

+ medstrom Protecta

Foam Mattress Range



Right patient, right product, right time.

medstrom+
Improved Patient Outcomes

Challenges

The first line of defence

Foam mattresses are often the first line of mattress that patients go on. It's therefore crucial that these mattresses are suitable for the needs of today's patients.

But the UK's population is getting older. As a result, many patients are facing an increased risk of pressure ulcers, due to problems with mobility and ageing skin.^{1,2} Patient cases are also becoming more complex. In 2015, 54.0% of people over the age of 65 had two or more conditions. This is predicted to rise to 67.8% by 2035.³ And with multi-morbidities identified as a key risk factor for pressure ulcers, the problem is clear to see.⁴



Outdated design

A lack of innovation in design and materials means that many traditional foam mattresses have struggled to keep up with evolving patient demands.



Poor choice of materials means that many foam mattresses offer reduced resistance to cover damage. This **increases the risk of strike-through**, and the potential for the foam to be contaminated. In fact, standard foam mattresses have a failure rate of up to 27%, meaning a significant number of mattresses must be condemned annually.⁵



Lower density and lower specification foams provide limited support to the patient. These also **'bottom out'** more quickly, potentially putting patients at an increased risk of pressure damage.



Combined, these drawbacks mean that many lower specification foam mattresses have a much **shorter product life**. As a result, more mattresses will need to be replaced more often, representing a significant cost.

Introducing the Protecta range



A fresh approach to foam

Combining both clinical and cost initiatives, the Protecta range has been developed to provide effective foam mattress solutions to meet these challenges. Indicated for comfort and the prevention of pressure ulcers in patients at **all levels of risk** as well as the treatment of category I and II pressure ulcers, Protecta products have been carefully designed to enhance pressure redistribution and protect fragile skin.

High-specification foam provides increased support to the patient, while ensuring their weight is distributed evenly across the mattress. All mattresses across the Protecta range offer a maximum patient weight of **250kg**, indicating the high density of the foam core. And a careful choice of materials for the cover provides enhanced protection against strike-through, extending the product lifecycle and reducing the need for replacements.

The science of support surfaces

Medstrom has developed a number of educational videos on patient surfaces in partnership with leading publication *Nursing Times*. Our video on surface technologies explores:

- Different mattress types, including foam, hybrid and semi-dynamic mattresses
- Risk assessments
- The creation of individualised patient plans, in order to mitigate risk factors and prevent pressure ulcers
- Foam specifications and densities

**Scan the QR
code to watch:**



Xtreme covers



A common theme across the Protecta range is the well-recognised Xtreme branding of covers.

In early 2010, the MHRA released an alert (MDA/2010/002) after investigations revealed a high incidence of external damage and internal contamination with mattresses.⁶ Since mattresses are the highest-touch element for hospitalised patients, this discovery raised a number of infection concerns.

Following the alert, mattress covers have incorporated additional protection against chlorine corrosion to help minimise risk of damage and contamination.⁷ However, this change is generally acknowledged to have eliminated the air permeability properties of conventional covers. The Xtreme covers have been specifically designed to mitigate these problems, maintaining breathability while still offering enhanced durability and chlorine resistance.



Thanks to their Xtreme covers, the Protecta mattresses are able to offer the following additional benefits as standard:

- **Moisture vapour permeability** assists with patient micro-climate, removing moisture for improved comfort.
- A **multi-stretch** material absorbs shear forces, reducing any shear and friction occurring at the skin-surface interface for enhanced skin protection.
- Anti-fungal agents built-in to assist with infection control and prevention measures.
- Fully **high frequency welded** with deep flaps covering all zips for greater protection against bacteria as well as eliminating the risk of fluid ingress.
- Latex free.
- Easy to clean and disinfect in line with hospital procedures, thanks to the **waterproof** removable cover. The cover is compatible with 10,000ppm sodium hypochlorite solution, with cleaning instructions clearly printed on the surface.
- In the event of any strike-through, a **white inner layer** makes it easy to spot any damage to the cover, protecting patient safety and ensuring the integrity of the foam.

Crib ratings explained

What are crib ratings?

Furniture or furnishings, including hospital beds and mattresses, must pass UK fire regulations. These regulations don't necessarily mean that a product is completely fireproof, but specify how resistant it is to ignition.

These tests present a number of ignition risks — including the equivalents of a 'smouldering cigarette', 'burning match', and a small burning wooden stack or 'crib' — and assess how resistant the material is to the flame.

Which crib rating do I need?

The regulation or crib rating required for products depends on the environment that they will be used in. Hospitals and healthcare environments are classed as 'medium' risk. Therefore, any mattresses going into these locations must meet the regulation BS7177: 2008 **Crib 5 as a minimum**.⁸

However, some hospital environments are more high-risk than others. This may include the following groups:

- Older patients
- Patients with learning difficulties
- Young people with disabilities
- Secure premises for people with mental health problems.⁹

For these **high-risk** environments, there's another standard that is more applicable. This is the BS7177 **Crib 7** regulation. Crib 7 tests are more rigorous than those for Crib 5, with a larger test flame.

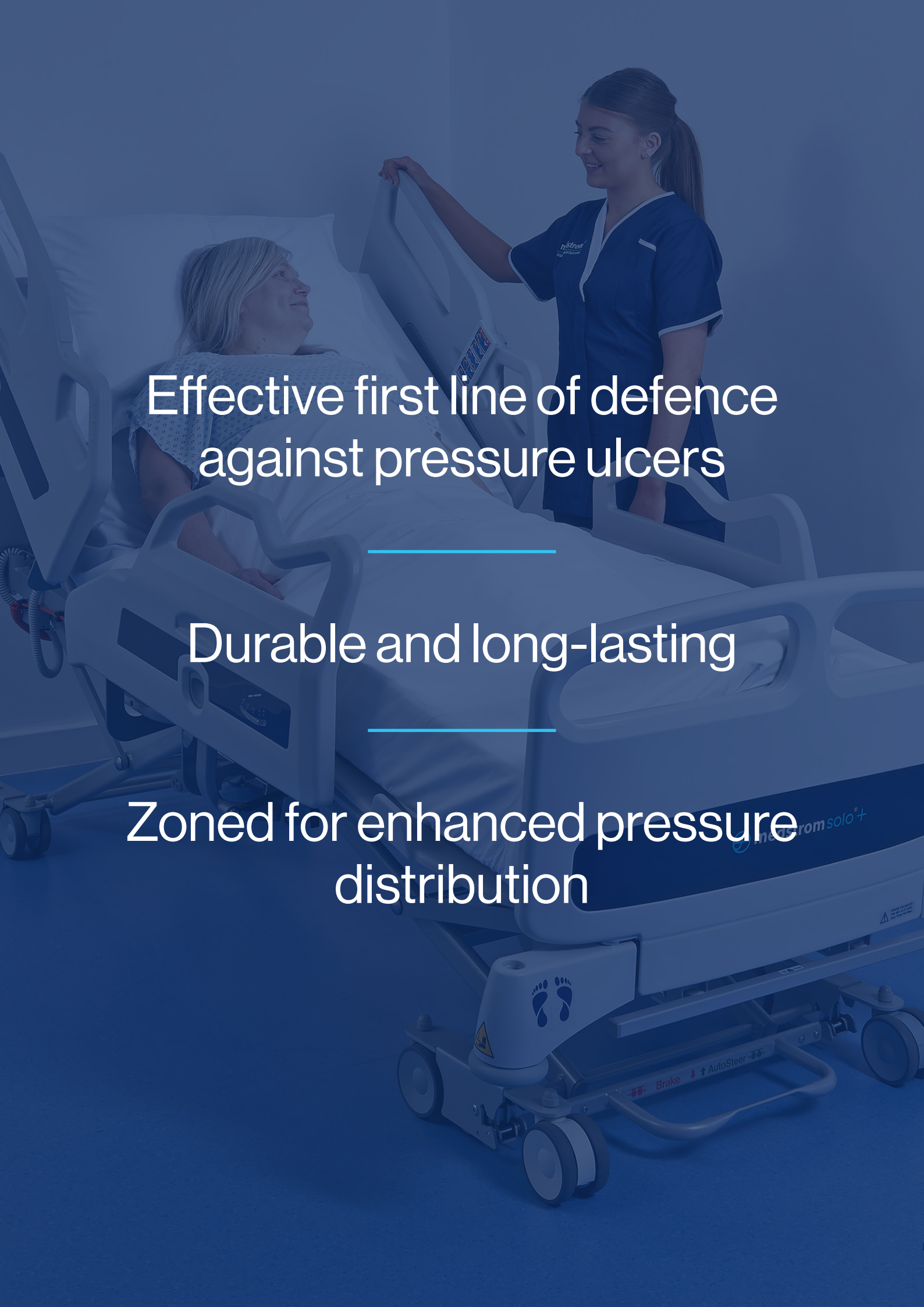
Crib 7 mattresses will often have additional protection against accidental and deliberate damage, including:

- **A fully sealed cover:** This prevents any access to the inside of the mattress, which may be used for storage or directly ignited.
- **Reinforced material:** Cover materials are typically more robust to protect against tearing or other physical damage.



Rating	Mattress
Crib 5	Protecta X Protecta Luxe
Crib 7	Protecta 7





Effective first line of defence
against pressure ulcers

Durable and long-lasting

Zoned for enhanced pressure
distribution

Enhanced pressure redistribution

Protecta X

The Protecta X offers an effective foam mattress solution, with a unique construction for enhanced pressure redistribution.

Technical Specification:

Dimensions: 85cm (W) x 198cm (L) x 14cm (D)

Mattress Weight: 14kg

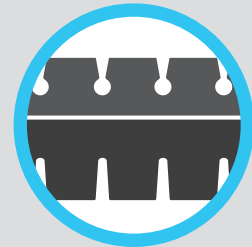
Did you know? The dual hinge on Protecta X works in perfect harmony with profiling beds to **prevent patient migration**. When combined with the elliptical backrest on our Solo+ bed frame, the hinges are perfectly aligned with the articulation of the bed to minimise heel travel, shear and friction for enhanced pressure ulcer protection.



Triple density, high-resilience foam distributes load evenly throughout the mattress.



Geltex® heel layer increases conformity in vulnerable pressure areas, enabling greater immersion, comfort & pressure redistribution.



Anti-shear, dual hinge base allows greater contouring when the bed articulates, improving comfort and reducing shear forces.



Firm edge perimeter assists with patient transfers, creating a durable platform to facilitate easier mobilisation.



Platilon® inner cover provides additional protection in the event of ingress, extending product longevity and reducing the number of condemned mattresses.



The Protecta X requires no turning due to its unique construction, again extending product life.



Technical Specification:

Dimensions: 91cm (W) x 206cm (L) x 14cm (D)

Mattress Weight: 14kg



Protacta Luxe

The Protacta Luxe offers all the benefits of the Protacta X mattress with additional bed compatibility. The Protacta Luxe has been adapted specifically for the Medstrom Solo Luxe, the first UK bed with ultra-low height capabilities compliant to bed standards for adults, children and adults with atypical anatomy.



Retained benefits

The Protacta Luxe retains all the key benefits offered by the Protacta X, including a firm edge perimeter, sacral zone, Geltex® heel layer, Platilon® inner cover and profiled base hinges.

Combined, these benefits offer enhanced skin protection and comfort through greater immersion and shear force reduction.



Enhanced compatibility

The Protacta Luxe has been designed specifically for the Medstrom Solo Luxe bed frame. Together, the combination provides a solution uniquely compliant to both BS EN 50637:2017 and BS EN 60601-2-52, for enhanced patient safety and peace of mind.

Protecta 7

Prevalence of mental health conditions has steadily increased since 1993.¹⁰

Furthermore, around 30% of all people with a long-term health condition have at least one mental health condition.¹¹

For a growing patient population with multiple and often complex mental and physical problems, there's a need for mattress solutions that prioritise safety without compromising on clinical outcomes.



Technical Specification:

Dimensions: 90cm (W) x 200cm (L) x 14cm (D)

Mattress Weight: 13kg

The Protecta 7 has been specifically designed for comfort and pressure ulcer protection while preventing patients and caregivers from harm. With a fully sealed exterior and compliance with the BS7177:2008 Crib 7 rating, the Protecta 7 is an effective solution for even the most high-risk scenarios.

One combination for high risk environments

The Protecta 7 offers full compatibility with a variety of bed frames, including the Medstrom SoloMH. Uniquely designed in collaboration with a number of clinicians in the mental health space, the SoloMH offers all the clinical benefits of an electric profiling bed with no compromise on patient or caregiver safety.



Polyurethane (PU) coated, multi-stretch, vapour permeable, waterproof cover with high frequency welded seams.



Profiled Combustion Modified High Resilience (CMHR) foam construction for increased fire retardancy.



Non-removable cover eliminates access to the mattress interior for item concealment. Durable, reinforced material provides additional protection against physical damage.

Additional services

Audit services

One US study evaluated beds and mattresses across four hospitals. Almost half (47%) required a mattress cover replacement and a further 25% required replacement of the entire mattress, highlighting the need for frequent, in-depth investigations into mattress condition.¹² To help maximise mattress longevity and ensure patient safety, Medstrom offers a number of additional audit services. These can be offered on an annual or bi-annual basis and customised to suit your needs.

Leaders in audit management

With significant experience in conducting audits, Medstrom was chosen by NHS Improvement to lead its first ever national pressure ulcer prevalence audit across England.

Co-ordinating the collation and examination of data, Medstrom's audit management allowed for real-time visibility of results. Medstrom also provided staff members to support clinical teams in each of the 14 Trusts by inputting prevalence data.

It's recommended that a rigorous pressure ulcer prevalence audit should include skin inspections to categorise pressure ulcers. Therefore, Medstrom's approach was to collect prevalence data by both patient record analysis and physical skin checks. On the first day of the audit, Jacqui Fletcher, Senior Clinical Advisor for NHS Improvement, stated **18.5%** of pressure ulcers found were discovered by the audit teams.



Available to both existing and new customers, our service includes:

- Management of the entire process by Medstrom's highly experienced team.
- Clinical support provided by our team of RGN qualified clinical advisors.
- Customised questions to your requirements.
- Data captured via tablet, enabling rapid data analysis.
- Results analysed and presented within five working days of the audit.



“

This was the most well-planned audit of this magnitude that I have ever witnessed in the 32 years I have worked for the NHS.

**Nick Howlett,
Health and Safety Services Manager,
University Hospitals of Leicester NHS Trust**

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