

## **COVID-19 breakthrough infections among vaccinated individuals: characteristics, variant distribution, and associative risk factors**

**Date:** 1/30/2022

### **PubMed**

#### **CONCEPT 1:**

("SARS-CoV-2 variants" [Supplementary Concept] OR ("SARS-CoV-2"[Mesh] AND variants) OR "Sars CoV-2 variants")

**Results:** 3,824

#### **CONCEPT 2:**

("202012-01" OR ("20A" AND "S484K") OR ("20B" AND "S265C") OR "20E" OR "20h 501y v2" OR "614G" OR "A.1.177" OR "A.23.1" OR "alpha" OR "B.1.1.7" OR "B.1.351" OR "B.1.427" OR "B.1.429" OR "B.1.525" OR "B.1.526" OR "B.1.617.1" OR "B.1.617.2" OR "beta" OR "C.37" OR "CAL.20C" OR "cluster 5" OR "D614G" OR "delta" OR "E484K" OR "epsilon" OR "gamma" OR "iota" OR "kappa" OR "L452R" OR "lambda" OR "mink-associated" OR "P.1" OR "P.2" OR "P.3" OR "theta" OR "zeta")

**Results:** 2,854,174

#### **CONCEPT 3:**

("breakthrough infections" OR ((breakthrough OR breakthroughs) AND ("infections"[MeSH Terms] OR infections)) OR "Reinfection"[MeSH Terms] OR reinfection)

**Results:** 18,886

**FINAL: #1 AND #2 AND #3: 140**

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### **Embase**

#### **CONCEPT 1:**

'coronavirus disease 2019'/exp

187,945

**CONCEPT 2:**

'sars-cov-2 variant 501y.v2'/exp OR 'sars-cov-2 variant 501y.v1'/exp OR 'sars-cov-2 (germany/fi1103201/2020 (epi-isl 463008, d614g))'/exp OR '20a' OR 'sars-cov-2 variant s484k' OR 'sars-cov-2 variant 20b' OR 'sars-cov-2 variant s265c' OR 'sars-cov-2 variant 20e' OR 'sars-cov-2 variant 20h 501y v2' OR 'sars-cov-2 variant 614g' OR 'sars-cov-2 variant a.1.177' OR 'sars-cov-2 variant a.23.1' OR 'sars-cov-2 variant alpha' OR 'sars-cov-2 variant b.1.1.7'/exp OR 'sars-cov-2 variant b.1.351'/exp OR 'sars-cov-2 variant b.1.427' OR 'sars-cov-2 variant b.1.429'/exp OR 'sars-cov-2 variant b.1.525' OR 'sars-cov-2 variant b.1.526' OR 'sars-cov-2 variant b.1.617.1' OR 'sars-cov-2 variant b.1.617.2' OR 'sars-cov-2 variant beta' OR 'sars-cov-2 variant c.37' OR 'sars-cov-2 variant cal.20c'/exp OR 'sars-cov-2 variant cluster 5' OR 'sars-cov-2 variant d614g' OR 'sars-cov-2 variant delta' OR 'sars-cov-2 variant e484k' OR 'sars-cov-2 variant epsilon' OR 'sars-cov-2 variant gamma' OR 'sars-cov-2 variant iota' OR 'sars-cov-2 variant kappa' OR 'sars-cov-2 variant l452r' OR 'sars-cov-2 variant lambda' OR 'sars-cov-2 variant mink-associated' OR 'sars-cov-2 variant omicron' OR 'sars-cov-2 variant p.1' OR 'sars-cov-2 variant p.2' OR 'sars-cov-2 variant p.3' OR 'sars-cov-2 variant theta' OR 'sars-cov-2 variant zeta'

**Results:** 9403

**CONCEPT 3:**

'breakthrough infection'/exp OR 'reinfection'/exp

**Results:** 32,787

**FINAL: #1 AND #2 AND #3: 135**

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**Web of Science:****CONCEPT 1:**

ALL=(SARS-CoV-2 variants)

**Results:** 3731

**CONCEPT 2:**

(((((((ALL=(202012-01)) OR ALL=(20A )) OR ALL=(s4n4)) OR ALL=(20B)) OR ALL=(s267f)) OR ALL=(20E)) OR ALL=(20h 5083 v2)) OR ALL=(6111)) OR ALL=(A.1.177)) OR ALL=(A.23.1)) OR ALL=(alpha)) OR ALL=(B.1.1.7)) OR ALL=(B.1.351)) OR ALL=(B.1.427)) OR ALL=(B.1.429)) OR ALL=(B.1.525)) OR ALL=(B.1.526)) OR ALL=(B.1.617.1)) OR ALL=(B.1.617.2)) OR ALL=(beta)) OR ALL=(C.37)) OR ALL=(CAL.20C)) OR ALL=(cluster 5)) OR ALL=(d61g)) OR ALL=(delta)) OR ALL=(e434k)) OR ALL=(epsilon)) OR ALL=(gamma)) OR ALL=(iota)) OR ALL=(kappa)) OR ALL=(l457r)) OR ALL=(lambda)) OR

ALL=(mink-associated)) OR ALL=(omicron)) OR ALL=(P.1)) OR ALL=(P.2)) OR ALL=(P.3)) OR ALL=(theta))  
OR ALL=(zeta)

**Results:** 5, 805, 246

**CONCEPT 3:**

(ALL=(breakthrough infections)) OR ALL=(reinfection)

**Results:** 14,268

**FINAL: #1 AND #2 AND #3: 151**

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**ProQuest:**

**CONCEPT 1:**

(SARS-CoV-2 variants) AND PEER (yes)  
8,496

**CONCEPT 2:**

((202012-01 OR 20A OR S484K OR 20B OR S256C OR 20E OR (20h 501y v2) OR 614G OR A.1.177 OR  
A.23.1) AND PEER(yes)) OR ((alpha OR B.1.1.7 OR B.1.351 OR B.1.427 OR B.1.429 OR B.1.525 OR B.1.526  
OR B.1.617.1 OR B.1.617.2 OR beta) AND PEER(yes)) OR ((C.37 OR CAL.20C OR (cluster 5) OR D614G OR  
delta OR E484K OR epsilon OR gamma OR iota OR kappa) AND PEER(yes)) OR ((L452R OR lambda OR  
mink-associated OR omicron OR P.1 OR P.2 OR P.3 OR theta OR zeta) AND PEER(yes))  
4,789,351

**CONCEPT 3:**

(breakthrough OR (breakthrough infections) OR reinfection) AND PEER(yes)  
235,069

**FINAL: #1 AND #2 AND #3: 422**