following examples are intended to help you identify an EMP surface that best matches the needs of a specific patient. Each example includes a list of potential patient descriptors, along with notes identifying why a recommended EMP mattress might be a good fit. Review the patient descriptors and determine which descriptors ‘best fit’ for your situation.**

Selecting an appropriate EMP mattress, there are six factors requiring attention when determining patient need;

- Pressure – Various topper materials (the upper 2” of the mattress) provide different levels of pressure redistribution
- Firmness – Does my patient prefer a soft, medium-firm or firm mattress?
- Heat – Does my patient perspire in bed? Is incontinence leading to frequent skin wetness?

- Transfers – How does my patient transfer in and out of bed?
- In-bed mobility – Is my patient likely to have difficulty repositioning themselves in bed?
- Patient weight – What is my patient’s weight?

The Intermediate Care Mattress Selection Guide can be downloaded at [essintialmedicalproducts.com](http://essintialmedicalproducts.com)



**Example 1** - My patient is needing to use an adjustable bed (hospital bed, care home bed) due to decreased mobility and decreased ability to safely get in and out of bed. He/she does not exhibit excessive sweating or moisture related issues. He/she is currently not at high risk of acquiring a pressure injury. He/she does not have physical deformity or contractions that might suggest a need for more-than-normal (1”– 2”) emersion when laying on a sleep surface.

This individual might do well with an LTC 2500 or LTC 3500 mattress for the following reasons;

- These mattresses are excellent ‘basic’ sleep surfaces, providing medium-firm support.
- The topper (top 2” of the mattress) for either of these mattresses is of resilient polyurethane foam, allowing ease of movement on the mattresses.
- The LTC 2500 mattress cover is of a non-stretch moisture-proof material. The LTC 3500 mattress cover is a 4-way stretch material allowing the topper to more easily deform and better-fit your client.
- LTC 3500 topper foam has ‘brick cuts’ allowing this topper to move more easily as a patient moves/slides on the mattress, resulting in reduced shear forces acting on the patient’s skin.
- Both the LTC 2500 and LTC 3500 mattresses use 4” high transfer borders. A transfer border is a strip of firm foam located along the sides of the mattress, making it less likely a patient might slip off when sitting on the side of the bed.
- The LTC 2500 has a 250 lb weight limit. The LTC 3500 has a 350 lb weight limit.

**Example 2** – My patient is at risk of developing a pressure injury. This patient needs a mattress with pressure redistribution properties. This patient may also exhibit decreased mobility and decreased ability to safely get in and out of bed. He/she may exhibit some sweating or moisture related issues. He/she may have physical deformity or contractions that might suggest a need for more emersion when laying on a sleep surface.

This individual might do well with an LTC 4000 Plus, LTC 4000 Ultra 55, or LTC 8000 Gel-in mattress for the following reasons;

- Patients exhibiting deformities and/or contractions will require a surface designed to allow deeper immersion. With this in-mind, The LTC 4000 Plus, LTC 4000 Ultra 55, and LTC 8000 Gel-in mattresses use 2” memory foam (viscoelastic foam). Memory foam will accommodate more immersion and provide better pressure redistribution compared to polyurethane foams. It will be

important for this client to use a mattress with better immersion capability, avoiding bottoming-out that could otherwise result in pressure on bony prominent areas such as heels, shoulder blades and elbows.

- When selecting a memory foam mattress, usually due to concerns around the risk of pressure injury, it is important to consider that memory foam mattresses redistribute pressure in-part by 'wrapping' close to the patient's profile when laying on this type of mattress. In some cases, patients may find a memory foam mattress more difficult to move on when changing body position (see example 3 below for a possible alternative).
- This client may be exhibiting sweating and/or any other sources of skin wetness. EMP uses fully reticulated memory foam in each of these mattresses. Reticulated Foam provides positive ventilation throughout the foam topper while providing a "heat sink" to draw away excess body heat. The LTC 8000 Gel-in mattress goes further, using a cooling gel material mixed in with the viscoelastic foam, further improving the 'heat sink' properties of this topper material.
- The LTC 4000 Plus and LTC 8000 Gel-in are both considered medium firm mattresses. The LTC 4000 Ultra 55 is considered a firm mattress.
- All three of these mattresses use 6" high transfer borders. A transfer border is a strip of firm foam located along the sides of the mattress, making it less likely a patient might slip off when sitting on the side of the bed. When the transfer border is extended to the full depth of the mattress, it will be noticeable for a patient when moving close to the side of the mattress.
- The LTC 4000 Plus and LTC 8000 Gel-in both have a weight limit of 350 lb. The LTC 4000 Ultra 55 has a weight limit of 400 lb.

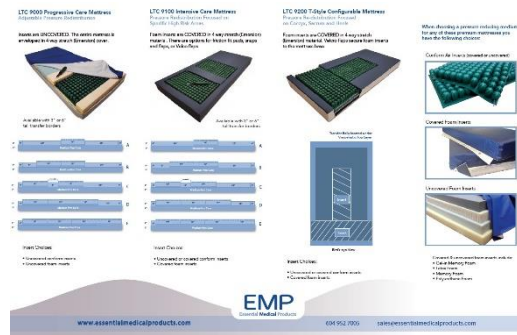
**Example 3** – My patient is similar to the patient described in Example 2 (above). In addition to providing a mattress meeting the needs indicated in Example 2, this patient finds it difficult to move independently while in bed.

This individual might do well with an LTC 7000 Latex mattress for the following reasons;

- Patients exhibiting deformities and/or contractures will require a surface designed to allow deeper immersion. With this in-mind, The LTC 7000 Latex mattresses use 2" Talalay Pin Core Latex foam, a highly resilient foam and excellent support surface accommodating immersion and providing better pressure redistribution compared to polyurethane foams. It will be important for this client to use a mattress with better immersion capability, avoiding bottoming-out that could otherwise result in pressure on bony prominent areas such as heels, shoulder blades and elbows.
- Latex foams provide a highly supportive surface, redistributing pressure without 'wrapping' close to the patient's profile. Less 'wrapping' means the patient will find this surface easier to move and reposition themselves on.
- This client may be exhibiting sweating and/or other sources of skin wetness. Talalay Pin Core Latex foam has 'less wrapping', meaning there is more air flow close to the skin. Talalay Pin Core Latex foam also includes a pattern of large holes drilled throughout the foam, optimizing air flow through the mattress.
- The LTC 7000 Latex is a highly supportive firm mattresses.
- The LTC 7000 Latex uses 6" high transfer borders. A transfer border is a strip of firm foam located along the sides of the mattress, making it less likely a patient might slip off when sitting on the side of the bed. When the transfer border is extended to the full depth of the mattress, it will be very noticeable for a patient when moving close to the side of the mattress.

- The LTC 7000 Latex has a weight limit of 350 lb.

The Premium Care Mattress Selection Guide can be downloaded at [esstintialmedicalproducts.com](http://esstintialmedicalproducts.com)



**Example 4** – My patient is at higher risk of developing a pressure injury. This patient needs a mattress with superior pressure redistribution properties. This patient may also exhibit decreased mobility and decreased ability to safely get in and out of bed. He/she may exhibit sweating or other moisture related issues. He/she may have physical deformity or contractions that might suggest a need for more emersion when laying on a sleep surface. Alternatively, I may be wanting a mattress that can be used with more than one patient, meaning I need to maximize flexibility of support with this mattress.

This individual might do well with an LTC 9000 Progressive Care, LTC 9100 Intensive Care, or LTC 9200 T-Style Configurable mattress for the following reasons;

- Patients exhibiting deformities and/or contractures will require a surface designed to allow deeper immersion. With this in-mind, any one of the three LTC 9000 series mattresses provides interchangeability of pressure redistribution components within the mattress. Clinicians can choose to use Conform air inserts, Gel-in memory foam, memory foam, latex foam or polyurethane foam inserts so as to provide optimal support for a variety of needs.
- The mattress inserts (toppers) used in these mattresses are 3” deep compared to the 2” deep toppers used in EMP Intermediate Care mattresses.
- If I am wanting a mattress that is easy to keep clean, I may choose to select the LTC 9000 Progressive Care mattress since this product’s cover goes over top of the mattress and inserts, protecting everything inside from moisture.
- This patient may be exhibiting sweating and/or any other sources of skin wetness. If my priority is to maximize air flow next to the skin, I will select the LTC 9100 Intensive Care or LTC 9200 T-Style mattress. These products are designed so that the inserts are located on top of the cover. Air flow next to the skin will be optimized when using Conform air inserts since these inserts are designed to include numerous air channels along-side the air-filled cells. Alternatively, EMP’s fully reticulated memory foam inserts, while covered, will provide positive ventilation throughout the foam topper while providing a “heat sink” to draw away excess body heat. The Gel-in insert goes further, using a cooling gel material mixed in with the viscoelastic foam, further improving the ‘heat sink’ properties of this insert material.
- When selecting the LTC 9000 Progressive Care or LTC 9100 Intensive Care mattress, you will need to decide on using either 3” high or 6” high transfer borders. A transfer border is a strip of firm foam located along the sides of the mattress, making it less likely a patient might slip off when sitting on the side of the bed. When the transfer border is extended to the full depth of the mattress, it will be more noticeable for a patient when moving close to the side of the mattress.

**Your medical device justification will be strengthened when it is accompanied by a doctor's prescription. While this step may not be required in every case, as the cost and complexity of your recommendation increases, it will be more likely that a doctor's prescription, confirming/complimenting your recommendations may be a vital step in obtaining 3<sup>rd</sup> party funding. Among other notes, a doctor's prescription should include all available information relating to the patient's skin health and pressure injury history.**

**Finally, your medical justification letter should include information about your recommended provider, indicating why you are recommending a specific supplier. This section of your letter will focus on the need to engage a knowledgeable provider who is able to quickly provide the required product and react quickly and efficiently in the event of problems or changes in patient condition.**

#### **Supplier Considerations**

One important consideration in choosing a specialized mattress is to ensure the supplier will be able to deliver promptly, has equipment available for client trials, and is able to support local HME dealers and their clients if problems occur. Acceptable management of skin health is not something that can wait very long for suppliers to respond. With this requirement in-mind, EMP has established products, protocols and clinical support materials in-place to ensure prescribers and providers understand which products to use and when. Service and support are available with rapid delivery options. This kind of support is a key factor when working to ensure positive client outcomes are achieved.

EMP mattress systems include a five-year warranty against manufacturer defects.

#### **Other Useful information**

Essential Medical Products You Tube Channel – You can get help with selecting EMP Support Surfaces and related bed safety and positioning products -

[https://www.youtube.com/channel/UChfmkq6vaybyrHYQcjT945g/featured?disable\\_polymer=1](https://www.youtube.com/channel/UChfmkq6vaybyrHYQcjT945g/featured?disable_polymer=1)

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