

Evidence Search Service

Results of your search request

Mandatory Covid vaccines for NHS staff 4

ID of request: 33210

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Sources searched

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CINAHL (1)

Discovery Insurance (1)

EMBASE (1)

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MEDLINE (2)

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Date range used (5 years, 10 years): 2021-2021

Limits used (gender, article/study type, etc.): English

Search terms and notes (full search strategy for database searches below):

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A. Institutional Publications

BBC News

MPs back Covid passes in England despite huge Tory rebellion (2021)

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News report about the vote in the House of Commons The Covid measures MPs voted for included making vaccinations compulsory for NHS workers in England. 63 MPs voted against.

Discovery Insurance

Discovery Health, South Africa's largest private health insurance administrator, releases at-scale, real-world analysis of Omicron outbreak based on 211 000 COVID-19 test results in South Africa (2021)

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Data from the first three weeks of the Omicron-driven wave in South Africa. These insights should be considered preliminary, since they may change as the wave progresses. This data is also confounded by various factors, including high sero-prevalence of COVID-19 antibodies in the South African population as a whole. Data showed Vaccine effectiveness: The two-dose Pfizer-BioNTech vaccination provides 70% protection against severe complications of COVID-19 requiring hospitalisation, and 33% protection against COVID-19 infection, during the current Omicron wave. Reinfection risk: For individuals who have had COVID-19 previously, the risk of

reinfection with Omicron is significantly higher, relative to prior variants. Severity: The risk of hospital admission among adults diagnosed with COVID-19 is 29% lower for the Omicron variant infection compared to infections involving the D614G mutation in South Africa's first wave in mid-2020, after adjusting for vaccination status Children: Despite very low absolute incidence, preliminary data suggests that children have a 20% higher risk of hospital admission in Omicron-led fourth wave in South Africa, relative to the D614G-led first wave.

House of Commons Library

Coronavirus: Covid-19 booster vaccines frequently asked questions (2021)

[Available online at this link](#)

This Commons Library briefing addresses commonly asked questions about the roll-out of the Covid-19 booster vaccine.

Omicron and new coronavirus variants (2021)

[Available online at this link](#)

This page provides an overview of what is known about the Omicron variant so far and a summary of the UK Government's response.

B. Original Research

1. COVID-19 vaccination intention in the first year of the pandemic: A systematic review.

Al-Amer Rasmieh *Journal of clinical nursing* 2022;31(1-2):62-86.

AIMS AND OBJECTIVESTo synthesise evidence regarding vaccination intention, identify factors contributing to vaccine hesitancy among healthcare professionals and the general populations globally.**BACKGROUND**As COVID-19 vaccine becomes available worldwide, attention is being directed to community vaccine uptake, to achieve population-wide immunity. A number of factors have been reported to influence vaccine intention.**METHODS**Following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines, a systematic search of COVID-19 vaccination intention related literature published on or before 31 December 2020 from seven databases was undertaken.**RESULTS**Thirty articles were included in this systematic review. Overall COVID-19 vaccination intention during the first year of the pandemic ranged from 27.7% to 93.3%. Findings highlighted that socio-demographic differences, perceptions of risk and susceptibility to COVID-19 and vaccine attributes influenced vaccination intention. Healthcare professionals particularly, nurses have higher vaccine hesitancy reportedly due to concerns regarding vaccine safety and efficacy and mistrust of health authorities. Negative information about COVID-19 vaccines in the social media and low confidence in the health system were associated with lower acceptability among the community. Interestingly, cumulative increase in COVID-19 caseloads of countries over time was not associated with vaccination intention.**CONCLUSIONS**The significant variability in vaccine intention rates worldwide would hamper efforts to achieve immunity against COVID-19. Nurses' concerns about vaccine safety and efficacy need to be addressed to increase vaccine acceptance and maximise their influence on vaccination decision in the community. As misinformation through social media negatively impacts vaccination uptake, authoritative and reliable information on vaccine attributes, disease risks and vaccination benefits are

needed. RELEVANCE TO CLINICAL PRACTICE Concerns about vaccine safety and efficacy including misinformation are important contributors to vaccine hesitancy. Addressing these factors, particularly among nurses who are considered trusted influencers of vaccination decisions in the community is an important strategy for pandemic preparedness.

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- 2. A systematic literature review of individual-level psychological and behavioral responses to the health information of COVID-19 from social media and legacy media**
2021;;1-26.

Covid-19 has been recognized as a terrifying global health threat since its detection, with far-reaching consequences that are unprecedented in the modern era. Since the outbreak of the pandemic, social media and legacy media have collectively delivered health information related to COVID-19 to the public as a catalyst to community perception of risk. However, the existing literature exhibits different viewpoints toward the role of social media and legacy media in disseminating health information of COVID-19. In this regard, this article conducted a systematic literature review to provide an overview of the current state of research concerning individuals-level psychological and behavioral response to COVID-19 related information from different sources, as well as presents the challenges and future research directions. This article is a preprint and has not been certified by peer review It reports new medical research that has yet to be evaluated and so should not be used to guide clinical practice.

[Available online at this link](#)

- 3. COVID-19 vaccine hesitancy in diverse groups in the UK - is the driver economic or cultural in student populations?**
2021;;1-19.

Studies have identified a greater reluctance for members of the Black, Asian, and minority ethnic communities to be vaccinated against COVID-19 despite a higher probability of greater harm from COVID-19. We conducted an anonymised questionnaire-based study of students (recruiting primarily before first reports of embolic events) at two London universities to identify whether economic or educational levels were primarily responsible for this reluctance: a postgraduate core group (PGCC) n=860 and a pilot study of undergraduate medical and nursing students (n=103). Asian and Black students were 2.0 and 3.2 times (PGCC) less likely to accept the COVID vaccine than White British students. Similar findings were noted in the pilot study students. As students were studying for Masters or PhD degrees and voluntarily paying high fees, educational and economic reasons were unlikely to be the underlying cause, and wider cultural reservations were more likely. Politicians exerted a strong negative influence, suggesting that campaigns should omit politicians. This article is a preprint and has not been certified by peer review It reports new medical research that has yet to be evaluated and so should not be used to guide clinical practice.

- 4. Differential Risk of SARS-CoV-2 Infection by Occupation: Evidence from the Virus Watch prospective cohort study in England and Wales**
2021;;1-19.

Background: Workers differ in their risk of SARS-CoV-2 infection according to their occupation, but the direct contribution of occupation to this relationship is unclear. This study aimed to investigate how infection risk differed across occupational groups in England and Wales up to October 2021, after adjustment for potential confounding and stratification by pandemic phase. Methods: Data from 12,182 employed/self-employed participants in the Virus Watch prospective cohort study were used to generate risk ratios for virologically- or serologically-confirmed SARS-CoV-2 infection using robust Poisson regression, adjusting for socio-demographic and health-related factors and non-work public activities. We calculated attributable fractions (AF) amongst the exposed for each occupational group based on adjusted risk ratios (aRR). Findings: Increased risk was seen in nurses (aRR=1.90 [1.40-2.40], AF=47%); doctors (1.74 [1.26-2.40], 42%); carers (2.18 [1.63-2.92], 54%); teachers (primary = 1.94 [1.44- 2.61], 48%; secondary =1.64, [1.23-2.17], 39%), and warehouse and process/plant workers (1.58 [1.20-2.09], 37%) compared to both office-based professional occupations (reported above) and all other occupations. Differential risk was apparent in the earlier phases (Feb 2020 - May 2021) and attenuated later (June - October 2021) for most groups, although teachers demonstrated persistently elevated risk. Interpretation: Occupational differentials in SARS-CoV-2 infection risk are robust to adjustment for socio-demographic, health-related, and activity-related potential confounders. Patterns of differential infection risk varied over time, and ongoing excess risk was observed in education professionals. Direct investigation into workplace factors underlying elevated risk and how these change over time is needed to inform occupational health interventions. This article is a preprint and has not been certified by peer review . It reports new medical research that has yet to be evaluated and so should not be used to guide clinical practice.

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- 5. Immunogenicity, safety, and reactogenicity of heterologous COVID-19 primary vaccination incorporating mRNA, viral-vector, and protein-adjuvant vaccines in the UK (Com-COV2): a single-blind, randomised, phase 2, non-inferiority trial.** Stuart Arabella S. V Lancet (London, England) 2021;:No page numbers.

BACKGROUND Given the importance of flexible use of different COVID-19 vaccines within the same schedule to facilitate rapid deployment, we studied mixed priming schedules incorporating an adenoviral-vectored vaccine (ChAdOx1 nCoV-19 [ChAd], AstraZeneca), two mRNA vaccines (BNT162b2 [BNT], Pfizer-BioNTech, and mRNA-1273 [m1273], Moderna) and a nanoparticle vaccine containing SARS-CoV-2 spike glycoprotein and Matrix-M adjuvant (NVX-CoV2373 [NVX], Novavax). **METHODS** Com-COV2 is a single-blind, randomised, non-inferiority trial in which adults aged 50 years and older, previously immunised with a single dose of ChAd or BNT in the community, were randomly assigned (in random blocks of three and six) within these cohorts in a 1:1:1 ratio to receive a second dose intramuscularly (8-12 weeks after the first dose) with the homologous vaccine, m1273, or NVX. The primary endpoint was the geometric mean ratio (GMR) of serum SARS-CoV-2 anti-spike IgG concentrations measured by ELISA in heterologous versus homologous schedules at 28 days after the second dose, with a non-inferiority criterion of the GMR above 0.63 for the one-sided 98.75% CI. The primary analysis was on the per-protocol population, who were seronegative at baseline. Safety analyses were done for all participants who received a dose of study vaccine. The trial is registered with ISRCTN, number 27841311. **FINDINGS** Between April 19 and May 14, 2021, 1072 participants were enrolled at a median of 9.4 weeks after receipt of a single dose of ChAd (n=540, 47% female) or BNT (n=532, 40% female). In ChAd-primed participants, geometric mean concentration (GMC) 28 days after a boost of SARS-CoV-2 anti-spike IgG in recipients of ChAd/m1273 (20 114 ELISA laboratory units [ELU]/mL [95% CI 18 160 to 22 279]) and ChAd/NVX (5597 ELU/mL [4756 to 6586]) was non-inferior to that of ChAd/ChAd recipients (1971 ELU/mL [1718 to 2262]) with a GMR of 10.2 (one-sided 98.75% CI 8.4 to ∞) for ChAd/m1273 and 2.8 (2.2 to ∞) for ChAd/NVX, compared with ChAd/ChAd. In BNT-primed participants, non-inferiority was shown for BNT/m1273 (GMC 22 978 ELU/mL [95% CI

20 597 to 25 636]) but not for BNT/NVX (8874 ELU/mL [7391 to 10 654]), compared with BNT/BNT (16 929 ELU/mL [15 025 to 19 075]) with a GMR of 1.3 (one-sided 98.75% CI 1.1 to ∞) for BNT/m1273 and 0.5 (0.4 to ∞) for BNT/NVX, compared with BNT/BNT; however, NVX still induced an 18-fold rise in GMC 28 days after vaccination. There were 15 serious adverse events, none considered related to immunisation. INTERPRETATION Heterologous second dosing with m1273, but not NVX, increased transient systemic reactogenicity compared with homologous schedules. Multiple vaccines are appropriate to complete primary immunisation following priming with BNT or ChAd, facilitating rapid vaccine deployment globally and supporting recognition of such schedules for vaccine certification. FUNDING UK Vaccine Task Force, Coalition for Epidemic Preparedness Innovations (CEPI), and National Institute for Health Research. NVX vaccine was supplied for use in the trial by Novavax.

6. **Mandatory COVID-19 vaccination and what it means for your role: How the rule change in England will be implemented and how lingering vaccine hesitancy could be addressed.**

Downey Andrea Nursing Standard 2021;36(12):19-21.

COVID-19 jabs will be mandatory for all patient-facing nurses and other staff in England's NHS from April 2022.

7. **Public hesitancy to COVID-19 vaccine and the role of pharmacists in addressing the problem and improving uptake**

Wubishet B.L. Journal of Pharmacy Practice and Research 2021;:No page numbers.

COVID-19 is one of the worst pandemics in recent human history, causing huge health, economic, and psychosocial damage. Since the pandemic hit, several unsubstantiated claims regarding exposure, transmission and management have been disseminated. Misinformation and associated public confusion now extend to the COVID-19 vaccines, spanning from claims based on possible links between some vaccine types and rare blood clots, to baseless claims. As a result, the public's trust in COVID-19 vaccines has been eroded, fuelling an already troubling trend of vaccine hesitancy. As medication experts and the most accessible healthcare providers, pharmacists are well equipped with the required skills and knowledge to improve COVID-19 vaccine uptake by taking roles that range from dispelling myths, to providing reliable evidence-based information, through to vaccine administration. This paper discusses public hesitancy to COVID-19 vaccines, major contributing factors, and the role pharmacists can play in reducing hesitancy and increasing vaccine uptake.

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8. **Real-world data on immune responses following heterologous prime-boost COVID-19 vaccination schedule with Pfizer and AstraZeneca vaccines in England**

Background There are limited data on immune responses to heterologous COVID-19 immunisation schedules, especially following an extended ≥ 12 -week interval between doses. Methods SARS-CoV-2 infection-naïve and previously-infected adults receiving ChAd-BNT (ChAdOx1 nCoV-19, AstraZeneca followed by BNT162b2, Pfizer-BioNTech) or BNT-ChAd as part of the UK national immunisation programme provided blood samples at 30 days and 12 weeks after their second dose. Geometric mean concentrations (GMC) of anti-SARS-CoV-2 spike (S-antibody) and nucleoprotein (N-antibody) IgG antibodies and geometric mean ratios (GMR) were compared with a contemporaneous cohort receiving homologous ChAd-ChAd or BNT-BNT. Results During March-October 2021,

75,827 individuals were identified as having received heterologous vaccination, 9,489 invited to participate, 1,836 responded (19.3%) and 656 were eligible. In previously-uninfected adults, S-antibody GMC at 30 days post-second dose were lowest for ChAd-ChAd (862 (95%CI, 694– 1069)) and significantly higher for ChAd-BNT (6233 (5522– 7035); GMR 6.29; (5.04– 7.85); $p < 0.001$), BNT-ChAd (4776 (4066– 5610); GMR 4.55 (3.56– 5.81); $p < 0.001$) and BNT-BNT (5377 (4596– 6289); GMR 5.66 (4.49– 7.15); $p < 0.001$). By 12 weeks after dose two, S-antibody GMC had declined in all groups and remained significantly lower for ChAd-ChAd compared to ChAd-BNT (GMR 5.12 (3.79– 6.92); $p < 0.001$), BNT-ChAd (GMR 4.1 (2.96– 5.69); $p < 0.001$) and BNT-BNT (GMR 6.06 (4.32– 8.50); $p < 0.001$). Previously infected adults had higher S-antibody GMC compared to infection-naïve adults at all time-points and with all vaccine schedules. Conclusions These real-world findings demonstrate heterologous schedules with adenoviral-vector and mRNA vaccines are highly immunogenic and may be recommended after a serious adverse reaction to one vaccine product, or to increase programmatic flexibility where vaccine supplies are constrained. Please note: This article is a preprint and has not been certified by peer review It reports new medical research that has yet to be evaluated and so should not be used to guide clinical practice.

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