INDUSTRY INNOVATIONS

Where Product Innovation Meets Best Practice

VOLUME 2, NUMBER 1, SUMMER 2020

WASTE MANAGEMENT

Official Publication of ipac Infection Prevention and Control Canada

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Together, let's protect life!

SUPER-ABSORBENT STICK

Multifunctional - Easy and ready to use

To avoid spills and splash and contamination caused by infectious body fluids

In units such as emergency, endoscopy, chemotherapy, isolation, laboratory and others. Simply insert the stick into the opening to coagulate all liquids before disposing of them. A water-soluble film on each stick dissolves within seconds making the absorption of 1L and more of liquids, effortless. The commonly used absorbent powder requires more steps and does not solidify completely. Ready to use, easy to dispose, the stick is a much better solution.

Popular uses: containers – ostomy pouches removed from the patient, suction bottles, emesis containers

As a solution for biomedical waste

These sticks can absorb a wide variety of liquids including chemical products and any type of medical waste containing unabsorbed blood particles. Disposing of medical waste can be dangerous and 100% more expensive per pound, than disposing of regular waste. The Super-absorbent stick is cost-efficient, helping reduce the costs of these disposals. Measures that ensure the safe and environmentally sound management of health care wastes can prevent adverse health and environmental impacts. This product is made of 100% recycled super-absorbent strip composed of Cellulosic fiber coupled with sodium acrylate co-polymers. No latex and no phthalates.
The water-soluble pouch is non-toxic and eco-friendly.

Popular uses: endoscopy and laboratory containers

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INDUSTRY INNOVATIONS

IPAC CANADA – THE SMART WAY TO ADVANCE INFECTION PREVENTION AND CONTROL BEST PRACTICE EVERY DAY.

PUBLISHED FOR IPAC-CANADA BY:

Craig Kelman & Associates

3rd Floor, 2020 Portage Avenue
Winnipeg, MB R3J 0K4
Tel: (204) 985-9780 Fax: (204) 985-9795
www.kelman.ca E-mail: info@kelman.ca

DESIGN/PRODUCTION - Jackie Magat
MARKETING MANAGER - Al Whalen
ADVERTISING COORDINATOR - Stefanie Hagidiakow

INTERIM EDITOR:
Gerry Hansen BA, Executive Director, IPAC Canada
GUEST EDITOR:
Michael Rotstein RN BScN MHSc CIC CHE

Send change of address to:
IPAC Canada
P.O. Box 46125, RPO Westdale,
Winnipeg, MB R3R 3S3
info@ipac-canada.org
www.ipac-canada.org

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lauren@kelman.ca

VISION

IPAC Canada – No preventable infections. Ever.

MISSION

IPAC Canada – We inspire, nurture and advance a culture committed to infection prevention and control.

https://ipac-canada.org/industry-innovations.php

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Madison Moon Resigns as Editor

It is with regret that we announce the resignation of Madison Moon, Editor of *Industry Innovations*. IPAC Canada thanks Madison for his extraordinary service through the development of guidelines and criteria for the acceptance of articles to *Industry Innovations*, conversations with our industry partners, and his mentoring of the article process, from acceptance to publication. From vision to birth to publication, *Industry Innovations* has grown significantly under Madison's oversight.

IPAC Canada and our publishers, Craig Kelman & Associates, wish Madison well in all his future endeavours.

Gerry Hansen BA
Executive Director, IPAC Canada

POSITION SEARCH ANNOUNCEMENT FOR EDITOR, INDUSTRY INNOVATIONS

In 2018, IPAC Canada introduced a new semi-annual publication titled *Industry Innovations – Where Product Innovation Meets Best Practice*. The content is thematically organized in each issue based on the Editor's chosen topic. Industry partners submit then content. The material is curated, based on conformity with the Whitepaper Guidelines and a literature review conducted by the Editor on the chosen subject. Topics chosen to date include: *Electronic Monitoring of Hand Hygiene Compliance* (Summer 2019), *Preventing, Controlling and Monitoring Infectious Diseases* (Winter 2019), *Waste Management* (Summer 2020), and *Infection Control Surveillance* (Winter 2020). Future topics will be determined by the newly appointed Editor and Publisher. Current and past issues have been posted to *https://ipac-canada.org/industry-innovations.php*.

The term of the volunteer *Industry Innovations* Editor is three years, with a possible renewal at the discretion of the IPAC Canada Board of Directors. Due to the potential optics of competitive advantage, we regret that we cannot accept applications from industry representatives. The term of the Editor will commence immediately.

A detailed Call for Applications is available at News/Events (*https://ipac-canada.org/index.php*).

For more information, please contact Gerry Hansen, Executive Director, at *executivedirector@ipac-canada.org*, or 204-897-5990/1-866-999-7111.

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Vernacare

Vernacare's Single-Use, Closed Human Waste Management System with SmartFlow™ Technology

ABSTRACT

Vernacare is the pioneer and global leader in advanced end-to-end human waste management systems, specifically designed to optimize infection control, reduce contamination spread, and increase frontline staff productivity all being achieved with an environmentally responsible product line. The combination of these attributes makes the Vernacare system both unique and innovative. Specifically, Vernacare's waste disposal macerators utilize its proprietary SmartFlow™ technology. The SmartFlow™ technology delivers an even flow of pulp product through a unique maceration and sealed management system, which ensures waste material is only released into the drain system once maximum saturation has been achieved. This unique process provides unparalleled flow speed, and an advanced level of infection control, critical in today's patient setting.

The maceration unit allows for the ultra-hygienic and efficient disposal of single-use pulp products through the existing sewer system with minimal – and in some cases – no disruption to the existing plumbing configuration within the healthcare facility or hospital. Not all maceration units can provide the assurance of minimization of particle size to ensure no dry or bulky material can pass into the pipework causing disruptive clogs. Only Vernacare's SmartFlow™ technology can deliver this type of efficiency.

Environmentally friendly single-use products are constructed with clean, recycled newsprint infused with a wax resin to retain liquid, and are free from any bleach or dye colouring. With this unique material construction, Vernacare delivers the most environmentally responsible solution in single-use human waste utensils.

Vernacare has the only moulded pulp factory in the world that is exclusively dedicated to the manufacture of medical-grade products. This ensures clients receive a comprehensive end-to-end human waste management solution, which includes manufacturing of products, service, on-site and ongoing training, and technical support from a single supplier, Vernacare.

2. SPECIFICATIONS

Vernacare's waste management solution consists of a comprehensive, innovative and complete range of medical-grade patient collections products made from a proprietary mix of recycled pulp fibre and inert natural waxes. The pulp fibre consists of specific grades of newsprint, which are biodegradable and non-impactful on both urinalysis testing and municipal wastewater systems. All products meet and exceed PAS 029:1999 BSI (British Standards Institute) standards for fluid retention and maceration as evidenced by Kitemark affixed to each pulp product. They also conform to European Medical Device Directive 93/42/EEC Class 1 (non-sterile) Annex and are manufactured in a highly automated production facility with ISO 90001:2015, and ISO 14001:2015 certification.

The products are single-use and disposed of in our mechanical macerator machines. The macerator disposal units are designed with a hands-free lid-opening and lid-closing feature operated by a foot sensor. Additional features are a locking lid, deodorizer and automatic start function. The macerator unit can dispose of one to four pulp items per cycle, depending on the unit size and model, as well as the functionality of the hospital drain system. The maceration unit processes the waste in a highly energy-efficient manner using cold water and a blade mechanism along with its proprietary flow speed action resulting in short disposal cycles ranging from two to three minutes. Vernacare's unique "full hopper error" feature uses a capacitive Integrated Flow Management (IFM) sensor attached to the outside of the hopper wall. This sensor detects improper drainage of the unit usually caused by incorrect material placed in the hopper. Once triggered, this sensor will automatically prevent the start of another cycle in order to avoid the unit from overflowing. The IFM sensors also monitor water and deodorant levels and activate the foot sensor. This technology allows for contactless operation and is less prone to malfunction associated with mechanical switches. The IFM sensor system also allows for easier detection of a mechanical fault.

Vernacare macerators require a cold-water inlet supply with a minimum flow rate of 18 litres for the Vortex model

and four litres for the Compact model), combined with a shut-off valve and a two- or 1.5-inch drain connection, depending on the model placed four to five feet from the stack with a slope of ¼-inch per foot. The macerators are available in either 110 or 220 volts, and require a dedicated 15-amp circuit. A standard shut-off switch and twist lock electrical outlet is recommended.

A customized installation plan is consultatively developed with each institution and is varied according to the physical age, location and size of the facility. Macerators can be installed in a central soiled utility room, or inside individual treatment rooms. Sufficient clearances are recommended to enable easy access to critical components during service and preventative maintenance. Vernacare macerators are accessible through the front as well as the sides, providing maximum flexibility to accommodate space limitations. The units can be floor-mounted (Vortex model) or wall-mounted (Compact model). A complete set of siting and installation recommendations are provided following the initial site inspection and facility requirements capture.

3. METRICS

Each facility has unique attributes and conditions pertaining to their physical plants, and each will produce unique metrics. Extrapolating and consolidating data from various facilities using the Vernacare human waste management system have produced consistent positive trends and have identified significant improvements in many key costing and staffing satisfaction categories.

By diverting solid waste to liquid through a macerator, and discarding through existing drainage pipes, hospitals save in waste management handling costs. In addition, cold water is used for maceration units along with quick cycle times reducing utility consumption since heating extensive amounts of water and the need for drying units found with traditional washer/disinfectant units are not required. Specific savings are contingent on each facility's unique usage factors and comparative to traditional methods.

Reduction of nursing manpower is achieved with a single-use system allowing for effective and productive reallocation of scarce resources. A once-and-done approach is achieved with Vernacare's system by saving time on loading, cleaning and reusing utensils. In addition, studies have proven higher user satisfaction with Vernacare's single-use system. Less handling, less odour, less mess increases nurse/user morale, resulting in a multitude of holistic benefits.

Another key measurable attributed to Vernacare's single-use system is the reduction and control of spreadable infection, specifically *C. difficile*, *E. coli*, VRE and MRSA among other HCAIs. This key metric greatly improves quality standards at facilities and safeguards both staff and patients from spread of infection.

In a study conducted at Michael Garron Hospital (formerly Toronto East General Hospital), it was found that Vernacare's single-use, closed human waste management system contributed to a reduction in *C. difficile* spread and a 30-50% drop in Methicillin-resistant *Staphylococcus aureus* cases. The findings also found improved satisfaction in nursing staff using the Vernacare system.[1]

Another research study at the National University Hospital Singapore found 90% of the staff involved supported continuation of the Vernacare system over the prior reusable, washer system subsequent to the Vernacare's single-use macerator trial. This study also found that the Vernacare single-use closed system was also instrumental in reducing instances of *C. difficile, E. coli*. In addition, it also delivered fewer equipment breakdowns and blockages compared to traditional bedpan washer/disinfector equipment.[2]

In a 12-month post-implementation study of Vernacare's single-use macerator system, the findings bore positive results relative to overall improved hygiene, reduced risk of infection spread, and increased staff morale and productivity. Nursing staff voiced higher satisfaction due to reduced handling of human waste and the stigma associated with the task of disposing of it. With Vernacare's single-use, closed, efficient, contactless system, the negativity surrounding this function was greatly reduced. Other aspects such as improved hygiene, ease of use, reliability of equipment and infection control showed significant support by users for Vernacare's single-use system, versus traditional re-usable methods.[2]

4. PRACTICE CHANGES

While general patient toileting practices remain the same, countless menial repetitive tasks are eliminated using the single-use, hands-free macerator disposal unit. Clinical staff are no longer required to empty and rinse utensils; simply deposit the single-use utensil, contents and all into the hands-free macerator unit. If a plastic

reusable bedpan support is required, clinical staff would be required to follow infection control protocol, which typically requires it to be wiped with a disinfecting wipe and kept with the patient for next use. For fluid output measurement if required, clinical staff will weigh the pulp utensil with contents on a fluids-measuring scale to determine the volume.

While technical difficulties are reportedly rare with the Vernacare system, Vernacare macerators are designed to allow for ease of access from either the front or side of the unit. Simple yet comprehensive digital operational status and failure diagnostics promotes easy and quick maintenance by facility staff, minimizing rare downtime.

Vernacare provides complimentary technical training custom designed for engineering staff, typically ranging from two to three hours in length, depending on the number of those attending the session. Hands-on training can be conducted in multiple groups over the course of two days and according to the needs of the facility. Training is provided by one or more OEM-trained members of the Vernacare Transition Team. Vernacare also provides a technical service e-training program for additional ad hoc training, and will also include an annual refresher program according to each facility's needs. Technical support is readily available at all times from the Vernacare team.

5. IMPLEMENTATION

The implementation of the Vernacare human waste management system is a collaborative process fully supported by the technical expertise of the Vernacare team. Vernacare is deeply experienced in the implementation of their system in both new and existing facilities. In order to ensure a seamless transition from current waste management practices to Vernacare's system, a project implantation plan is developed with members from our sales, customer service and technical teams alongside key stakeholders assigned from the facility. A specialized Project Management and Transition Team are assigned to all installations. Due to Vernacare's extensive involvement in many conversion projects

across North America, their insight and vast experience is an invaluable component to ensure a successful implementation. The Transition Team consists each of a Clinical and Technical Co-Project Manager. The team is further augmented by a technical support staff for technical telephone support, spare parts, and pulp product inventory supply.

The Transitional Team provides quotations and financial rationale for the new system and establishes timelines, project milestones, and key measurables in conjunction with the facility's project management team. Vernacare will support the work of Value Analysis Teams to help capture the desired financial, clinical and specific waste management desired outcomes. Our team is experienced in modelling these outcomes through a transparent exchange of baseline metrics, which can be compared to future outputs.

There are many stakeholders involved in the implementation of a new human waste management system, and Vernacare is experienced in dealing will all key stakeholders. Within the hospital or facility, Vernacare works with many teams such as Infection Prevention, Nursing, Finance, Housekeeping, Facilities Engineering and any construction subcontractors as required.

In addition, Vernacare also supports and provides consultation for all applicable jurisdictional by-laws by engaging city and municipality waterworks departments. Engagement activity includes meeting(s) with engineering departments and providing all the necessary documentation and studies regarding the total suspended solids (TSS) and biological oxygen demand (BOD) as well as analysis of the total impact on sewer infrastructure. This provides reassurance that the Vernacare System is within the allowable limits.

The Vernacare team also provides an on-site inspection of the chosen location for the equipment installation, working with the appropriate departments or contractors, and is readily available for all installation guidance and consultation.

Training is an important component of the implementation process. Vernacare provides initial in-service training for all frontline clinicians, including casual and temporary staff, clinical educators, engineering and facility staff. Technical documentation, literature and posters are included (at no charge) to reinforce and supplement the on-site training. An appropriate schedule to accommodate shift work is executed for maximum coverage. A suite of video and e-learning

tools are also available for remote or retraining purposes.

A post-installation inspection is conducted to ensure the equipment is running at an optimum performance level and will initiate the warranty.

6. NARRATIVE

The Vernacare human waste management system is designed to simplify and vastly improve the process and method of human waste disposal. Not only is the process more efficient, safer and convenient, it is also environmentally responsible and cost effective.

In summary, the Vernacare system consists of uniquely designed and engineered waste disposal macerators and a complete range of biodegradable patient waste receptacles. The system is primarily used by frontline staff caring for patients at bedside. Fluid output measurement is easily achieved using scales, and disposal is simplified through a closed, hands-free macerator unit, which greatly reduces contamination and spread of infection, while improving the overall experience for both care provider and patient. Fully supported by the expert Vernacare technical team through training and day to day service, the ease of use is unparalleled.

7. COST ESTIMATE

The cost estimate for the Vernacare human waste management system varies according to each client's unique needs. In order to gain a fuller understanding of the cost impact of adopting Vernacare's waste management solution, our team will work with your facility to accurately measure all agreed-to cost drivers and critical activities. This will enable Vernacare to quantify the potential cost impact and changes in quality outcomes, which can be captured through the conversion process. Given the diversity of variables within each facility, an accurate cost model will be uniquely applicable to each facility. The cost estimate process typically focuses on categories such as product consumption, utilities consumption, impact on waste management practices, and resource productivity.

Vernacare Contact Information:
Toll Free: 1-800-268-2422
Toll Free Fax: 1-877-311-2811
Email: *lynn-marie_green@vernacare.com*
Website: *www.vernacare.com*

FOOTNOTES:

1 Arladeen Tomiczek, C. Stumpo and James F. Downey. Identifying and Reducing Risks, Enhancing Patient Safety through the Management of Clostridium difficile at Toronto East General Hospital, Volume 9 Special Issue, Healthcare Quarterly; October 2006

2. Mei Yen Phua BA, MA, Sharon Salmon BN, MPH, PhD, Paulin Straughan BA, MA, PhD. Disposable single-use receptacles in a tertiary hospital; A large survey of staff after a hospital wide implementation. Volume 44, Issue 9, American Journal of Infection Control; September 1, 2016 ■

MedPro Defense Total Waste Management System

THE PROBLEM

Traditional hospital transportation of waste has many failure points beyond the initial area of contamination. These failure points expose patients, personnel, and community environments to cross-contamination and higher infection risks. The chain of disposal is continuously engaging with a potential infection source. A transformational approach requires a sustainable end-to-end solution, which protects people and surfaces from physical and aerosolized pathogens at every stage, regardless of access to a macerator, and factors in operational constraints, such as costs, infrastructure, and the time to implement. Any new system should not place increased burden on frontline staff, neither contravene health guidelines. It should also conform to the Pollution Prevention Plan (PPP) as set out by cities, including Vancouver, Canada.[1]

ABSTRACT

A new comprehensive human waste disposal concept, the MedPro Defense Waste Management System, reengineers the current prevalent systems and introduces an integrated and coordinated process, which results in a positive impact on infection control rates, and conforms to the particle size waste limits set out by the Vancouver PPP.[1]

The MedPro Defense Waste Management System is defined by three pillars: flexibility, containment, and sustainability:

1. **Flexibility:** An easy-to-use mobile disposable waste containment system that can be implemented quickly in any location without access to a macerator, and can follow the patient throughout the hospital. Human waste is completely enclosed, and this effectively eliminates exposure during transport and disposal.[2] Fundamental component: hygienic bag;
2. **Containment:** A choice of mobile and fixed equipment for patient rooms that ensures human waste never leaves the individual patient's zone;
   Fundamental components: macerator and absorbent materials.
3. **Sustainability:** Support products that are slurry-pipe-compatible and work with both the flexibility and containment options:
   - Moist and dry maceratable wipes
   - Universal pulp vessels that integrate with commode styles from different manufacturers
   - Container supports
   - Commode styles that seamlessly integrate with support products, including hygienic bags.

FLEXIBILITY VIA MOBILE CONTAINMENT SYSTEM

When a macerator is not immediately available, e.g., due to infrastructure or budget limitations, the Zorbi hygienic bags can fit any manufacturer's commode and follow the patient throughout the hospital journey to maintain the security and control of the human waste disposal chain. By securely enveloping the supports, pails, and commode seats, Zorbi bags quickly and efficiently contain patient excretions, including faeces, urine and emesis. The bag design reduces the chance of cross-contamination and exposure to human waste pathogens; minimizes the time, expense, and energy resources associated with cleaning and disinfecting reusable vessels. The Zorbi bags have been successfully implemented throughout Canada.

CONTAINMENT WITH PERMANENT EQUIPMENT

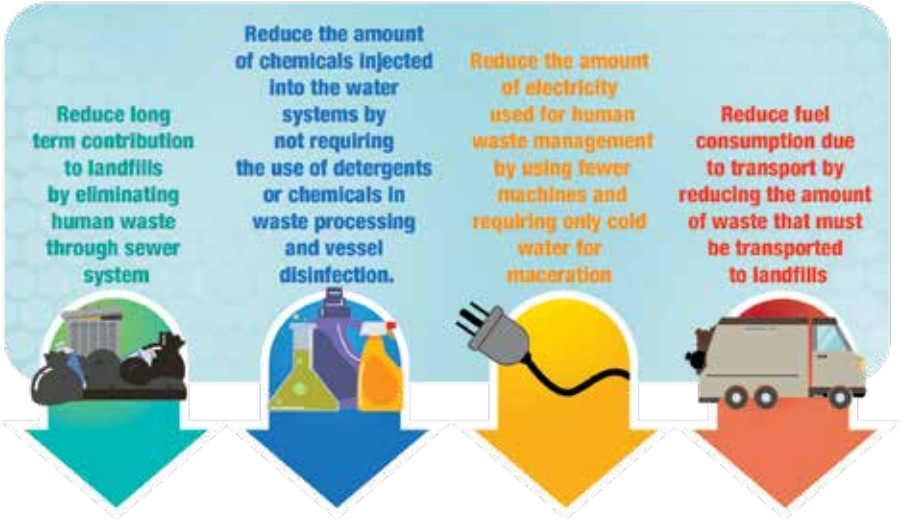
Medpro Defense and Haigh Healthcare offer Canada intuitive macerators, which are easy to maintain, and have features designed to maximize up time. In addition to hands-free operation and full system access for easy maintenance, the *Premium Flow* patented draining system ensures that no object greater than 5mm will leave the machine and enter the slurry pipe, conforming to vigilant PPPs set out by cities.

SUSTAINABILITY WITH SYSTEM SUPPORT TOOLS

The MedPro Defense System products service both the fixed and the bag options in the Human Waste Management line. This one-entry-point program simplifies procurement, reduces costs and inventory concerns, and promotes compliance from hospital staff.

- Commodes designed to promote advanced infection control and which are designed to work with hygienic bags and pulp vessels efficiently.
- Supports that can be used with any of our products, further simplifying the Human Waste Management function.

The macerator is the accepted conduit from the hospital to the municipal water waste grid. All MedPro Defense System products are engineered for the safety and sustainability of the municipal system. A complete range of biodegradable pulp vessels and moist and dry wipes are compatible with any macerator brand on the market. This allows for the continued use of existing macerators.



METRICS

Human waste, including faeces, urine, and vomit have been well documented as a source of cross-contamination for several diseases associated with nosocomial infection, including *Clostridioides difficile* (*C. difficile*) and *norovirus*.

The presence of pathogens in human waste and their ability to spread is well documented:

- Vomit and faeces are expected to carry high concentrations of pathogenic cells. For example, up to 10^9 of norovirus, 10^8 of salmonella, $10^{6,7}$ *C. difficile*.[3,4]
- Outbreaks of Hepatitis A have been traced back to exposure to human fecal matter in Philadelphia.[5]
- There is also evidence of high concentrations of the virus that causes COVID-19 in faecal matter.[6] It is possible for a plume to form and contaminate surfaces, or infect other patients as was the case with SARS in 2003.[7]

In addition to direct contact with waste, bio-aerosolization of waste expands the possibilities of exposure of people and surfaces to contamination. The aerosolization of waste due to air currents, breathing, coughing, and flushing of toilets demonstrates a need to limit the movement of human waste beyond what was originally thought.

- Vomiting leads to the aerosolization of particles and has been proposed to be an additional mechanism of transmission.[8]
- Flushing a toilet has been shown to produce an increase in concentration of particles in hospital rooms; the largest increase being produced when fecal waste is present. In addition, the concentration of particles was also increased after flushing when fecal waste was not present, suggesting that particles remaining from previous flushes could be aerosolized repeatedly over time.[9]

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- Contamination due to the aerosolized waste has been shown to continue to be deposited on surfaces at a distance from the initial flushing source for up to 6 hours.[3]

Once aerosolized and transported by air currents, the pathogenic cells can be inhaled by other individuals or be deposited onto surfaces and then transmitted to a host through contact. These airborne and easily transmitted pathogens circumvent direct cleaning protocols, and have a significant impact on all facets of the healthcare system, including infection rates and cost.

- It takes fewer than 10 to 100 virions to cause norovirus infection, and these cells can persist for weeks on environmental surfaces. *Norovirus* displaced 57,800 patients annually in England and cost the NHS £107.6 million in direct costs. In addition, the illness incurs a loss of 6,300 quality-adjusted life-years annually.[10]
- Vancomycin-resistant enterococci (VRE) increases the relative cost of hospitalization by 61.9% and the average length of stay (LOS) by 68%.[11]
- The cost associated with a nosocomial case of *C. difficile* is $10,861 to $36,960.[12]
- 23.5% of nosocomial infections can be traced to shared equipment and the environment.[13]
- 3-21 % reported HAI related to unclean bedpans and urinals[14]

By containing the waste at its source, the risk of contamination due to movement either by aerosolization or other means is reduced.[15]

PRACTICE CHANGES

Medpro Defense's waste management system can provide a cohesive program that can help simplify waste management across multiple departments within a given health centre. When a facility partners with MedPro Defense to implement a waste management solution plan, the key variables, aside from absolute cost, include:

1. The concentration of patients in need of waste management support;
2. The duration of the expected need of patients;
3. The current roles, responsibilities, practices and protocols for handling human waste management and related activities;
4. The current equipment in place and its expected remaining usable life;
5. Any infrastructure opportunities and limitations in the institution and related to the institution (ex. municipal by-laws);
6. All specific quantifiable outcomes and milestones;
7. The frontline staff needs and perceptions.

Working with the various stakeholders, MedPro Defense team members can advise, plan, and implement solutions tailored to the client's specific situation. Whether a completely new construction or an existing site, the plan will respect location-specific measures and any constraints.

NARRATIVE

A patient with an acute respiratory infection presents at the emergency department of a major metropolitan teaching hospital. In triage and awaiting care, the patient has their own MedPro Defense infection-control-friendly commode, with a Zorbi bag, a seat insert, and maceratable wipes. The patient does not travel from the emergency department to the common bathroom, mitigating the possibility of transmitting infectious droplets through touch, laboured breathing, or coughing.

Based on clinical needs, the patient is transferred to different areas for targeted care while still being part of the overall emergency department. The patient moves with the same commode, Zorbi seat insert, and maceratable wipes as they move through the department, providing a sense of comfort and dignity in this unsettling situation.

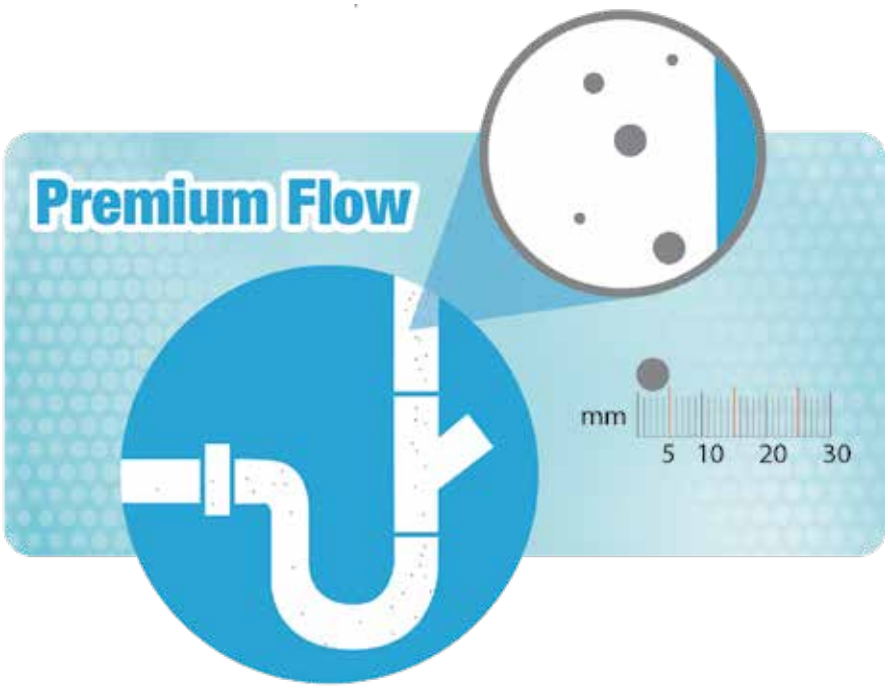
Once the patient is admitted to a unit, the staff can dispose of any human waste in a hands-free macerator located either in the patient's room, or at a central location in the ward. The patient will still have access to their familiar infection-control-friendly MedPro Defense commode, maceratable wipes, and Zorbi-compatible seat insert, which can now be used with any biodegradable maceratable pulp bedpan. This mobile system remains a source of consistency, comfort, and independence for the patient.

In the ward, the staff now has access to MedPro Defense macerator technology. They can package the maceratable wipes, pulp vessel, pulp vessel cover, and human waste and transport it efficiently and securely to

The MedPro Defense Waste Management System can help:

- Optimize waste containment and elimination strategies for each specific location within the hospital;
- Reduce staff confusion and errors, as well as macerator downtime and repair costs, by ensuring all products across the hospital work together;
- Improve patient satisfaction by allowing them to become familiar and comfortable with one model of commode and wipes, no matter where their hospital journey takes them.

the macerator. Because the macerator operates hands-free, the staff can package the human waste with minimal risk of cross-contamination due to air currents, spills, or inadvertent hand contact (e.g., while balancing full containers). Once the maceration cycle is initiated, and without having to touch any surface, they can remove their gloves in the garbage and proceed with hand hygiene. However, if by mistake something unacceptable enters the macerator; there will be no risk to the hard-to-reach drains and pipes in the wall because the patented *Premium Flow* technology ensures that nothing larger than 5mm in diameter can ever leave the macerator and enter into the pipes.



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INDUSTRY INNOVATIONS

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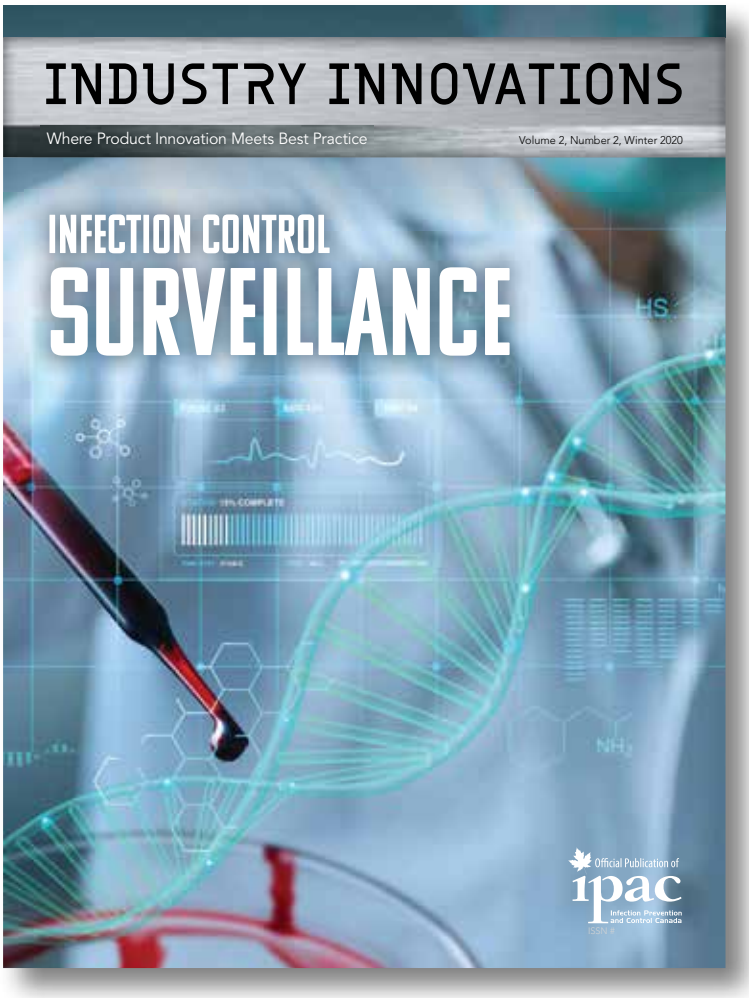

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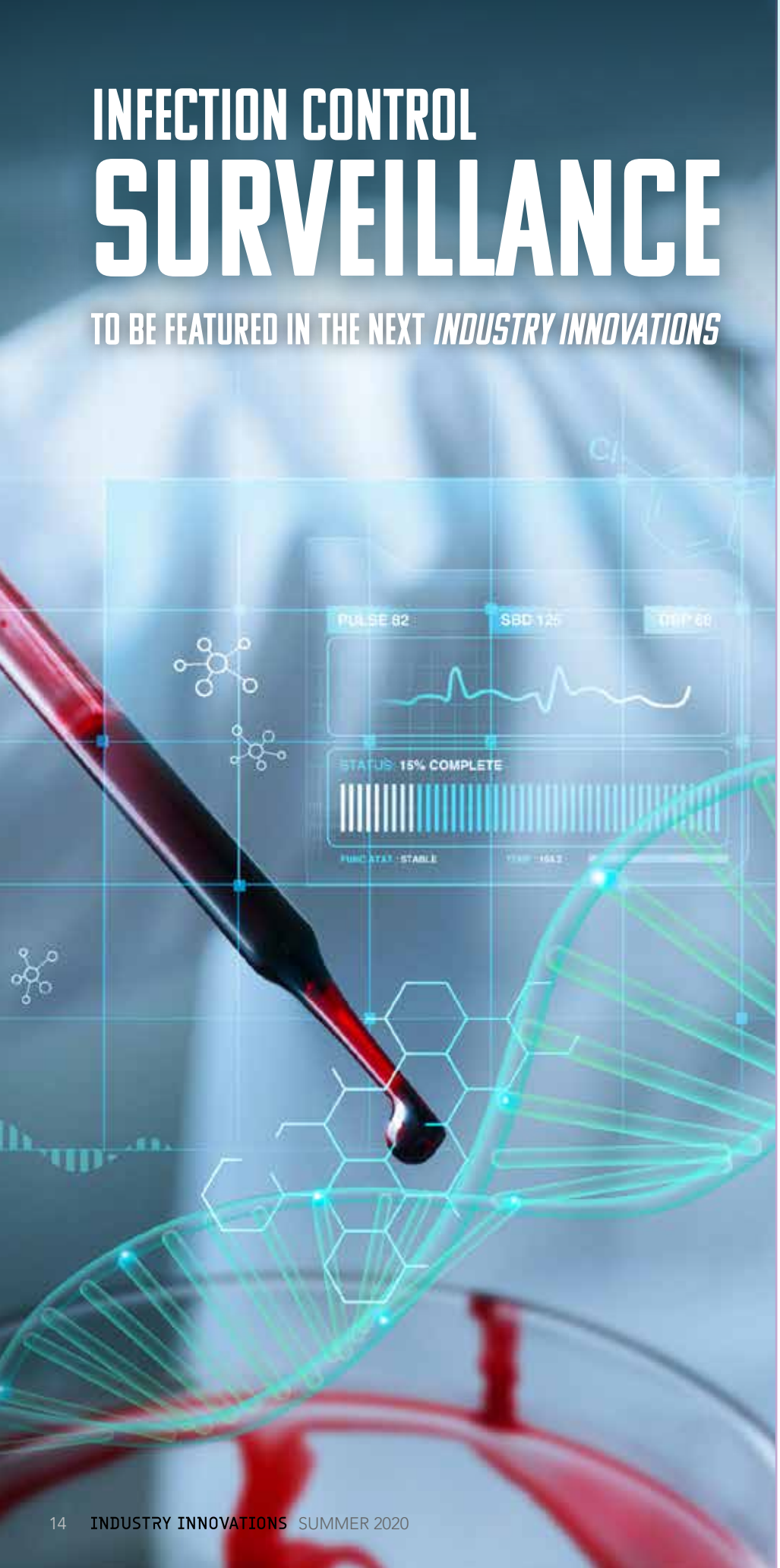
INFECTION CONTROL SURVEILLANCE

TO BE FEATURED IN THE NEXT *INDUSTRY INNOVATIONS*



The Winter 2020 issue of *Industry Innovations* will showcase innovative product offerings supporting communicable disease surveillance in healthcare.

Surveillance of communicable diseases, especially healthcare-associated infections, provides baseline data and builds capacity for subsequent monitoring activities, including benchmarking. Surveillance data guides clinical practice, including identification of outbreaks and implementation and monitoring of interventions aimed at reducing transmission events. It also informs research and antimicrobial stewardship programming. Surveillance activities may be continuous in nature, or data may be gathered via point prevalence studies. Surveillance activities may be conducted at unit, facility, provincial, territorial, national or international levels.

Barriers to surveillance in healthcare include challenges in gathering and interpreting relevant data, limited information technology resources, and support and human resource challenges. We welcome innovations from our industry partners, which can assist in addressing these challenges to support IPC programs to build effective surveillance practices and processes.

Thank you to IPAC Canada members for the continued opportunity to showcase our industry partners in this publication.

INFECTION CONTROL SURVEILLANCE GUIDELINES

The role of the Editor and Publisher of *Industry Innovations* is to ensure that this publication is of a high quality, structured, and a good comparative resource for Infection Prevention and Control Canada's (IPAC Canada) core membership. All submissions to *Industry Innovations* are subject to curatorial review. Relevance to IPAC Canada membership and integrity of claims will be assessed prior to approval or denial of publication partnership.

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For whitepapers accepted for publication, the Editor will coordinate with the submitting industry partner prior to publication with applicable technical editing requests. The Editor and Publisher will ensure that the curation and publishing process of whitepapers and advertisements accepted for publication are managed transparently in consultation with authoring industry partners. Preferred whitepapers for publication in *Industry Innovations* will refrain from subjective and unverifiable claims. They will use a mixture of industry voice, technical specification, and use-case logistics with significant attention to the immediate organizational impact of implementation. The numbered guideline sections below are sequentially ordered to provide a comparable reading flow throughout *Industry Innovations'* volumes, and must be adhered to during whitepaper development. The suggested word count is included for the whitepaper author's reference to ensure sufficient content is incorporated into each section without exceeding the suggested submission length of 4,500 words.

GENERAL GUIDELINES

- Core Focus: *Industry Innovations'* guidelines are structured to provide a comparable summary of considerations to enable IPAC Canada readership to assess their organization's implementation readiness and the immediate use cases of an industry product.
- Please refrain from comparing your product's solution to competing solutions.
- Where clinical or industry research is referenced, ensure a summary description of the research is included rather than generalizations.
- For in-text citations, use parenthetical numbers (Vancouver style) and append references to end of whitepaper using the same order of numbers appearing in-text.

1. Abstract – ~500 Words:

- What makes this product stand out as an innovative solution to infection control surveillance in acute care, long-term care homes, and other healthcare facilities?
- Please refrain from comparative analysis to other innovations in infection control surveillance, but common standardized surveillance processes may be referenced.

2. Specifications – ~600 Words:

- Describe the technology/process of the infection control surveillance solution;
- If there are electronic components to the infection control surveillance solution, please describe their utility (data collection, entry, validation, analysis, presentation, etc.).
- Describe any additional resources used peripherally to your product's infection control surveillance solution and what ongoing resources a healthcare facility implementing your solution will need to support ongoing infection control surveillance (e.g. physical resources, training, physical/electronic storage, compatibility with existing software, databases and/or processes, etc.).

3. Metrics – ~600 Words:

- Describe the recommended statistical tracking methodology for infection control surveillance with your product, as applicable (e.g. type and number of infections able to be monitored, frequency of report generation, etc.).
- Previous quantitative research in effectiveness of the infection control surveillance solution may be described and referenced here.

4. Practice Changes – ~600 Words:

- Please describe the frontline practice changes involved in implementing your company's solution (not the overall impact of infection control surveillance, just the work involved with the product in use).
- For example, will your solution add additional steps to nursing consultations/data collection within the patient room? Will infection control staff need to add another step to their workflow? Will clinical teams need to be trained in the use of the infection control surveillance solution?

5. Implementation – ~600 Words:

- Please describe the steps involved in implementation of your infection control surveillance solution.
- What stakeholders are needed (nursing staff, physicians, administration, infection control, etc.)?
- What activities in initial implementation/ongoing maintenance of this infection control surveillance solution will be managed by your company?
- What initial/ongoing maintenance steps will be managed by the healthcare facility implementing your infection control surveillance solution?
- What maintenance steps are required to ensure the infection control surveillance solution is functioning effectively/as intended on a continuous basis?

6. Narrative – ~700 words:

- Please provide in narrative format the post-implementation use case of the infection control surveillance solution, including a description of the data collection, input, validation and analysis processes (as applicable) associated with using the product by healthcare staff and any new processes that will need to be implemented to support the use of the product.
- Please refrain from describing the general workflow of infection control staff and associated teams; focus on tasks performed by healthcare institution staff involving the immediate use of your product.

7. Cost Estimate – ~300 words:

- Please provide a cost estimate in table format for implementation of your infection control surveillance solution given typical needs in a small/medium/large healthcare setting.

8. Contact Info

- Please provide detailed contact info (phone, email, webpage, etc.) to ensure interested readers are able to reach out for further information and estimates. ■

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