State of the art?

Anyone who is serious about fighting antibiotic resistance needs to take a closer look at bedpans. The results are out from a survey by the International Federation of Infection Control on how hospitals worldwide deal with faeces and urine.

In previous issues of this magazine we have often discussed the importance of disposing of human waste properly in hospitals and care homes. Yet it’s important to remember that it’s not just a matter of the high levels of bacteria found in faeces itself, but also the fact that the human digestive system produces a multitude of antibiotic-resistant organisms in addition to faecal matter. This combination contaminates bedpans, commodes, hands, and the patient environment as a whole, ultimately putting people’s lives at risk. That’s why knowing how hospitals deal with faeces and urine is so important. Yet our current level of knowledge is limited, which is why the International Federation of Infection Control (IFIC) led by Prof. Dr. Walter Popp – vice president of the German Society for Hospital Hygiene (DGRK) and medical director of HyKoMed GmbH in Dortmund – decided to conduct a global online survey of hospitals. The online survey was accompanied by the distribution of questionnaires by the medical technology manufacturer MEIKO, which assisted IFIC with the survey. The organisers received 1,440 responses to the poll, which was conducted in eight languages. The respondents included professionals from 93 countries, including Germany, Canada, the USA, France, Australia, Thailand, Mongolia, India, China, Great Britain and South Africa.

Conducted between July 2012 and April 2013, the survey yielded a plethora of results, including the following key points which were presented by Walter Popp at the 15th IFIC conference in Malta in March 2014:

- 79% of the respondents said their hospital has flush toilets.
- The place in which people defecate (toilet) is regularly cleaned with disinfectant in 57% of the hospitals which participated in the survey, and regularly cleaned with standard detergent in 41% of the hospitals. No regular cleaning takes place in 2% of the hospitals.
- If patients have to defecate in bed, 6% of the hospitals consulted said that patients have to manage on their own. This is primarily the case in countries with limited resources. In 24% of the remaining cases, patients receive help from friends, relatives or semi-skilled workers. Nurses are on hand to help in 76% of the remaining cases.
- When it comes to bedpans, 24% of the respondents say their hospital uses disposable bedpans and 76% multiple-use bedpans. Overall, the study showed that the way in which hospitals deal with faeces and urine is heavily influenced by people’s cultural and religious backgrounds.

In hospitals which use bedpans or commodes for patients who are not able to go to the toilet, 76% are reusable. 49% of these are made from plastic, and 51% from stainless steel. A total of 50% of bedpan washers can wash and disinfect more than just bedpans and urine bottles. They’re also a great choice for the toys typically found on a children’s ward. Infection control specialist Stephanie Bückner, who works at the Caritas children’s hospital Klinik für Kinder- und Jugendmedizin in Bad Mergentheim, Germany, worked with ward managers to improve the hygiene of Lego bricks and building blocks by purchasing a dedicated MEIKO washer-disinfector. Turn to page 4 to see what the solution looked like and to find out how dangerous toys can be when it comes to spreading infectious diseases.

Continued on page 2
State of the art?

The study authors also noted that there are still hospitals even in wealthier countries such as the USA (20 %) where stainless steel bedpans are cleaned by hand, in some cases just with water.

More details on manual bedpan cleaning:

The study reached the conclusion that over 40 percent of bedpans cleaned by hand are washed in patients’ bathrooms, a statistic that held true for both rich and poor countries (including Canada, the USA, France, Saudi Arabia, Thailand, Mongolia, Tunisia, Egypt, India and Pakistan).

Hospitals in Belgium, Canada and the USA reported that the public health authorities require hospitals to clean and disinfect bedpans after each use. However, many care workers apparently ignore this rule and simply clean bedpans with water, often in the patient’s bathroom, largely due to unrealistic workloads and a lack of time. Sometimes manual cleaning is followed up with wipe disinfection or a disinfectant spray. This prompted a reaction from the IFIC experts in charge of the study, who argued that deficiencies in processing care utensils should always be kept in mind when investigating the differences in the prevalence of multidrug-resistant bacteria in different countries.

Chemical disinfection as a means of cleaning multiple-use care utensils was particularly prevalent in the USA, Uruguay, Tunisia and India, while thermal disinfection was more widespread in Australia, the UK, the Netherlands, Germany and Hong Kong. Canada (14 %), the USA (13 %), the Netherlands (20 %), France (9 %), China (20 %), Egypt (19 %) and Pakistan (18 %) use water to clean care utensils by hand.

Questions & Answers

Question: What is a microbiome?

Answer: A microbiome is the collective genome of all microorganisms that live on or in a living being. The term also encompasses the single-celled organisms on our skin (skin flora) and in other parts of our body (mouth, mucous membranes, genitals).

People generally live in harmony with their microbiome— in other words we have a symbiotic relationship with most of these microorganisms, many of which even regulate our metabolic processes. The microbiome is currently the subject of intensive research which is already revealing how little we actually know about microorganisms living in and on the human body. What we do know is that all these microorganisms communicate with each other, and people often associate the word microbiome with gut bacteria (intestinal flora). But the term also encompasses the single-celled organisms on our skin (skin flora) and in other parts of our body (mouth, mucus membranes, genitals).

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What if there are no bedpans?

The survey showed that an absence of bedpans does not necessarily mean that defecation will not take place in a patient’s bed. In this case patients use items including towels, special textiles or paper or are simply left to defecate in the bed itself.

At the end of the article, the authors note that the survey was subject to certain limitations:

- The number of participating hospitals in some countries is too low to guarantee a representative overview.
- The number of rural hospitals that responded was minimal, so it is not possible to draw representative conclusions as to the situation in those areas. The researchers worked on the assumption that the situation in hospitals situated in urban areas is probably significantly better.
- There were very few responses from Africa and South America, which means that the survey does not provide a reliable picture of the situation in those countries.
- 10% of the questionnaires were filled out during scientific conferences where MEIKO distributed them while attending as an exhibitor. It is fair to assume that some of the people who responded may already have an active interest in this topic.
- The team of authors also states that to the best of their knowledge this is the first study anywhere in the world to at least provide an overview of how faeces and urine are dealt with in hospital settings. They nevertheless emphasised that this is only a descriptive study and that the results should be treated with caution.
- MEIKO would like to thank the IFIC for conducting the survey and the team of authors for evaluating the results. The following experts were involved in the project:
  - Walter Popp, Medical Director HyMed GmbH, Dortmund, Germany
  - Carol Goldman, Toronto, Ontario, Canada
  - Candice Friedman, University of Michigan Health System, Ann Arbor, Michigan, USA
  - Candice Friedman, University of Michigan Health System, Ann Arbor, Michigan, USA
  - Terrie Lee, Charleston Area Medical Center, Charleston, West Virginia, USA
  - Juddith Richards, Norfolk and Norwich University Hospital Trust, England

Alexander Cumming – the inventor of the toilet?

By the time he settled in New Bond Street in London, Alexander Cumming was already an experienced watchmaker, mathematician and instrument inventor. Born sometime between 1731 and 1733 in Edinburgh, he became a member of the Worship Company of Clockmakers some 50 years later, illustrating his aptitude for delicate work and precision mechanics. Rather incongruously, Alexander Cumming was also the first person to patent a design of the flush toilet involving a specially developed S-shaped trap (or bend) which is still present in a similar form in toilets today. Cumming’s stroke of genius was finding a way to prevent the odour of sewage from making its way back into buildings. His invention paved the way for the style of toilet we use today. The original invention of the flush toilet itself is attributed to Sir John Harington in 1596. The first WC was installed in 1810.

The global mission of Mr. Toilet

More than one billion people worldwide relieve themselves in the open air, defecating or urinating around the nearest corner next to rivers, behind bushes, etc. One in seven of the world’s inhabitants simply leave their excreta wherever it lands, something that specialists refer to as open defecation. One of the United Nations’ Millennium Development Goals was to largely eradicate this unhygienic situation by 2015, an objective which was not met.

Jack Sim from Singapore has always believed this situation should be improved. That’s why this successful businessman decided to set up the “Restroom Association of Singapore” in 1998 which focuses on behaviours, architecture and cleanliness in the field of public toilets. Jack Sim is very much aware of where the problems lie: “In many places the design of public toilets is actually one of the biggest problems of all.” That’s because people tend to conduct themselves better in places that are clean. Jack Sim places a particular focus on India, where some 600 million of the country’s more than 1 billion inhabitants have no access to sanitary facilities. There are actually more mobile phones than toilets in India. What’s more, experts estimate that some 600,000 people die from diarrhoea in India every year; two thirds of whom are children. That is a far, far higher figure than the number of people killed by the earthquake in Japan. And yet people are typically far less affected by this statistic than the results of a natural disaster.

What started out as something of a hobby for Jack Sim soon became his full-time job. In 2001 he founded the World Toilet Organisation and in 2008 TIME magazine named him as one of their Heroes of the Environment. Sim has focused much of his work on public toilets such as the ones found in shopping centres. He is alarmed by how people see the topic of toilets as taboo, saying in an interview: “We have to work on changing people’s attitudes. The whole toilet issue is similar to the sexual revolution: people used to be ashamed of talking about it, but now it’s a standard theme of pop songs. We need to do the same thing for toilets. We need to transform poop culture into pop culture!”

MEIKO manager director Dr.-Ing. Stefan Scheringer emphasises the importance of doing everything possible to prevent healthcare-associated infections and explains why it takes courage to shine a light on the taboo issue of human waste.

Question: As a manufacturer of washer-disinfectors, you recently supported a survey conducted by the IFIC which examined how people deal with faeces and urine in hospital settings worldwide. Critics could accuse you of acting out of pure self-interest...

Dr.-Ing. Stefan Scheringer: Well, you just have to look at the World Health Organization’s figures showing that hundreds of millions of patients catch healthcare-associated infections every year. Many of them die, and all of them suffer terribly, so we see it as our duty to support this kind of survey as a matter of humanity. Anyone who can help to push these rates down should do absolutely everything they can – that’s our top priority. So what if we gain some useful insights at the same time? Nobody worries about that when they quote hand hygiene studies which are supported by disinfectant manufacturers.

Question: One of the key points made by the authors of the study is how human excrement – with its high concentration of biological pathogens – is taking on more and more importance due to increasing antibiotic resistance. Why is it so difficult to ensure this crucial issue gets the attention it deserves?

Dr.-Ing. Stefan Scheringer: At MEIKO we don’t only produce washer-disinfectors, but also commercial dishwashing machines. We’ve seen from our workforce over the last 90-some years that there are some topics people find it difficult to cope with. That has a lot to do with the kind of taboos which we should really be casting aside. Jack Sim, also known as Mr. Toilet, has set a great example of how to tackle this issue with a direct, frank and courageous approach.

PICTURE CREDITS:
- Photo: Stephan Hund
- Photo: Wikipedia
- Photo: MEIKO

[3]
At the children’s hospital in Bad Mergentheim they not only keep the play area tidy, they also keep it hygienically clean. The area is wiped down with disinfectant every day and the toys are washed and disinfected properly in a MEIKO TopClean 60 washer-disinfector.

Making hygiene child’s play

Licking, sucking, chewing and tasting their way through the world, small children in the oral phase of development love putting things in their mouths. The next stage is to touch everything in sight – and of course they are far too young to appreciate the importance of hand disinfection.

So what should hospitals do about the toys they provide on children’s wards and in waiting rooms? Surely it’s not ideal to play with toys which have already been in several other children’s mouths? “Children’s toys have to be disinfected,” insists Stephanie Bückner, an infection control specialist who runs a ward at the Caritas paediatric hospital (Klinik für Kinder- und Jugendmedizin) in the German town of Bad Mergentheim. She takes no chances when it comes to toys on the children’s ward and in the outpatient clinic – everything is disinfected on a regular basis, and anything that breaks is disposed of immediately.

That’s why the Caritas hospital uses a dedicated vacuum-steam-vacuum (VSV) system to eliminate germs from teddy bears, dolls and the cherrystone pillows that kids often like to snuggle up to. And for Duplo bricks, Lego bricks, building blocks and everything else that used to be cleaned with disinfectant any more,” says Stephanie Bückner. Nowadays the task is handled by cleaning staff who use the machine to wash the toys from the lovingly crafted play area and clean the area itself using disinfectant every single day. “The people who work in the paediatrics unit help us out by only purchasing toys that can be washed in the washer-disinfector,” says Bückner.

But the new machine has other benefits in addition to freeing up time previously spent on manual disinfection at the hospital which locals still affectionately refer to simply as “Caritas”. Chemical disinfection was a thorn in the side of Stephanie Bückner because it was so important to get all traces of the chemicals off the toys before they ended up in children’s mouths. “We had to soak things in disinfectant for an hour after disinfecting them just to neutralise the chemicals.” And manual processing posed another problem: “We weren’t using a validated process. Nowadays if we have an outbreak of enteritis or norovirus, we keep the kids isolated and take toys to their rooms. Once things are back to normal, we simply pop the toys in a box, take them to the utility room and get them perfectly clean using MEIKO technology,” says Bückner. This is a cutting-edge method that provides welcome reassurance to everyone, including the paediatrics team, Bückner and her team of two infection control practitioners, an external infection control specialist, and the numerous link nurses who work on site. It provides an outstanding level of safety – and that’s a top priority on the children’s ward.

Yet the cleaning tasks tackled by the TopClean 60 at the Caritas hospital in Bad Mergentheim don’t stop there: “We also use the machine to clean things which do not fit the category of medical devices but which we want to get as hygienic as possible, such as wash basins and boxes for cloths and wipes,” says Bückner. With its A0 value of 60 – a measure used to rate the comparative lethality of moist heat disinfection methods – the machine offers the hygiene team a standardised and reliable process, rapid availability thanks to short wash cycles, zero contamination of work areas thanks to the machine-based cleaning process, and economical use of resources such as electricity, water and detergent.

The Caritas hospital in Bad Mergentheim also uses MEIKO technology for medical devices such as bedpans and urine bottles: “We have bedpan washer-disinfectors in every room in both our ward blocks so that nobody has to walk along the corridors with dirty care utensils in their hands,” says Bückner, adding: “And in the isolation wards in our children’s hospital we have MEIKO washer-disinfectors in the bathroom areas.”
The importance of hygiene in the Caritas hospital. Photos: Gaby Scheewe-Pfeil

A fully-fledged combined sluice unit from MEIKO ensures maximum hygiene at the Caritas hospital. Photos: Gaby Scheewe-Pfeil

A remarkably adaptable organism

Fact file on Pseudomonas aeruginosa: wet or dry, this is a pathogen that can survive in just about any environment

Pseudomonas aeruginosa occupies a special place among hospital pathogens. Its species name “aeruginosa” – a Latin word meaning verdigris – accurately reflects the bluish-green tinge of the pus caused by this gram-negative, oxidase positive, rod-shaped bacterium from the Pseudomonas genus. It is also readily identifiable by its characteristic sweet and aromatic odour, similar to that of lime blossoms.

Commonly found in soil and water, this pathogen thrives in moist environments. As well as its widespread prevalence in damp soil and surface water, it is therefore also found in tap water, wash basins, showers, toilets, dishwashers, soap dishes, flower vases – and unfortunately also in dialysis machines, medicines, ventilation tubes, incubators and even disinfectants. Essentially it can colonise any environment where there is even the tiniest trace of organic substances. Forming biofilms and slime, it quickly builds up reservoirs of infection and can even block up pipes and cause significant damage if left undisturbed for long enough. Pseudomonas aeruginosa is remarkably unfussy when it comes to living conditions, increasingly showing its ability to survive even in dry environments. The pathogen can also survive in settings where sodium lauryl sulphate would normally make it impossible for bacteria to exist, including shampoos, detergents and oils.

Pseudomonas aeruginosa poses a particular risk to immunocompromised patients. The bacterium causes pneumonia (especially among patients on intensive care wards or those suffering from cystic fibrosis), urinary tract infections (particularly if a patient has an indwelling urinary catheter or is recovering from urological surgery), skin infections (especially in patients with skin defects or burns), neonatal infections (newborn sepsis, umbilical infections, meningitis, pneumonia), eye infections (keratitis, endophthalmitis, especially from infected contact lenses), otitis externa (also known as swimmer’s ear), otitis media, and eczema.

What are β-lactamases?

β-lactamases are enzymes which are produced by bacteria. They have the ability to cleave the β-lactam rings of β-lactam antibiotics by means of hydrolysis (cleavage of chemical bonds by the addition of water). β-lactamases therefore play a major role in the development of antibiotic-resistant bacteria. Extended-spectrum β-lactama-
ses are a rapidly evolving group of β-lactamases which can hy-
drolise an even greater number of β-lactam antibiotics. Scientists have identified different groups of β-lactamases:

1. Cephalosporinases
2. Penicillinases
3. Metalloenzymes

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The importance of hygiene in the Caritas hospital is underlined by their participation in the initiatives CIRS (Critical Incident Reporting System) and KISS (German abbreviation for "hospital infection surveillance system") as well as their regular involvement in the ‘Clean Hands’ initiative. Stephanie Bückner has been working on hygiene and infection control since 2003 – and she is just as dedicated to it as ever.

Caritas

The Caritas hospital lies at the heart of the spa town Bad Mergentheim, an all-round centre of care which has taken on national prestige. It is also the teaching hospital for Würzburg University. The facility employs some 1,400 people and has a total of 434 beds. Since 2006 it has been run by the religious charity Barmherzige Brüder Trier e.V., which has a long tradition of caring for the sick. After working together closely for many years, the hospital joined together with the neighbouring hospital and care home facility KHMT in 2012 to form the holding company Gesundheitsholding Tauberfranken gGmbH. Local people still refer to the institution as the Caritas hospital, however, and it maintains to this day the key principles enshrined in the word caritas, namely charity, care and compassion.
Help people make the most of their abilities

That’s the guiding principle at the Altenhilfe Rosendahl care home – and continence training is no exception

We received lots of feedback on the article in our last issue about how care homes deal with resident’s incontinence problems. An interesting response came from employees at the Altenhilfe Rosendahl nursing home run by the Saints Fabian and Sebastian Foundation. “Some care homes handle this issue differently – and we’re one of them!” say nursing services director Michael Tiltmann, a qualified social worker, facility manager Christoph Klapper, a gerontologist specialising in the practical application of nutritional science, and Marita Wieczoreck, a qualified social worker who is in charge of social services and quality management. We paid a visit to a nursing home which has been a charitable organisation for almost 170 years.

When Christoph Klapper strolls down the corridors of the Altenhilfe Rosendahl care home past the lounges and dining rooms, he is assailed on all sides by greetings and friendly waves. 85 care recipients live here, 24 of whom show signs of dementia, which means they require extra attention and protection. It’s a close-knit community in which everybody knows each other, and there’s a friendly atmosphere with people acknowledging and smiling at their fellow residents. “Not everyone suffering from dementia lives in the sheltered area here,” says Christoph Klapper, and Michael Tiltmann adds: “We try to build up as full a picture as possible of the individual needs and qualities of the people who come to live here.” He notes that good preparation is essential when it comes to welcoming a new resident. “We do our very best to assimilate the life history of each new resident,” says Marita Wieczoreck.

As the head of social services and quality management at the facility, Marita Wieczoreck makes sure that the home fulfils all statutory requirements while also bringing the core philosophy of the religious institution to the fore. “One of our key goals is to encourage voluntary senior companion care based on the Dülmen model,” says Wieczoreck. Many of Rosendahl’s 10,000 inhabitants have taken the training which allows them to act as volunteer companions in the nursing home in line with the Dülmen model, which recommends using volunteers to help care for elderly residents to reflect fundamental changes in family networks. Even the people who work for the external cleaning company volunteer some of their time in the story-telling café and at the regular events where every helping hand is needed.

“When we do our very best to assimilate the life history of each new resident”

The main goal of geriatric care in the rural municipality of Rosendahl is to help people live as normally as possible while actively encouraging memories of their earlier life. Nowadays the home is run by the Saints Fabian and Sebastian Foundation. The overall mission and daily work of the 120 staff members and volunteers are infused with a firm belief in strengthening personal relationships and helping people to make the most of their abilities. “And that extends to the way we meet people’s continence needs in our home, too,” says Michael Tiltmann. The caregiver and his team do everything they can to avoid using absorbent incontinence aids:
“We exhaust every last option to help people retain this ability through continence training.”

That’s one of the reasons why the percentage of skilled staff working at Rosendahl who have trained for at least three years comes to almost 70 percent. “The average age of our staff is 43, which reflects our efforts to keep a good balance between apprentices and ‘old hands,’” says Klapper. One of the key points staff learn is how to teach people to be more aware of their bodily position, muscle tension and movement (kinaesthesia), which Tiltmann argues is directly related to mobility and continence. Palliative care is also on the training agenda, as is training in intensive care scenarios. “We apply all the aspects here of what it means to be human,” say the three experts – and this goes hand-in-hand with their determination to be at the forefront of ongoing changes in geriatric care.

Cancer-fighting bacteria

The U.S. American start-up Evelo Therapeutics believes it has discovered a key factor for improving the effectiveness of cancer treatment. The standard approach taken by oncologists is to probe inside a tumour to find and attack its potential weak points. But Evelo decided to focus on the tumour microenvironment, arguing that the best solution is for the immune system itself to attack the growing malignant cell mass. In many cases, however, the cancerous cells resist the body’s attempts to regulate the situation. A class of drugs known as checkpoint inhibitors eliminate the tumour’s ability to defend itself, assisting the body’s immune system in its fight against the malignant cells. It now appears that certain types of bacteria in the human microbiome may hold the key to whether a checkpoint inhibitor works or not. Researchers from the University of Chicago have shown that adding bifidobacteria to the digestive tracts of mice improves the response to checkpoint inhibitors. The goal now is to develop a new class of bacteria-based therapeutics known as “oncobiotics”.

Fear of hospital bugs widespread in Germany

When Germans go to hospital, two thirds of them say they are concerned about catching a multidrug-resistant infection. That’s the result of a representative survey of 1,000 German citizens carried out by the Asklepios Hospital Group. 49 percent of those surveyed expressed a fear of medical errors, while a full 65 percent said they were afraid of germs. The German respondents rated contaminated surgical instruments as the third biggest risk.

Ten-point plan

During a recent summit on patient safety, German Health Minister Hermann Gröhe called on German hospitals to follow infection control regulations even more rigorously. In 2015 the German Ministry of Health presented a ten-point plan aimed at reducing the number of preventable infections. A total of 365 million euros has been set aside to support hospitals in this area in the future. The money is to be used to train and employ additional hygiene and infection control practitioners.

Sequence your microbiome

Recently, faecal microbiota transplantation (FMT) has been successfully used to treat both Crohn’s disease and Clostridium difficile infections. Experts are increasingly focusing on the microbiome, in other words the totality of the microorganisms present in a person’s body. Now the American company ubiome is offering the chance to analyse your own microbiome, making use of forensic science methods in a genetic context!

Send back a sample and the company will extract the bacterial DNA and sequence it. It then compares your DNA to its databases to determine which bacteria they come from and assesses the relative DNA content of the sample to determine the balance of bacteria in your microbiome. Three different test kits are available for purchase on the ubiome website (www.ubiome.com).
Bethanien Courtyards assisted living facility:
Continuing a tradition of care

By 1911 there were 138 sisters working at the Bethany centre in Hamburg. But as their didactic work of nursing the sick in their homes, it was their commitment to education and social work which really made a mark on the city. When the deaconesses built the Bethanien Courtyards (Bethanien-Höfe) facility in the Eppendorf district, they were creating what would become one of the city’s most striking architectural ensembles. Since 100 years later, in 2012, the building had to be demolished, but construction immediately began on a new Bethanien Courtyards facility. In 2015 the new building was opened by the Agaplesion Bethanien Diakonissen welfare charity in collaboration with the Bethanien Diakonissen Foundation. The 35 million euro investment has created space for 200 residents on the 10,000 square metre site. As well as the new headquarters of the Bethany deaconesses with a church hall, the new centre includes a United Methodist Church community hall, 68 accessible assisted living apartments, a restaurant which is open to the public, commercial premises for offices and practices, plus a care home with a total of nine sheltered residential units each housing between 13 and 15 people.

Sybille Kröber is the head of nursing services at the Agaplesion Bethanien Courtyards care home and she loves being part of such a special project. “We work according to the tenets of Erwin Böhm’s psychobiographical care theory with all our residents, including those who suffer from dementia. That makes our care institution one of the few providers of specialised inpatient care and support for people with dementia in Hamburg.” To take up residence in this facility, people must be in need of at least Level 1 standard of care, meaning they must be mobile and exhibiting an agitated form of behaviour. Care is provided in a sheltered living area with its own garden.

Böhm’s care model, which all staff members at the Agaplesion Bethanien Courtyards care home have been trained to apply, is not a nursing model in the traditional sense. It recognises the constant interplay between people’s body, soul, spirit, social surroundings and personal biography and argues that all these aspects have a profound effect on each other. The important distinction for carers is that they are not dealing with an illness, but with people who are suffering from the conditions of an illness.

“The more you respect the residents, the more our staff members are respected, too,” says Sybille Kröber. For example, staff always work seven days in a row and then have seven days off. Thanks to the concept of separate residential units, that means that each group always has access to a certified nurse, a nursing assistant and a care worker. Up to 10 people are assigned to each of the residential units.

The white-topped deaconesses themselves have largely disappeared from the care setting, with many of the sisters now at an age where they are in need of care themselves. The deaconesses now reside in a purpose-built living facility. Just like the original building erected over one hundred years ago, the modern architecture of this new facility is also based on a traditional cloister. The three buildings surround a courtyard filled with bushes, trees and flowers – an oasis of tranquillity amid the hustle and bustle of the city.

But however homely it is in the Bethanien Courtyards, the infrastructure of the care home is clearly designed on the basis of expert standards and cutting-edge technology. And to ensure maximum hygiene in the utility rooms, the facility opted for MEIKO equipment throughout. “Hygiene is a huge priority for us,” says Sybille Kröber, “and we have someone on every team who is responsible for infection control issues.”

The care home diligently implements expert standards on promoting continuity, so the care setting is an important tool. “Basically everyone who works here is trained to assess signs of urinary incontinence in residents and to draw up an action plan to achieve or maintain a realistic level of continence. That means we have to tailor the environment and the care resources to each resident’s individual care requirements,” says Kröber. Ultimately the goal is to keep residents as active and mobile as possible, even if it’s just for a few hours a day, because “keeping people lying in bed is not the kind of care we believe in!”

WHO declares public health emergency

In early February 2016 the Zika virus, which is spread by the Aedes aegypti mosquito, prompted the World Health Organisation (WHO) to declare a “Public Health Emergency of International Con- cern”. The infection itself produces relatively harmless symptoms such as skin rashes, headaches, joint and muscle pain and fever – and even the Robert Koch Institute in Germany has described the progression of the disease as fairly mild in comparison to other mosquito-borne tropical diseases. But what makes the virus so dangerous is the suspicion that it may be causing brain malformations in unborn children (microcephaly). What scientists still don’t know, however, is whether cases of microcephaly only occur when the Zika virus combines with co-factors such as antibodies against other viruses.

There have so far been 4,180 suspicious cases of microcephaly in Brazil alone, but only in six of these cases were the women involved confirmed as having a Zika infection. The WHO currently recommends that people travelling to affected countries should ensure they have sufficient protection against mosquito bites both outdoors and indoors. Pregnant women who return from areas with an ongoing Zika virus outbreak should consult their gynaecologist.

Zika virus infections have so far been reported in 27 different countries and territories according to the German Federal Ministry of Health. Europe has so far only seen imported cases of people returning from Zika-affected countries.

“With our residents, including those who suffer from dementia, we are required to adapt our nursing model according to the tenets of Erwin Böhm’s psychobiographical care theory with all our residents,” says Kröber. For example, staff always work seven days in a row and then have seven days off. Thanks to the concept of separate residential units, that means that each group always has access to a certified nurse, a nursing assistant and a care worker. Up to 10 people are assigned to each of the residential units.

The white-hooded deaconesses themselves have largely disappeared from the care setting, with many of the sisters now at an age where they are in need of care themselves. The deaconesses now reside in a purpose-built living facility. Just like the original building erected over one hundred years ago, the modern architecture of this new facility is also based on a traditional cloister. The three buildings surround a courtyard filled with bushes, trees and flowers – an oasis of tranquillity amid the hustle and bustle of the city.

But however homely it is in the Bethanien Courtyards, the infra-structure of the care home is clearly designed on the basis of expert standards and cutting-edge technology. And to ensure maximum hygiene in the utility rooms, the facility opted for MEIKO equipment throughout. “Hygiene is a huge priority for us,” says Sybille Kröber, “and we have someone on every team who is responsible for infection control issues.”

The care home diligently implements expert standards on promoting continuity, so the care setting is an important tool. “Basically everyone who works here is trained to assess signs of urinary incontinence in residents and to draw up an action plan to achieve or maintain a realistic level of continence. That means we have to tailor the environment and the care resources to each resident’s individual care requirements,” says Kröber. Ultimately the goal is to keep residents as active and mobile as possible, even if it’s just for a few hours a day, because “keeping people lying in bed is not the kind of care we believe in!”

The more you respect the residents, the more our staff members are respected, too,” says Sybille Kröber. For example, staff always work seven days in a row and then have seven days off. Thanks to the concept of separate residential units, that means that each group always has access to a certified nurse, a nursing assistant and a care worker. Up to 10 people are assigned to each of the residential units.

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