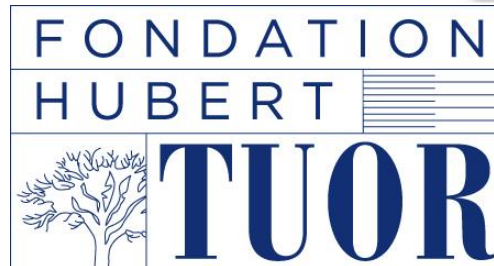


ICPIC 2017

4th International
Conference
on Prevention
& Infection Control



20 June to
23 June 2017
Geneva
Switzerland



Prix Hubert Tuor – ICPIC Innovation Academy

Activity report

INTRODUCTION

The International Conference on Prevention and Infection Control (ICPIC) is considered as the top event in the field. It is organized every 2 years in Geneva under the auspices of the World Health Organization (WHO). The international organizing committee is headed by the WHO Collaborating Centre on Patient Safety at the University of Geneva Hospitals and Faculty of Medicine. Participants (around 1100 each year) from more than 110 countries attended ICPIC in 2011, 2013 and 2015. ICPIC provides a unique forum for the exchange of knowledge and experience in the prevention of healthcare-associated infection, control of antimicrobial resistance, and patient safety around the world.

See <http://icpic.com/index.php/conferences> for more information.

The Innovation Academy at ICPIC provides a unique opportunity to bring investigators, participants, technology transfer and industry experts together to participate in a forum in the area of innovations in the practice of infection control, prevention of antimicrobial resistance, and patient safety. The first three editions were held at ICPIC 2011, ICPIC 2013 and ICPIC 2015, and were tremendously successful. Winners of both previous editions succeeded in developing their product and/or start-up of their company following the award recognition and ICPIC support. During the Innovation Academy activities that spread throughout the 3 days of the meeting, experts from diverse fields have the opportunity to interact during the symposium, the investigator presentations, and the social events, culminating in the final presentation and awarding of three "Innovation Awards of Excellence" by the Expert International Jury of the Academy.

The interest in the Innovation Academy has been overwhelming in 2011, 2013 and 2015. The process and attributes of adjudication are available upon request. In brief, from 20 to 30 abstracts submitted for the Innovation Academy, 10 finalists are selected for presentation. The selected posters are available for viewing throughout the entire meeting allowing meeting participants' ample opportunity to view the innovations presented. Individual review and preliminary independent rating is conducted by the members of the Jury. A pre-final independent ranking is completed during a 3-minute oral presentation (the "pitch") by the innovators of what is unique and novel about their innovation. Following the "pitch session", the Jury compiles the 5 finalists who then present a 10-min slide presentation and 5-min question and answer period at the Innovation Academy Awards session on the final Plenary Session of ICPIC, during which the Jury makes a final selection for the awarding of the three "Innovation Awards of

Excellence". Innovations awarded must be transformative, impactful, pioneering, strategic, sustainable and ideally adaptable. The Awards consists of a certificate, a cash prize, and a trophy. Furthermore, winners of Innovation Academy Awards are given the opportunity and invited to present the progresses of their innovative projects at following ICPIIC meetings.

In summary, the two main objectives of the Innovation Academy at ICPIIC are:

- 1) to generate, recognize and award significant innovations in the prevention of healthcare-associated infection, control of antimicrobial resistance, public health and patient safety around the world. ICPIIC provides the necessary platform for unique exchanges.
- 2) to maintain the link with innovators over time and, in particular, to give the opportunity to Award winners to present progresses and developments of the innovations at ICPIIC meetings every 2 years in Geneva.

The 4th ICPIIC 2017 Conference has been once again a large success welcoming more than 1000 participants from almost 80 different countries.

The Innovation Academy has been held during the conference and awarded the three best projects.

Thanks to the generous support of the private Fondation Hubert Tuor, whose primary mission is to support promising and innovative projects, the Fondation Hubert Tuor helps talents to realize and implement their projects in the medical, scientific and technologic domain.

I. SELECTION PROCESS

The selection of the projects was made in 4 rounds as follows:

- **Before the ICPIIC conference**
 1. Abstracts submitted under the categories "Innovation Academy" "Innovation in Infection Control" were reviewed for consideration by the ICPIIC Scientific Committee.
 2. Accepted projects were invited to present their projects to the Jury during the Pitch session and to prepare a poster illustrating the project.
- **On Wednesday 21 June 2017:**
 1. **Poster session:**

The jury visited the posters of the accepted projects and asked questions to the presenters prior to the pitch session, without revealing that they were a member of the jury.

The posters were displayed from Wednesday morning to Friday afternoon in the exhibition area on the ground floor and presenters were requested to be in front of their posters from 13h15 to 14h15 on Wednesday to facilitate discussions.
 2. **The Pitch session:**

The Pitch took place in Room 01, from 14h30 to 16h00

Each jury member was given a scoring sheet to judge the presenters according to different criteria.

Each presenter had a total presentation time of 5 minutes, 3 minutes were allocated for the pitch and 2 minutes for questions.

On Wednesday evening, the 5 best scoring projects were selected for the Finals.

The presenters of the 5 selected projects were informed and announced to the public through social media and electronic signage at the venue.

- **On Friday 23 June 2017:**

Innovation Academy: the Finals and Award ceremony:

The Finals took place in Room 01 from 11h45 to 13h00 and were followed by the Award ceremony.

Similarly to the pitch session, jury members were given a scoring sheets. Each presenter had a total presentation time of 15 minutes to convince the jury. 10 minutes were allocated for the presentation and 5 minutes for questions.

II. JURY MEMBERS

1. E. Bettiol
2. S. Couty
3. O. Deloche
4. A. Geissbühler
5. O. Hartley
6. A. Huttner
7. J. Jernigan
8. E. Larson
9. B. Morel
10. E. Perencevich
11. E. Pfund
12. A. Weber

III. CANDIDATES AND WINNERS

A total of 9 candidates were pre-selected for the Innovation Academy:

- I1 - BIOLOGICAL DISINFECTION WITH BACTERIOPHAGES: EXPERIENCE AND PERSPECTIVES - Vasily Akimkin *et al.*
- I2 - IDENTIFICATION OF ANTI-VIRULENCE COMPOUNDS FOR COMBATING STAPHYLOCOCCUS AUREUS INFECTIONS BY HIGH-THROUGHPUT SCREENING (HTS) - Richard Y Kao *et al.*
- I3 - CONSTRUCTIONAL/STRUCTURAL INFECTION CONTROL STRATEGY - ARCHITECTURAL ANALYSIS, RATING AND SOLUTION STRATEGY TO CONTROL INFECTIOUS PATHWAYS IN BUILDING SYSTEMS - Jan Holzhausen *et al.*
- I4 - ISEE-RESISTANCE: USING IN SILICO EXPERIMENTAL EVOLUTION TO SENSITIZE PROVIDERS ON ANTIBIOTIC RESISTANCE - Guillaume Beslon *et al.*
- I5 - HAITOOL – USING INNOVATIVE DESIGN SCIENCE TO COLLABORATIVELY IMPLEMENT AN ANTIBIOTIC STEWARDSHIP DECISION-SUPPORTING SMART SYSTEM - Luis Velez Lapao *et al.*
- I6 - WELCOME ON BOARD! – AN EDUTAINMENT MOVIE TO PROMOTE BASIC INFECTION PREVENTION MEASURES - Aline Wolfensberger *et al.*
- I7 - INTEGRATING PATIENTS' EXPERIENCES, UNDERSTANDINGS AND ENACTMENTS OF INFECTION PREVENTION AND CONTROL INTO CLINICIANS' EVERYDAY CARE: A VIDEO-REFLEXIVE-ETHNOGRAPHIC EXPLORATORY INTERVENTION - Mary Wyrer *et al.*

- I8 - THE POTENTIAL AND RISKS OF INTERNET-OF-THINGS FOR PATIENT SAFETY – USING INDOOR-LOCATION SYSTEMS TO IMPROVE NURSES’ HAND HYGIENE PERFORMANCE - Luis Velez Lapao *et al.*
- I10 - HOW WE TALK ABOUT HAND HYGIENE MATTERS – AN EXPLORATION OF HAND HYGIENE ETYMOLOGY - Claire Kilpatrick *et al.*

IV. WINNER PROJECTS

- **First Prize - Prix Hubert Tuor – ICPIC Innovation Academy**
I2 - Identification of anti-virulence compounds for combating staphylococcus aureus infections by high-throughput screening (HTS), by Richard y. Kao et al (Hong Kong)
- **Second Prize - Prix Hubert Tuor – ICPIC Innovation Academy**
I10 - How we talk about hand hygiene matters - an exploration of hand hygiene etymology, by Claire Kilpatrick et al (United Kingdom)
- **Third Prize - Prix Hubert Tuor – ICPIC Innovation Academy**
I4 - Isee-resistance: using in silico experimental evolution to sensitize providers on antibiotic resistance, by Guillaume Beslon et al (France)

VI. PICTURES OF THE PRIX HUBERT TUOR – ICPIC INNOVATION ACADEMY





VII. ABSTRACTS OF THE SELECTED PROJECTS

I1

BIOLOGICAL DISINFECTION WITH BACTERIOPHAGES: EXPERIENCE AND PERSPECTIVES

Vasily Akimkin^{*} 1, Nikolay Shestopalov¹, Vladimir Shumilov², Tatiana Salmina², Aleksandra Dabizheva³, Petr Kanygin³, Izabella Khrapunova¹, Tatiana Shestopalova¹, Lyudmila Fedorova¹

¹Federal Budget Scientific Institution "Scientific Research Disinfectology Institute" of Federal Service for Surveillance on Consumer Rights Protection and Human Well-being, ²Municipal Clinical Hospital №67 named after L.A. Vorokhobov" of Moscow Healthcare Department, ³Research and Production Association "Microgen" of the Ministry of Health of the Russian Federation, Moscow, Russian Federation

Introduction: Application of bacteriophages for biological disinfection to decontaminate environmental objects in epidemiologically significant departments of medical organizations (intensive care units, burns units, surgical departments) represents one of the modern directions for bacteriophage usage. Indicative results of biological disinfection carried out in 2015-2016 in a large surgical hospital are reported.

Objectives: Epidemiological objective of conducting biological disinfection was determined by a necessity to eliminate hospital *P. aeruginosa* strains from the environment of purulent surgery department.

Methods: Product "Pyobacteriophag polyvalent" (lot No. 60, produced by Research and Production Association "Microgen" (Russia)) containing a mixture of sterile filtrates of phagolysates of staphylococci, streptococci, enterococci, proteus, klebsiella (pneumoniae and oxytoca), *P. aeruginosa* and *E. coli* was used for 4-time treatment of surfaces in corresponding department with determination and further checking of 140 control points. A biological disinfection of more than 700 m² was performed per a single treatment.

Results: The results of the biological disinfection were as follows:

1. Complete elimination of hospital strains of *P. aeruginosa*, *K. pneumoniae* in one month after treatment.
2. Significant decrease of *E. coli* bacteria group (more than 3 times) and 2-fold decrease of *S. aureus* strains.
3. Pronounced positive dynamics of "microbiological cleanliness flora" that was not present in the department before: appearance and persistent prevalence of *Bacillus cereus* and *Bacillus subtilis* in microbiological studies suggesting displacement of nosocomial HAI-inducing microorganisms from the environment.

Conclusion: The biological disinfection by corresponding bacteriophage preparation was found to be an effective measure for the environmental disinfection. The effect of the conducted treatment was observed for 10 months, during which there were no nosocomial cases of patients diseases caused by hospital strain of *P. aeruginosa*.

Disclosure of Interest: None Declared

I2

IDENTIFICATION OF ANTI-VIRULENCE COMPOUNDS FOR COMBATING STAPHYLOCOCCUS AUREUS INFECTIONS BY HIGH-THROUGHPUT SCREENING (HTS)

Richard Y. Kao^{*} 1, Peng Gao¹

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Introduction: The indiscriminately use of antimicrobial drugs has led to the rapid emerging of multidrug resistant (MDR) bacteria including methicillin resistant *Staphylococcus aureus* (MRSA). Treatment by killing bacteria using antibiotics seems not to be an effective and sustainable way of controlling infections. Alternative ways for treating bacterial infections without incubating the emergence of drug resistant bacteria are highly valued.

Objectives: Identification of therapeutic agents that suppress the expression and production of *S. aureus* virulence factors without inhibiting bacteria growth.

Methods: The promoters of major virulence factors of *S. aureus* were cloned into a reporter vector using bacterial luciferase (Lux) and green fluorescent protein (GFP) as the reporter genes. Promoter activities were monitored by the measurement of luminescence and fluorescence readings. HTS of a chemical library with 50,240 compounds was carried out using *S. aureus* harboring an alpha-hemolysin gene (*hla*) promoter reporter plasmid and compounds that reduced the *hla* promoter activities considerably were selected as hits. Selected hit compounds were tested on other *S. aureus* virulence promoters for the identification of compounds that could suppress multiple virulence gene expressions. Compounds with potent suppressive effects on multiple virulence promoters were selected for further examinations using mammalian cell-based infection assays and mice *in vivo* infection models.

Results: *S. aureus* *hla* promoter together with 14 other promoters of major virulence factors or virulence associated genes were successfully constructed. HTS of 50,240 compounds using the *hla* promoter-based reporter system yielded 670 hits that exerted suppressive effects in *hla* promoter activities. The anti-virulence

activities of one compound were successfully demonstrated in mammalian cell-based infection assays and a mice *in vivo* infection model.

Conclusion: HTS of 50,240 compounds were successfully implemented for the identification of anti-virulence compounds for *S. aureus* infections. Hit compounds with suppressive effects on multiple virulence gene promoters were identified and mammalian cell-based infection assays and a mice *in vivo* infection model showed the potential of applying anti-virulence compounds in treating *S. aureus* and other bacterial infections.

Disclosure of Interest: None Declared

I3

CONSTRUCTIONAL/STRUCTURAL INFECTION CONTROL STRATEGY - ARCHITECTURAL ANALYSIS, RATING AND SOLUTION STRATEGY TO CONTROL INFECTIOUS PATHWAYS IN BUILDING SYSTEMS

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¹IIKE, TU Braunschweig, Braunschweig, Germany

Introduction: In order to achieve a significant improvement in the fight against infection, innovations must be generated across scientific boundaries. This development of new anti-infective strategies can only be achieved through a highly transdisciplinary approach.

Objectives: In the context of this "one-health-concept" [1] and the holistic approach to infection prevention [2], the study deals with the understanding of direct and indirect infection transmission in the interplay of process, actor (person, vector, etc.), space or architecture and the influence of these parameters towards optimized conditions for structural infection prevention.

Methods: The classical medical aspects of the epidemiology are extended by the procedural and spatial references in the sentence to the built environment (architecture/infrastructure). The work crystallizes through this procedure the neuralgic parameters in the building infrastructure, which must be considered for structural infection prevention. After analyzing the structural parameters in relation to the chain of infection and assessing the relevance of the infection disease and its localization, the work on this study records the requirements placed on the structural components and their influencing processes within the scope of the infection prevention. These requirements can be defined by criteria.

Results: In order to establish these criteria in a structured manner and thus to establish a holistic strategy in the highly complex field of infection prevention across all types of buildings, the present work develops a classification model for the prevention of structural infectious diseases as an entry into a prevention strategy.

Conclusion: The development of a solution strategy with the aid of a classification model could support the work of the planners / architects under the aspect of infection prevention and thus make the corresponding buildings more secure.

References: [1] American Veterinary Medical Association (Hg.) (2008): One Health : A New Professional Imperative. One Health Initiative Task Force: Final Report.

[2] Castillo-Chavez, Carlos; Curtiss, Roy; Daszak, Peter; Levin, Simon A.; Patterson-Lomba, Oscar; Perrings, Charles et al. (2015): Beyond Ebola: lessons to mitigate future pandemics. In: *The Lancet. Global health* 3 (7), e354-5.

Disclosure of Interest: None Declared

I4

ISEE-RESISTANCE: USING IN SILICO EXPERIMENTAL EVOLUTION TO SENSITIZE PROVIDERS ON ANTIBIOTIC RESISTANCE

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Introduction: To improve awareness and understanding of antimicrobial resistance, direct experiment with serious games offers an interesting complement to communication programs. Games help sensitizing the public by simulating the population dynamics of microbial resistance. However, modeling its evolutionary dynamics is much more difficult as it requires to model the interaction between genomic, phenotypic and population levels. Yet, such multi-scale models are mandatory to efficiently train health professionals.

Objectives: We propose a new approach to develop serious games by using *In Silico* Experimental Evolution (ISEE) as a game engine. ISEE is a recent research field in which simulated bugs evolve *in silico* through the joint pressure of both a mutation and a selection model. It enables to conduct large-scale simulation experiments to decipher the intertwined pressures that drive evolution.

Methods: Aevol (see www.aevol.fr and references therein) is an ISEE platform that models bacteria at the genomic level and includes an explicit mutational process. In Aevol, the bacterial phenotype is modeled by a

mathematical function, thus allowing to simulate efficiently the evolution of large populations over thousands of generations. ISEE-Resistance uses Aevol as the engine of a serious game devoted to teach antibiotic resistance to healthcare providers. We divided the phenotypic function into a set of “core” and “resistance” traits. By submitting bacterial populations to different antibiotic dosages, one can observe the emergence of resistance traits through mutations and their spreading in the population owing to the selection pressure caused by the antibiotic treatment. One can then analyze the causes of resistance fixation and the effect of treatment strategies on the fate of the infection.

Results: First experiments have shown the ability of the game engine to finely follow the dynamics of antibiotic resistance emergence and spreading under *e.g.*, inappropriate dosage or discontinued drug usage.

Conclusion: Our aim is now to turn the ISEE-Resistance core engine into a full game by developing a user-friendly interface and by offering various scenarii mimicking real situations. We then wish to provide it as an e-learning tool in faculties of medicine and sciences.

Disclosure of Interest: None Declared

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HAITool – USING INNOVATIVE DESIGN SCIENCE TO COLLABORATIVELY IMPLEMENT AN ANTIBIOTIC STEWARDSHIP DECISION-SUPPORTING SMART SYSTEM

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Introduction: Healthcare-associated infections (HAI) caused by antibiotic-resistant pathogens are linked with high-levels of morbidity and mortality. To prevent and control antibiotic-resistant HAI, strategies based on surveillance/monitoring systems are imperative, especially if they are well-matched with the local social-cultural background.

Objectives: To decrease antimicrobial-resistant HAI an antibiotic-prescription decision-supporting-system (HAITool) was co-designed to reduce antibiotic misuse and HAI.

Methods: Three public hospitals participate in the research, following the Design Science Research Methodology: (i) problem identification; (ii) solution definition by eliciting an Antibiotic Stewardship information system (IS); (iii) design, collaboratively with healthcare workers (aligning working processes), a toolkit that assist physicians and infection control team to manage antibiotic use and antibiotic-resistant HAI; (iv) implementation of the toolkit in the hospitals; and (v) toolkit evaluation in the control of antibiotic-resistant HAI.

Results: To feed the toolkit, patient, microbiology and pharmacy data are extracted, from the current hospitals IS by web services, in real-time. The information is then processed and aggregated in a unique database. A display module allows real-time visualization through innovative graphics presentation: Inform about the accuracy of antibiotic prescription, providing timely and appropriate information related with antibiotics use; monitoring the data about antibiotic use and resistant bacteria. The evaluation of the toolkit, based on a focus group questioner about the toolkit functionalities, revealed that it was considered helpful in monitoring antibiotic use, helping antibiotic prescription, and can be used to improve infection control interventions (*e.g.* improve communication between professionals).

Conclusion: This toolkit brings digital innovation to support health professionals’ performance and it is an important step forward for the reduction of antibiotic misuse and in the control and prevention of antibiotic-resistant HAI, and overall patient safety.

Disclosure of Interest: L. Lapao Employee of: IHMT-UNL, Grant/Research support from: EEA Grants, A. Simões Employee of: IHMT-UNL, Grant/Research support from: EEA Grants, M. Maia: None Declared, J. Gregório: None Declared, P. Póvoa: None Declared

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WELCOME ON BOARD! – AN EDUTAINMENT MOVIE TO PROMOTE BASIC INFECTION PREVENTION MEASURES

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Abstract video clip: Introduction: Standard Precautions (SP) include a group of infection prevention and control (IPC) practices that apply to all patients and are meant to ensure safety for patients, healthcare workers (HCW), and visitors. The HCW knowledge of SP, however, often proves to be scarce. We therefore produced an educational video about SP to improve HCW knowledge at the University Hospital Zurich, Switzerland, and potentially in healthcare institutions worldwide. Since it is well known that emotions help learners to focus and

facilitate uptake of information into long-term memory, we chose to use humor as a central feature in this project, making it what is called 'edutainment'.

Methods: As safety management in healthcare and aviation are often compared, we decided to produce a 'mash-up' between an in-flight safety video and infection prevention instructions. The audience witnesses a cabin crew/infection prevention team member giving instructions to a novice cabin crew member/healthcare worker. Six fundamental topics of SP are covered in the 5' movie: hand hygiene, use of personal protective equipment, professional appearance, respiratory hygiene, aseptic technique, environmental cleaning, and device disposal and reprocessing. The scenes were set inside an airplane (mock-up at a Swiss aviation crew training facility) with passengers appearing as patients. Fun and surprising moments chase each other throughout the script, including fast wordplay, exaggerations, and slapstick. The film was conceived and executed in a collaboration between ICP professionals and a professional film director and crew including a cast of two actors, 20 extras, a camera operator, a sound technician, a gaffer, a costume designer, a make-up artist, and two production assistants

Disclosure of Interest: None Declared

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INTEGRATING PATIENTS' EXPERIENCES, UNDERSTANDINGS AND ENACTMENTS OF INFECTION PREVENTION AND CONTROL INTO CLINICIANS' EVERYDAY CARE: A VIDEO-REFLEXIVE-ETHNOGRAPHIC EXPLORATORY INTERVENTION

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Introduction: Efforts to promote patient empowerment and involvement have become core components of global and national infection prevention and control initiatives. However, relatively little is known about how frontline healthcare professionals understand, implement or support patient involvement in general, and still less is known about patient involvement in infection control.

Objectives: This PhD study used video-reflexive ethnography to explore and strengthen clinicians' awareness of and commitment to patient involvement in infection prevention and control.

Methods: Hospital inpatients were invited to scrutinise footage of their own clinical care to look for cross-contamination risks. Group reflexive sessions were then conducted with nurses in which footage of everyday patient care interactions were presented alongside patients' observations of the same events.

Results: The findings show that patients were actively contributing to IPC in ways that clinicians and researchers were not fully aware of. Some of the strategies were effective and some were counterproductive. Engaging with these contributions enabled the clinicians to appreciate the importance of discussing cross-contamination risks and risk containment behaviours with patients.

Conclusion: The study enabled clinicians to understand how the quality of their patient-provider relationships and IPC conversations shaped patients' attention and precautions around infection risks and behaviours and motivated clinicians to develop strategies to promote greater patient involvement.

Disclosure of Interest: None Declared

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THE POTENTIAL AND RISKS OF INTERNET-OF-THINGS FOR PATIENT SAFETY – USING INDOOR-LOCATION SYSTEMS TO IMPROVE NURSES' HAND HYGIENE PERFORMANCE

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Introduction: Hospital-acquired infections are still a major patient safety problem. Their occurrence can lead to higher morbidity and mortality rates, increased length of stay and higher costs for both hospital and patients. Performing hand hygiene (HH) is a simple and inexpensive prevention measure, but healthcare workers' compliance with it is often far from ideal.

Objectives: To raise awareness regarding HH compliance, individual behaviour change and performance optimization, we aimed to develop an Internet-of-Things (IoT) solution that collects data and provides real-time feedback accurately in an engaging way.

Methods: A Design Science Research Methodology (DSRM) was used in this research. DSRM is useful to study the link between research and professional practices by designing, implementing and evaluating systems that address a specific need. It follows a development cycle composed by six activities. Two work iterations were performed applying gamification components, each using a different indoor location technology. Preliminary experiments, simulations and field studies were performed in an Intensive Care Unit (ICU) of a Portuguese tertiary

hospital. Nurses working on this ICU were engaged during the research, participating in several sessions across the implementation process.

Results: Nurses enjoyed the concept and considered that it allows for a unique opportunity to receive feedback regarding their performance. Tests performed on the indoor location technology applied in the first iteration regarding distances estimation presented an unacceptable lack of accuracy. Using a proximity-based technique, it was possible to identify the sequence of positions but with low precision. In the second work iteration, a different indoor location technology was explored but it did not work properly, showing the limitation of present IoT technology to respond to the ward demands.

Conclusion: Combining automated monitoring systems with gamification seems to be an innovative and promising approach based on the already achieved results. Involving nurses in the project since the beginning allowed to align the solution with their needs. Despite strong evolution through recent years, IoT technologies are still not ready to be applied in the healthcare setting.

Disclosure of Interest: L. Lapao Employee of: IHMT-UNL, Grant/Research support from: FCT-Portugal, J. Gregório: None Declared, P. Póvoa: None Declared

I10

HOW WE TALK ABOUT HAND HYGIENE MATTERS – AN EXPLORATION OF HAND HYGIENE ETYMOLOGY

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Introduction: Numerous studies have focused on health care workers' perceptions of hand hygiene but few have addressed the etymology of hand hygiene and its influence. Words influence behaviour. The increasing use of social marketing in infection prevention is testament to the value of words in campaigning for change. However, an exploration of the use of words related to hand hygiene improvement and the World Health Organisation's (WHO) recommendations has until now received scant attention. Compliance with hand hygiene remains sub-optimal across the globe and novel approaches for behavioural impact have the potential to offer valuable adjuncts to current strategies.

Objectives: To describe the feelings evoked by five words commonly used in a hand hygiene context.

Methods: An exploratory exercise assessed the feelings evoked by five words commonly used in a hand hygiene context. A classic psychology experiment was used to evoke an instant, emotional reaction. From June 2013 to May 2014, a total of 23 face to face exercises were undertaken in seven different countries. This convenience sample totaled 2100 people consisting of nurses, doctors, senior management and a diverse range of other health workers and managers. The words tested were alcohol based handrub, compliance, monitoring, moment and system. Qualitative analysis of the findings was undertaken.

Results: Responses i.e. the words captured, were categorized as "warm" and "cold". During the exercises 240 words representing alcohol based handrub were collected, 510 representing compliance, 402 representing monitoring, 480 representing moment and 200 representing system. Compliance in particular evoked negative feelings, with 'cold words' being described on hearing this word. The word moment evoked the most positive reactions ('warm words').

Conclusion: WHO guidelines state that clear and uniform language in hand hygiene matters. Social marketing falls into the fourth component of the WHO multimodal strategy, described as "reminders in the workplace". This novel exercise has potential to stimulate the infection prevention (and academic) community to revisit the words it uses within policies/guidelines and day-to-day communications in their quest to bring about the socially desired change [hand hygiene at the right time] as a part of a multimodal approach.

Disclosure of Interest: C. Kilpatrick Consultant for: GOJO Industries, J. Storr Consultant for: GOJO Industries