Clinical Practice Guidelines for Cancer Screening in Patients with Autoimmune Diseases: A Systematic Review

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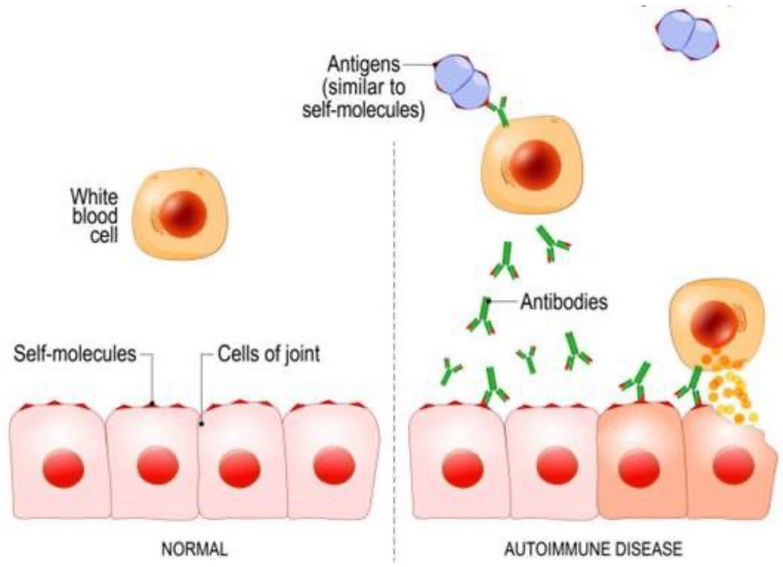
Background

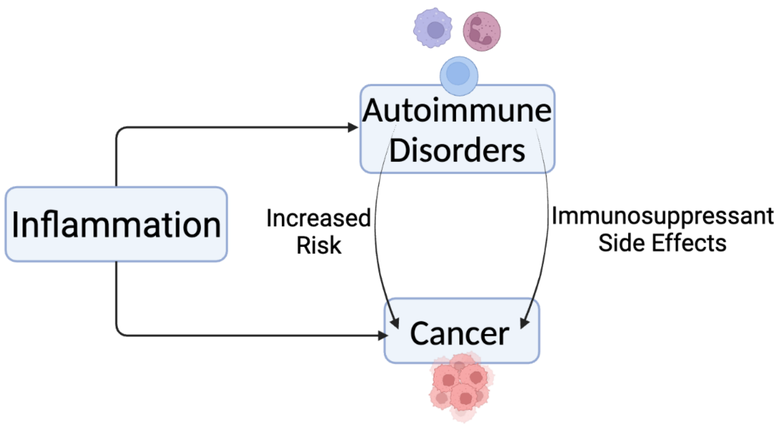
- Autoimmune disorders are generally characterized by the immune system attacking healthy tissue.



- Autoimmune diseases have been linked with a higher risk of malignancies. The chronic inflammation prompted by autoimmune conditions can dysregulate the immune system and stimulate cancer growth.

- New biological anti-rheumatic drugs for the treatment of rheumatoid arthritis and other inflammatory rheumatoid diseases could potentially be associated with a higher risk of malignancies compared to old treatments.

- Autoimmune conditions are treated with immunosuppressive therapies, which undermine the immune system's ability to target cancer cells..



- Clinical practice guidelines (CPGs) are defined as "recommendations for clinicians about the care of patients with specific conditions."

- CPGs provide clinicians with cancer screening recommendations based on various factors, including cancer prevalence, cost-effectiveness, and risk factors.

- Cancer screening is multidimensional and comes in many forms. For example, colon cancer screening can be done through a stool test, colonoscopy, sigmoidoscopy, or CT colonography.

- Cancers that have recommendations for screening in the general population include colon, cervical, breast, lung, and skin cancer

- Although patients with autoimmune diseases are at a higher risk of cancer compared to the general population, recommendations for these patients are sparse.

Objective

To identify and evaluate the recommendation statements regarding cancer screening for patients with a history of rheumatoid arthritis, ankylosing spondylarthritis, or systemic lupus erythematosus.

Methods

Information Sources

We identified potential CPGs and consensus statements by searching six electronic databases (Medline, EMBASE, Web of Science, Scopus, CINAHL, PubMed, and Cochrane Library) from 2018 afterward. NICE UK, TRIP Database, DynaMed, and a list of rheumatological societies (areas of grey literature) were hand-searched.

Eligibility Criteria

We included CPGs and consensus statements in English for cancer screening in patients with rheumatic conditions. Primary studies (including clinical trials, observational studies, and cross-sectional studies) were excluded. The autoimmune diseases of interest were rheumatoid arthritis (RA), systemic lupus erythematosus (SLE), and ankylosing spondyloarthritis (SpA). Cancers that were considered were cervical, colorectal, breast, lung, and skin cancer.

Procedure

Two reviewers independently evaluated eligibility using the title and abstract of the CPGs and consensus statements. In the case of a conflict, reasons for exclusion were discussed by both reviewers. If there was no consensus, a third reviewer was consulted. Using the CPGs and consensus statements that were included in this first screening step, the same reviewers reviewed the full text. CPGs and consensus statements about cancer screening or guidelines about rheumatoid arthritis, systemic lupus erythematosus, and spondylarthritis were included. We are currently in the process of data extraction.

Outcomes

We will evaluate whether a recommendation is present, what type of screening the recommendation suggests, the frequency of screening, and quality and nature of evidence to support recommendations.

Responsible Conduct of Research

Reviewers examined the CPGs and consensus statements independently and were unable to view how a certain article was screened by the other reviewer. By independently examining the CPGs and consensus statements, reviewers ensured their decision-making was solely based on the pre-established criteria, minimizing the risk of one reviewer influencing or being influenced by the screening outcomes of the other reviewer.

Results

We began with 926 citations and found 62 that ultimately met our eligibility criteria. This is excluding the grey literature, which will be incorporated later.

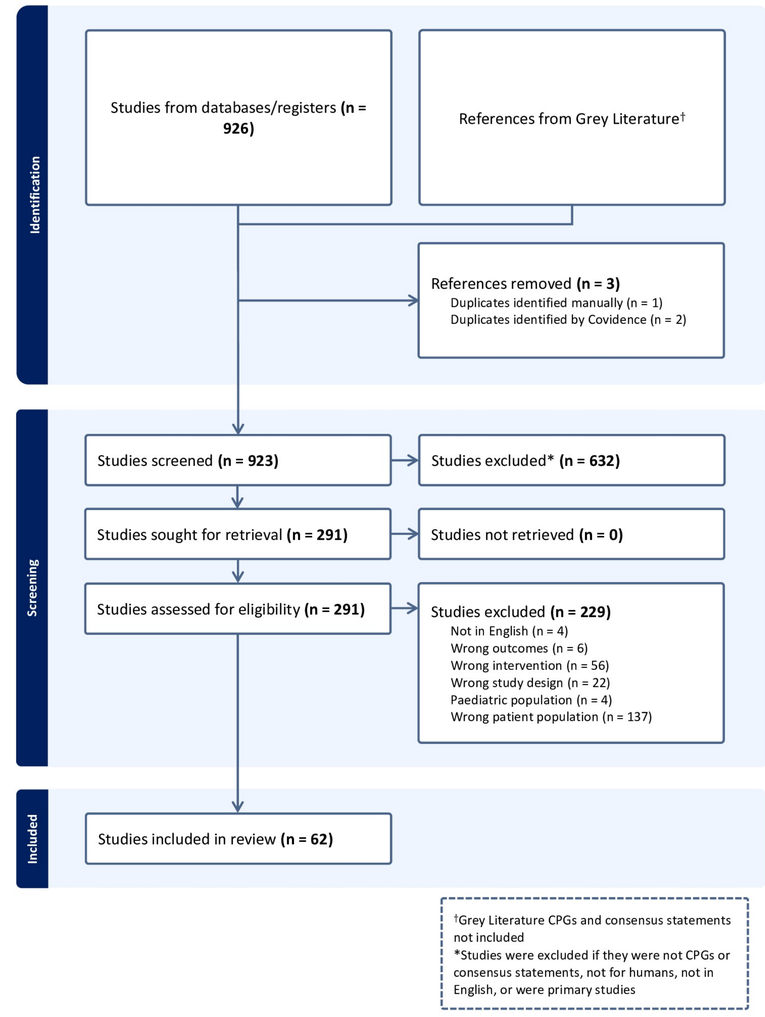


Figure 1. Study Selection Diagram

Future Direction

- We will analyze the recommendations and statements for cancer screening in patients with RA, SLE, or SpA. Using the AGREE-Rex tool, we will appraise the quality of guidelines.

- We will assess the general characteristics of the selected studies (country of origin, target audience, funding source, and topic) and elucidate patterns/trends in CPGs and consensus statements.

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