# Evidence Search Service Results of your search request

## Covid 19 and handwashing/social distancing for infection-control

**ID of request:** 24066  
**Date of request:** 29th June, 2020  
**Date of completion:** 1st July, 2020

If you would like to request any articles or any further help, please contact:  Paul Lee at [paul.lee@slam.nhs.uk](mailto:paul.lee@slam.nhs.uk)

Please acknowledge this work in any resulting paper or presentation as: Evidence search: Covid 19 and handwashing/social distancing for infection-control. Paul Lee. ( 1st July, 2020). LONDON, UK: Reay House Library and Knowledge Service.

**Sources searched**  
MEDLINE (12)

**Date range used** (5 years, 10 years): 2019-2020   
**Limits used** (gender, article/study type, etc.): Peer reviewed papers   
**Search terms and notes** (full search strategy for database searches below):

Required for nursing revalidation. A handful of articles requested on each topic

For more information about the resources please go to: [www.slam.nhs.uk/library](file:///C:\Users\Elaine.Watson\Downloads\www.slam.nhs.uk\library) .

## Contents

[A. Original Research](#Content5)

1. [Assessing the Real-Time Mental Health Challenges of COVID-19 in Individuals With Serious Mental Illnesses: Protocol for a Quantitative Study.](#Research685870)
2. [Coronavirus disease (COVID-19) prevention: Virtual classroom education for hand hygiene.](#Research685868)
3. [Effectiveness of isolation, testing, contact tracing, and physical distancing on reducing transmission of SARS-CoV-2 in different settings: a mathematical modelling study.](#Research685866)
4. [Hand Hygiene Among Health Care Workers During COVID-19 Pandemic: Challenges and Recommendations.](#Research685863)
5. [Hand Hygiene, Mask-Wearing Behaviors and Its Associated Factors during the COVID-19 Epidemic: A Cross-Sectional Study among Primary School Students in Wuhan, China.](#Research685873)
6. [Improving Hand Hygiene Adherence in Healthcare Workers Before Patient Contact: A Multimodal Intervention in Four Tertiary Care Hospitals in Japan.](#Research685869)
7. [Social distancing: A non-pharmacological intervention for COVID-19.](#Research685871)
8. [The effect of social distance measures on COVID-19 epidemics in Europe: an interrupted time series analysis.](#Research685867)
9. [The end of social confinement and COVID-19 re-emergence risk.](#Research685864)
10. [The Epidemiology of COVID-19 cases and the Successful Containment Strategy in Hong Kong - January to May 2020.](#Research685865)
11. [Using effective hand hygiene practice to prevent and control infection.](#Research685872)
12. [When infection prevention enters the temple: Intergenerational social distancing and COVID-19.](#Research685874)

### [B. Search History](#SearchHistory)

## A. Original Research

1. **Assessing the Real-Time Mental Health Challenges of COVID-19 in Individuals With Serious Mental Illnesses: Protocol for a Quantitative Study.**  
   Moore Raeanne Cristine JMIR research protocols 2020;9(5):e19203.

BACKGROUNDThe outbreak of coronavirus disease 2019 (COVID-19) has caused significant stress and mental health problems among the general public. However, persons at greatest risk for poor mental health outcomes, such as people with serious mental illness, have been largely overlooked.OBJECTIVEThis paper presents the protocol for a study that aims to examine the mental health impact of COVID-19 and social distancing behaviors in people with serious mental illness and the behaviors undertaken to prevent COVID-19 infection in this group.METHODSParticipants will include individuals with serious mental illness (eg, schizophrenia, bipolar disorder) and nonpsychiatric control participants who are currently participating in or have previously participated in several ongoing parent observational studies. Data will be collected from April 2020 through August 2020. Participants will complete phone interviews at 2 time points to assess their current emotional functioning and discuss the measures they have taken to prevent COVID-19 infection. Baseline (pre-COVID-19) mental health, sampled by ecological momentary assessment over an extended period, will be compared with current mental health, also sampled by ecological momentary assessment over an extended period. Demographic, cognitive, and psychosocial factors at baseline will be used to examine risk and resilience to current mental health and coping.RESULTSThe inclusion of participants for the first round of telephone assessments started on April 3, 2020 and will be completed by May 31, 2020. As of April 30, 2020, 101 individuals had completed these first-round assessments. The second round of telephone assessments will likely occur between June 1, 2020, and August 31, 2020. Study results will be published in peer-reviewed scientific journals.CONCLUSIONSOur findings will have broad implications for understanding the psychological consequences of COVID-19 among vulnerable persons with serious mental illness and will provide the opportunity to identify targets to reduce negative outcomes in the future. We also hope our efforts will provide a roadmap and resources for other researchers who would like to implement a similar approach.INTERNATIONAL REGISTERED REPORT IDENTIFIER (IRRID)DERR1-10.2196/19203.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=0cd52e13e1ae2478d5e4279c1b4f1da6)

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=b9e4e62e704203a1b374bb69763fd6af)

1. **Coronavirus disease (COVID-19) prevention: Virtual classroom education for hand hygiene.**  
   Ng Yuet-Ming Nurse education in practice 2020;45:102782.

Coronavirus disease (COVID-19), has spread rapidly in Asia, Europe, the Middle East and the Americas. Considering the recent outbreak of COVID-19, some precautionary measures have been announced, including campus class suspensions. Nursing campus courses have also been suspended, and there may be a learning gap between hand hygiene theory and clinical training for nursing students. A virtual classroom education approach may help address the learning gap by providing ongoing theoretical strengthening of hand hygiene during clinical nursing training. This editorial proposes a 3-step virtual classroom education approach to support nursing educators in online theoretical hand hygiene enhancement.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=5f83babd2f8a6d211d40f64f60936b94)

1. **Effectiveness of isolation, testing, contact tracing, and physical distancing on reducing transmission of SARS-CoV-2 in different settings: a mathematical modelling study.**  
   Kucharski Adam J. The Lancet. Infectious diseases 2020;:No page numbers.

BACKGROUNDThe isolation of symptomatic cases and tracing of contacts has been used as an early COVID-19 containment measure in many countries, with additional physical distancing measures also introduced as outbreaks have grown. To maintain control of infection while also reducing disruption to populations, there is a need to understand what combination of measures-including novel digital tracing approaches and less intensive physical distancing-might be required to reduce transmission. We aimed to estimate the reduction in transmission under different control measures across settings and how many contacts would be quarantined per day in different strategies for a given level of symptomatic case incidence.METHODSFor this mathematical modelling study, we used a model of individual-level transmission stratified by setting (household, work, school, or other) based on BBC Pandemic data from 40 162 UK participants. We simulated the effect of a range of different testing, isolation, tracing, and physical distancing scenarios. Under optimistic but plausible assumptions, we estimated reduction in the effective reproduction number and the number of contacts that would be newly quarantined each day under different strategies.RESULTSWe estimated that combined isolation and tracing strategies would reduce transmission more than mass testing or self-isolation alone: mean transmission reduction of 2% for mass random testing of 5% of the population each week, 29% for self-isolation alone of symptomatic cases within the household, 35% for self-isolation alone outside the household, 37% for self-isolation plus household quarantine, 64% for self-isolation and household quarantine with the addition of manual contact tracing of all contacts, 57% with the addition of manual tracing of acquaintances only, and 47% with the addition of app-based tracing only. If limits were placed on gatherings outside of home, school, or work, then manual contact tracing of acquaintances alone could have an effect on transmission reduction similar to that of detailed contact tracing. In a scenario where 1000 new symptomatic cases that met the definition to trigger contact tracing occurred per day, we estimated that, in most contact tracing strategies, 15 000-41 000 contacts would be newly quarantined each day.INTERPRETATIONConsistent with previous modelling studies and country-specific COVID-19 responses to date, our analysis estimated that a high proportion of cases would need to self-isolate and a high proportion of their contacts to be successfully traced to ensure an effective reproduction number lower than 1 in the absence of other measures. If combined with moderate physical distancing measures, self-isolation and contact tracing would be more likely to achieve control of severe acute respiratory syndrome coronavirus 2 transmission.FUNDINGWellcome Trust, UK Engineering and Physical Sciences Research Council, European Commission, Royal Society, Medical Research Council.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=9fb965d20b590dbc3d5765e3f0443fc5)

1. **Hand Hygiene Among Health Care Workers During COVID-19 Pandemic: Challenges and Recommendations.**  
   Araghi Farnaz Dermatitis : contact, atopic, occupational, drug 2020;:No page numbers.

In-hospital transmission is one of the main routes of the 2019 novel coronavirus (SARS-CoV-2) spreading among health care workers (HCWs) who are the frontline fighters. However, coming into contact with COVID-19-positive patients is unavoidable. Therefore, hand hygiene is of utmost importance for the prevention of COVID-19 among HCWs. This purpose can be achieved by applying alcohol-based hand rubs, washing hands properly with soap and water, and applying other antiseptic agents. Nevertheless, regular hand hygiene could also be challenging, because water, detergents, and disinfectants may predispose HCWs to hand dermatitis. The current article reviews the risk factors for the development of hand dermatitis, with further focus on the most common agents used among HCWs. In addition, the risk of occupational hand dermatitis for each agent is evaluated to increase awareness of this common condition. Finally, some recommendations are discussed to reduce the effect of hand dermatitis on HCWs.

1. **Hand Hygiene, Mask-Wearing Behaviors and Its Associated Factors during the COVID-19 Epidemic: A Cross-Sectional Study among Primary School Students in Wuhan, China.**  
   Chen Xuyu International journal of environmental research and public health 2020;17(8):No page numbers.

Although the emphasis on behaviors of hand-washing and mask-wearing was repeated during the pandemic of Coronavirus Disease 2019 (COVID-19), not everyone paid enough attention to this. A descriptive statistic was used to make sense of the status of hand hygiene and mask-wearing among primary school students in Wuhan, China. A binary logistic regression analysis was conducted to identify the risk factors affecting the behaviors of hand-washing and mask-wearing. p < 0.05 (two-sides) was considered as significant at statistics. 42.05% of the primary school students showed a good behavior of hand-washing, while 51.60% had a good behavior of mask-wearing. Gender, grade, out-going history, father's occupation, mother's educational background, and the time filling out the survey were significantly associated with hand hygiene, whereas grade, mother's educational background, and residence were associated with mask-wearing. The behaviors of hand-washing and mask-wearing among primary school students were influenced by gender, grade, shady is back tell a friendand other factors, therefore, parents should make efforts of behavior guidance whereas governments should enlarge medium publicity.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=b806d0e51370a26bd5821b0930e271d7)

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=eba13b552a56c935455cecefe508198e)

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=8c3a41d2f8b43e793646cce903f955fa)

1. **Improving Hand Hygiene Adherence in Healthcare Workers Before Patient Contact: A Multimodal Intervention in Four Tertiary Care Hospitals in Japan.**  
   Saitoh Akihiko Journal of hospital medicine 2020;15(5):262-267.

BACKGROUNDHand hygiene is key to preventing healthcare-associated infection and the spread of respiratory viruses like the novel coronavirus that causes COVID-19. Unfortunately, hand hygiene adherence of healthcare workers (HCWs) in Japan is suboptimal according to previous studies.OBJECTIVESOur objectives were to evaluate hand hygiene adherence among physicians and nurses before touching hospitalized patients and to evaluate changes in hand hygiene adherence after a multimodal intervention was implemented.DESIGN, SETTING, AND PARTICIPANTSWe conducted a pre- and postintervention study with HCWs at four tertiary hospitals in Niigata, Japan. Hand hygiene observations were conducted from June to August 2018 (preintervention) and February to March 2019 (postintervention).INTERVENTIONThe multimodal hand hygiene intervention recommended by the World Health Organization was tailored to each hospital and implemented from September 2018 to February 2019.MAIN OUTCOMES AND MEASURESWe observed hand hygiene adherence before touching patients in each hospital and compared rates before and after intervention. Intervention components were also evaluated.RESULTSThere were 2,018 patient observations preintervention and 1,630 postintervention. Overall, hand hygiene adherence improved from 453 of 2,018 preintervention observations (22.4%) to 548 of 1,630 postintervention observations (33.6%; P < .001). Rates improved more among nurses (13.9 percentage points) than among doctors (5.7 percentage points). Improvement varied among the hospitals: Hospital B (18.4 percentage points) was highest, followed by Hospitals D (11.4 percentage points), C (11.3 percentage points), and Hospital A (6.5 percentage points).CONCLUSIONSA multimodal intervention improved hand hygiene adherence rates in physicians and nurses in Niigata, Japan; however, further improvement is necessary. Given the current suboptimal hand hygiene adherence rates in Japanese hospitals, the spread of COVID-19 within the hospital setting is a concern.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=9e103d34b48c24f0df61c2e160454553)

1. **Social distancing: A non-pharmacological intervention for COVID-19.**  
   Mal Piryani Rano JPMA. The Journal of the Pakistan Medical Association 2020;70:No page numbers.

Social distancing is one of the non-pharmacological measures to contain the infection of COVID-19. At this point in time, no vaccine is available to prevent the infection, no effective drugs are available to prevent and treat the disease, and none of the communities have acquired herd immunity. Various models have shown positive impact of social distancing, provided its implementation on vast majority of the population over a long period of time. Its effect is manifold. Besides flattening the curve, it impacts the political, fiscal, social, economic aspects of the society, along with socially vulnerable and economically underprivileged population. It becomes obsolete after the population develops herd immunity subsequent to widespread infection in the community, or after effective mass immunisation or specific drugs for its control, cure and prevention are available widely.

1. **The effect of social distance measures on COVID-19 epidemics in Europe: an interrupted time series analysis.**  
   Vokó Zoltán GeroScience 2020;:No page numbers.

Following the introduction of unprecedented "stay-at-home" national policies, the COVID-19 pandemic recently started declining in Europe. Our research aims were to characterize the changepoint in the flow of the COVID-19 epidemic in each European country and to evaluate the association of the level of social distancing with the observed decline in the national epidemics. Interrupted time series analyses were conducted in 28 European countries. Social distance index was calculated based on Google Community Mobility Reports. Changepoints were estimated by threshold regression, national findings were analyzed by Poisson regression, and the effect of social distancing in mixed effects Poisson regression model. Our findings identified the most probable changepoints in 28 European countries. Before changepoint, incidence of new COVID-19 cases grew by 24% per day on average. From the changepoint, this growth rate was reduced to 0.9%, 0.3% increase, and to 0.7% and 1.7% decrease by increasing social distancing quartiles. The beneficial effect of higher social distance quartiles (i.e., turning the increase into decline) was statistically significant for the fourth quartile. Notably, many countries in lower quartiles also achieved a flat epidemic curve. In these countries, other plausible COVID-19 containment measures could contribute to controlling the first wave of the disease. The association of social distance quartiles with viral spread could also be hindered by local bottlenecks in infection control. Our results allow for moderate optimism related to the gradual lifting of social distance measures in the general population, and call for specific attention to the protection of focal micro-societies enriching high-risk elderly subjects, including nursing homes and chronic care facilities.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=03d37f2e0c3b601eb667c12a23403175)

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=cd6fca2be51d5a50272c39cd6d31fd36)

1. **The end of social confinement and COVID-19 re-emergence risk.**  
   López Leonardo Nature human behaviour 2020;:No page numbers.

The lack of effective pharmaceutical interventions for SARS-CoV-2 raises the possibility of COVID-19 recurrence. We explore different post-confinement scenarios by using a stochastic modified SEIR (susceptible-exposed-infectious-recovered) model that accounts for the spread of infection during the latent period and also incorporates time-decaying effects due to potential loss of acquired immunity, people's increasing awareness of social distancing and the use of non-pharmaceutical interventions. Our results suggest that lockdowns should remain in place for at least 60 days to prevent epidemic growth, as well as a potentially larger second wave of SARS-CoV-2 cases occurring within months. The best-case scenario should also gradually incorporate workers in a daily proportion at most 50% higher than during the confinement period. We show that decaying immunity and particularly awareness and behaviour have 99% significant effects on both the current wave of infection and on preventing COVID-19 re-emergence. Social distancing and individual non-pharmaceutical interventions could potentially remove the need for lockdowns.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=ab0807b3878d20214fea33761dae3786)

1. **The Epidemiology of COVID-19 cases and the Successful Containment Strategy in Hong Kong - January to May 2020.**  
   Lam Ho Yeung International journal of infectious diseases : IJID : official publication of the International Society for Infectious Diseases 2020;:No page numbers.

BACKGROUNDHong Kong, a Special Administrative Region of China, recorded its first confirmed Coronavirus disease 2019 (COVID-19) case on 23 January 2020. We reviewed the case epidemiology and the various public health measures implemented from January to May 2020.METHODWe described and compared the epidemiological and clinical characteristics of the cases recorded in different phases of the epidemic and reviewed the effectiveness of the public health measures implemented using the changes in the daily number of confirmed cases and the interval from symptom onset to hospital admission.RESULTSBetween January and May 2020, 1084 confirmed COVID-19 cases were reported, about 70% of which had travel history during the incubation period. The case fatality ratio was 0.4%. The local epidemic progressed through four phases: (i) preparedness and imported infection from mainland China, (ii) local transmission, (iii) imported infection from overseas countries associated with local transmission, and (iv) controlled imported infection with limited local transmission, with an eventual reduction of daily case number and minimization of onset-to-admission interval. Various public health measures, including enhanced surveillance, border control and social distancing, were introduced in phases in response to the prevailing local and global situations.DISCUSSIONHong Kong's overall containment strategy has led to a stabilization of number of cases and absence of community-wide outbreak in the 4.5 months since the reporting of the first case. Hong Kong's strategy of containment might serve as an example for future planning of preparedness and response against novel infectious agents.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=bf12744a263b7b95e5eaf1263d41dc2f)

1. **Using effective hand hygiene practice to prevent and control infection.**  
   Hillier Mark Dexter Nursing standard (Royal College of Nursing (Great Britain) : 1987) 2020;35(5):45-50.

Decontamination using hand hygiene remains one of the most important and effective methods for reducing healthcare-associated infections and cross-infection between patients. In 1860, Florence Nightingale wrote that nurses should wash their hands frequently throughout the day, demonstrating an early awareness of the effectiveness of this simple procedure. The COVID-19 pandemic has demonstrated that effectively applied hand hygiene is a vital intervention that can be used to prevent the spread of disease. This article details the correct procedure required for effective hand hygiene and emphasises the need for nurses to keep up to date with evidence-based guidelines. The article also outlines the differences between hand decontamination using alcohol-based hand gels and soap and water, and the complex factors that can interfere with effective hand hygiene compliance.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=e3530a8379a3751df508b41479100fa4)

1. **When infection prevention enters the temple: Intergenerational social distancing and COVID-19.**  
   Hartley David M. Infection control and hospital epidemiology 2020;:1-2.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=3bcf504599f6a080f9618e1ed49d4ff8)

### Opening Internet Links

The links to internet sites in this document are 'live' and can be opened by holding down the CTRL key on your keyboard while clicking on the web address with your mouse

### Full text papers

Links are given to full text resources where available. For some of the papers, you will need an **NHS OpenAthens Account**. If you do not have an account you can [register online](https://openathens.nice.org.uk/).

You can then access the papers by simply entering your username and password. If you do not have easy access to the internet to gain access, please let us know and we can download the papers for you.

### Guidance on searching within online documents

Links are provided to the full text of each document. Relevant extracts have been copied and pasted into these results. Rather than browse through lengthy documents, you can search for specific words as follows:

**Portable Document Format / pdf / Adobe**  
Click on the Search button (illustrated with binoculars). This will open up a search window. Type in the term you need to find and links to all of the references to that term within the document will be displayed in the window. You can jump to each reference by clicking it.

**Word documents**  
Select Edit from the menu, the Find and type in your term in the search box which is presented. The search function will locate the first use of the term in the document. By pressing 'next' you will jump to further references.

## B. Search History

|  | **Source** | **Criteria** | **Results** |
| --- | --- | --- | --- |
| 1. | Medline | ((corona\* OR corono\*) ADJ1 (virus\* OR viral\* OR virinae\*)).ti,ab | 1024 |
| 2. | Medline | (coronavirus\* OR coronovirus\* OR coronavirinae\* OR CoV).ti,ab | 25692 |
| 3. | Medline | ("2019-nCoV" OR 2019nCoV OR nCoV2019 OR "nCoV-2019" OR "COVID-19" OR COVID19 OR "CORVID-19" OR CORVID19 OR "WN-CoV" OR WNCoV OR "HCoV-19" OR HCoV19 OR "2019 novel\*" OR Ncov OR "n-cov" OR "SARS-CoV-2" OR "SARSCoV-2" OR "SARSCoV2" OR "SARS-CoV2" OR SARSCov19 OR "SARS-Cov19" OR "SARSCov-19" OR "SARS-Cov-19" OR Ncovor OR Ncorona\* OR Ncorono\* OR NcovWuhan\* OR NcovHubei\* OR NcovChina\* OR NcovChinese\* OR SARS2 OR "SARS-2" OR SARScoronavirus2 OR "SARS-coronavirus-2" OR "SARScoronavirus 2" OR "SARS coronavirus2" OR SARScoronovirus2 OR "SARS-coronovirus-2" OR "SARScoronovirus 2" OR "SARS coronovirus2").ti,ab | 26299 |
| 4. | Medline | (1 OR 2 OR 3) | 40377 |
| 6. | Medline | (handwashing).ti | 756 |
| 7. | Medline | (hand\* ADJ3 (hygiene OR wash\*)).ti | 2586 |
| 10. | Medline | \*"HAND DISINFECTION"/ | 3330 |
| 11. | Medline | (6 OR 7 OR 10) | 4747 |
| 12. | Medline | (4 AND 11) | 37 |
| 21. | CINAHL | ((corona\* OR corono\*) ADJ1 (virus\* OR viral\* OR virinae\*)).ti,ab | 184 |
| 22. | CINAHL | (coronavirus\* OR coronovirus\* OR coronavirinae\* OR CoV).ti,ab | 4215 |
| 23. | CINAHL | ("2019-nCoV" OR 2019nCoV OR nCoV2019 OR "nCoV-2019" OR "COVID-19" OR COVID19 OR "CORVID-19" OR CORVID19 OR "WN-CoV" OR WNCoV OR "HCoV-19" OR HCoV19 OR "2019 novel\*" OR Ncov OR "n-cov" OR "SARS-CoV-2" OR "SARSCoV-2" OR "SARSCoV2" OR "SARS-CoV2" OR SARSCov19 OR "SARS-Cov19" OR "SARSCov-19" OR "SARS-Cov-19" OR Ncovor OR Ncorona\* OR Ncorono\* OR NcovWuhan\* OR NcovHubei\* OR NcovChina\* OR NcovChinese\* OR SARS2 OR "SARS-2" OR SARScoronavirus2 OR "SARS-coronavirus-2" OR "SARScoronavirus 2" OR "SARS coronavirus2" OR SARScoronovirus2 OR "SARS-coronovirus-2" OR "SARScoronovirus 2" OR "SARS coronovirus2").ti,ab | 6432 |
| 24. | CINAHL | (21 OR 22 OR 23) | 8578 |
| 25. | CINAHL | (handwashing).ti | 540 |
| 26. | CINAHL | (hand\* ADJ3 (hygiene OR wash\*)).ti | 3072 |
| 27. | CINAHL | (25 OR 26) | 3583 |
| 28. | CINAHL | (24 AND 27) | 12 |
| 29. | Medline | ("social isolation" OR "social distancing" OR "physical distancing").ti,ab | 7957 |
| 30. | Medline | (infection ADJ3 (control\* OR prevent\*)).ti,ab | 68244 |
| 31. | Medline | \*"INFECTION CONTROL"/ | 13918 |
| 32. | Medline | (30 OR 31) | 76619 |
| 33. | Medline | (4 AND 29 AND 32) | 58 |

**Disclaimer**  
We hope that you find the evidence search service useful. Whilst care has been taken in the selection of the materials included in this evidence search, the Library and Knowledge Service is not responsible for the content or the accuracy of the enclosed research information. Accordingly, whilst every endeavour has been undertaken to execute a comprehensive search of the literature, the Library and Knowledge Service is not and will not be held responsible or liable for any omissions to pertinent research information not included as part of the results of the enclosed evidence search. Users are welcome to discuss the evidence search findings with the librarian responsible for executing the search. We welcome suggestions on additional search strategies / use of other information resources for further exploration. You must not use the results of this search for commercial purposes. Any usage or reproduction of the search output should acknowledge the Library and Knowledge Service that produced it.