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Algorithms for Identifying Immunocompromised Adults in Administrative Claims Data – a Targeted Literature Review

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References, disclosures and additional information are available by scanning this QR-code

BACKGROUND

In the United States, **vaccination with recombinant zoster vaccine is recommended** by the Advisory Committee on Immunization Practices (ACIP) for herpes zoster (HZ) prevention:

 **in adults aged ≥19 years who are or will be immunodeficient or immunosuppressed** because of disease or therapy

 **for immunocompetent adults aged ≥50 years**

AIM: To identify published algorithms that can be applied to claims databases to identify immunocompromised populations

METHODS

 **Design:** Targeted literature review

 **Key Terms:** Immunocompromis* AND Observational, Claims-based, Immunodeficien* Herpes zoster (AND) vaccine, Retrospective, Real-world, Immunocompetent Administrative, Meta-analysis, Immunosuppr* eff* claims, Literature review

 **Inclusion:** Publications from January 2016 to August 2022

 **Exclusion:** • publications with no algorithm defined to determine immunocompromised status or algorithms based on ≤3 immunocompromising conditions or therapies, • publications that only include pediatric patients or adult patients aged >75 years, • commentary, editorial, correspondence, • opinion pieces, case reports

 **Database:** PubMed and Cochrane Review databases, supplemented with a review of publications cited by and citing 8 key pre-specified publications¹⁻⁸

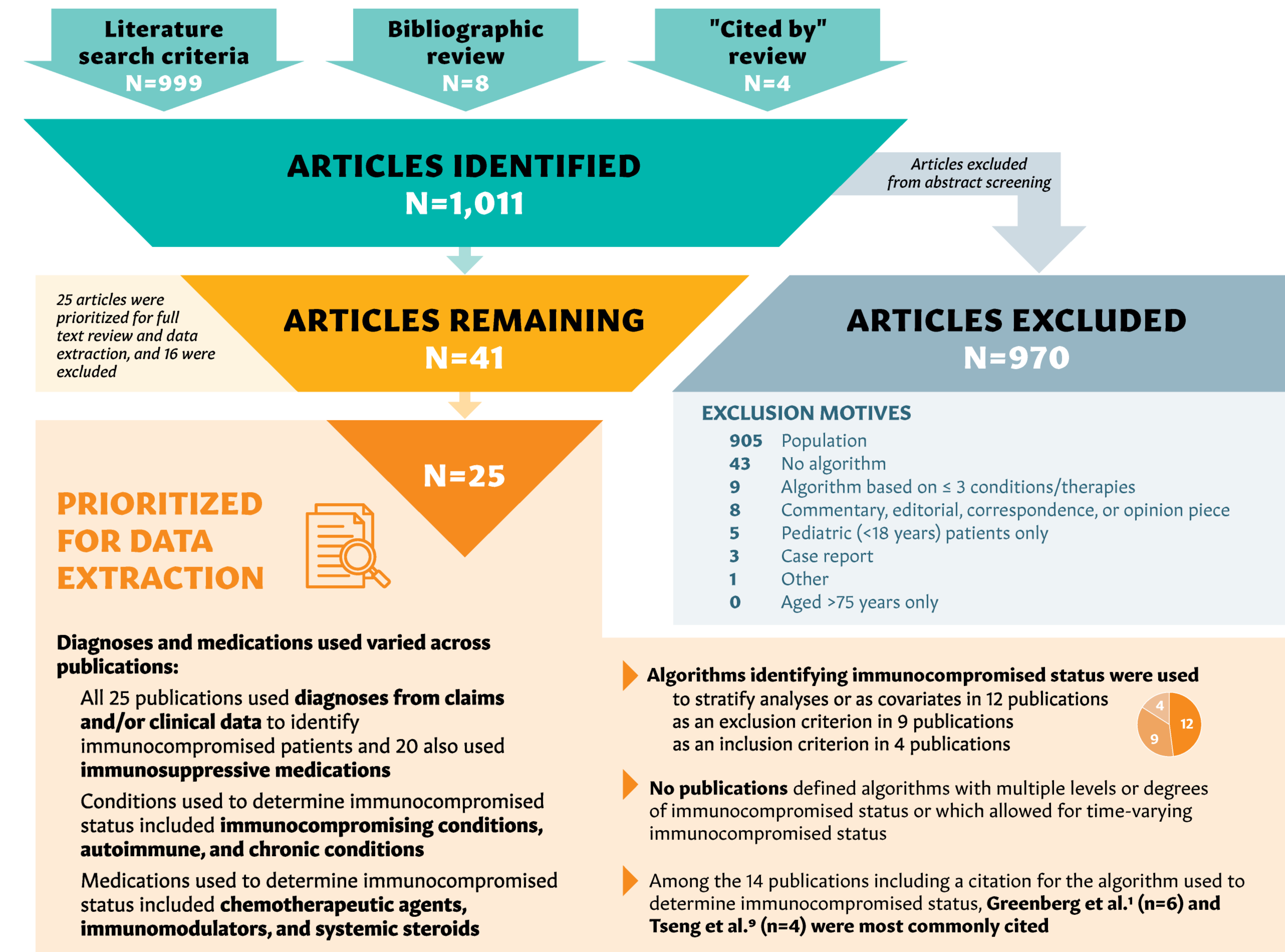
 **Screening:** Manual title and abstract screening (10% sample reviewed by a second reviewer – abstract screening was against pre-specified criteria), with 25 articles selected for full text review and data extraction

Asterisks (*) indicate multiple or no letters may be included following the root term (e.g. immunocompromis* will be used to identify immunocompromise, immunocompromised, and immunocompromising)

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1,011 PUBLICATIONS SCREENED

41 eligible for full-text screening, 25 priority publications selected



CONCLUSIONS

There are **several published algorithms** for identifying immunocompromised populations that **can be applied in administrative claims data**

Diagnoses and medications for determining immunocompromised status **varied across algorithms**

Further research comparing algorithms is needed to support future use in research or to identify immunocompromised populations for HZ prevention

Funding: GlaxoSmithKline Biologicals SA (GSK study identifier: VEO-000374); **Acknowledgments:** Business & Decision Life Sciences c/o GSK