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Determinants of action in the implementation of infection prevention and control: a European in-depth comparative study

Submission date	**Recruitment status**	[X] Prospectively registered
05/04/2023	No longer recruiting	[ ] Protocol
Registration date	**Overall study status**	[ ] Statistical analysis plan
12/04/2023	Completed	[ ] Results
Last Edited	**Condition category**	[ ] Individual participant data
12/04/2023	Other	[ ] Record updated in last year

Plain English summary of protocol

Background and study aims

Hospital-acquired infections are infections acquired by patients admitted to the hospital for other reasons. These infections can severely complicate the patient journey because they are associated with prolonged hospital stays and increased morbidity and mortality. The emergence of antimicrobial resistance further adds to the problem, because many of these infections are caused by bacteria resistant to most frequently used antibiotics.

Infection prevention and control best practices (hand hygiene, surgical antibiotic prophylaxis, urinary catheter care bundles, etc.) prevent the majority of hospital-acquired infections. There are many evidence-based guidelines on this matter, but their effective implementation is difficult to achieve. This is a problem across all hospitals around the world.

Little is known about the impact of contextual factors (such as social-cultural elements, policies, regulations, etc.) in healthcare organizations and how these influence the uptake of Infection prevention and control practices by healthcare workers.

In this study, we aim to investigate what are the determinants of healthcare workers' behaviour towards Infection prevention and control implementation, how these relate to the contextual elements and how these differ from hospital to hospital.

Who can participate?

Infection prevention and control practitioners, physicians, nurses, pharmacists and managers involved in the development and implementation of Infection Prevention and Control and Antimicrobial Stewardship directly or indirectly as well as frontline healthcare professionals from different hierarchy levels and key departments in the hospital.

What does the study involve?

We will perform face-to-face interviews, focus groups, questionnaires and co-participatory workshops with healthcare workers. We will also perform direct, non-participatory observations of healthcare workers' routine clinical practices and infection control rounds. We will conduct

this study in five hospitals across four countries in Europe (Norway, Portugal, Switzerland, United Kingdom).

What are the possible benefits and risks of participating?
We believe that the information obtained with this study could ultimately help to inform the future development of implementation strategies in infection prevention and control and thus improve the safety of patients. We do not expect that healthcare workers will face any kind of risk or burden from participating in the research. All information collected will be anonymised or pseudonymised.

Where is the study run from?
Imperial College London (UK)

When is the study starting and how long is it expected to run for?
March 2022 to December 2023

Who is funding the study?
The Swiss National Science Foundation and the National Institute of Health and Care Research, Health Protection Research Unit in Healthcare Associated Infections and Antimicrobial Resistance, Imperial College London (UK).

Who is the main contact?
Daniela Pires (d.pires@imperial.ac.uk)

Contact information

Type(s)
Scientific

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Additional identifiers

Integrated Research Application System (IRAS)
290543

Protocol serial number
HRA Protocol number 22IC8060

Study information

Scientific Title
Socio-cultural, “macro” interventions and organisational variables as determinants of action in the implementation of infection prevention and control: a European in-depth comparative study

Study objectives
Key health care workers' (HCWs) actions and their capacity to successfully implement infection prevention and control (IPC) practices are shaped by local organizational variables, national /regional “macro” influences (regulative, professional and policy elements) and the wider socio-cultural context. The relative importance of these contextual determinants differs according to country, hospital and HCW category.

Ethics approval required
Old ethics approval format

Ethics approval(s)
Approved 22/03/2022, Health Research Authority and Health and Care Research Wales (Health Research Authority, Skipton House, 80 London Road, London, SE1 6LH, UK; +44 (0)20 7972 2545; approvals@hra.nhs.uk); ref: 23/HRA/0669

Primary study design
Observational

Study design
One-year in-depth multicentre qualitative study in 5 acute care hospitals in 4 European countries (Portugal, Switzerland, United Kingdom and Norway).

Study type(s)
Other

Health condition(s) or problem(s) studied
Determinants of healthcare workers' actions in the implementation of Infection prevention in control best practices in acute care hospitals .

Interventions
Healthcare workers will be invited to take part in:
1. Interviews or focus groups
2. Ethnographic observations
3. Co-participatory workshops and
4. A short questionnaire.
These activities will be conducted on-site in each hospital setting for the duration of the study.

Intervention Type
Other

Primary outcome(s)

This is a qualitative study. The expected main outcomes of this study are:
1. To comprehensively describe the health system in each country as well as the infection prevention and control (IPC) and antimicrobial resistance (AMR) national programmes, its implementation status and its main indicators. For this, the study will analyse publicly available documents regarding the state of the healthcare system in each country and of the policies and indicators regarding Infection prevention and control and Antimicrobial resistance. Validated hospital-level surveys will be performed at the participating sites (WHO hospital-level validated tools on the implementation of Infection prevention and control, hand hygiene and 2014 CDC key components of Stewardship).
2. To map health care workers (HCWs) actions towards IPC and AMR and their determinants based on the relevant Consolidated Framework for Advancing Implementation Science (CFIR) dimension, the Systems Engineering Initiative for Patient Safety (SEIPS) model and informed by the New Institutional theory by using qualitative interviews, focus groups and co-participatory workshops. We will also perform individual questionnaires on safety culture.
3. To achieve a consensus on the ranking of determinants of HCWs' actions as well as potential actions to be taken to improve the implementation of IPC practices by means of co-participatory workshops.

Key secondary outcome(s)
Other relevant outcome is to highlight the differences and similarities between organizational life aspects as well as the broader national context amongst the case studies.

Completion date
31/12/2023

Eligibility

Key inclusion criteria
Infection prevention and control practitioners, physicians, nurses, pharmacists and managers involved in development and implementation of Infection prevention and Control and Antimicrobial Stewardship directly or indirectly as well as frontline healthcare professionals from different hierarchy levels and key departments in the hospital will be included in this study.

Participant type(s)
Health professional

Healthy volunteers allowed
No

Age group
Adult

Sex
All

Key exclusion criteria
Does not meet inclusion criteria

Date of first enrolment
12/04/2023

Date of final enrolment
30/09/2023

Locations

Countries of recruitment
United Kingdom

England

Norway

Portugal

Switzerland

Study participating centre
National Institute of Health and Care Research, Health Protection Research Unit in Healthcare Associated Infections and Antimicrobial Resistance, Imperial College London
Imperial College London, Hammersmith Campus
The Commonwealth Building
Du Cane Road
London
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Study participating centre
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Study participating centre
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Sponsor information

Organisation
Imperial College London

ROR
https://ror.org/041kmwe10

Funder(s)

Funder type
Government

Funder Name
Schweizerischer Nationalfonds zur Förderung der Wissenschaftlichen Forschung

Alternative Name(s)
Schweizerischer Nationalfonds, Swiss National Science Foundation, Fonds National Suisse de la Recherche Scientifique, Fondo Nazionale Svizzero per la Ricerca Scientifica, Fonds National

Suisse, Fondo Nazionale Svizzero, Schweizerische Nationalfonds, The Swiss National Science Foundation (SNSF), SNF, SNSF, FNS

Funding Body Type
Private sector organisation

Funding Body Subtype
Trusts, charities, foundations (both public and private)

Location
Switzerland

Funder Name
The National Institute for Health Research, Health Protection Research Unit in Healthcare Associated Infections and Antimicrobial Resistance

Results and Publications

Individual participant data (IPD) sharing plan
The data-sharing plans for the current study are unknown and will be made available at a later date.

IPD sharing plan summary
Data sharing statement to be made available at a later date