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Reducing contamination of computer keyboards on hospital wards

Submission date
01/05/2012

Recruitment status
Stopped

Registration date
15/05/2012

Overall study status
Stopped

Last Edited
14/10/2015

Condition category
Infections and Infestations

[_] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[_] Results
[_] 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
Dr Peter Wilson

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Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers
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 bactercidal coating reduces contamination with hospital pathogens

Ethics approval required
Old ethics approval format

Ethics approval(s)
Not provided at time of registration

Study design
Prospective randomised trial

Primary study design
Interventional

Secondary study design
Randomised controlled trial

Study setting(s)
Hospital

Study type(s)
Prevention

Participant information sheet
Not available in web format, please use the contact details below to request a patient information sheet

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

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

Overall study start date
05/05/2012

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

Age group
Adult

Sex
Both

Target number of participants
10 keyboards with software, 10 keyboards with bactericidal coating and 20 controls

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
England

United Kingdom

Study participating centre
Department of Microbiology & Virology
London
United Kingdom
W1T 4EU

Sponsor information

Organisation
University College London Hospitals Foundation Trust (UK)

Sponsor details
c/o Mr Philip Diamond
Research & Development
149 Tottenham Court Road
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Sponsor type
Hospital/treatment centre

Website
http://www.uclh.nhs.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

Publication and dissemination plan
Not provided at time of registration

Intention to publish date

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not provided at time of registration