

Reducing contamination of computer keyboards on hospital wards

Submission date 01/05/2012	Recruitment status Stopped	☐ Prospectively registered ☐ Protocol
Registration date 15/05/2012	Overall study status Stopped	☐ Statistical analysis plan ☐ Results
Last Edited 14/10/2015	Condition category Infections and Infestations	☐ Individual participant data ☐ Record updated in last year

Plain English summary of protocol

Background and study aims

Computer keyboards in hospital wards are a potential source of cross infection between staff and patients. We helped design and introduce flat keyboards to wards with a cleaning alarm but over time the alarm is neglected. Therefore additional measures to reduce keyboard contamination are needed. This study aims to determine if a moving box on the screen to remind users to clean the keyboard is more effective than the present flashing light or whether a light-activated coating on the keyboard to kill bacteria is effective without any further prompts to cleaning.

Who can participate?

Participants will be the users of the keyboards i.e. medical, nursing and paramedical staff.

What does the study involve?

Patients are not involved. Ten keyboards will have software loaded that gives a moving box on the computer screening when cleaning has not been performed for 12 hours. This can only be turned off by cleaning the keyboards. Another ten keyboards will have a coating that kills bacteria in visible light. All will be measured daily for bacterial counts against control keyboards.

What are the possible benefits and risks of participating?

The possible benefits are reduced keyboard contamination and potentially less transmission to patients. The disadvantage would be having to clean the keyboard in order to use the computer.

Where is the study run from?

The study is run from Microbiology department at University College London Hospitals (UCLH).

When is study starting and how long is it expected to run for?

The study will start on 5th May 2012 and run for up to 3 months.

Who is funding the study?

The study is funded by the Academic Health Sciences Centre and University College London Business (UCLB).

Who is the main contact?
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Contact information

Type(s)
Scientific

Contact name
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Additional identifiers

Protocol serial number
v3 9/2/12

Study information

Scientific Title
Testing software compliance management of Esterline® Medigenic® Keyboard and assessment of the microbiological efficacy of photolytic keyboards in the clinical ward environment: randomised comparisons with routine manual cleaning

Study objectives
Using of software to prompt cleaning of the keyboard or addition of a bactericidal coating reduces contamination with hospital pathogens

Ethics approval required
Old ethics approval format

Ethics approval(s)
Not provided at time of registration

Primary study design
Interventional

Study design
Prospective randomised trial

Study type(s)

Prevention

Health condition(s) or problem(s) studied

Hospital-acquired infection

Interventions

Software installed that shows a box on the screen when keyboard not cleaned for 12 hours and photolytic coating applied to other keyboards that reduces contamination when exposed to standard artificial light. All keyboards will be measured daily for bacterial counts against control keyboards.

Intervention Type

Other

Phase

Not Applicable

Primary outcome(s)

Total viable count of bacteria on keyboard surface at fixed time each day during trial

Key secondary outcome(s)

Number of hospital pathogens [Methicillin-resistant Staphylococcus aureus (MRSA), coliforms, enterococci]

Completion date

15/07/2012

Reason abandoned (if study stopped)

Lack of staff/facilities/resources

Eligibility**Key inclusion criteria**

1. No patients
2. Flat Medigenic keyboards on a general surgical ward and critical care unit are included if in the patient area

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Sex

All

Key exclusion criteria

Standard raised key keyboards

Date of first enrolment

05/05/2012

Date of final enrolment

15/07/2012

Locations**Countries of recruitment**

United Kingdom

England

Study participating centre

Department of Microbiology & Virology

London

United Kingdom

W1T 4EU

Sponsor information**Organisation**

University College London Hospitals Foundation Trust (UK)

ROR

<https://ror.org/042fqyp44>

Funder(s)**Funder type**

Hospital/treatment centre

Funder Name

Academic Health Science Centre - Imperial College London (UK)

Funder Name

University College London Business (UCLB) (UK)

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Not provided at time of registration