Search string

(technolog* or medtech* or medical technolog* or healthtech* or health technolog* or device or AI or artificial intelligence or deep learning or machine learning or protocol or digital or mobile application* or mobile app* or smartphone* or smart phone* or ICT* or mhealth or ehealth or wearable* or software).mp. [mp=ab, td, hw, ti, tx, bt, ct, sh, tn, ot, dm, mf, dv, kf, fx, dq, an, ui, jn, ja, tt, nm, ox, px, rx, ds, on, sy, tc, id, tm]

AND

((Infection prevention and control) or IPC or infection prevention or infection control or transmission control or pandemic or epidemic or outbreak).mp. [mp=ab, td, hw, ti, tx, bt, ct, sh, tn, ot, dm, mf, dv, kf, fx, dq, an, ui, jn, ja, tt, nm, ox, px, rx, ds, on, sy, tc, id, tm]

AND

(contact trac* or transmission dynamics).mp. [mp=ab, hw, ti, tx, bt, ct, tn, ot, dm, mf, dv, kf, fx, dq, an, jn, tt, nm, ox, px, rx, ui, sy, tc, id, tm, td]

AND

(hospital or ICU or intensive care unit or clinic or infirmary or healthcare setting or health center or healthcare location or health centre or healthcare setting or health location or emergency cent* or emergency room or ER or "accident and emergency" or "A and E" or "A&E" or nosocom* or ((surg* or operat*) and (room or theatre or suite)))

Full texts excluded with reasons

First Author	Title	Reason for exclusion
Wee	Utilisation of SARS-CoV-2 rapid antigen assays in screening asymptomatic hospital visitors: mitigating the risk in low-incidence settings.	Evaluating antigen testing, not contact tracing
Fillmore	An application to support COVID-19 occupational health and patient tracking at a Veterans Affairs medical center	Brief communication
Hornbeck	Using Sensor Networks to Study the Effect of Peripatetic Healthcare Workers on the Spread of Hospital-Associated Infections	Not reporting on contact tracing
Hare	Repeated transmission of SARS-CoV-2 in an overcrowded Irish emergency department elucidated by whole-genome sequencing.	Not reporting on contact tracing, but focusing on outbreak description

MMAT results

First author	Year	Citation	SCREENING QUESTIONS		1. QUALITATIVE STUDIES					2. RANDOMIZED CONTROLLED TRIALS					3. NON-RANDOMIZED STUDIES					4. QUANTITATIVE DESCRIPTIVE STUDIES								
			S1. Are there clear research questions?	S2. Do the collected data allow to address the research questions?	1.1. Is the qualitative approach appropriate to answer the research question?	1.2. Are the qualitative data collection methods adequate to address the research question?	1.3. Are the findings adequately derived from the data?	1.4. Is the interpretation of results sufficiently substantiated by data?	1.5. Is there coherence between qualitative data sources, collection, analysis and interpretation?	2.1. Is randomization appropriately performed?	2.2. Are the groups comparable at baseline?	2.3. Are there complete outcome data?	2.4. Are outcome assessors blinded to the intervention provided?	2.5 Did the participants adhere to the assigned intervention?	3.1. Are the participants representative of the target population?	3.2. Are measurements appropriate regarding both the outcome and intervention (or exposure)?	3.3. Are there complete outcome data?	3.4. Are the confounders accounted for in the design and analysis?	3.5. During the study period, is the intervention administered (or exposure occurred) as intended?	4.1. Is the sampling strategy relevant to address the research question?	4.2. Is the sample representative of the target population?	4.3. Are the measurements appropriate?	4.4. Is the risk of nonresponse bias low?	4.5. Is the statistical analysis appropriate to answer the research question?				
Tom-Aba	2018	User Evaluation Indicates High Quality of the surveillance outbreak response management and analysis system after field deployment in Nigeria in 2015 and 2018	●	●	●	●	●	●	●																		
Lovestad	2021	Investigation of intra-hospital SARS-CoV-2 transmission using nanopore whole-genome sequencing.	●	●						●	●	●	●	●												●	Unclear
Curtis	2022	Feasibility of Bluetooth Low Energy wearable tags to quantify healthcare worker proximity networks and patient close contact: A pilot study.	●	●						●	●	●	●	●												●	Yes
Hong	10	Use of clinical data to augment healthcare worker contact tracing during the COVID-19 pandemic.	●	●						●	●	●	●	●												●	No
Zirbes	2021	Development of a web-based contact tracing and point-of-care-testing workflow for SARS-CoV-2 at a German University Hospital.	●	●						●	●	●	●	●													
Lowery-North	2013	Measuring social contacts in the emergency department.	●	●						●	●	●	●	●													
Machens	2013	An infectious disease model on empirical networks of human contact: bridging the gap between dynamic network data and contact matrices.	●	●						●	●	●	●	●													
Hüttel	2021	Analysis of social interactions and risk factors relevant to the spread of infectious diseases at hospitals and nursing homes	●	●						●	●	●	●	●													
Lucet	2012	Electronic Sensors for Assessing Interactions between Healthcare Workers and Patients under Airborne Precautions	●	●						●	●	●	●	●													
Isella	2011	Close Encounters in a Pediatric Ward: Measuring Face-to-Face Proximity and Mixing Patterns with Wearable Sensors	●	●						●	●	●	●	●													
Simpson	2022	Development and deployment of tools for rapid response notification of Monkeypox exposure, exposure risk assessment and stratification, and symptom monitoring.	●	●	●	●	●	●	●																		
McDougal	2022	Outbreak of coronavirus disease 2019 (COVID-19) among operating room staff of a tertiary referral center: An epidemiologic and environmental investigation.	●	●																●	●	●	●	●			
Llupià	2022	SARS-CoV2 hospital surveillance and control system with contact tracing for patients and health care workers at a large reference hospital in Spain during the first wave: An observational descriptive study.	●	●																●	●	●	●	●			
Chambers	2022	Pilot of a digital contact tracing card in a hospital setting in New Zealand, 2020.	●	●											●	●	●	●	●								