

ESSENZA 400

LINET

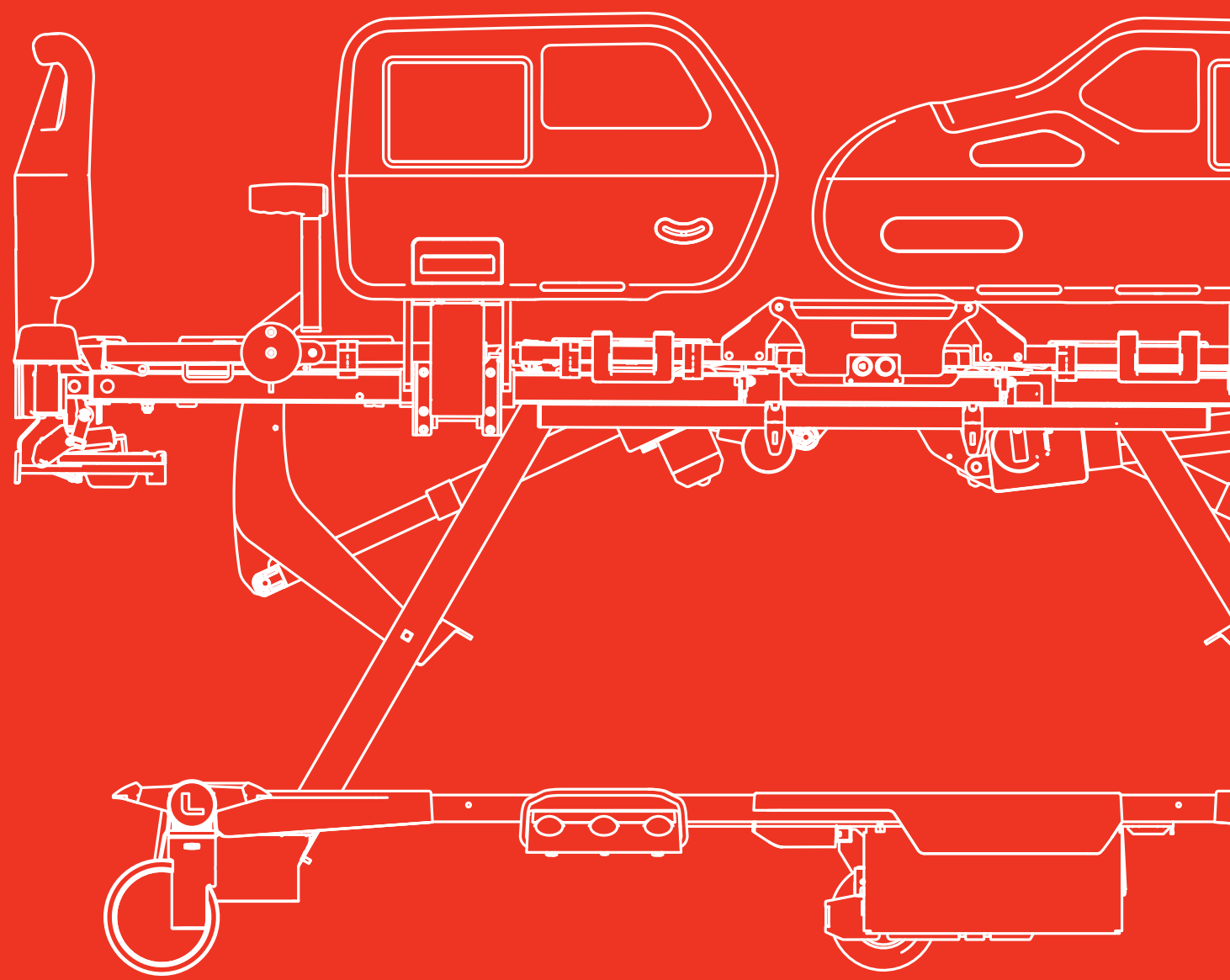
Turn to the Essence of Care



Entry-Level Intensive Care Bed

ESSENZA 400

TURN TO THE ESSENCE OF CARE



SUPERIOR SAFETY & ERGONOMICS DRIVEN BY NURSE- AND PATIENT-CENTRIC DESIGN



Mobi-Controls® can help to speed up the recovering process.



Low Bed Height of 27.5 cm helps to reduce the severity of patients' falls.¹



EasyDrive® decreases necessary initial pushing force to touch of a finger.²

UNPARALLELED EFFECTIVENESS BROUGHT BY ADVANCED TECHNOLOGIES



Mattress Integration provides caregivers with easy and time-saving maintenance.



Scales for effortless tracking of patient weight with 0.5 kg precision.



DesignInk® contributes to reducing patient fear and anxiety while improving the working environment for caregivers.³



SmartTracking facilitates caregivers' daily work by tracking hospital assets or patients.

SAFETY THAT THINKS AHEAD



3-Zone Bed Exit Alert monitors patients and notifies caregivers when they attempt to leave the bed.



Built-in Voice Guidance uses voice instructions to remind the patient to stay in bed and that assistance is on the way.



i-Brake® & Brake Alert keep the bed secured at all times.

ENHANCED PATIENT OUTCOMES



EARLY MOBILIZATION

Mobi-Controls® promote patient mobilization, which can potentially decrease the length of hospital stay and all the associated complications.⁴



PRESSURE INJURY PREVENTION

ErgoFrame® and wide range of mattresses enhance patient comfort and pressure relief, addressing various levels of injury risk with tailored support solutions.



FALLS PREVENTION

The low bed height and safety features like 3-zone bed exit alert, built-in voice guidance and i-Brake® provide enhanced protection and reduce the risk and severity of patient falls.



IMPROVE PATIENT EXPERIENCE

USB integration in head siderails and DesignInk® enhance comfort and autonomy, reducing stress and improving the patient experience.³



IMPROVED CAREGIVER & HOSPITAL WORKFLOW



SAFE PATIENT MOVING & HANDLING

Auto-contour, foot controls & Mobi-Grips support safe and ergonomic patient handling, reducing caregiver strain and improving patient positioning.



EASY PATIENT TRANSPORTATION

EasyDrive®, 5th castor and SoftBrakes® ensure easy maneuverability and safer patient transportation.



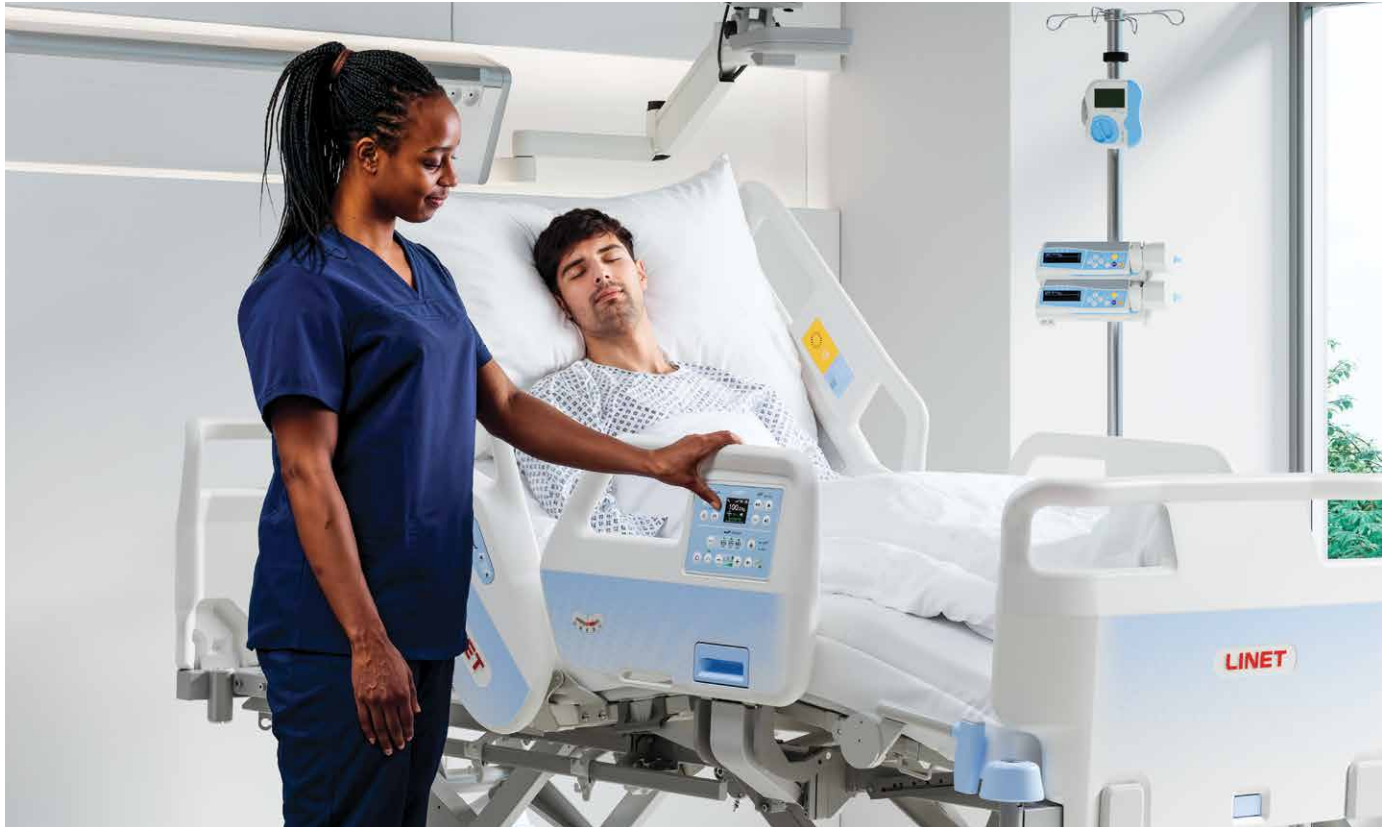
SIMPLIFY CAREGIVER PROCEDURES

Solutions like Scales and SmartTracking streamline workflows, save time and reduce the burden on staff for more efficient care.



HOSPITAL OPERATIONS EFFICIENCY

Seamless mattress platform design and an open mattress architecture enhance caregiver workflow and simplify cleaning.





EARLY MOBILIZATION

CHALLENGE

- Complications associated with long hospital stay.⁵
- Longer length of hospital stay due to immobility.⁶
- Increased costs for the hospital.⁵

4 321€

Average daily costs
of hospital stay at ICU⁸

Up to 7 days

Average length of stay
in an intensive care unit⁹

Neurological

Depression, anxiety,
delirium, forgetfulness and
confusion.



Respiratory/ pulmonary

Pneumonia, atelectasis,
VAP, pulmonary embolism.



Renal

Stasis, nephritis, catheter-
associated urinary tract
infections.



Musculoskeletal

Muscle Atrophy, weakness
and contractures are seen
in 25–90% of patients with
prolonged hospitalization.⁷



Cardiovascular

Cardiac muscle atrophy,
hemodynamic instability
and DVT.



Gastrointestinal

Altered patterns of
elimination, incontinence,
constipation, fecal
impaction.



Metabolic

Acid-Base Balance,
Metabolic Syndrom.



Skin

Pressure ulcers. Lack of
mobility increases the
risk of pressure injury
development.



SOLUTION

Mobi-Controls® promote patient mobilization, which can potentially decrease the length of hospital stay and all the associated complications.⁴

Length of hospital stay
decreased by up to
2 days.¹⁰

ICU Aquired Weakness
reduced by
19%¹¹

Incidence of Pressure
Injuries reduced by up to
95%¹¹

	LEVEL 0	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
LEVEL OF FUNCTIONS					
CRITERIA	BED IMMOBILE • Clinically stable, but not able to cooperate in care.	BED ACTIVE • Able to cooperate in self-care and bedbound.	ABLE TO SIT • Strong enough to sit upright and able to move leg against gravity.	ABLE TO STAND • Increased strength for standing activities and actively participates in transfers to chair.	ABLE TO WALK • Tolerates walking in the room and independently transfers to chair.
SOLUTIONS	• Head of Backrest • Reverse Trendelenburg • Vascular Leg Position	• Head of Backrest • Reverse Trendelenburg • Vascular Leg Position • Mobi-Grips • Cardiac Chair*	• Mobi-Pad* • Mobi-Grips* • Cardiac Chair* • Mobi-Lift®	• Mobi-Lift® handle • Mobi-Grips* • Mobi-Pad*	• Mobi-Lift® handle* • Mobi-Grips* • Mobi-Pad*



PRESSURE INJURY PREVENTION

CHALLENGE

- The overall prevalence of pressure injuries in ICUs is approximately **27%**.¹²
- Pressure injuries can develop **within minutes** of immobility.¹³
- The average cost per pressure injury treatment ranges from **€1 419 to €16 299**.¹⁴
- Patients with HAPI have higher readmissions and **around 22%** mortality rate.¹⁵

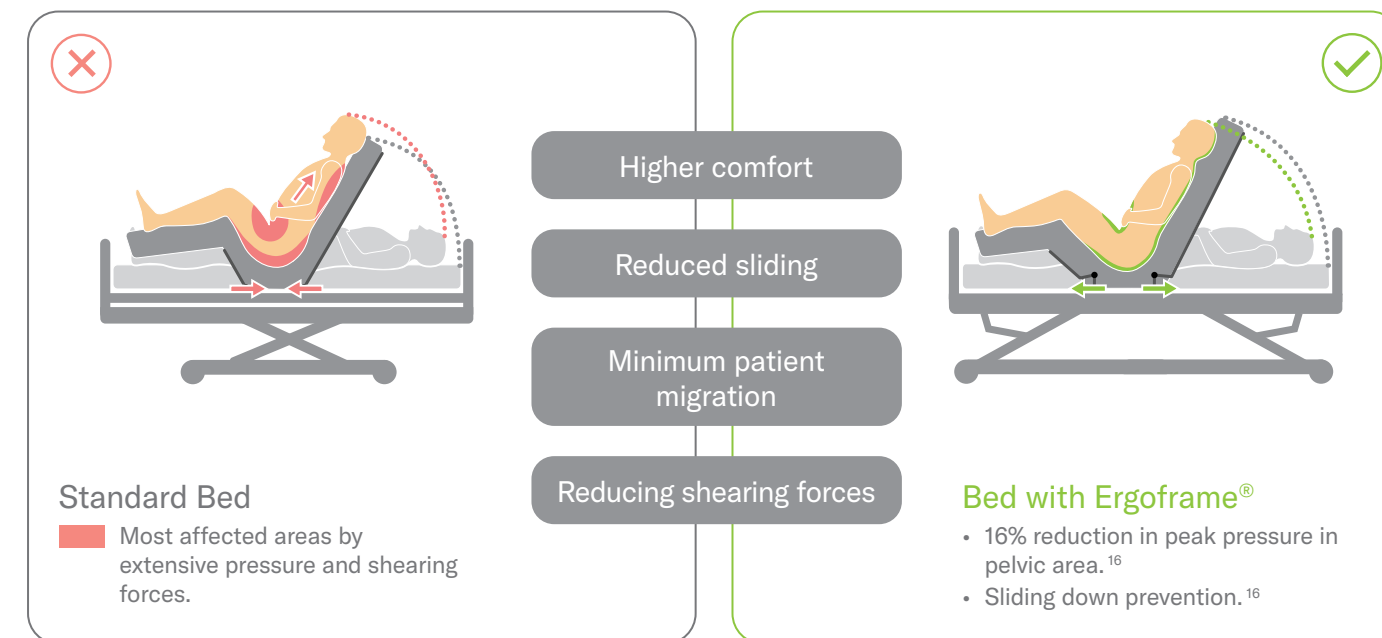


SOLUTION

Ergoframe® and wide range of mattresses enhance patient comfort and pressure relief, addressing various levels of injury risk with tailored support solutions.

ERGOFRAME® (AUTO-CONTOUR)

Unique frame design increases patient comfort and reduces peak pressure in the pelvic area by 16%.¹⁶



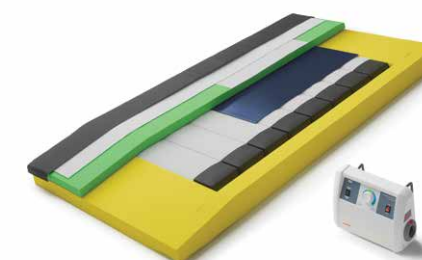
WIDE RANGE OF MATTRESSES FOR ESSENZA

To provide high patient comfort and prevention of pressure injuries, LINET offers a wide choice of mattresses for Essenza according to the needs of patients with different risk levels of pressure injury development.



Active Mattresses

Air2Care mattress family featuring 2-cell alternating technology, and the Virtuoso mattress family offering advanced 3-cell alternating technology.



Hybrid Mattresses

HybriMatt mattress family, offering a combination of active and passive systems in one.



Passive Mattresses

ViskoMatt mattress range, including a viscoelastic foam layer, as well as advanced MediMatt mattresses.



FALLS PREVENTION

CHALLENGE

- Patients who experience In-hospital fall at ICU can prolong stay **up to 18 days**.¹⁷
- The cost of **£2,600** per patient fall.¹⁸
- **Up to 89% falls** in ICU can be avoidable.^{17, 19}



SOLUTION

The **low bed height** and safety features like **3-zone bed exit alert**, **built-in voice guidance** and **i-Brake®** provide enhanced protection and reduce the risk and severity of patient falls.

3-ZONE BED EXIT ALERT

Monitors patients and notifies caregivers when they attempt to leave the bed.



BUILT-IN VOICE GUIDANCE



The bed exit system uses voice instructions to remind the patient to stay in bed that assistance is on the way.

I-BRAKE®



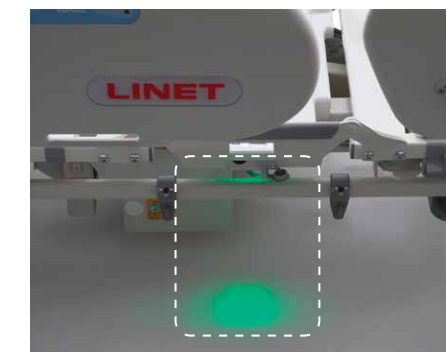
The automatically engaged brake reduces the risk of patient falls caused by an unstable bed.

LOW HEIGHT OF 27.5 CM



Helps to reduce the severity of patients' falls.

LOWEST POSITION INDICATOR



Green LED light illuminates when the bed reaches lowest position.



IMPROVE PATIENT EXPERIENCE

CHALLENGE

- Clear communication is crucial during times of stress and fear.²⁰
- Pain is reported by **around 41%** of patients.^{21, 22}
- Lack of autonomy causes stress to patients which impact blood pressure, and weaken immune system.²³



SOLUTION

USB integration in head siderails and DesignInk® enhance comfort and autonomy, reducing stress and improving the patient experience.³

USB INTEGRATION IN HEAD SIDERAILS



Allows patients in bed to safely and easily charge their phones, enhancing their ability to stay connected.

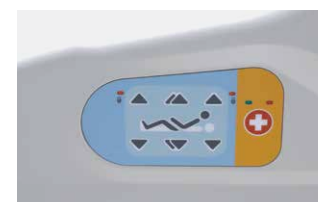
DESIGNINK®



Contributes to reducing patient fear and anxiety while improving the working environment for caregivers.³

PATIENT EMPOWERING CONTROLS

Patient can easily reach bed controls while sitting or lying.



Integrated Controls

Allow the patient to ergonomically position the backrest and thigh rest.

Integrated Nurse Call System

With a single button on the siderail, the patient can easily activate the nurse call system and communicate with their caregiver.



Handset

Designed for use by both patients and caregivers.



Mobi-Pad

Supports the patient during early mobilization.



SAFE PATIENT MOVING & HANDLING

CHALLENGE

- Caregivers are still at top of the number of work-related MSD's.²⁴
- 47% of caregivers' MSDs are back injuries, leading to staff shortages and time constraints.²⁵
- The annual prevalence of work-related MSDs among nurses is 77%.²⁶



SOLUTION

Auto-contour, foot controls & Mobi-Grips support safe and ergonomic patient handling, reducing caregiver strain and improving patient positioning.

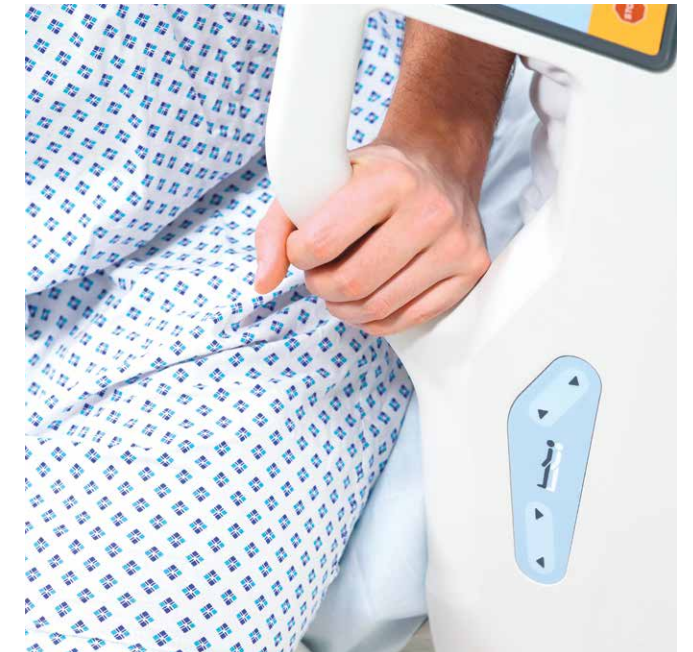


FOOT CONTROLS

Operating bed height ensures ergonomic positioning for caregivers and effective handling of the patient.

MOBI-GRIPS

Ergonomic grips in the siderails support patients during turning and standing, making the process smoother and easier for caregivers.



AUTO-CONTOUR

Patient is less likely to slide down in the bed when the back rest and thigh rest are elevated together. Caregivers do not need to repeatedly reposition the patient up in the bed.



EASY PATIENT TRANSPORTATION

CHALLENGE

- Pushing and pulling occupied beds is considered a high-risk task for developing MSDs due to spinal load.²⁷
- Maneuverability of the bed in narrow hospital corridors.
- An occupied bed needs to be transported by **2 caregivers**.²⁸



SOLUTION

EasyDrive®, 5th castor and SoftBrakes® ensure easy maneuverability and safer patient transportation.

EASYDRIVE®

Enables effortless patient transportation done by one caregiver without need of any initial pushing force for acceleration.²



5TH CASTOR

Turning and maneuvering the bed with less effort even in narrow corridors or around corner.



SOFTBRAKES®

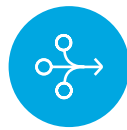
Ensure effortless pedal activation, offering a 56–93% force reduction compared to the maximum acceptable level.²⁹



CENTRAL BRAKE SYSTEM

The Essenza pedals are easily accessible and ensure an ergonomic posture while braking the bed.

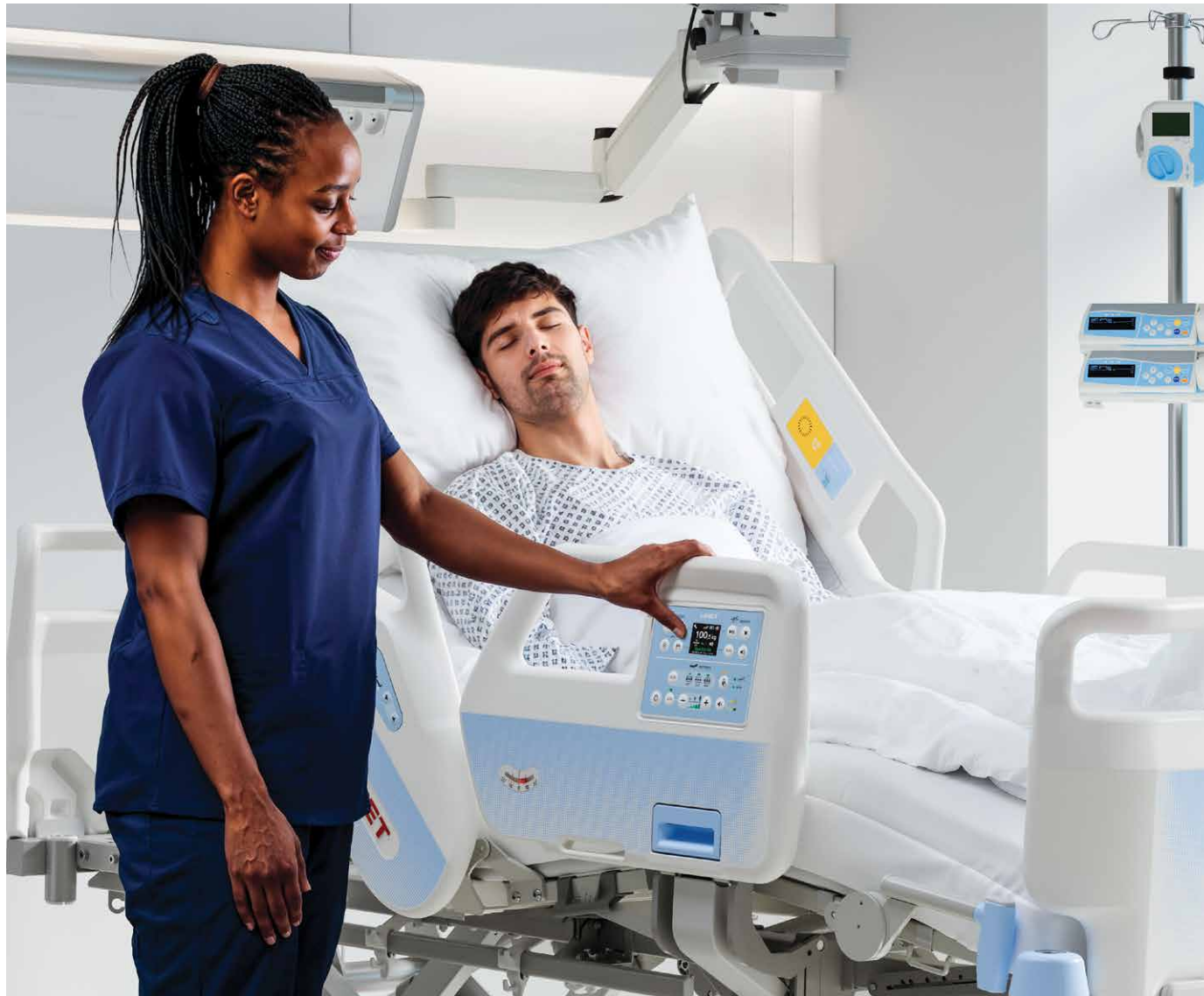




SIMPLIFY CAREGIVER PROCEDURES

CHALLENGE

- **Alarm fatigue** is present among ICU nurses in moderate to high levels.³⁰
- **57%** of nurses experience burnout.³¹
- **41%** of caregivers report time constraints during patient care delivery.²⁵
- Inconsistent device design across product lines can lead to use-related hazards, particularly during emergency response.³²
- **36%** of patient weight estimates deviate by **more than 10%**.³³



SOLUTION

Solutions like **Scales** and **SmartTracking** streamline workflows, save time and reduce the burden on staff for more efficient care.

SCALES

Effortless weight measurement with 0.5 kg precision:

- Enables effortless monitoring of patient weight
- Reduces the need to move patients to an external scale



SMARTTRACKING

A unique smart concept that performs asset and patient tracking and enables caregivers to find equipment remotely with room-level accuracy.



CAREGIVER EMPOWERING CONTROLS

Standardized designs simplify the training process, enabling staff to become proficient with equipment quickly



Mattress Control Panel
Allows easy setting of the mattress.

Siderail Control Panel
Convenient positioning allows for easy bed adjustments.



Attendant Control Panel
Within easy reach from any position, allowing bed adjustments.

Foot Controls for Height Adjustments
Enables hands-free height adjustment.





HOSPITAL OPERATION EFFICIENCY

CHALLENGE

- The most contaminated surfaces in patient rooms are flat surfaces, including the floor, as well as the hospital bed, mattresses and furniture.³⁴
- Nurses spend **27%** of their shift on administrative tasks.³⁵



SOLUTION

The **seamless mattress platform** and **open mattress architecture** make cleaning easier and support a wide range of compatible mattresses, helping hospitals work more efficiently.

SEAMLESS DESIGN OF MATTRESS PLATFORM

The mattress platform is made of one-piece plastic sections that are removable, easy to clean, and disinfect, with no sharp edges or corners.



OPEN MATTRESS ARCHITECTURE

A variety of mattresses can be placed on the bed and comply with hospital standards for pressure injury prevention.



ACCESSORIES COMPATIBILITY ACROSS THE ESSENZA RANGE

A standardized line of accessories compatible with the Essenza range.

- Enhances workflow for healthcare professionals across all departments
- Reduces variability caused by incompatibility issues



DESIGNINK®

A printing technology for personalized, aesthetic siderail designs.



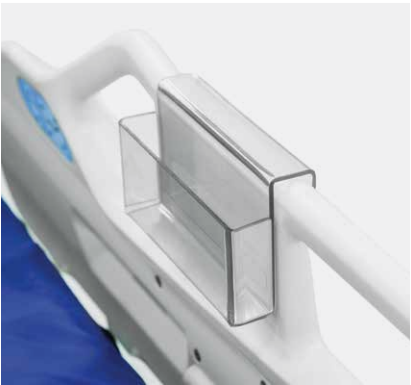
ACCESSORIES



Lifting Pole



IV Pole



Handy Box Transparent



Universal Utility Shelf



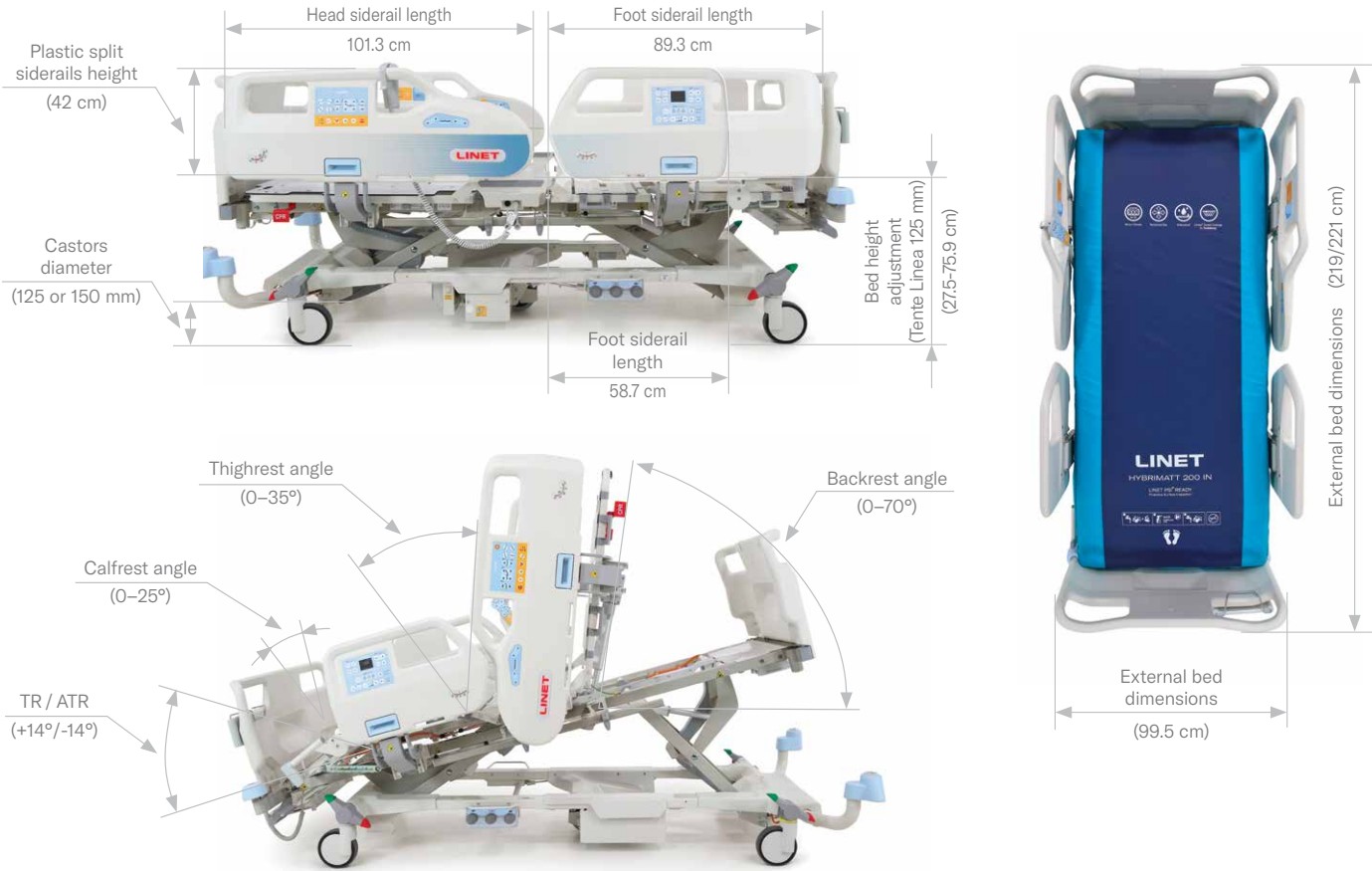
Oxygen Tank Holder
(Vertical and Horizontal)



Urine Sack and Bottle Holder

TECHNICAL SPECIFICATIONS

CASTOR TYPE	MIN	MAX	PARAMETER	
Tente Linea 125 mm	275 mm	759 mm	Safe Working Load	300 kg
TenteLinea 150 mm	300 mm	784 mm	Max. patient weight (application environment 1,2)	235 kg
Tente Integral 150 mm	333 mm	817 mm	Max. patient weight (application environment 3,5)	265 kg
Tente Integral SoftBrake150 mm	328 mm	812 mm		



AFTER SALES



Reliable warranty and post-warranty support, including preventive maintenance, spare parts, repairs, and expert technical service.

RENTAL



Flexible rental solutions tailored to your organization's needs, providing practical support when purchasing is not the right option.

CUSTOMER TRAINING



Comprehensive staff training delivered worldwide through virtual reality, online learning, and hands-on practice.

SUPERIOR SAFETY & ERGONOMICS DRIVEN BY NURSE- AND PATIENT-CENTRIC DESIGN

Caregivers face physical strain every day. Essenza helps reduce this burden through smarter ergonomics, supporting safer handling, less fatigue, and more comfortable care for patients.



UNPARALLELED EFFECTIVENESS BROUGHT BY ADVANCED TECHNOLOGIES

By combining smart technologies with integrated solutions, Essenza simplifies daily routines, improves patient comfort, and enables more proactive and efficient care.



SAFETY THAT THINKS AHEAD

Caregivers need to respond quickly to potential safety risks in everyday care. Essenza supports them with safety-focused design and features that help anticipate risks earlier and create a safer care environment for patients.



REFERENCES

1. Bowers B, Lloyd J, Lee W, et al. Biomechanical evaluation of injury severity associated with patient falls from bed. *Rehabil Nurs*. 2008;33(6):253–259. doi:10.1002/j.2048-7940.2008.tb00237.x
2. LINET. White paper: Streamlining patient transport and maximizing operational efficiency. 2023.
3. Qin SY. Analysis on the color design of hospital landscape. *Appl Mech Mater*. 2015;744–746:2196–2199. doi:10.4028/www.scientific.net/AMM.744-746.2196
4. Whittington Health NHS. Help Whittington Health to #EndPJPParalysis. 2018.
5. Bai AD, Dai C, Srivastava S, et al. Risk factors, costs and complications of delayed hospital discharge: retrospective cohort study. *BMC Health Serv Res*. 2019;19:935. doi:10.1186/s12913-019-4760-3
6. Cortes OL, Delgado S, Esparza M. In-hospital mobilization for patients admitted for medical treatment: systematic review and meta-analysis of experimental studies. *J Adv Nurs*. 2019;75(9):1823–1837. doi:10.1111/jan.13958
7. Cardoso R, Parola V, Neves H, et al. Physical rehabilitation programs for bedridden patients with prolonged immobility: a scoping review. *Int J Environ Res Public Health*. 2022;19(11):6420. doi:10.3390/ijerph19116420
8. Mastrogianni M, Galanis P, Kaitelidou D, et al. Factors affecting adult ICU costs in OECD countries: systematic review. *Intensive Crit Care Nurs*. 2021;66:103080. doi:10.1016/j.iccn.2021.103080
9. Boulet N, Bousiere A, Mezzarobba M, et al. ICU activity in France (2013–2019): more critically ill patients, shorter stay and lower mortality. *Anaesth Crit Care Pain Med*. 2023;42(5):101228. doi:10.1016/j.accpm.2023.101228
10. Alanazi RAH, Alanazi AM, Alawad MS, Alanazi NMB. Best practices for early mobilization of ICU patients: narrative review. *Saudi J Med Public Health*. 2024;1(1):246–256.
11. Zang K, Chen B, Wang M, et al. Effect of early mobilization in critically ill patients: a meta-analysis. *Nurs Crit Care*. 2020;25(8):360–367. doi:10.1111/nicc.12455
12. Günther S, Chaboyer W, Coyer F, et al. Prevalence, associated factors and outcomes of pressure injuries in adult ICU patients: the DecubiCUs study. *Intensive Care Med*. 2021;47(2):160–169. doi:10.1007/s00134-020-06234-9
13. Gefen A, Brienza DM, Cuddigan J, et al. Contemporary understanding of the aetiology of pressure ulcers/pressure injuries. *Int Wound J*. 2022;19(3):692–704. doi:10.1111/iwj.13667
14. Ramos-Sánchez A, Martínez-Beltrán MJ, Egea-Zerolo B, et al. Cost of illness of pressure injuries in a socio-health center in Spain. *Adv Skin Wound Care*. 2025;38(2):E6–E11. doi:10.1097/ASW.0000000000000272
15. Tervo-Heikkinen TA, Heikkilä A, Koivunen M, et al. Pressure injury prevalence and incidence in acute inpatient care: national cross-sectional study. *Int Wound J*. 2022;19(4):919–931. doi:10.1111/iwj.13692
16. LINET. White paper: Pressure injury prevention of Sprint 200. n.d. Internal.
17. Trumble D, Meier MA, Doody M, et al. Incidence, correlates and outcomes associated with falls in the ICU: retrospective cohort study. *Crit Care Resusc*. 2017;19(4):290–295.
18. Chartered Society of Physiotherapy (CSP). Regulator reveals 250,000 falls were reported in England's NHS last year. 2017.
19. Rush University Medical Center. Adult intensive care unit leads the way to fall reduction (Nursing Annual Report FY2023). 2023.
20. Hirschberg EL, Butler J, Francis M, et al. Persistence of patient and family experiences of critical illness. *BMJ Open*. 2020;10(4):e035213. doi:10.1136/bmjopen-2019-035213
21. D'Amico V, Murano L, Cazzaniga F, Dal Molin A. Pain prevalence, severity, assessment and management in hospitalized adults: multicenter cross-sectional study. *Ann Ist Super Sanita*. 2018;54(3):194–200. doi:10.4415/ANN.18.03.05
22. Lorenzo Allegue L, Laredo Velasco L, Recio Vivas AM, et al. Do we really know if they are in pain? cross-sectional study in hospitalised adults in Spain. *Nurs Open*. 2023;10(12):7668–7675. doi:10.1002/nop2.2007
23. Schreuder E, Lebesque L, Bottenheft C. Healing environments: what design factors matter according to patients? *HERD*. 2016;10(1):87–105. doi:10.1177/1937586716643951
24. U.S. Bureau of Labor Statistics. Number and rate of nonfatal work injuries in detailed private industries. 2020.
25. European Agency for Safety and Health at Work (EU-OSHA). Musculoskeletal disorders in the healthcare sector. 2020.
26. Sun W, Yin L, Zhang T, et al. Work-related musculoskeletal disorders among nurses: meta-analysis. *Iran J Public Health*. 2023;52(3):463–475. doi:10.18502/ijph.v52i3.12130
27. Waters TR, Nelson A, Proctor C. Patient handling tasks with high risk for musculoskeletal disorders in critical care. *Crit Care Nurs Clin North Am*. 2007;19(2):131–143. doi:10.1016/j.ccell.2007.02.008
28. Waters T, Lloyd JD, Hernandez E, Nelson A. AORN ergonomic tool 7: pushing, pulling, and moving equipment on wheels. *AORN J*. 2011;94(3):254–260. doi:10.1016/j.aorn.2010.09.035
29. LINET. White paper: Activation forces of Softbrake (Essenza platform). n.d.
30. Michel O, Garcia Manjon AJ, Pasquier J, Ortoleva Bucher C. How do nurses spend their time? time and motion analysis of nursing activities in an internal medicine unit. *J Adv Nurs*. 2021;77(11):4459–4470. doi:10.1111/jan.14935
31. Berlin G, Burns F, Hanley A, et al. Understanding and prioritizing nurses' mental health and well-being: Survey. American Nurses Foundation; McKinsey & Company. 2023.
32. U.S. FDA, Center for Devices and Radiological Health. Applying human factors and usability engineering to medical devices (guidance). 2018.
33. Monsees J, Staunton F, Morris A, et al. Difference between estimated and actual body weight in an ICU: service evaluation. *Nurs Crit Care*. 2025;30(2):e13271. doi:10.1111/nicc.13271
34. EOScu. Most touched and most contaminated surfaces in a hospital room (PDF). 2024.
35. Michel O, Garcia Manjon AJ, Pasquier J, Ortoleva Bucher C. How do nurses spend their time? time and motion analysis of nursing activities in an internal medicine unit. *J Adv Nurs*. 2021;77(11):4459–4470. doi:10.1111/jan.14935



LINET

Members of LINET Group

LINET spol. s r.o. | Železčice 5, 274 01 Slaný | Czech Republic
tel.: +420 312 576 400 | fax: +420 312 522 668 | e-mail: info@linet.com | www.linet.com

