**Search strategy: What impact does the method of hand drying have on the spread of infection?**

**Search date: 23/09/2020**

**Search by Eva Thackeray, Assistant Clinical Librarian, Lancashire Teaching Hospitals NHS Foundation Trust**

I searched Google, NICE Evidence Search as well as the Gov.uk, World Health Organization, Centers for Disease Control and the Health and Safety Executive’s websites with various combinations of the following terms:

Hand drying, methods, hand, hands, dryers, paper towels, infection control, healthcare workers

WHO Covid-19 database

tw:(hand drying) = 5

PubMed

(hand drying[tiab] OR ((hand[tiab] OR hands[tiab] OR hand[mh:noexp] OR hand hygiene/methods[mh] OR hand disinfection/methods[mh]) AND (dryer\*[tiab] OR paper towel\*[tiab] OR "paper hand towel\*"[tiab] OR paper[mh] OR drying method\*[tiab]))) AND (infecti\*[tiab] OR contaminat\*[tiab] OR hygien\*[tiab] OR cross infection/prevention and control[mh] OR infection control[mh] OR air microbiology[mh]) Filters: English = 129

Searcher’s note: PubMed does not recognise "paper hand towel\*"[tiab] as a phrase and does not search on it. Just "paper" as a search term is too broad because a lot of articles call themselves paper/papers. To be more comprehensive, you could include (paper[tiab] AND hand[tiab] AND towel\*[tiab]) instead.

CINAHL

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| # | Database | Search term | Results |
| 1 | CINAHL | ("hand drying").ti,ab | 33 |
| 2 | CINAHL | (hand OR hands).ti,ab | 73823 |
| 3 | CINAHL | HAND/ | 9416 |
| 4 | CINAHL | HANDWASHING/mt | 786 |
| 5 | CINAHL | (2 OR 3 OR 4) | 76787 |
| 6 | CINAHL | (dryer\* OR "paper towel\*" OR "paper hand towel\*" OR "drying method\*").ti,ab | 367 |
| 7 | CINAHL | (5 AND 6) | 79 |
| 8 | CINAHL | (1 OR 7) | 89 |
| 9 | CINAHL | (infecti\* OR contaminat\* OR hygien\*).ti,ab | 273345 |
| 10 | CINAHL | "CROSS INFECTION"/pc | 14343 |
| 11 | CINAHL | "INFECTION CONTROL"/ | 28267 |
| 12 | CINAHL | "AIR MICROBIOLOGY"/ | 557 |
| 13 | CINAHL | (9 OR 10 OR 11 OR 12) | 290124 |
| 14 | CINAHL | (8 AND 13) | 61 |

Embase

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| # | Database | Search term | Results |
| 15 | EMBASE | ("hand drying").ti,ab | 73 |
| 16 | EMBASE | (hand OR hands).ti,ab | 570584 |
| 17 | EMBASE | HAND/ | 27633 |
| 18 | EMBASE | exp "HAND WASHING"/ | 14927 |
| 19 | EMBASE | (16 OR 17 OR 18) | 583171 |
| 20 | EMBASE | (dryer\* OR "paper towel\*" OR "paper hand towel\*" OR "drying method\*").ti,ab | 4743 |
| 21 | EMBASE | PAPER/ | 6193 |
| 22 | EMBASE | (20 OR 21) | 10883 |
| 23 | EMBASE | (19 AND 22) | 422 |
| 24 | EMBASE | (15 OR 23) | 458 |
| 25 | EMBASE | (infecti\* OR contaminat\* OR hygien\*).ti,ab | 2252998 |
| 26 | EMBASE | "CROSS INFECTION"/ | 19502 |
| 27 | EMBASE | "INFECTION CONTROL"/ | 86215 |
| 28 | EMBASE | MICROBIOLOGY/  Searcher’s note: this term is used in Embase for air microbiology. | 270883 |
| 29 | EMBASE | (25 OR 26 OR 27 OR 28) | 2471416 |
| 30 | EMBASE | (24 AND 29) | 175 |
| 31 | EMBASE | 30 [English language] | 164 |

Emcare

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| # | Database | Search term | Results |
| 32 | EMCARE | ("hand drying").ti,ab | 34 |
| 33 | EMCARE | (hand OR hands).ti,ab | 109265 |
| 34 | EMCARE | HAND/ | 4035 |
| 35 | EMCARE | exp "HAND WASHING"/ | 6619 |
| 36 | EMCARE | (34 OR 35) | 10588 |
| 37 | EMCARE | (dryer\* OR "paper towel\*" OR "paper hand towel\*" OR "drying method\*").ti,ab | 606 |
| 38 | EMCARE | PAPER/ | 277 |
| 39 | EMCARE | (37 OR 38) | 879 |
| 40 | EMCARE | (36 AND 39) | 57 |
| 41 | EMCARE | (32 OR 40) | 67 |
| 42 | EMCARE | (infecti\* OR contaminat\* OR hygien\*).ti,ab | 366369 |
| 43 | EMCARE | "CROSS INFECTION"/ | 2671 |
| 44 | EMCARE | "INFECTION CONTROL"/ | 27032 |
| 45 | EMCARE | MICROBIOLOGY/  Searcher’s note: this term is used in Emcare for air microbiology. | 10411 |
| 46 | EMCARE | (42 OR 43 OR 44 OR 45) | 384224 |
| 47 | EMCARE | (41 AND 46) | 55 |
| 48 | EMCARE | 47 [English language] | 53 |