

## Background

- Due to the public health risk associated with SARS-CoV-2 (COVID-19) infection; use of face masks has been recommended to protect against viral spread.
- Previously, increased utilization of face masks to reduce spread of the viral illness, has been associated with numerous facial dermatoses and adverse reactions.
- However, adverse facial reactions from the utilization of masks in the general public are poorly characterized in literature.

## Objective

- To analyze and categorize literature reporting adverse facial reactions associated with use of face masks during COVID-19 pandemic.

## Methods

- In October 2020, PubMed and Cochrane databases were searched for the following search terms: masks AND skin reactions, facial dermatosis, rash, acne, atopic dermatitis, rosacea, OR seborrheic dermatitis.
- English articles with humans published in the last 10 years were included.
- Systematic reviews with or without metaanalysis, narrative reviews, and articles with irretrievable records were excluded.

## Results

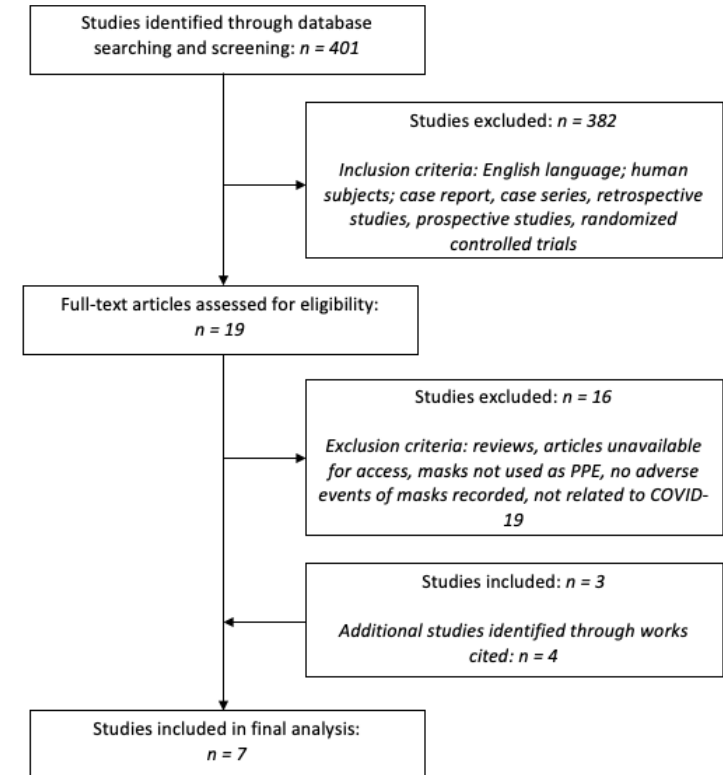
### Reported facial skin reactions associated with COVID-19 face masks

Adverse Skin Reaction (Total 954)	No (%)
Itch	370 (38.8%)
Indentation/ear pain	102 (10.7%)
Discomfort	90 (9.4%)
Redness or erythema	72 (7.5%)
Dryness	62 (6.5%)
Rash	60 (6.3%)
Scarring	42 (4.4%)
Desquamation <sup>a</sup>	22 (2.3%)
Pain <sup>b</sup>	19 (2.0%)
Burning	19 (2.0%)
Wheals	7 (0.7%)
Numbness	5 (0.5%)
Swelling	5 (0.5%)
Greasy skin	4 (0.04%)
Allergic contact dermatitis	2 (0.2%)
Acne	1 (0.1%)
Koebner phenomenon	1 (0.1%)
Skin condition exacerbation	
Acne exacerbation	44 (4.6%)
Rosacea exacerbation	14 (1.5%)
Seborrheic dermatitis exacerbation	9 (0.9%)
Allergic dermatitis exacerbation	1 (0.1%)
Eczema exacerbation	1 (0.1%)
Unexplained facial dermatitis exacerbation	1 (0.1%)
Folliculitis exacerbation	1 (0.1%)

No., number

<sup>a</sup> includes damage

<sup>b</sup> includes pinching, prickling, and stinging



## Discussion/Conclusion

- Our systematic review revealed wearing face masks to protect from COVID-19 increases risk of facial dermatosis and adverse skin reactions in the general population.
- Dermatologists and patients should monitor for skin reactions or flares of underlying skin conditions from face masks.

## Disclosure