**Supplementary Table S1. Method used to appraise risk of bias and quality of methods and reporting of the (pseudo-)outbreaks and cross-sectional surveys related to contaminated antiseptics, disinfectants and hand hygiene products used in healthcare facilities in low- and middle-income countries.**

| Item scored | Used for | Green score: good | Yellow score: satisfactory | Red score: poor |
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| **Healthcare setting was well described** | **(Pseudo-)outbreak Cross-sectional survey** | Hospital and centers of the survey are well described - hospital level and wards, type of centers (public - private…) | Hospital and centers of the survey only briefly described and/or reported | Hospital and centers surveyed not described |
| **Title and Abstract provided the information about "outbreak" or "cross-sectional survey"** | **(Pseudo-)outbreak Cross-sectional survey** | Title AND Abstract mentions that the article is about an outbreak report or cross-sectional survey (equivalent terms accepted) | Only Abstract mentions that the article is about an outbreak report or cross-sectional survey | Neither Title nor Abstract mention that the article is about an outbreak report or cross-sectional survey |
| **The outbreak setting was well described** | **(Pseudo-)outbreak** | Outbreak setting is well described: hospital level, ward, numbers of beds, numbers of admission, IPC levels and team | Outbreak setting is briefly/partly described: hospital level, ward, numbers of beds, numbers of admission, IPC levels and team | Outbreak setting is not described except for information about ward |
| **The (pseudo-)outbreak was well described** | **(Pseudo-)outbreak** | Outbreak description is well detailed and includes relevant items such as type of alert, patients affected (numbers, age/gender), infected body sites, infection versus colonization, case-fatalities, duration, risk factors or interventions, specific observations or clues to the (potential) cause | Outbreak description is partly described but includes the minimal information such as patients affected (numbers, age/gender), infected body sites | Outbreak description is minimal and does not contain key data about patients infected and infected body sites |
| **Outbreak index organism - microbiological methods were described in sufficient detail** | **(Pseudo-)outbreak** | Sufficient microbiological data are provided about the index organism causing the (pseudo-)outbreak: specimen submitted, culture, identification and antibiotic susceptibility testing (results and methods). | Basic microbiological data are provided about the index organism causing the (pseudo-)outbreak: specimen submitted, culture, identification and antibiotic susceptibility testing (results and methods). | Only the names of the index organism causing the (pseudo-)outbreak is reported specimen submitted, culture, identification and antibiotic susceptibility testing (results and methods). |
| **The outbreak investigation included a clinical epidemic investigation** | **(Pseudo-)outbreak** | Clinical-epidemic investigation done: case-control, retrospective cohort or prospective, case-definition made, timeline made, traced upstream to pharmacy and product as procured, root cause analysis, specific trigger… | Clinical-epidemic investigation done: case-control, retrospective cohort or prospective, case-definition made, timeline made, traced upstream to pharmacy and product as procured, root cause analysis, specific trigger… | Clinical-epidemic investigation done: case-control, retrospective cohort or prospective, case-definition made, timeline made, traced upstream to pharmacy and product as procured, root cause analysis, specific trigger… |

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| **The outbreak environmental investigation was oriented by the clinical epidemic investigation** | **(Pseudo-)outbreak** | Outbreak environmental investigation oriented by clinical-epidemic investigation | No epidemic investigation done - environmental investigation oriented by the nature of the index organisms and/or clinical observations (*e.g.*, association with intravascular catheters) | Broad environmental screening done without clear orientation |
| **Product and active ingredient were provided** | **(Pseudo-)outbreak Cross-sectional survey** | Product(s) well identified by generic name or active ingredient, formulation and concentration | Formulation or concentration of (part of the) product(s) not mentioned. | (Some) product(s) not well identified *e.g.*, only brand name or user-name provided. A minus for those articles in which an equivocal generic name not retrievable |
| **The use/application of the product(s) was well described** | **(Pseudo-)outbreak Cross-sectional survey** | Use of product well described (*e.g.*, skin antisepsis, disinfection of instruments, hand hygiene) | Use of product described but multiple applications mentioned (*e.g.*, hand hygiene and antiseptic) with not enough detail to understand which application contributed (most) to the transmission. | Use of product not described |
| **A correct terminology was used (antiseptics, disinfectants, hand hygiene products)** | **(Pseudo-)outbreak Cross-sectional survey** | Terminology of products (antiseptics, disinfectant, alcohol-based hand rub and liquid/soap) was appropriate (in line with product identity and use) | Terminology of products was not appropriate (e.g., "disinfectant" used for liquid soap products | Terminology of products was not appropriate and was also inconsistent across the article (*e.g.*, interchangeable use of "antiseptic" and "disinfectant" |
| **In cross-sectional surveys, sample selection and numbers (denominators) were provided** | **Cross-sectional survey** | Sample selection systematically, well described, denominator provided. | Sample selection at random, no denominator provided | Sample selection criteria and denominator not provided |
| **In cross-sectional surveys, sufficiently large sample sizes were provided** | **Cross-sectional survey** | Large sample sizes allowing comparisons between product types, formulations and hospital levels | Sample sizes sufficiently large to support conclusions about comparisons between product f(e.g. liquid versus bar soap) and concentrations. | Sample sizes low (< 10 samples/product) or not supporting conclusions |
| **Microbiological culture methods used were appropriate** | **(Pseudo-)outbreak Cross-sectional survey** | Use of Neutralizer AND Kelsey-and-Maurer (including modified) AND appropriate culture media – a Plus in case of appropriate colony counts | No neutralizer used, Kelsey-and-Maurer (including modified) AND appropriate culture media used | No information about culture OR only filtration/enrichment or not clear whether results were obtained by only filtration/enrichment versus by direct plating or Kelsey-and-Maurer |
| **Antibiotic susceptibility testing methods were appropriate** | **(Pseudo-)outbreak Cross-sectional survey** | Antibiotic susceptibility testing correctly described (methods with interpretative standard, correct panel of antibiotics used) and reported | Incomplete description or reporting of antibiotic susceptibility testing | Major errors in antibiotic susceptibility testing methods or reporting (*e.g.*, incorrect results, inconsistent results, incorrect presentation) |

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| **Additional investigations were done and well reported (interview, questionnaire, review of procedures)** | **(Pseudo-)outbreak Cross-sectional survey** | Questionnaire, interview with staff, observations, review of procedures done and well described and reported | Questionnaire, interview with staff, observations, review of procedures done briefly described and/or partly reported | No root cause analysis done |
| **Microbiological typing methods used were appropriate** | **(Pseudo-)outbreak** | Enough representative isolates used, duplicate isolates removed, typing beyond identification and antibiotic susceptibility testing done | Low numbers of representative isolates OR no description about isolate selection OR typing comprising only identification and antibiotic susceptibility testing | Low numbers, proportions and representativity (*e.g.*, timeline, specimen) of either clinical or environmental isolates |
| **Reporting of Results was complete and appropriate** | **(Pseudo-)outbreak Cross-sectional survey** | Results reported consistently with the Methods section and with appropriate details and denominators | Results incompletely reported - *e.g.*, denominators or culture results of other fomites reported, aggregating of specimens | Part of the Methods not reported in the Results section (e.g., results of antibiotic susceptibility testing) |
| **Risk factors were assessed** | **(Pseudo-)outbreak** | Risk factors assumed and observed (by culture, interview, observation) | Risk factors only assumed | Risk factors not discussed |
| **Evidence for Reservoir was assessed** | **(Pseudo-)outbreak** | Evidence for reservoir considered and discussed in light of the evidence provided (*e.g.*, association in time, exclusivity of culture result, molecular typing.) | Evidence for reservoir considered | Product considered as the reservoir of the outbreak but incomplete evidence provided (*e.g.*, culture only from enrichment cultures) |
| **Evidence for Transmission was assessed** | **(Pseudo-)outbreak** | Transmission from product to patient hypothesized/discussed AND assessed by culture (instruments) and/or observation/interview | Transmission from product to patient hypothesized/discussed but not further assessed | Transmission from product to patient not considered |
| **Evidence for Root cause was assessed** | **(Pseudo-)outbreak** | Root cause (primary source of contamination) hypothesized/discussed and assessed by culture (water, sealed product) AND observation/interview | Root cause (primary source of contamination) hypothesized/discussed and assessed by culture (water, sealed product) AND observation/interview | Root cause (primary source of contamination) hypothesized/discussed and assessed by culture (water, sealed product) AND observation/interview |