

HEALTHCARE-ASSOCIATED INFECTIONS AND *EXCRETA*

*Choosing Dr.helewa solutions
to fight infectious risk*



Since more than 50 years, Didactic acts for care through the prevention of infectious risk



Expert in the medical field, Didactic aims to fight healthcare associated infections through our solutions in protection, infusion, oral care and hygiene for dependent patient.



French manufacturer and distributor, the company is located near Havre harbor, where there are the headquarters, the warehouse and the sterilization system by ethylene oxide. Another production site is located in Auvergne-Rhône-Alpes region (France).

Nowadays, thanks to 4 brands and more than 850 products, Didactic offers its expertise to more than 3 500 customers worldwide.

Since November 2019, Didactic is partner of Dr.helewa, company founded by Dr. Laurent Helewa. With his father Dr. Mayer Helewa, they developed the first bedpan liner in 1999.



HEALTHCARE-ASSOCIATED INFECTIONS

HEALTHCARE-ASSOCIATED INFECTIONS (HCAIs): A GLOBAL THREAT

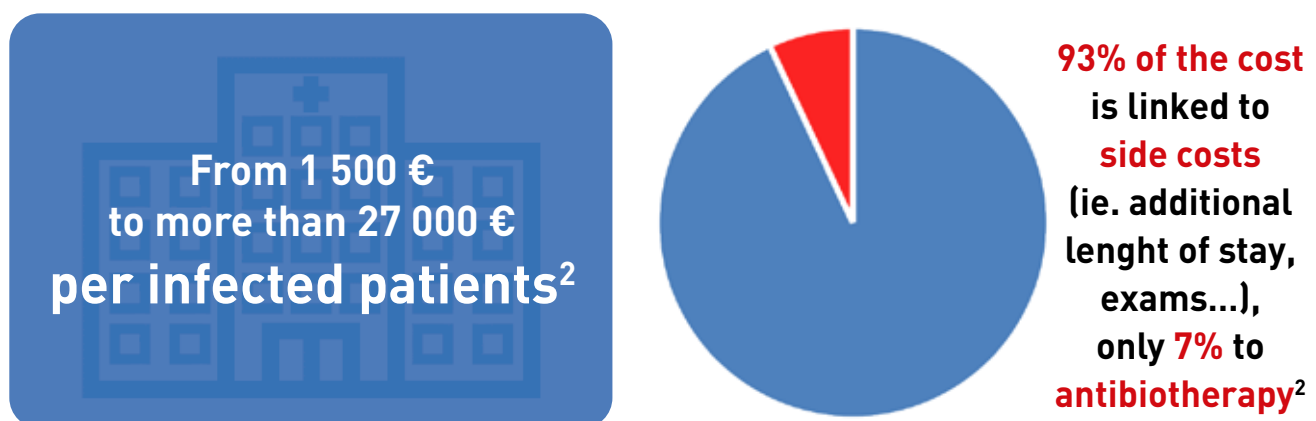
Healthcare-associated infections are widespread across the world:



This comes with a high human cost...



... and a high cost for healthcare facilities:

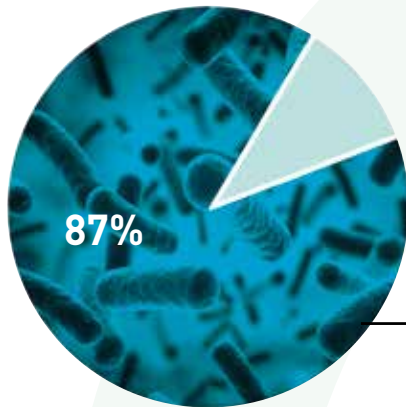


1. Health care-associated infections – an overview, Infection and Drug Resistance 2018;11 2321–2333

2. « Le coût des infections liées aux soins », ADSP n° 38 – page 29, mars 2002

HEALTHCARE-ASSOCIATED INFECTIONS (HCAIs): THE PATHOGENS

Few pathogens are responsible for the majority of those infections:



Up to 87% of HCAIs are caused by 12-17 pathogens, such as *S. aureus*, *Enterococcus* species (eg. *faecalis*, *faecium*), *E. coli*.¹

16%-20%
of these pathogens
includes
**multi resistant
phenotypes**
(ex. MRSA)¹

HCAIs cause longer stay in hospital:



Patient
with HCAI

Hospitalization
=
6 to 20 days longer
than the
non affected patients²

The multi-resistant variants involves higher costs for healthcare facilities:

**Methicillin resistant
Staphiloccoccus aureus
(MRSA)**
cost for healthcare facilities

+ 5 104 € 
compared to normal
*S. aureus*²

The increasing difficulty to address those pathogens through antibiotherapy due to their resistance makes clear that **prevention is key**.

THE ROLE OF *EXCRETA* IN HEALTHCARE-ASSOCIATED INFECTIONS

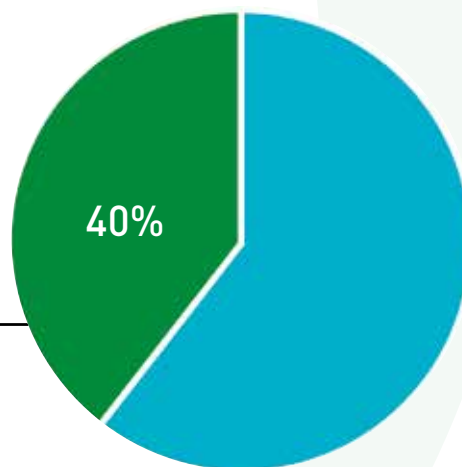
Excreta or body waste are a major vector of HCAs transmission, since some of the most dangerous pathogens are transmitted through them:

Urine, stools, vomit

Staphylococcus aureus, Escherichia coli, Enterococcus faecalis, Sars-CoV-2, Norovirus (responsible for gastroenteritis), C. difficile*

*Studies discovered that the Sars-CoV-2 is found also in the patient *excreta*, thus making it a potential contamination way^{1,2,3}

Around 40% of the HCAs are UTI
(= urinary tract infections):
they are the most common
infections worldwide⁴



The **tools used to collect those *excreta*** (bedpan, commode chair, plastic urinal) or that may come **in contact with them** (bed sheets, dry gloves for bed bath) are a **dangerous, potential source of infection for both the healthcare staff and the patients.**

1 - Wang JAMA_2020 Clinical Characteristics of Patients With 2019 Novel Coronavirus (2019-nCoV) -Infected Pneumonia in Wuhan, China. - 2 -Société Française de Microbiologie (SFM) Fiche-nCOV-NL-20.02.2020. - 3 -Gu J, et al. Gastroenterology. 2020;doi:10.1053/j.gastro.2020.02.054 - 4 Health care-associated infections – an overview, Infection and Drug Resistance 2018: 11 2321–2333 - 4.Mainul Haque et al., «Health care-associated infections – an overview», Dove Press Journal - Infection and Drug Resistance, 2018:11 2321–2333

SOLUTIONS FOR AN EFFECTIVE FIGHT AGAINST HEALTHCARE-ASSOCIATED INFECTIONS



Devices for the safe collection and disposal of *excreta*

P. 8



Pre-moistened gloves for the bed bath of bedridden patients

P. 20



NewBedding[®], detachable multi-layered fitted sheets

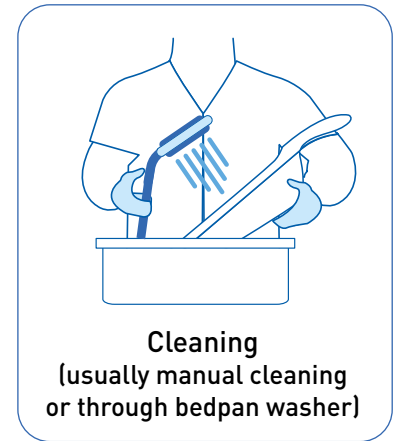
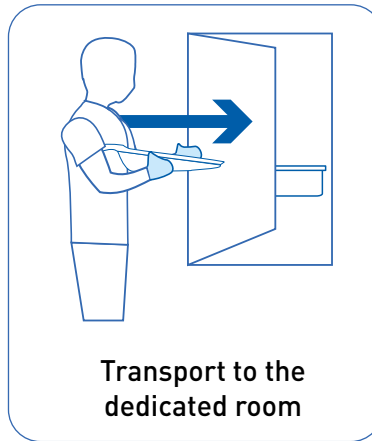
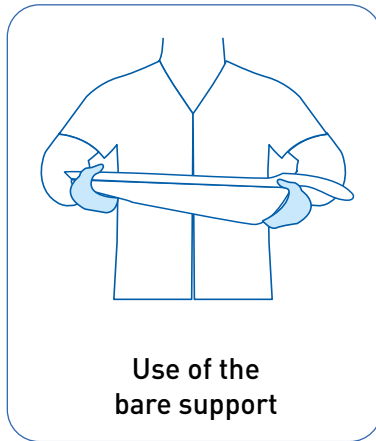
P. 24



EXCRETA **MANAGEMENT**

THE IMPACT OF TRADITIONAL EXCRETA MANAGEMENT

Traditional *excreta* management involves 3 main steps:



Example of «clean» bedpan put in a resuscitation room⁴

Classic cleaning methods may be ineffective or not compliant with the protocols recommended by healthcare organizations.

Thus, **supports (male urinal, bedpan, commode pail) remain contaminated and source of contamination.**

Both the patient and the caregiver are affected:



- Risk of cross-contamination
- Time-consuming task (less time for the patient)
- Lower quality of worklife



- Risk of cross-contamination
- Higher risk for fragile patients¹
- Difficulty to keep the patient mobile in case of infection (risk of pressure ulcers or incontinence due to mobility restrictions)^{2,3}

1. INSERM, data of 28.04.2020, URL : <https://www.inserm.fr/information-en-sante/dossiers-information/infections-nosocomiales>

2. PPAHS, «Patient Ambulation a Key Metric to Improved Health», February 2017 - 3. Prévenir la dépendance iatrogène liée à l'hospitalisation chez les personnes âgées - HAS : Haute Autorité de santé, France 2 CNPG : Collège national professionnel de gériatrie, France. 4. Bulletin du CClin Paris-Nord n°41, décembre 2012, Enquête sur la gestion des excreta dans les hôpitaux de l'AP-HP, Lepointeur et al.»

LINERS AND BAGS WITH SUPER ABSORBENT PAD FOR THE SAFE COLLECTION AND DISPOSAL OF *EXCRETA*



Class I
Medical Device



- Collect and contain *excreta* safely

- Absorb up to 600 ml/20 oz of biologic fluids ultra-fast

- Contribute to infection and odor control

Pending patents:

Alveol technology



Protected hands for Male Urinal and Vomit Bag





THE BENEFITS OF *EXCRETA* MANAGEMENT DR.HELEWA

Infection reductions

Helps reduce the rate of infections type *Enterococcus* resistant to the Vancomycine¹

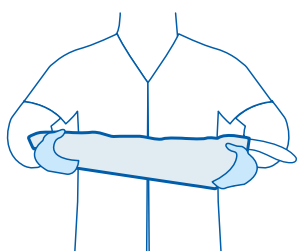
Cost-saving

Cost control : economical solution to the basin washer, macerator or manual cleaning²

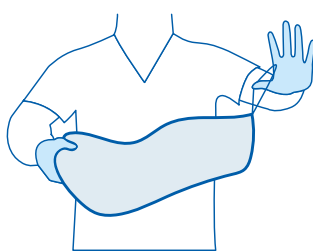
Improved patient and caregiver's comfort

Reduction of the number of steps taken by caregivers for the care of the patient¹

Easy to use:



The patient uses the support covered by the liner



Once used, close the liner with the strings



Dispose of it according to your facility protocol

1. Vitale E. (2011, May), Safer Panhandling to reduce the Rate of Vancomycin Resistant Enterococci – Giving Staff the Right Tools to Safely and Efficiently Do their Job. Poster session presented at the CHICA-Canada National Education Conference, Toronto, ON - 2. Tool made available free of charge to health facilities by ARLIN Haute-Normandie. Institutions are required to validate and verify their data. For further information contact Denis. Completion date. 10/04/2014

ABSORBENT LINERS, A COST-SAVING SOLUTION

	Bedpan washer 1 ¹	Bedpan washer 2 ¹	Macerator ¹	Absorbent liner (stains aside)	Manual cleaning 1*	Manual cleaning 2
Warm water/ cycle cost	0,07	0,11	0,05	0	0,08	0,08
Cold water/ cycle cost	0,22	0,22	0	0	0	0
Electricity/ cycle cost	0,09	0,09	0,002	0	0	0
Anti-limestone/ cycle cost	0,03	0,03				
Disinfectant/ cycle cost			0,14			
Single use bedpan			0,38			
Absorbent liners				0,72		
Detergent & disinfectant/ cycle cost				0,0000575	0,78 ²	0,35
Total in € (excluding nurse time)	0,42	0,45	0,56	0,72	0,86	0,43
Nurse/ cycle cost	0,71	0,71	0,33	0,12	2,96	2,96
Total in €	1,12	1,16	0,90	0,85	3,82	3,39
Total yearly cost (10 per day)	4 100 €	4 229 €	3 280 €	3 084 €	13 941 €	12 374€

- 1. Excluding investments
- 2. Be careful of the kind of detergents/disinfectant (MD)

RECOMMENDED SOLUTION BY HEALTH ORGANIZATIONS AROUND THE WORLD



« Line the commode with a plastic bag and absorbent material to reduce healthcare worker exposure to fecal material.¹ »



« Hygienic bags would be a safer procedure because the supplies do not leave the isolation area.

This alternative requires little or no infrastructure...
they save many nursing care hours because the procedure is fast.² »



« Protective liners allow to make easier and more secure the collection, the transport and disposal of *excreta*.³ »

1. APIC Implementation Guide. Guide to Preventing Clostridium Difficile infections. February 2013 - 2. Analyse comparative des équipements de traitement des bassines de lit (VOL. 5 : No 4) - 2009 Québec, Canada - AETMIS (Agence d'Évaluation des Technologies et des Modes d'Intervention en Santé) - 3. SFHH, «HYGIENES, Précautions Standard», June 2017

PRODUCT	DIMENSIONS AND N° BAGS/BOX	ADAPTED FOR
 <p>BEDPAN LINER</p> <p>Ref. B60020</p>	<p>60 x 40 cm Box of 20</p>	<ul style="list-style-type: none"> • Geriatrics • Palliative care • Orthopedics • Emergencies • Maternity
 <p>COMMODE PAIL LINER</p> <p>Ref. C60020</p>	<p>52 x 40 cm Box of 20</p>	<ul style="list-style-type: none"> • Homecare • Nursing homes
 <p>TOILET BOWL LINER</p> <p>Ref. W60020</p>	<p>65 x 40 cm Box of 20</p>	<ul style="list-style-type: none"> • Oncology • Epidemic
 <p>VOMIT BAG</p> <p>Ref. V60020</p>	<p>25 x 25 cm Box of 20</p>	<ul style="list-style-type: none"> • Oncology • Emergencies • Palliative care • Medical transport
 <p>MALE URINAL</p> <p>Ref. U60020</p>	<p>20 x 40 cm Box of 20</p>	<ul style="list-style-type: none"> • Geriatrics • Palliative care • Orthopedics • Emergencies • Medical transport



NEED FOR MORE ABSORPTION? SUPER ABSORBENT PAD



The Super Absorbent Pad **absorbs** and gelifies **up to 600ml/20oz of body fluids**

Ref. P60025

NEED TO GELIFY FLUIDS IN LITTLE CONTAINERS? SUPER ABSORBENT, WATER SOLUBLE POUCH



Gel up to 500ml
of biological fluids

Avoid spills and splashes

Secure the handling and the
disposal of contaminated fluids

Ref. SAP50050
50 pouches of 10 g each
in an insulating and resealable bag.

NEW



MAKING THE USE OF DR.HELEWA BAGS EASIER, FOR A BETTER CONTROL OF THE INFECTIOUS RISK

HOLDER FOR MALE URINAL



Ref. URIHOLDER



HOLDER FOR VOMIT BAG



Ref. VOMHOLDER



WHEN TO USE THEM ?

- When patients have difficulties to use only the bag
- When healthcare staff need to assist the patients in performing their body functions

TO GO FURTHER INTO THE HCAIS PREVENTION

dr.helewa

CARE



Bedpan



Bags and liners help to reduce the infection risk due to direct contact with potentially infectious body waste: however, the manipulation of the support is also a possible cause of cross contamination.



To go further into the HCAs prevention, THE NEW IC+ BEDPAN IS AVAILABLE

Contributes to infection control

Effective at 99% against bacteria and viruses¹

Acts continually, with constant efficacy

Efficacy of the Sanitized® hygiene function does not worn out with time²

Improves the healthcare staff and the patient environment

Helps reducing the possibility of cross-contamination

Ref. BPIC - Lid : BPCOVIC

10x30x45cm

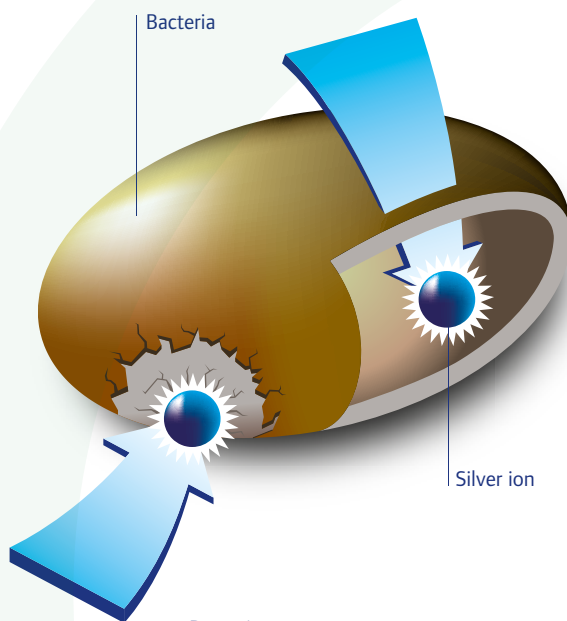
Also available in standard version without additives :

Ref. BPSTD - Lid : BPCOVSTD

1. - 2. Tests results on demand

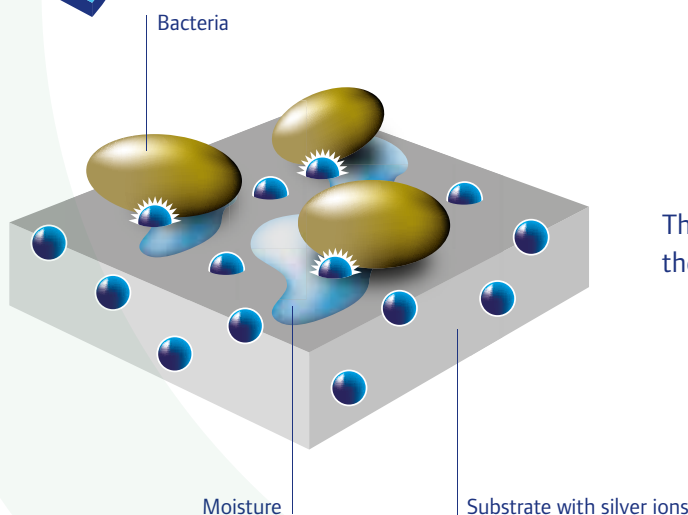
HOW DOES THE NEW IC + BEDPAN WORK?

Dr.helewa bedpan uses the Sanitized® antimicrobial technology of silver ions, known for its efficacy against various pathogens



This is the effect silver has on bacteria:

1. Cell membrane is destabilized
2. Respiration is prohibited
3. Food (nutrient) intake is impeded
4. Cell division is inhibited



The silver ion locates the bacteria via the moisture and deactivates it.

Literature concures that silver ions show a broad efficacy against several microorganisms¹ :

- *Escherichia coli*
- *Enterococcus species*
- *Acinetobacter baumannii*
- *Norovirus*
- *Aspergillus species*

1. Literature bibliography and resume on demand.

BED BATH



THE IMPACT OF TRADITIONAL BED BATH FOR BEDRIDDEN PATIENTS

The traditional bed bath involves the use of a dry glove, a basin, a towel, water and soap.

This method presents 3 major risks :

SPREAD OF INFECTIONS



During the bed bath, the **friction on the skin** of the patient cause the **deposit of microorganisms in the water** used for the bath through the dry glove, especially in case of intimate hygiene
 → In an American hospital, a study found that **between 62% to 98% of basins were contaminated**¹

THREATS ON FRAGILE SKIN



In elder population, the skin may be fragile, thus its integrity can be at risk through friction with soap

CONTAMINATION OF HEALTHCARE STAFF



During bed bath, there is a **demonstrated risk of exposure to infections**, particularly in the event of frequent interruption of tasks. Exposure may happen through contamination of the hands or professional attire²

1. Am J Infect Control. 2012 Aug;40(6):562-4. doi: 10.1016/j.ajic.2011.07.014. Epub 2011 Dec 16 - Hospital bath basins are frequently contaminated with multidrug-resistant human pathogens, Marchaim and all. 2. extrait de ACTUALISATION DES PRÉCAUTIONS STANDARD - HYGIÈNES - VOLUME XXV - N° HORS SÉRIE - JUIN 2017. 3. Bryant RA, Rolstad BS, OstWound Mgmt. June 2001;47(6):18-27

PRE-MOISTENED & NO-RINSE GLOVES FOR THE BED BATH OF THE BEDRIDDEN PATIENT



Cosmetic



- **Allow an easy and fast bath for bedridden patients**

- **Protect user's hand**

- **Replace possibly contaminated supports (ie. basin, towel)**

Infection reduction

78% reduction in urinary tract infection rates associated with bladder catheterization¹

Cost-saving

5% reduction in costs compared to traditional bath in a 6-week period²

Improved patient and caregiver's comfort

47% of patients and 87% of caregivers prefer the single-use, no rinse bath³

1. Stone S. et al., Removal of bath basins to reduce catheter-associated urinary tract infections. Poster presented at APIC 2010, New Orleans, LA, July 2010. 2. International Journal of Nursing Studies, Volume 52, Issue 1, January 2015, Pages 112-120, Cost-consequences analysis of « washing without water » for nursing home residents (Schoonhoven L, et al.) 3. Scand J Caring 2014 – Elderly patients' and nurses' assessment of traditional bedbath compared to prepacked single units, Lis Horstmann N. et al.

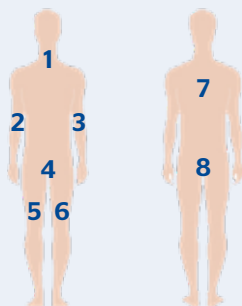
PRODUCT	DIMENSIONS AND N° GLOVES/BOX	ADAPTED FOR
 WASH GLOVES BODY with internal protective film Ref. ICBATH12	24 x16 cm pack of 12	<ul style="list-style-type: none"> ● Palliative care ● Homecare ● Nursing homes ● ICU
 WASH GLOVES SHAMPOO with internal protective film Ref. ICSHAMP12	24 x16 cm pack of 12	<ul style="list-style-type: none"> ● Palliative care ● Homecare ● Nursing homes ● ICU
 WASH GLOVES BODY Ref. HCBG12 perfume-free version NPBG2	23 x14,5 cm pack of 12 Perfume-free version: pack of 2	<ul style="list-style-type: none"> ● Palliative care ● Homecare ● Nursing homes

HOW TO USE

BODY BATH

8 areas to clean with 2 to 8 gloves

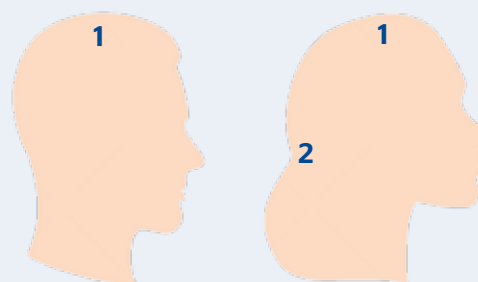
(depending on the patient's condition, the facility protocol and the use of the 2 face of gloves)



SHAMPOO

2 areas to clean with 1 to 4 gloves

(depending on the patient's condition, the facility protocol and the use of the 2 face of gloves)



- 1 Put your hand (protected by an examination glove) into a pre-moistened glove
- 2 Wash the patient according to the current facility protocol. Rinsing and drying are not necessary
- 3 Dispose of according to the facility protocol (hazardous waste or household-similar waste)



MEDICAL BEDDING

THE IMPACT OF TRADITIONAL MEDICAL BEDDING

Traditional medical bedding presents risks for hospital staff and patients:

SPREAD OF INFECTIONS

Pathogens such as *C.difficile* spores are able to **survive laundering** and contribute to outbreaks¹, **even at high temperatures²**.

In France, it is estimated that medical bedding is involved in 17% of total HCAs³.

TIME-CONSUMING FOR HEALTHCARE STAFF

Sheet changing, associated with the disinfection of plastified mattress, **may take up to 15 minutes**.

PAINFUL FOR THE PATIENT

Fragile, bedridden patients are to be moved for the sheet changing, which can be painful for them (patients in palliative care, geriatric, orthopedics, oncology).



1. Tarrant, J., Jenkins, R., & Laird, K. (2018). From ward to washer: The survival of *Clostridium difficile* spores on hospital bed sheets through a commercial UK NHS healthcare laundry process. *Infection Control & Hospital Epidemiology*, 39(12), 1406-1411. - 2. Sabina Fijan and Sonja Šostar Turk, «Hospital Textiles, Are They a Possible Vehicle for Healthcare-Associated Infections?», *Int. J. Environ. Res. Public Health* 2012, 9, 3330-3343». 3.1. Le circuit du linge hospitalier, article Infirmiers.com, 28.04.2019, URL : <https://www.infirmiers.com/les-grands-dossiers/hygiene/le-circuit-du-linge-hospitalier.html?sid=542441f86a0e8f2411eca257af5b6274>

New Bedding®

MULTI DETACHABLE & DISPOSABLE FITTED SHEETS

- Ensures comfort (ultra soft, absorbent side with bamboo fiber and viscose) and protection (waterproof side)
- Contributes to infection control
- Allows an easier bedding change for health care workers



Contribute to infection control

Caused by medical bedding

Improve comfort

For bedridden patient

Make care easier

For healthcare professionals

For hospital, in absence of facility protocol, we recommend to change after 3 days for best results.



New Bedding®

ONE REFERENCE
FOR EACH USE



Hospital

BED M Fitted sheets 3 layers

Dimensions : 200 x 90 x 25 cm
Ref. NBED903

OR / EMERGENCY Fitted sheets 1 layer

Dimensions : 210 x 60 x 8 cm
Ref. NBED0R01

Homecare Nursing homes

BED S Fitted sheets 5 layers

Dimensions : 130 x 70 x 15 cm
Ref. NBEDKID5

BED M Fitted sheets 5 layers

Dimensions : 200 x 90 x 25 cm
Ref. NBED905

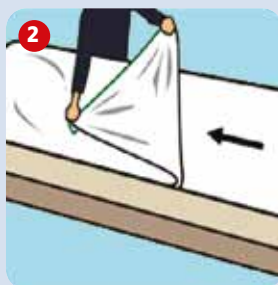
BED XL Fitted sheets 5 layers

Dimensions : 200 x 140 x 25 cm
Ref. NBED1405

HOW TO USE



NewBedding® is placed on the mattress as a traditional sheet



When the sheet is to be changed, the caregiver removes one of the NewBedding® layers. The bed is ready for use again.



The sheet used is discarded according to the facility protocol.

Find all our references here

Product	Reference	Packaging	Unit dimensions (cm)
EXCRETA MANAGEMENT RANGE			
Bedpan liner 600 ml	B60020	Box of 20 liners	60 x 40
Commode liner 600 ml	C60020	Box of 20 liners	52 x 40
Toilet bowl liner 600 ml	W60020	Box of 20 liners	65 x 40
Male urinal 600 ml	U60020	Box of 20 liners	18 x 40
Vomit bag 600 ml	V60020	Box of 20 liners	25 x 25
Super Absorbent Pad	P60025	Box of 25 pads	21 x 15
Water Soluble Pouch	SAP50050	Pack of 50 pouches	15 x 2
Bedpan IC+ Lid	BPIC BPCOVIC	1 IC+ bedpan	10 x 30 x 45
Bedpan Lid	BPSTD BPCOVSTD	1 bedpan	10 x 30 x 45
Holder For Male Urinal	URIHOLDER		
Holder For Vomit Bag	VOMHOLDER		
BODY CLEANING RANGE			
Pre-moistened glove, protective film, Body	ICBATH12	Pack of 12 gloves	24 x 16
Pre-moistened glove, protective film, Shampo	ICSHAMP12	Pack of 12 gloves	24 x 16
Pre-moistened glove, Body	HCBG12	Pack of 12 gloves	23 x 14,5
Pre-moistened glove, fragrance-free - Body	NPBG2	Pack of 2 gloves	23 x 14,5
MEDICAL BEDDING RANGE			
NewBedding - OR	NBEDOR01	Fitted sheet 1 layer	210 x 60 x 8
NewBedding - Bed M	NBED903	Fitted sheet 3 layers	200 x 90 x 25
NewBedding - Bed M+	NBED905	Fitted sheet 5 layers	200 x 90 x 25
NewBedding - Bed XL	NBED1405	Fitted sheet 5 layers	200 x 140 x 25
NewBedding - Bed S	NBEDKID5	Fitted sheet 5 layers	130 x 70 x 15