PREVENTION AGAINST HEALTHCARE ASSOCIATED INFECTIONS
SEAMLESS HAND HYGIENE & CARE
ACTS MONITORING
European studies report up to 5 million patients affected by Healthcare Associated Infections (HAI), contributing to 135,000 deaths each year. Similar studies in the United States of America (USA) estimate up to 1.7 to 3 million affected patients yearly, with approximately 100,000 deaths attributed to HAI.

Hospital-wide prevalence rates of patients affected by HAI in Europe range from 4.6% to 9.3%. Similar rates apply for USA. These rates jump to averages as high as 15 to 20% in intensive care units.

Estimated annual costs vary from €6000 to US$40,000 per episode.

Governments, Joint Commission International (JCI), patient rights organizations (like LE LIEN, France), learned societies for hospital hygiene (SFHH, France) and many care facilities and hospitals team up with a focus on reducing HAI, particularly through national prevention programs (ex: HHS action plan to prevent HAI).

The World Health Organization (WHO) recommends healthcare associated infections prevention through strict respect of good hygiene practices.

Among these good practices, WHO defines 5 key moments when hand hygiene is required during healthcare acts, participating in the reduction of HAI risks and improving patient care.

To date, these measures are insufficiently implemented, with mean baseline compliance rates ranging from 5% to 89% and an overall average of 38.7%.

MediHandTrace has developed a range of high-tech monitoring solutions providing precise compliance traceability of all 5 WHO moments in care facilities and hospitals. An answer to key issues like patient security, and care facilities and hospitals image.

There is clear scientific evidence that good hand hygiene by health workers reduces healthcare-associated infections caused by resistant germs, in particular by MRSA.

1 Source: WHO Guidelines on Hand Hygiene in Health Care: a Summary – WHO 2010
3 Source: Professor Benedetta Allegranzi, technical lead of the WHO Clean Care is Safer Care program and of the activities planned for Hand Hygiene Day.
INNOVATIVE SOLUTIONS
FOR PERSONALIZED HAND HYGIENE AND CARE ACTS

REAL-TIME MONITORING
- Non-stop monitoring for critical departments
- Field training follow-up, and epidemic periods instant alarm reminders
- Automated audits, without observational bias:
  - Extensive care acts monitoring
  - Precise invasive devices monitoring
  - Precise HAS consumption management
- Relevant analysis (comparative, cross-reference, etc.) for daily and research management

MEDIHANDTRACE SOLUTIONS ARE MODULAR AND SCALABLE, FOR STEP-BY-STEP INSTALLATION, ACCORDING TO CARE FACILITY AND HOSPITAL POSSIBILITIES. TOGETHER, THEY PROVIDE:
- Real-time hand hygiene and care acts opportunity Measures, as well as healthcare workers pathways traceability
- Data Analysis and feedback, for individuals or groups of healthcare workers, department, care facility, through various modes (including SMS and smartphone Apps)
- Compliance Optimization to hand hygiene rules through training, better organization, etc.

RFID technology:
- "Smart" shoes
- Connected HAS
- Equipped room

PROTOCOL-BASED PATHWAY

DATA CENTER

Non-Compliance Alerts
- Data collection
- Data treatment
- Data analysis
- Real-time
- Continuous

DATA RESTITUTION
- Non-compliance alerts

MediHandTrace solutions initiate from the situation of the equipped department at time zero; monitoring requirements are evaluated based on this real picture. MediHandTrace works together with the operational hygiene teams of the care facility or hospital to implement the progression roadmap, which is in turn evaluated and qualified through collected monitoring data returned as indicators to all involved parties.

\(^1\) ICU, orthopedic surgery, urology, oncology, geriatrics, obstetrics, hematology, burns & plastic surgery, etc.
\(^2\) Hydro-alcoholic solution
MEDIHANDTRACE UNIQUE OFFERINGS

- Full 5 WHO moments monitoring
- Unparalleled and extremely fine precision for healthcare workers unique identification, whether they are alone or as a group in the patient room
- Room characterization (isolation, etc., with precise patient zone identification)

ITS SOLUTIONS GUARANTEE

- Individual (through SMS for example) or group feedback of relevant indicators, providing a non-biased picture
- Extensive HAS consumption monitoring, with alerts for bottle refill, and detailed analysis (including consumption by non-tagged users); agnostic system applicable to all dispenser models
- Multiple automated alarms as reminders to healthcare workers to apply hand hygiene opportunities and carry out care acts
- Extensive care acts monitoring with customizable reporting tools according to each care department
- Healthcare workers pathway data for team work optimization

MEDIHANDTRACE SOLUTIONS ARE DEVELOPED BASED ON:

PASSIVE RFID (radio frequency identification) TECHNOLOGY

Tags are placed in the healthcare worker shoes. No battery reload required as they operate without energy supply. Antennas and electronic boxes are placed in the room, set permanently or as mobile kits; electronic devices are placed in the dispensers. Together, these collect healthcare workers pathways and activity information through tag identification.

This equipment is connected to the network (Wi-Fi, cabled Ethernet, radio) sending the data to a central server. Data collection is also possible through secured USB access.

MEDITRACE EXPERT SOFTWARE

Collected data are analyzed and communicated through different forms: gauges, graphs, dashboards, etc.

MediTrace, an open, customizable and real-time expert software pilots each of the solution modules in a scalable way, independently or in combination. Collected data become a precious source of information to be used for big data analysis through business intelligence tools, for instance for research and publication goals.

FULL SERVICE AND SUPPORT

MediHandTrace provides all installation, maintenance and support services, as well as personnel training, to assist in the implementation of its solution at care facilities and hospitals.

SELECTION OF PUBLICATIONS

  Clinical Microbiology (2015)

- "Enhancing the evaluation of pathogen transmission risk in a hospital by merging hand-hygiene compliance and contact data: a proof-of-concept study.
  BMC Res Notes (2015)

- "MediHandTrace ®: a tool for measuring and understanding hand hygiene adherence.
  Clin Microbiol Infect. (2014)"
MediHandTrace develops and markets hand hygiene and care acts monitoring systems combining reliability and ease of implementation to achieve patient and healthcare workers security against HAI.

International and leading player with a unique technology approach, MediHandTrace has built its solutions developments on established scientific knowledge and proven technologies, which have resulted in an extended proof of concept. This POC was run in and with the high risks hospital department of Infectious and Tropical Diseases (Hospital North, Marseille, France), managed by Professor Brouqui. This partnership extends to the research team of the University Hospital Institute “Mediterranée Infection” (Marseille, France), lead by Professor Brouqui.

MEDIHANDTRACE SOLUTIONS TAKE INTO ACCOUNT VARIOUS OFFICIAL NORMS AND QUALITY MANUALS
✓ WHO 5 hand hygiene moments
✓ Certification manual (HAS)
✓ Infection control manual (JCI)
✓ CE mark

AWARDS
✓ Special jury prize – No Contact Services Challenge, French Tech, 2015
✓ “Patient Hope” prize – Patients rights organization, Le Lien, 2015
✓ Best oral communication, EPICLIN & 22nd Cancer Fight Centers statistician days congress, 2015

OUR PARTNERS

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