## Supplementary File 6: Studies reporting overall contamination only of a single or specific pathogens

| AUTHOR YEAR | SETTING | DEVICE AND NUMBER | OUTCOME MEASURES | CONTAMINATION MEASURED |
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| **ALI 2015** | Teaching hospital | Unknown number of keyboards | Detection of C. diff | C. diff detected using sponge swab: 3/15 (20%) |
| **ANASTAS-IADES 2009** | ICUs at Academic Hospital | 14 keyboards and 14 mice | Detection of CNS, Gram-positive bacilli, micrococci, fungi and S. aureus | First round of screening: (Keyboards\|Mice):<br>S. aureus: 0/14 (0%) \| 1/14 (7.1%)<br>CNS: 14/14 (100%) \| 14/14 (100%)<br>Others (estimated colony counts):<br>Gram positive bacilli: 193 \| 28<br>Micrococcus: 2 \| 3<br>Fungi: 14 \| 0 |
| **CIRAGIL 2006** | Patient and exam rooms, OR, offices, non-clinical areas | 56 keyboards in clinical areas | Total bacterial load | MSSE: 23/56 (41.1%)<br>Bacillus: 21/56 (37.5%)<br>Enterococcus: 7/56 (12.5%)<br>MSSA: 1/56 (1.8%)<br>Enterobacter: 6/56 (10.7%)<br>Sphingomonas paucimobilis: 1 (2%)<br>Streptococcus: 1/56 (1.8%)<br>E. coli: 4/56 (7.1%)<br>Corynebacterium: 1/56 (1.8%)<br>Klebsiella ozanae: 1/56 (1.8%) |
| **DEVINE 2001** | Nurse stations in 2 district hospital acute medical and surgical wards | 25 terminals (keyboard, mouse, mouse pad) | Detection of MRSA | MRSA: 24% total<br>(42% in hospital A and 8% in hospital B) |
| **DUMFORD 2009** | Patient rooms, physician and nurse work areas, portable equipment, 3 wards | 32 computers in initial survey, 25 computers and 1 mouse in follow up survey | Detection of C. diff | C. diff: 9/32 (28%) |
| **ENGELHART 2008** | Non-clinical and clinical areas of a University Hospital | 77 computer terminals in clinical areas (keyboard, mouse) | Total bacterial load | S. aureus: 10/77 (13%)<br>Viridans streptococci (Gram-pos bacteria): 8/77 (10.4%)<br>Enterococci: 7/77 (9.1%)<br>Gram negative: 13/77 (16.9%)<br>Molds: 17/77 (22.1%) |
| **FAIRES 2012** | 3 community hospitals | Unknown number of keyboards | Detection of MRSA or C. Diff | At each hospital:<br>MRSA: 0/8 (0%) samples, 2/29 (6.9%) samples, 2/25 (8.0%) samples<br>C. diff: 0/9 (0%), 0/29 (0%), 3/25 (12%) |
| **FAIRES 2013** | 2 Medical wards and 1 surgical ward | Unknown number of keyboards | Detection of MRSA or C. Diff | MRSA: 1/55 samples (1.8%)<br>C. diff: 3/55 (5.5%) |

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| **FELLOWES 2006** | General clinical hospital areas | 44 keyboards | Detection of MRSA or MSSA | MSSA: 9/44 (20%)<br>MRSA: 4/44 (9%) |
| **GRABSCH 2012** | Hospital | Unknown number of keyboards | Detection of VRE | VRE: 1/9 (11%) swabs |
| **HIRSCH 2014** | University department of pharmacy practice | 30 iPads | Total bacterial load | S. aureus: 22/30 (73.3%)<br>MRSA: 15/30 (50%)<br>Enterococci: 30/30 (100%)<br>VRE: 1/30 (3.3%)<br>CNS: 29/30 (96.7%) |
| **KIEDROWSKI 2013** | Hospital | 20 iPads | Detection of C. diff, MRSA | S. aureus: 3/20 (15%)<br>C. diff: 0/30 (0%)<br>Gram-negative: 0/30 (0%) |
| **LU 2009** | All ward stations of university hospital | 282 stations (keyboard and mouse) | Detection of S. aureus, Pseudomonas, Acinetobacter | MRSA: 3/282 (1.1%)<br>MSSA: 15/282 (5.3%)<br>A. baumannii: 12/282 (4.3%)<br>Other Acinetobacter: 10/282 (3.5%)<br>Pseudomonas: 17/282 (6%) (but none were P. aeruginosa) |
| **MESSINA 2013 (A)** | 4 different medical units | 27 keyboards | Total bacteria count of: Staphylococcus, Pseudomonas, E. coli, total coliform bacteria, C. diff, Acinetobacter | Acinetobacter: 1 (3.7%)<br>E. coli: 11 (40.7%)<br>Coliforms: 21 (77.8%)<br>Enterococci: 4 (14.8%)<br>Staphylococci: 25 (92.6%)<br>MRSA: 6 (22.2%)<br>Molds: 20 (74.1%) |
| **OGUZKAYA-ARTAN 2015** | ED | 14 keyboards + 5 desktop surfaces | Detection of S. aureus | MRSA: 1/14 (7%) |
| **OIE 2005** | Dermatology ward | 1 keyboard | Detection of S. aureus | MRSA: 0/4 (0%) |
| **OTTER 2011** | Hospital ED and an outpatient HIV clinic | Unknown number of keyboards | Detection of MRSA | MRSA identified on 3 keyboards in the ED and 0 keyboards in the HIV outpatient clinic. |
| **PHUMISANTIP HONG 2009** | Hospital patient rooms and nurse station | 30 computer terminals (keyboards/mice) | Detection of CRAB | A. baumannii: 3.3% (none were CRAB) |
| **REEM 2014** | Exam and imaging rooms, common areas in ophthalmology clinic | 16 keyboards | Detection of MRSA/MSSA | S. aureus: 7/24 (29.2%)<br>MRSA: 1/24 (4.2%)<br>MSSA: 5/24 (20.8%) |
| **SENOK 2015** | ICU nursing stations | Unknown number of keyboards and mice | Detection of A. baumannii isolates | One MRAB isolate identified on a computer mouse |
| **STAMBAUGH 2009** | Dental office | 88 keyboards or mice | Detection of Multidrug-resistant organisms | S. aureus: 8/88 (9%)<br>Lactose-fermenting gram-negative rods: 22/88 (25%)<br>CNS: 78/88 (88.6%) |

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| | | | | Bacillus: 23%<br>Enterococcus: 2%<br>Gram-negative rods: 2% |
| **TROCHESSET 2012** | School of Dental Medicine | Unknown number of keyboards and mice | Detection of S. aureus | S. aureus:<br>Keyboards: 4/47 (8.5%)<br>Mice: 0/4 (0%) |
| **XU 2017** | Medical ICU and neonatal ICU | Unknown number of keyboards and mice | Detection of MRSA | MRSA: 7/19 (36.8%) |

Abbreviations: A. baumannii = Acinetobacter baumannii, C. Diff = Clostridium difficile, CNS = Coagulase-negative staphylococcus, CRAB = Carbapenem-resistant Acinetobacter baumannii, E. Coli = Escherichia coli, ED = Emergency department, ICU = Intensive care unit, MRSA = Methicillin-resistant Staphylococcus aureus, MSSA = Methicillin-sensitive Staphylococcus aureus, MSSE = Methicillin-susceptible Staphylococcus epidermidis, OR = Operating room, P. aeruginosa = Pseudomonas aeruginosa, S. aureus = Staphylococcus aureus, VRE = Vancomycin-resistant Enterococcus